

Not for distribution in the United States of America



**€5,000,000,000**

**Bayer Aktiengesellschaft**

*(incorporated in the Federal Republic of Germany)  
as Guarantor issued by*

**Bayer Capital Corporation B.V.**

*(incorporated in The Netherlands)*

**€750,000,000 Floating Rate Notes due June 26, 2022**

ISIN XS1840614736, Common Code 184061473 and German Securities Code  
(WKN) A192DN

Issue Price: 100.000%

and

**€1,000,000,000 0.625% Notes due December 15, 2022**

ISIN XS1840614900, Common Code 184061490 and German Securities Code  
(WKN) A192DP

Issue Price: 99.772%

and

**€1,750,000,000 1.500% Notes due June 26, 2026**

ISIN XS1840618059, Common Code 184061805 and German Securities Code  
(WKN) A192DQ

Issue Price: 99.589%

and

**€1,500,000,000 2.125% Notes due December 15, 2029**

ISIN XS1840618216, Common Code 184061821 and German Securities Code  
(WKN) A192DR

Issue Price: 99.143%

Pursuant to this offering memorandum (the "**Offering Memorandum**"), Bayer Capital Corporation B.V. (the "**Issuer**" or "**Bayer Capital Corp**") will issue on June 26, 2018 (i) €750,000,000 floating rate notes due June 26, 2022 (the "**Floating Rate Notes 2022**"), (ii) €1,000,000,000 0.625% notes due December 15, 2022 (the "**Fixed Rate Notes 2022**"), (iii) €1,750,000,000 1.500% notes due June 26, 2026 (the "**Notes 2026**") and (iv) €1,500,000,000 2.125% notes due December 15, 2029 (the "**Notes 2029**" and, together with the Floating Rate Notes 2022, the Fixed Rate Notes 2022 and the Notes 2026, the "**Notes**"). The Floating Rate Notes 2022 will bear interest at a floating rate of interest (3-month EURIBOR plus a margin of 55 bps per year), the Fixed Rate Notes 2022 will bear interest at a rate

of 0.625% per year, the Notes 2026 will bear interest at a rate of 1.500% per year and the Notes 2029 will bear interest at a rate of 2.125% per year. The Issuer will pay interest on the Floating Rate Notes 2022 in arrears on March 26, June 26, September 26 and December 26 in each year, interest on the Fixed Rate Notes 2022 and the Notes 2029 in arrears on December 15 in each year and interest on the Notes 2026 in arrears on June 26 in each year. The first payment of interest on the Floating Rate Note 2022 shall be made on September 26, 2018, on the Fixed Rate Notes 2022 and the Notes 2029 on December 15, 2018 (short first coupon), respectively, and on the Notes 2026 on June 26, 2019. The Notes, which are governed by the laws of the Federal Republic of Germany ("**Germany**"), and all Notes will be issued in a denomination of €100,000.

The Notes will constitute unconditional, unsecured and unsubordinated obligations of the Issuer, ranking *pari passu* among themselves and *pari passu* with all other unsecured and unsubordinated obligations of the Issuer, unless such obligations are accorded priority under mandatory provisions of statutory law. The Notes will be unconditionally and irrevocably guaranteed by Bayer Aktiengesellschaft, Leverkusen, Germany (hereinafter referred to as "**Bayer AG**" or the "**Company**" or the "**Guarantor**"), and together with its subsidiaries, including as of June 7, 2018 Monsanto Company, St. Louis, Missouri, United States ("**Monsanto Company**") and its subsidiaries, "**Bayer**," "**we**," "**us**," "**our**," the "**Bayer Group**" or the "**Group**". The Guarantor's guarantee of the Notes (the "**Guarantee**") will be unconditional, unsecured and unsubordinated and will rank *pari passu* with all other unsecured and unsubordinated obligations of the Guarantor, unless such obligations are accorded priority under mandatory provisions of statutory law.

Unless previously redeemed or purchased and cancelled in accordance with its relevant terms and conditions of the Notes ("**Terms and Conditions**"), the Floating Rate Notes 2022 will be redeemed at par on June 26, 2022, the Fixed Rate Notes 2022 will be redeemed at par on December 15, 2022, the Notes 2026 will be redeemed at par on June 26, 2026 and the Notes 2029 will be redeemed at par on December 15, 2029. Each and any series of Notes may also be redeemed before this date, in whole but not in part, at their principal amount, together with, if applicable, accrued interest, in the event of certain changes in taxation, see "*Overview of the terms and conditions of the Notes and the Guarantee — Early Redemption for Reasons of Taxation*". The Issuer will have the option to redeem the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029 prior to maturity, in whole but not in part, at their principal amount, together with accrued interest, if applicable, and a premium, see "*Overview of the terms and conditions of the Notes and the Guarantee — Early Redemption at the Option of the Issuer*". If a change of control occurs, each of the holders of Notes (the "**Holders**" and each a "**Holder**") will have the option to require the Issuer to redeem or, at the Issuer's option, repurchase all or part of the Notes held by such Holder at their principal amount together with, if applicable, accrued interest, see "*Overview of the terms and conditions of the Notes and the Guarantee — Early Redemption at the Option of the Holders upon a Change of Control*".

On issue, the Notes are rated BBB by S&P Global Ratings ("**S&P**"), Baa1 by Moody's Investors Service Limited ("**Moody's**") and A- by Fitch Ratings ("**Fitch**"). At the date of this Offering Memorandum, the Guarantor has a long-term corporate rating of BBB (stable outlook) assigned by S&P, Baa1 (negative outlook) assigned by Moody's and A- assigned by Fitch (stable outlook). A rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, change or withdrawal at any time by the assigning rating agency. At the date of this Offering Memorandum, S&P, Moody's and Fitch are established in the European Union, registered under Regulation (EC) no. 1060/2009 of the European Parliament and of the Council dated 16 September 2009 on credit rating agencies, as amended (the "**CRA Regulation**") and included in the list of registered credit rating agencies published by the European Securities and Markets Authority on its website ([www.esma.europa.eu](http://www.esma.europa.eu)) in accordance with the CRA Regulation.

**The Notes have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "Securities Act") and are being offered and sold in transactions outside the United States of America ("United States" or "US") to non-U.S. persons (as defined in Regulation S under the Securities Act ("Regulation S")) in reliance on Regulation S under the Securities Act.**

Each series of the Notes will initially be represented by a temporary global bearer note (each a **“Temporary Global Note”**), without interest coupons. The Notes are issued in new global note (**“NGN”**) form and will be delivered on or around the issue date (the **“Issue Date”**) to a common safekeeper (**“Common Safekeeper”**) for Euroclear Bank SA/NV (**“Euroclear”**) and Clearstream Banking, *société anonyme*, Luxembourg (**“CBL”**, and, together with Euroclear, the **“Clearing System”**). The Temporary Global Note will be exchangeable in whole or in part for a permanent global bearer note (each a **“Permanent Global Note”** and, together with the respective Temporary Global Note, the **“Global Notes”**) without interest coupons, not earlier than 40 days after the Issue Date, upon certification as to non-U.S. beneficial ownership. The Global Notes are intended to be eligible collateral for Eurosystems monetary policy. Whether NGNs are recognizable as eligible collateral for Eurosystem monetary policy and intra-day credit operations will depend upon satisfaction of the Eurosystem eligibility criteria.

**Prospective investors should be aware that an investment in the Notes involves risks and that if certain risks, in particular those described under “Risk Factors”, occur, the investors may lose all or a very substantial part of their investment.**

This Offering Memorandum has been prepared on the basis that all offers of the Notes will be made pursuant to an exemption under European Union’s Directive 2003/71/EC, as amended (**“Prospectus Directive”**), from the requirement to produce a prospectus in connection with offers of the Notes and is thus, for the purposes of the offering of the Notes, not a prospectus within the meaning of the Prospectus Directive. Accordingly, any person making or intending to make any offer within the European Economic Area (**“EEA”**) of the Notes which are the subject of the offering contemplated in this Offering Memorandum should only do so in circumstances in which no obligation arises for the Issuer, the Guarantor, the Joint Bookrunners or the Co-Managers to produce a prospectus for such offers. None of the Issuer, the Guarantor, the Joint Bookrunners and the Co-Managers has authorized, nor do they authorize, the making of any offer of the Notes through any financial intermediary, other than offers made by the Joint Bookrunners or the Co-Managers which constitute the final placement of the Notes contemplated in this Offering Memorandum.

Application has been made to the Luxembourg Stock Exchange for the Notes to be listed on the Official List of the Luxembourg Stock Exchange and to be admitted to trading on the Luxembourg Stock Exchange’s Regulated Market (the **“Listing”**). The Luxembourg Stock Exchange’s Regulated Market is a regulated market for the purposes of Directive 2014/65/EU of the European Parliament and of the Council of 21 April 2014 on Markets in Financial Instruments (as amended, **“MiFID II”**). Only for purposes of the Listing, this Offering Memorandum constitutes a prospectus within the meaning of the Prospectus Directive, *i.e.* a listing prospectus according to Article 3.3 of the Prospectus Directive. By approving a prospectus, the Commission de Surveillance du Secteur Financier (the **“CSSF”**) shall give no undertaking as to the economic and financial soundness of the operation or the quality or solvency of the issuer pursuant to Article 7(7) *Loi relative aux prospectus pour valeurs mobilières*.

The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the EEA. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; or (ii) a customer within the meaning of Directive 2002/92/EC (as amended, the **“Insurance Mediation Directive”**), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the **“PRIIPs Regulation”**) for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

This Offering Memorandum does not constitute an offer to sell, or the solicitation of an offer to buy Notes in any jurisdiction where such offer or solicitation is unlawful. The Notes are subject to U.S. tax law requirements and may, subject to certain exceptions, not be offered, sold or delivered within the United States or to U.S. persons. For a further description of certain restrictions on the offering and sale of the Notes and on the distribution of this Offering Memorandum, see “4.2 Selling Restrictions” below.

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**The date of this Offering Memorandum is June 22, 2018**

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*Joint Bookrunners*

<b>Barclays</b>	<b>BNP PARIBAS</b>	<b>Citigroup</b>	<b>Credit Suisse</b>	
<b>Banca IMI</b>	<b>Banco Bilbao Vizcaya Argentaria</b>	<b>Credit Agricole CIB</b>	<b>Commerzbank</b>	<b>Deutsche Bank</b>
<b>ING</b>	<b>Santander Corporate &amp; Investment Banking</b>	<b>SMBC Nikko</b>	<b>Société Générale Corporate &amp; Investment Banking</b>	<b>UniCredit Bank</b>

*Co-Managers*

<b>BayernLB</b>	<b>BNY Mellon Capital Markets EMEA Limited</b>	<b>Helaba</b>
<b>NatWest Markets</b>	<b>SEB</b>	<b>Standard Chartered Bank</b>

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## RESPONSIBILITY STATEMENT

Bayer AG with its registered office in Leverkusen, Germany, and Bayer Capital Corp with its registered office in Mijdrecht, The Netherlands, are solely responsible for the information given in this Offering Memorandum and for the information which will be contained in the Terms and Conditions (as defined herein). The Issuer and the Guarantor hereby declare that, having taken all reasonable care to ensure that such is the case, the information contained in this Offering Memorandum for which they are responsible, is, to the best of their knowledge, in accordance with the facts and contains no omission likely to affect its import. This Offering Memorandum should be read and understood in conjunction with all documents incorporated herein by reference.

## NOTICE

This Offering Memorandum should be read and construed with any supplement thereto and with any other documents incorporated by reference in relation to the Notes.

This Offering Memorandum is confidential and is being furnished by (i) Barclays Bank PLC ("**Barclays**"), BNP Paribas ("**BNP Paribas**"), Citigroup Global Markets Limited ("**Citigroup**"), Credit Suisse Securities (Europe) Limited ("**Credit Suisse**"), Banca IMI S.p.A. ("**Banca IMI**"), Banco Bilbao Vizcaya Argentaria, S.A. ("**Banco Bilbao Vizcaya Argentaria, S.A.**"), Banco Santander, S.A. ("**Santander Corporate & Investment Banking**"), Commerzbank Aktiengesellschaft ("**Commerzbank**"), Crédit Agricole Corporate and Investment Bank ("**Credit Agricole CIB**"), Deutsche Bank AG, London Branch ("**Deutsche Bank**"), ING Bank N.V. ("**ING**"), SMBC Nikko Capital Markets Limited ("**SMBC Nikko**"), Société Générale ("**Société Générale Corporate & Investment Banking**") and UniCredit Bank AG ("**UniCredit Bank**") (together the "**Joint Bookrunners**") and (ii) Bayerische Landesbank ("**BayernLB**"), BNY Mellon Capital Markets EMEA Limited ("**BNY Mellon Capital Markets EMEA Limited**"), Landesbank Hessen-Thüringen Girozentrale ("**Helaba**"), NatWest Markets Plc ("**NatWest Markets Plc**"), Skandinaviska Enskilda Banken AB (publ) ("**SEB**") and Standard Chartered Bank ("**Standard Chartered Bank**") (together the "**Co-Managers**") solely for the purpose of enabling prospective investors to consider the purchase of the Notes described herein. The information contained in this Offering Memorandum has been provided by the Issuer and the Guarantor and the other sources identified herein. To the fullest extent permitted by law, no representation or warranty is made or implied by the Joint Bookrunners, the Co-Managers or any of their affiliates, and neither the Joint Bookrunners, the Co-Managers nor any of their affiliates make any representation or warranty or accept any responsibility, as to the accuracy or completeness of the information contained in this Offering Memorandum or for any statement purported to be made by or on behalf of the Joint Bookrunners or the Co-Managers. Investors in the Notes must solely rely on the information contained in this Offering Memorandum.

No person has been authorized to provide any information or to make any representation concerning Bayer or the Notes (other than as contained in this Offering Memorandum) and, if provided or made, any such information or representation should not be relied upon as having been authorized by Bayer, the Joint Bookrunners, the Co-Managers or their respective affiliates. In making an investment decision, investors must rely on their own examination of the Issuer, Bayer, and the terms of the offering, including the merits and risks involved. Any decision to purchase Notes solely be based on this Offering Memorandum.

Any reproduction or distribution of this Offering Memorandum, in whole or in part, and any disclosure of its contents or use of any information contained herein for any purpose other than considering an investment in the Notes is prohibited. Each offeree of the Notes, by accepting delivery of this Offering Memorandum, agrees to the foregoing.

The Issuer and the Guarantor have confirmed to the Joint Bookrunners and the Co-Managers that this Offering Memorandum is true and accurate in all material respects and is not misleading; that any opinions and intentions expressed herein are honestly held and based on reasonable assumptions; that there are no other facts with respect to the Issuer and the Guarantor, the omission of which would make this Offering Memorandum as a whole or any statement herein or opinions or intentions expressed herein misleading in any material respect; and that all reasonable enquiries have been made to verify the foregoing.

To the fullest extent permitted by law, the Joint Bookrunners and the Co-Managers do not accept any responsibility for the contents of this Offering Memorandum or for any other statements made or purported to be made by the Joint Bookrunners and the Co-Managers or on their behalf in connection with the Issuer, the Guarantor, the Notes or the Guarantee. Accordingly, the Joint Bookrunners and the Co-Managers disclaim all and any liability whether arising in tort or contract or otherwise which it might otherwise have in respect of this Offering Memorandum or any such statement.

The Joint Bookrunners and the Co-Managers are acting exclusively for the Issuer and the Guarantor and no other person in connection with the offering of the Notes. They will not regard any other person (whether or not a recipient of this document) as their client in relation to the offering of the Notes and will not be responsible to anyone other than the Issuer and the Guarantor for providing the protections afforded to their respective clients or for giving advice in relation to the offering or any transaction or arrangement referred to herein.

Neither the delivery of this Offering Memorandum nor the offering, sale or delivery of Notes and the Guarantee shall, in any circumstances, create any implication that the information contained in this Offering

Memorandum is true subsequent to the date upon which this Offering Memorandum has been published or most recently amended or supplemented, or that there has been no adverse change in the financial position of the Issuer and the Guarantor after the date hereof or, as the case may be, the date upon which this Offering Memorandum has been most recently supplemented or the balance sheet date of the most recent financial statements which are deemed to be incorporated into this Offering Memorandum by reference or that any other information supplied in connection with the Notes is correct at any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same.

None of the Issuer, the Guarantor, the Joint Bookrunners and the Co-Managers nor any of their respective representatives, is making any representation to any offeree or purchaser of the Notes regarding the legality of an investment in the Notes by such offeree or purchaser under the laws applicable to such offeree or purchaser. Prospective investors should not construe anything in this Offering Memorandum as legal, tax, business or financial advice. Each investor should consult with his or her own advisors as to the legal, tax, business, financial and related aspects of purchases of Notes and the Guarantee.

This document may only be communicated or caused to be communicated in circumstances in which Section 21 para. 1 of the United Kingdom Financial Services and Markets Act 2000, as amended (“FSMA”) does not apply.

The Notes have not been and will not be registered under the Securities Act and are subject to U.S. tax law requirements. Subject to certain exceptions, Notes may not be offered, sold or delivered within the United States or to U.S. persons; see “4.2 Selling Restrictions”.

The distribution of this Offering Memorandum as well as the offering, sale, and delivery of the Notes in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Memorandum comes are required by the Issuer, the Guarantor, the Joint Bookrunners and the Co-Managers to inform themselves about and to observe any such restrictions. This Offering Memorandum does not constitute an offer of, or an invitation to purchase, any of the Notes in any jurisdiction in which such offer, exercise or invitation would be unlawful. None of the Issuer, the Guarantor, the Joint Bookrunners and the Co-Managers accepts any legal responsibility for any violation by any person, whether or not a prospective investor, of any such restrictions.

Persons into whose possession this Offering Memorandum comes are required by the Issuer, the Guarantor, the Joint Bookrunners and the Co-Managers to inform themselves about and to observe any such restrictions. For a description of certain restrictions on offers, sales and deliveries of Notes and on the distribution of this Offering Memorandum and other offering material relating to the Notes, see “4.2 Selling Restrictions”.

**This Offering Memorandum may not be used for the purpose of an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not authorized or to any person to whom it would be unlawful to make such an offer or solicitation.**

This Offering Memorandum does not constitute an offer or an invitation to subscribe for or purchase the Notes and should not be considered as a recommendation by the Issuer, the Guarantor, the Joint Bookrunners or the Co-Managers that any recipient of this Offering Memorandum should subscribe for, or purchase, Notes. Each recipient of this Offering Memorandum shall be taken to have made its own investigation and appraisal of the condition (financial or otherwise) of the Issuer and the Guarantor.

**IN CONNECTION WITH THE ISSUE OF THE NOTES, CREDIT SUISSE SECURITIES (EUROPE) LIMITED AS STABILIZATION MANAGER MAY OVERALLOT THE NOTES OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE NOTES AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, THERE IS NO ASSURANCE THAT CREDIT SUISSE SECURITIES (EUROPE) LIMITED WILL UNDERTAKE STABILIZATION ACTION. ANY STABILIZATION ACTION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE OFFER OF THE NOTES IS MADE AND, IF BEGUN, MAY BE ENDED AT ANY TIME, BUT IT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE NOTES. ANY STABILIZATION ACTION OR OVERALLOTMENT MUST BE CONDUCTED BY CREDIT SUISSE SECURITIES (EUROPE) LIMITED IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.**

This Offering Memorandum contains assessments of market data and information derived therefrom which could not be obtained from any independent sources. Such information is based on the Issuer’s and the Guarantor’s own internal assessments and may therefore deviate from the assessments of competitors of Bayer or future statistics by independent sources. As regards the market positions of Bayer, Bayer’s own estimations are mainly based on company data which is either derived from information by competitors or from data provided by independent research companies.

The language of this Offering Memorandum is English. The German text of the Terms and Conditions is controlling and binding; the English-language text of the Terms and Conditions constitutes a convenience translation. The financial statements listed in the section “19.1 Bayer Information” are translations of the respective German-language financial statements.

## BENCHMARK REGULATION

Amounts payable under the Floating Rate Notes 2022 are calculated by reference to the Euro Interbank Offered Rate (“**EURIBOR**”), which is provided by the European Money Market Institute (the “**Administrator**”). As at the date of Offering Memorandum, the Administrator does not appear on the register of administrators and benchmarks established and maintained by the European Securities and Markets Authority (“**ESMA**”) pursuant to article 36 of the Benchmark Regulation (Regulation (EU) 2016/1011) (the “**Benchmark Regulation**”). As far as the Issuer and the Guarantor are aware, the transitional provisions in Article 51 of the Benchmark Regulation apply, such that the Administrator is not currently required to obtain authorisation or registration (or, if located outside the European Union, recognition, endorsement or equivalence).

### PROFESSIONAL INVESTORS AND ELIGIBLE COUNTERPARTIES ONLY TARGET MARKET

Solely for the purposes of each manufacturer’s product approval process, the target market assessment in respect of the Notes has led to the conclusion that: (i) the target market for the Notes is eligible counterparties and professional clients only, each as defined in Directive 2014/65/EU (as amended, “**MiFID II**”); and (ii) all channels for distribution of the Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Notes (a “**distributor**”) should take into consideration the manufacturers’ target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the manufacturers’ target market assessment) and determining appropriate distribution channels.

### NOTICE TO CERTAIN EUROPEAN INVESTORS

#### Notice to Prospective Investors in the European Economic Area

This Offering Memorandum has been prepared on the basis that all offers of the Notes will be made pursuant to an exemption under the Prospectus Directive from the requirement to produce a prospectus in connection with offers of securities and is thus, for the purposes of the offering of the Notes, not a prospectus within the meaning of the Prospectus Directive. Accordingly, any person making or intending to make any offer of the Notes which are the subject of the offering contemplated in this Offering Memorandum within the EEA should only do so in circumstances in which no obligation arises for the Issuer, the Guarantor, the Joint Bookrunners or the Co-Managers to produce a prospectus for such offers. None of the Issuer, the Guarantor, the Joint Bookrunners and the Co-Managers has authorized, nor does it or do they authorize, the making of any offer of the Notes through any financial intermediary other than offers made by the Joint Bookrunners and the Co-Managers which constitute the final placement of the Notes contemplated in this Offering Memorandum.

#### Notice to Prospective Investors in the United Kingdom

In the United Kingdom, this Offering Memorandum is for distribution only to persons (i) who are investment professionals falling within Article 19 para. 5 of the FSMA or (ii) falling within Article 49 para. 2 (a) to (d) of the FSMA (e.g., high net worth companies, unincorporated associations, etc.) or (iii) other persons to whom it may be lawfully communicated in accordance with the FSMA (all such persons falling within (i) – (iii) together being referred to as “**Relevant Persons**”). This Offering Memorandum is directed only at Relevant Persons and must not be acted on or relied on by persons who are not Relevant Persons. In the United Kingdom, any investment or investment activity to which this Offering Memorandum relates is available only to Relevant Persons and will be engaged in only with Relevant Persons.

#### Prohibition of sales to EEA retail investors

The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the EEA. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; or (ii) a customer within the meaning of the Insurance Mediation Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by the PRIIPs Regulation for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.



## FORWARD-LOOKING STATEMENTS

This Offering Memorandum contains forward-looking statements. A forward-looking statement is any statement that does not relate to historical facts and events or to facts or events as of the date of this Offering Memorandum, but rather reflects Bayer's current beliefs, expectations and assumptions regarding future events. This applies, in particular, to statements in this Offering Memorandum containing information on future earning capacity, plans and expectations regarding Bayer's business and management including in relation to the acquisition of Monsanto Company (together with its consolidated subsidiaries, "**Monsanto**"), its growth and profitability, and general economic and regulatory conditions to which it is exposed. The words "aim," "anticipate," "expect," "intend," "outlook," "pipeline," "plan," "potential," "project," in conjunction with discussions of future operations, financial performance, Bayer's strategy for growth, product development, regulatory approvals, market position and expenditures, are used to identify forward-looking statements. Forward-looking statements in this Offering Memorandum are based on estimates, assessments and assumptions made to the best of Bayer's present knowledge. They are subject to risks, uncertainties and other factors, the occurrence or non-occurrence of which could cause our actual results, including our financial condition and profitability, to differ materially from or fail to meet the expectations expressed or implied in the forward-looking statements.

For a description of the risks that could influence Bayer's forward-looking statements, see "*1. Risk Factors.*"

Moreover, it should be noted that neither the Issuer nor the Guarantor nor the Joint Bookrunners nor the Co-Managers assume any obligation, except as required by law, to update any forward-looking statement or to conform any such statement to actual events or developments.

### Note on Financial Information and Figures

#### Bayer

The financial information related to the Bayer Group contained, or incorporated by reference, in this Offering Memorandum is extracted or derived from the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018 prepared in accordance with International Accounting Standard 34 – Interim Financial Reporting ("**IAS 34**"), a standard under the International Financial Reporting Standards as issued by the International Accounting Standards Board and as adopted by the European Union ("**IFRS**") and the audited consolidated financial statements of Bayer as of and for fiscal years ended December 31, 2016 and December 31, 2017 prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315e para. 1 of the German Commercial Code (*Handelsgesetzbuch*, the "**HGB**") (formerly Section 315a para. 1 of the HGB) or Bayer's internal and external accounting records. The financial statements mentioned are incorporated by reference in the section "*19.1 Bayer Information*". The Issuer's audited financial statements as of and for the fiscal years ended December 31, 2017 and December 31, 2016 were prepared in accordance with the Netherlands Civil Code.

Where financial information in this Offering Memorandum is labeled "audited," this means that it was extracted from the audited consolidated financial statements (IFRS) of Bayer as of and for the fiscal years ended December 31, 2015, December 31, 2016 and December 31, 2017. The label "unaudited" is used in this Offering Memorandum to indicate financial information that has been derived either from the unaudited condensed consolidated interim financial statements (IAS 34) of Bayer as of and for the three months ended March 31, 2018 or Bayer's internal and external accounting records or is based on calculations of financial information from the above-mentioned sources.

This Offering Memorandum contains the following alternative performance measures: EBIT, EBITDA, EBIT before special items, EBITDA before special items, Core EBIT, Core EPS, core net income from continuing operations, net financial debt, net operating profit after tax ("**NOPAT**"), return on capital employed ("**ROCE**") and currency-adjusted or currency- and portfolio-adjusted change in sales (together the "**Alternative Performance Measures**"). For more information on the Alternative Performance Measures, see "*8.4 Additional Key Figures for the Bayer Group.*" The Alternative Performance Measures are not recognized as measures under IFRS and should not be considered as substitutes for figures determined in accordance with IFRS, such as income before income taxes, income after income taxes, net cash provided by (used in) operating activities or other income statement or cash flow data, or as measures of profitability or liquidity. The Alternative Performance Measures do not necessarily indicate whether cash flows will be available and/or sufficient for Bayer's cash requirements, nor is any such measure indicative of Bayer's historical operating results. Also, the Alternative Performance Measures are not

meant to be indicative of future results. Because not all companies calculate these measures and figures in the same way, Bayer's presentation of the Alternative Performance Measures is not necessarily comparable with similarly titled measures used by other companies.

## **Monsanto**

Monsanto Company's consolidated financial statements as of and for the fiscal years ended August 31, 2015, August 31, 2016 and August 31, 2017 and the notes related thereto incorporated by reference in this Offering Memorandum as described under "19.2 Monsanto Information" were extracted from Monsanto Company's annual report on Form 10-K for the fiscal year ended August 31, 2017, included therein under "Item 8. Financial Statements and Supplementary Data." Monsanto Company's unaudited consolidated financial statements as of and for the six months ended February 28, 2018 and the notes related thereto contained, or incorporated by reference, in this Offering Memorandum under "19.2 Monsanto Information" were extracted from Monsanto Company's quarterly report on Form 10-Q for the quarterly period ended February 28, 2018, included therein under "Item 1. Financial Statements." Monsanto Company's financial statements have been prepared in accordance with generally accepted accounting principles in the United States ("**U.S. GAAP**").

## **Pro Forma Information**

Bayer has prepared pro forma financial information dated June 5, 2018 in accordance with European Commission Regulation (EC) No. 809/2004 of April 29, 2004 to present the material effects of Bayer's gradual reduction of its direct interest in Covestro AG in a series of transactions to currently 6.8%, the closing of the acquisition of Monsanto Company by Bayer (the "**Transaction**"), including certain divestments related to the Transaction, and the financing related to the Transaction on the net assets, financial position and results of operations of Bayer (the "**Pro Forma Financial Information**"). The Pro Forma Financial Information was not prepared in accordance with the requirements in Article 11 of Regulation S-X issued by the SEC.

Based on information available at the time of the preparation of the Pro Forma Financial Information, certain significant adjustments were made to Monsanto's financial information, which included the alignment of Monsanto's reporting periods with Bayer's reporting periods, the alignment of the presentation principles used by Monsanto in its historical financial information with the presentation principles used by Bayer in its historical financial information, the conversion of Monsanto's historical financial information, which is prepared in accordance with U.S. GAAP, to Bayer's IFRS accounting principles and the translation of Monsanto's financial information from U.S. dollar to euro. In connection with these adjustments, certain assumptions were made, all of which are reflected in the notes to the Pro Forma Financial Information. The pro forma adjustments made are preliminary and subject to change. Also see "1.2.14 The pro forma financial information prepared by Bayer is subject to significant limitations and may not necessarily reflect what Bayer's financial position and results of operations would have been, had the integration and consolidation of Monsanto already taken place and may not be indicative of the financial positions and results of operations that Bayer will achieve in the future."

## **Other**

In this Offering Memorandum, unless otherwise specified, references to a "**Member State**" are references to a Member State of the European Economic Area and references to "**€**", "**EUR**" or "**Euro**" are to the currency introduced at the start of the third stage of European economic and monetary union and as defined in Article 2 of Council Regulation (EC) No 974/98 of 3 May 1998 on the introduction of the euro, as amended. References to "**US\$**", "**USD**" and "**U.S. dollars**" are to the currency of the United States of America. References to "**billions**" are to thousands of millions.

Some figures (including percentages) in this Offering Memorandum have been rounded. Figures in the tables that have been rounded in this way may not add up precisely to the totals included in these tables. In addition, rounded totals or subtotals in the tables may vary marginally from unrounded figures indicated elsewhere in this Offering Memorandum.

Parentheses around any figures in the tables indicate negative values.

## **Websites**

For the avoidance of doubt, any websites referred to in this Offering Memorandum are for informational purposes only and do not form part of this Offering Memorandum.

## Trade Names

This Offering Memorandum contains references to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this Offering Memorandum may appear without the ® or ™ symbols. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Such trademarks, trade names and service marks appearing in this Offering Memorandum are the property of their respective owners.

## Sources of Market Data

To the extent not otherwise indicated, the information contained in this Offering Memorandum on market environment, developments, growth rates, trends and competitive situation in the markets and segments in which Bayer operates is based on Bayer's assessment or present estimates or internal calculations of the Company. This Offering Memorandum also contains estimates of market data and information derived from these estimates that would not be available from publications issued by market research firms or from any other independent sources. This information is based on internal estimates of the Company and, as such, may differ from the estimates made by competitors of Bayer or from data collected in the future by market research firms or other independent sources.

In addition, the following third-party sources were used in the preparation of this Offering Memorandum:

- Phillips McDougall – AgriService, September 2017 (“**Phillips McDougall – AgriService 2017**”);
- Phillips McDougall – Global Crop Protection and Seed & Trait Market, 2000-2017, March 2017 (“**Phillips McDougall – 2000-2017**”);
- IHS™ Markit, Global Executive Summary, April 2018 (“**IHS Markit – Global Executive Summary**”);
- Global Insight, Comparative World Overview, February 2018 (“**Global Insight – Comparative World Overview**”);
- CI&A Business Information/Reporting/Analysis – QuintilesIMS Market Prognosis March Update 2017, March 2017 (“**Quintiles IMS – Market Prognosis March 2017 Update**”);
- CBI – IQVIA Market Prognosis – March 2018 Report, April 2018 (“**CBI – IQVIA Market Prognosis**”);
- QuintilesIMS™ – IMS Global Analyses, LEU/PUB MAT Q3 2016, January 2017 (“**Quintiles IMS – MAT Q3 2016**”);
- Nicholas Hall – DB6 Global Database FY 2016 data – data for full year of 2016 (“**Nicholas Hall – Full Year 2016**”);
- Euromonitor – Sun Care Competitors – data for full year of 2016 (“**Euromonitor – Sun Care 2016**”);
- CMi2i – Bayer AG Shareholder Identification Report May 2018, June 2018 (“**CMi2i Survey**”).

It should be noted in particular that reference has been made in this Offering Memorandum to information concerning markets and market trends, which was obtained from third party sources presented above. Where information in this Offering Memorandum has been sourced from a third party, it has been accurately reproduced. As far as Bayer is aware and able to ascertain from information published by such third party, no facts have been omitted which would render the reproduced information inaccurate or misleading.

Bayer has not independently verified the market data and other information on which third parties have based their studies or the external sources on which Bayer's own estimates are based. Therefore, investors should exercise care when considering such information. Third party studies are often based on information that may not be exact or appropriate, and their methodology is, by nature, forward-looking and speculative. Moreover, investors should bear in mind that the Company's estimates are not always based on such third party market research.

## Documents Available for Inspection

For the period during which this Offering Memorandum remains valid, this Offering Memorandum and the following documents will be available for inspection on the internet at [www.investor.bayer.com](http://www.investor.bayer.com):

- the Company's articles of incorporation (the "**Articles of Incorporation**");
- the Company's unaudited condensed consolidated interim financial statements prepared in accordance with IAS 34 as of and for the three months ended March 31, 2018; and
- the Company's audited consolidated financial statements prepared in accordance with IFRS as of and for the fiscal years ended December 31, 2015, December 31, 2016 and December 31, 2017.

The financial statements referenced above, as also stated in "*19.1 Bayer Information*", shall be deemed to be incorporated by reference in, and to form part of, this Offering Memorandum. All future consolidated financial statements and condensed consolidated interim financial statements of the Bayer Group will be available from the Company and the current paying agent. See "*15.6 Announcements, Paying Agent and Calculation Agent*." The consolidated financial statements will also be announced in the German Federal Gazette (*Bundesanzeiger*).

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## I. OVERVIEW OF THE TERMS AND CONDITIONS OF THE NOTES AND THE GUARANTEE

*The following overview contains basic information about the Notes and is not intended to be complete. It does not contain all the information that is important to making a decision to invest in the Notes. For a more complete description of the Notes, please refer to the section "Terms and Conditions of the Notes" of this Offering Memorandum. For more information on the Issuer and on the Guarantor, its business and financial condition and results of operations, please refer to the section "Description of the Issuer" of this Offering Memorandum. Terms used in this overview and not otherwise defined herein shall have the meaning ascribed to them in the Terms and Conditions.*

<b>Issuer</b>	Bayer Capital Corporation B.V., with its registered office at Energieweg 1, 3641 RT Mijdrecht, The Netherlands, and registered in the commercial register of the Dutch chamber of commerce ( <i>Kamer van Koophandel</i> ) under 33160792.
<b>Guarantor</b>	Bayer Aktiengesellschaft, with its registered office at Kaiser-Wilhelm-Allee 1, 51373 Leverkusen, Federal Republic of Germany, and registered in the commercial register of the district court ( <i>Amtsgericht</i> ) of Cologne under HRB 48248.
<b>Notes</b>	Notes in the aggregate principal amount of €5,000,000,000: <ul style="list-style-type: none"><li>• €750,000,000 Notes due June 26, 2022 (the "<b>Floating Rate Notes 2022</b>") ISIN XS1840614736, Common Code 184061473 and German Securities Code (WKN) A192DN</li><li>• €1,000,000,000 Notes due December 15, 2022 (the "<b>Fixed Rate Notes 2022</b>") ISIN XS1840614900, Common Code 184061490 and German Securities Code (WKN) A192DP</li><li>• €1,750,000,000 Notes due June 26, 2026 (the "<b>Notes 2026</b>") ISIN XS1840618059, Common Code 184061805 and German Securities Code (WKN) A192DQ</li><li>• €1,500,000,000 Notes due December 15, 2029 (the "<b>Notes 2029</b>") ISIN XS1840618216, Common Code 184061821 and German Securities Code (WKN) A192DR</li></ul>
<b>Joint Bookrunners</b>	Barclays Bank PLC, BNP Paribas, Citigroup Global Markets Limited, Credit Suisse Securities (Europe) Limited, Banca IMI S.p.A., Banco Bilbao Vizcaya Argentaria, S.A., Banco Santander, S.A., Commerzbank Aktiengesellschaft, Crédit Agricole Corporate and Investment Bank, Deutsche Bank AG, London Branch, ING Bank N.V., SMBC Nikko Capital Markets Limited, Société Générale and UniCredit Bank AG
<b>Co-Managers</b>	Bayerische Landesbank, BNY Mellon Capital Markets EMEA Limited, Landesbank Hessen-Thüringen Girozentrale, NatWest Markets Plc, Skandinaviska Enskilda Banken AB (publ) and Standard Chartered Bank
<b>Issue Price</b>	<ul style="list-style-type: none"><li>• 100.000% for the Floating Rate Notes 2022</li></ul>

- 99.772% for the Fixed Rate Notes 2022
- 99.589% for the Notes 2026
- 99.143% for the Notes 2029

**Issue Date**

June 26, 2018

**Maturity Dates**

- June 26, 2022 for the Floating Rate Notes 2022
- December 15, 2022 for the Fixed Rate Notes 2022
- June 26, 2026 for the Notes 2026
- December 15, 2029 for the Notes 2029

**Specified Denomination**

€100,000

**Form of Notes**

Each series of the Notes will initially be represented by a Temporary Global Note, without interest coupons. The Notes are issued in new global note form and will be delivered on or around the Issue Date of the Notes (*i.e.*, June 26, 2018) to a common safekeeper for Euroclear and Clearstream. Each Temporary Global Note will be exchangeable in whole or in part for a Permanent Global Note without interest coupons, not earlier than 40 days after the Issue Date, upon certification as to non-U.S. beneficial ownership.

**Status of the Notes**

The obligations under the Notes constitute unconditional, unsecured and unsubordinated obligations of the Issuer, ranking *pari passu* among themselves and *pari passu* with all other unsecured and unsubordinated obligations of the Issuer, unless such obligations are accorded priority under mandatory provisions of statutory law.

**Guarantee**

The Notes will be unconditionally and irrevocably guaranteed by the Guarantor.

**Status of the Guarantee**

The obligations under the Guarantee constitute unconditional, unsecured and unsubordinated obligations of the Guarantor and will rank *pari passu* with all other unsecured and unsubordinated obligations of the Guarantor, unless such obligations are accorded priority under mandatory provisions of statutory law.

**Negative Pledge**

Each of the Issuer and the Guarantor undertakes, so long as any Notes are outstanding, but only up to the time all amounts of principal and interest have been placed at the disposal of the Paying Agent, not to provide after the Issue Date of the Notes any security interest upon its domestic assets to secure certain capital markets indebtedness, subject to certain exemptions and a basket as set forth in the Terms and Conditions.

**Interest on the Notes**

The Notes shall bear interest on their principal amount from (and including) the Issue Date to (but excluding) the Maturity Date.

- The interest rate for the Floating Rate Notes 2022 shall be a floating rate of 3-month EURIBOR plus a margin of 55 bps *per annum* (as determined in accordance with the Terms and Conditions of the Floating Rate Notes 2022);

- the interest rate for the Fixed Rate Notes 2022 shall be 0.625% *per annum*;
- the interest rate for the Notes 2026 shall be 1.500% *per annum*; and
- the interest rate for the Notes 2029 shall be 2.125% *per annum*.

Interest on the Floating Rate Notes 2022 shall be payable in arrears on March 26, June 26, September 26 and December 26 in each year, on the Fixed Rate Notes 2022 and on the Notes 2029 in arrears on December 15 in each year and on the Notes 2026 in arrears on June 26 in each year (each such date, an "**Interest Payment Date**"). The first payment of interest on the Floating Rate Notes 2022 shall be made on September 26, 2018, on the Fixed Rate Notes 2022 and the Notes 2029 on December 15, 2018 (short first coupon), respectively, and on the Notes 2026 on June 26, 2019.

**Day Count Fraction**

- Actual/360 for the Floating Rate Notes 2022
- Actual/Actual (ICMA) for the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029.

**Maturity**

Unless previously redeemed in whole or in part or purchased and cancelled, the Notes shall be redeemed at their principal amount on the relevant Maturity Date (*i.e.* June 26, 2022 for the Floating Rate Notes 2022, December 15, 2022 for the Fixed Rate Notes 2022, June 26, 2026 for the Notes 2026 and December 15, 2029 for the Notes 2029).

**Early Redemption for Reasons of Taxation**

If as a result of any change in, or amendment to, the laws or regulations of Germany or The Netherlands affecting taxation or the obligation to pay duties of any kind, or any change in, or amendment to, an official interpretation, administrative guidance or application of such laws or regulations, or any action and/or decision which shall have been taken by any taxing authority, or any court of competent jurisdiction, or any change, amendment, application, interpretation or execution of the laws of Germany or The Netherlands which change, amendment, action, application, interpretation or execution is officially proposed and would have effect on or after the date on which the Notes were issued, the Issuer and/or the Guarantor is required to pay additional amounts on the next succeeding Interest Payment Date, and this obligation cannot be avoided by the use of reasonable measures available to the Issuer and/or the Guarantor, the Notes may be redeemed, in whole but not in part, at the option of the Issuer and/or the Guarantor, upon not more than 60 days' nor less than 30 days' prior notice of redemption given to the Paying Agent and the holders of the Notes at the principal amount, together with interest accrued up to (but excluding) the date fixed for redemption.

**Early Redemption at the Option of the Issuer**

The Issuer may, upon giving not less than 30 nor more than 60 days' notice, at any time redeem at its option all or some only of the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029 at the Early Redemption Amount together with accrued interest, if any, to (but excluding) the relevant call redemption date.

"**Early Redemption Amount**" of a Note shall be the higher of (i) its principal amount and (ii) the Present Value. The "**Present Value**"

will be calculated by the Calculation Agent by discounting the sum of the principal amount of a Note and the remaining interest payments to the relevant Maturity Date on an annual basis, assuming a 365-day year or a 366-day year, as the case may be, and the actual number of days elapsed in such year and using the Comparable Benchmark Yield plus a margin (0.20% for the Fixed Rate Notes 2022, 0.25% for the Notes 2026 and 0.30% for the Notes 2029). "**Comparable Benchmark Yield**" means the yield at the Redemption Calculation Date on the corresponding Euro-denominated benchmark debt security of the Federal Republic of Germany, as having a maturity comparable to the remaining term of the relevant Note to the relevant Maturity Date, that would be used at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the Maturity Date. "**Redemption Calculation Date**" means the third Business Day prior to the relevant call redemption date.

**Early Redemption within 3 months before the relevant Maturity Date**

Within a period of 3 months before the relevant Maturity Date, the Issuer may, upon giving not less than 30 nor more than 60 days' notice, redeem at its option all or some only of the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029 at the principal amount together with accrued interest, if any, to (but excluding) the relevant call redemption date.

**Purchase; Early Redemption for Reason of Minimal Outstanding Amount**

The Issuer or any subsidiary of the Guarantor may at any time purchase Notes in the open market or otherwise and at any price. Such acquired Notes may be cancelled, held or resold. In the event that the Issuer or the Guarantor or any subsidiary of the Guarantor has purchased Notes equal to or in excess of 75 percent of the aggregate principal amount of the Notes initially issued and the aggregate principal amount of the Notes is reduced by this percentage in the global note accordingly, the Issuer may call and redeem the remaining Notes (in whole but not in part) at their principal amount plus accrued interest until the date of redemption (exclusive).

**Early Redemption at the Option of the Holders upon a Change of Control**

If there occurs a Change of Control and within the Change of Control Period a Rating Downgrade in respect of that Change of Control occurs (together called a "**Put Event**"), each Holder will have the option (unless, prior to the giving of the "**Put Event Notice**" (to be given by the Issuer promptly upon becoming aware that a Put Event has occurred), the Issuer gives notice to redeem the Notes in accordance with Terms and Conditions) to require the Issuer to redeem that Note on the Optional Redemption Date at its principal amount together with interest accrued to but excluding the Optional Redemption Date.

A "**Change of Control**" shall be deemed to have occurred at each time (whether or not approved by the Board of Management or Supervisory Board of the Guarantor) that any person or persons ("**Relevant Person(s)**") acting in concert or any person or persons acting on behalf of any such Relevant Person(s), at any time directly or indirectly acquire(s) or come(s) to own (i) more than 50 percent of the issued ordinary share capital of the Guarantor or (ii) such number of the shares in the capital of the Guarantor carrying more than 50 percent of the voting rights.

**"Change of Control Period"** means the period ending 120 days after the occurrence of the Change of Control.

A **"Rating Downgrade"** shall be deemed to have occurred in respect of a Change of Control (a) if within the Change of Control Period any rating previously assigned to the Guarantor or the Notes by any Rating Agency is (i) withdrawn or (ii) changed from an investment grade rating (BBB- by S&P/Baa3 by Moody's, or its equivalent for the time being, or better) to a non-investment grade rating (BB+ by S&P/Ba1 by Moody's, or its equivalent for the time being, or worse) or (iii) (if the rating assigned to the Notes by any Rating Agency shall be below an investment grade rating) lowered one full rating notch (from BB+ to BB by S&P or Ba1 to Ba2 by Moody's or such similar lower of equivalent rating) or (b) if at the time of the Change of Control, there is no rating assigned to the Guarantor or the Notes and no Rating Agency assigns during the Change of Control Period an investment grade credit rating to the Notes (unless the Guarantor is unable to obtain such a rating within such period having used all reasonable endeavours to do so and such failure is unconnected with the occurrence of the Change of Control).

**"Rating Agency"** means each of the rating agencies of S&P Global Ratings ("**S&P**") and Moody's Investors Services ("**Moody's**") or any of their respective successors or any other rating agency of equivalent international standing specified from time to time by the Guarantor.

The **"Optional Redemption Date"** is the seventh day after the last day of the Put Period.

**"Put Period"** means the period of 45 days after a Put Event Notice is given.

## **Taxation**

All amounts payable in respect of the Notes shall be paid without deduction or withholding for, or on account of, any present or future taxes, duties or governmental charges of any nature whatsoever imposed, levied or collected by or on behalf of Germany or the Netherlands or by or on behalf of any political subdivision or any authority thereof having power to tax, unless such deduction or withholding is required by law. In such event, the Issuer shall pay such additional amounts of principal and interest as may be necessary in order that the net amounts received by the Holders after such deduction or withholding shall equal the respective amounts of principal and interest which would have been receivable had no such deduction or withholding been required, subject to various exceptions set forth in the Terms and Conditions.

## **Events of Default**

If an Event of Default occurs and is continuing, each Holder shall be entitled, subject to a quorum requirement in certain cases, to declare due and payable its entire claims arising from the Notes and demand immediate redemption at the principal amount thereof, together with unpaid interest accrued up to (but excluding) the date of actual redemption.

## **German Act on Issues of Debt Securities (*Gesetz über Schuldverschreibungen aus Gesamtemissionen*)**

Each series of Notes will be subject to the German Act on Issues of Debt Securities (*Gesetz über Schuldverschreibungen aus Gesamtemissionen* (SchVG)), which, *inter alia*, allows the Issuer to amend the Terms and Conditions with the consent by a majority

resolution of the Holders and to appoint a joint representative (*gemeinsamer Vertreter*) of the Holders (the “**Holders’ Representative**”) for the preservation of their rights. These provisions applicable to the Notes shall apply *mutatis mutandis* to the Guarantee of the Guarantor.

**Governing Law**

The Notes, as to form and content, and all rights and obligations of the Holders and the Issuers, shall be governed by German law.

**Jurisdiction**

Subject to any mandatory jurisdiction for specific proceedings under the SchVG, the district court of Frankfurt am Main shall have non-exclusive jurisdiction for any action or other legal proceedings arising out of or in connection with the Notes.

For any legal disputes or other proceedings before German courts, the Issuer appoints Bayer AG, FI Corporate Treasury, Kaiser-Wilhelm Allee 1, 51373 Leverkusen, Germany as its authorized agent for service of process in Germany.

**Paying Agent**

Deutsche Bank Aktiengesellschaft.

**Calculation Agent**

- Deutsche Bank Aktiengesellschaft for the Floating Rate Notes 2022
- An independent bank of international standing or an independent financial adviser with relevant expertise, selected by the Issuer and appointed as calculation agent for the purposes of such for each of the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029.

**Listing and Admission to trading**

Application will be made to the Luxembourg Stock Exchange (*Bourse de Luxembourg*) for the Notes to be listed on the official list of the Luxembourg Stock Exchange (*Bourse de Luxembourg*) and to be admitted to trading on the regulated market of the Luxembourg Stock Exchange (*Bourse de Luxembourg*). The regulated market of the Luxembourg Stock Exchange (*Bourse de Luxembourg*) is a regulated market for the purposes of Directive 2014/65/EU of the European Parliament and of the Council of April May 15, 2014 on markets in financial instruments, as amended.

**Selling Restrictions**

The offer and the sale of the Notes and the distribution of offering materials are subject to specific restrictions. The relevant restrictions are set out under “4. *Subscription and Sale—4.2 Selling Restrictions*” of this Offering Memorandum.

**Clearing and Settlement**

The Notes will be accepted for clearing through Euroclear and Clearstream Banking.

**Use of Proceeds**

Bayer intends to use the net proceeds from the offering for the repayment of amounts drawn under the US\$56.9 billion syndicated term loan facilities agreement dated September 14, 2016 and concluded in connection with the Transaction.

**Risk Factors**

Investing in the Notes involves risks. Investors should carefully consider the information under “*Risk Factors*” relating to Bayer, to the Acquisition of Monsanto and the Notes set forth below in this Offering Memorandum.

## 1. RISK FACTORS

*Investing in the Notes involves risks, including risks relating to Bayer Capital Corporation B.V., Mijdrecht, The Netherlands (the “Issuer” or “Bayer Capital Corp”), Bayer Aktiengesellschaft, Leverkusen, Germany (hereinafter referred to as “Bayer AG” or the “Company” or the “Guarantor”, and together with its subsidiaries, including as of June 7, 2018 Monsanto Company, St. Louis, Missouri, United States (“Monsanto Company”) and its subsidiaries, “Bayer,” “we,” “us,” “our,” the “Bayer Group” or the “Group”), the Bayer Group, the global economy, the financial markets, the industries in which the Bayer Group is active, regulatory and political matters, legal and administrative proceedings, the subscription offer, the acquisition of Monsanto Company by Bayer (the “Transaction”), described below in “1.1.1 Sales and growth of the Bayer Group are dependent on the conditions of the global economy in general and of the economies where the Bayer Group operates in particular.” and, as a result of the Transaction, Monsanto. Prospective investors in the Notes should read this Offering Memorandum (the “Offering Memorandum”) in its entirety, including the section entitled “19.2 Monsanto Information,” and carefully consider the risks and considerations relevant to an investment in the Notes.*

*As a global life science company, the Bayer Group is constantly exposed to a wide range of internal or external developments or events that could significantly impact the achievement of its financial and non-financial objectives. Bayer cannot exclude that it is exposed and, as a result of the Transaction, will be exposed, to some or all of the risks described below. Any of the risk factors described below, as well as additional risks of which Bayer or Monsanto are not currently aware, could have a material adverse effect on Bayer’s business, financial condition, results of operations and prospects, and cause the value of the Notes to decline. Investors could lose all or part of their investment. The additional risks that currently are unknown or deemed immaterial, in particular, risks related to the Transaction and the integration of Monsanto, may also impair Bayer’s business, results of operations and financial condition. Moreover, if and to the extent that any of the risks described below materialize, they may occur in combination with other risks, which would compound the adverse effect of such risks on Bayer’s business, financial condition, results of operations and prospects. The risks described apply to all business segments of the Bayer Group unless otherwise indicated.*

*The sequence in which the risk factors are presented below is not indicative of their likelihood of occurrence or of the potential magnitude of their financial consequences.*

### 1.1 Risks Related to Bayer

#### 1.1.1 **Sales and growth of the Bayer Group are dependent on the conditions of the global economy in general and of the economies where the Bayer Group operates in particular.**

The Bayer Group is a global life science company with core competencies in the fields of health care and agriculture and conducts operations worldwide. It develops new molecules for use in innovative products and solutions to improve the health of humans, animals and plants through its Pharmaceuticals, Consumer Health and Crop Science divisions as well as through its Animal Health business unit.

On September 14, 2016, Bayer entered into an agreement and plan of merger (the “**Merger Agreement**”) with Monsanto Company, a global provider of agricultural products, including seeds and trait technologies, herbicides, and digital platforms to give farmers agronomic recommendations. The Transaction was completed on June 7, 2018, after all required closing conditions were satisfied or waived. As a result of the Transaction, Crop Science including Monsanto’s business became Bayer’s largest division in terms of net sales.

General economic conditions, including, but not limited to, interest rate levels, inflation, unemployment rates, demographic trends, gross domestic product and consumer confidence, influence the growth of the markets where Bayer’s products are widely used or applied. Economic conditions around the world, and in the industries in which Bayer does business, may also have a direct impact on sales prices and volume. As a result, a downturn in general economic conditions or market uncertainty in the geographic areas or industries in which Bayer operates could put pressure on prices and volumes and negatively impact Bayer’s sales and margins achieved or achievable in the future. A decline in demand or shift to replacement products resulting from deteriorating economic conditions could materially adversely affect Bayer’s business, financial condition, results of operations and prospects.

For Pharmaceuticals, an economic downturn could potentially put regulators under pressure to reduce patient and/or public health insurance costs for drugs and might lead regulators to impose mandatory rebates or discounts or other pricing restrictions, see also “1.1.17 Pharmaceuticals is exposed to pricing pressure resulting from regulation and market conditions, which may negatively impact Bayer’s business and results of operations.”

For Crop Science, risks may arise from market volatility for agricultural products and the impact of economic conditions on its customers' financial situations, especially in Latin America. Crop Science's exposure to these risks is expected to increase as a result of the Transaction, given that Monsanto generates a significant part of its total net sales in South America, see also "1.2.3 As a result of the Transaction, Bayer's risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively." For Consumer Health, product demand may be significantly impacted by economic conditions in key markets, such as the United States, Consumer Health's most important market in terms of single-country sales, and emerging markets, such as China, Brazil and Russia. Due to Consumer Health's focus on key emerging markets, Bayer's results of operations may also become more volatile since the economic development in these markets, be it positive or negative, is often characterized by a greater sensitivity to trends in the global economy.

**1.1.2 Continued elevated levels of political and economic uncertainty could have unpredictable consequences for the markets in which Bayer operates and for the greater economy.**

Although economic prospects overall improved in 2017, the last several years have been characterized by increased political and economic uncertainty in some of the core markets Bayer operates in, including Europe, the United States of America ("United States" or "U.S.") and Latin America, and numerous factors continue to contribute to the considerable uncertainty going forward. In Europe, potential future changes to monetary policy, continued doubts about the future of the Eurozone (as well as questions about the European Union more generally in the wake of the United Kingdom's "Brexit" referendum), insufficient deleveraging in the private and public sectors, a halt in implementing structural and financial reforms and an elevated level of political uncertainty could adversely affect the Group's operations. In the United States, uncertainties associated with the policies pursued by the current U.S. administration, both nationally and internationally, have led to market volatility and political uncertainty, including most recently in connection with the implementation of trade tariffs. In Latin America, political and economic conditions in a number of countries, including Argentina, Brazil and Venezuela, have recently deteriorated, leading to economic problems, including in the public sectors of these countries. Furthermore, events in recent years in other developing markets have placed pressures on the stability of the currencies in a number of countries in Latin America, in which the Group operates, including Brazil. Against this backdrop, persistent economic weakness, especially in the emerging economies but also in Europe, could negatively impact global trade and the markets in which Bayer operates. These trends could also be exacerbated by geopolitical crises, resulting, for example, from terrorist attacks, the inflow of large numbers of refugees into Europe, continued instability in the Middle East, heightened political tension with respect to North Korea, Turkey or Russia, or increased political uncertainty arising from populist movements in European countries and the United States.

Bayer's customers, especially in Pharmaceuticals, include sovereign countries and state-owned entities such as hospitals and public health services and there is a risk that the trends described above could result in material reductions in Bayer's business levels as customers in affected countries rein in their spending in light of decreased economic output, currency volatility and increased uncertainty. In particular, cost pressure on health systems could increase further thereby increasing pricing pressure for the Group. See also "1.1.17 Pharmaceuticals is exposed to pricing pressure resulting from regulation and market conditions, which may negatively impact Bayer's business and results of operations." Furthermore, in some cases affected countries or state-owned entities in such countries might partially or totally cease payments to Bayer for goods and services delivered in order to balance their budgets or to avoid even higher levels of sovereign debt. Starting in 2015, market volumes in the seed and crop protection market in Latin America have decreased, particularly in Argentina and Brazil, including, among other factors, due to political uncertainties, including with respect to agricultural policies, such as farming subsidies, and an ongoing difficult macroeconomic environment with crop commodity prices remaining at a rather low level. There can be no assurance that this trend will reverse in the near term. Any of the developments described could potentially materially adversely affect the Group's sales, financial condition and cash flows.

**1.1.3 Actual macroeconomic and market developments may deviate from those that Bayer's management expects and may have predicted, which could adversely affect Bayer's results of operations, and if assumptions made in preparing Bayer's financial and operational forecasts or estimates prove inaccurate, Bayer's actual performance may fall materially short of its forecasts or estimates or the expectations of market observers.**

Where actual macroeconomic and market developments vary from those predicted by Bayer in its economic outlook, this may negatively impact Bayer's sales and results of operations expectations and may prevent



Bayer from successfully adjusting its business strategy to changed economic conditions. In addition, the financial forecasts regarding sales and results of operations (including, but not limited to, Group sales, EBITDA before special items) and the operational projections (including, but not limited to, those relating to potential peak sales of drugs and drug and/or product candidates) provided in this Offering Memorandum and in Bayer's on-going financial reporting reflect numerous assumptions made by Bayer's management, including assumptions with respect to the Bayer Group's specific as well as general business, regulatory, economic, market and financial conditions and other matters, all of which are difficult to predict and many of which are beyond Bayer's control. Accordingly, there is a risk that the assumptions made in preparing the financial forecasts, estimates or operational projections, or the forecasts, estimates and projections themselves, could prove inaccurate. As a result, there may be differences between Bayer's projected and actual results, which could be material in nature. The inclusion of certain financial forecasts, estimates and operational projections in this Offering Memorandum should not be regarded as an indication that Bayer, its management or representatives considered or consider such forecasts, estimates and projections to be a guaranteed prediction of future events, and the forecasts and projections should not be relied upon as such.

For example, following an ad hoc announcement on June 30, 2017, Bayer on July 27, 2017, revised its forecast for fiscal year 2017 downward due to current business and currency developments, including unexpected business developments impacting the forecasts for sales and earnings at Crop Science and Consumer Health. Specifically, Crop Science experienced problems in 2017 relating to sales to distributors and wholesalers in Brazil, when low demand due to adverse weather conditions and macroeconomic factors prevented inventory levels of crop protection products from following seasonal variations as expected but instead, in conjunction with further sell-in, led to a situation of overstocking. Crop Science initiated measures aimed at normalizing the situation in Brazil (e.g., such as returns of products, selective price adjustments, campaigns to drive demand), requiring it to record significant provisions. Consumer Health experienced substantial declines in sales in North America, especially in the United States, due to the difficult market environment, which was characterized by U.S. market softness in seasonal categories like allergy, intensified competitive pressure, and a changing distribution landscape, with a negative impact on Consumer Health's operating performance.

Crop Science, in particular, is exposed to uncertainties associated with the fact that Bayer's fiscal year is not aligned with the planting seasons in some of its important markets, e.g., in Latin America. This renders the predictability of earnings and cash flows for the business at the beginning of Bayer's fiscal year particularly difficult.

**1.1.4 The industries in which Bayer operates are highly competitive, and competitive pressure could increase. Furthermore, disruptive technologies or changes to competitors' business models may adversely affect Bayer's business.**

The Bayer Group sells its broad range of products in a competitive environment, and competes with other companies for sales on the basis of quality, price, technology and customer service. As a result, Bayer's products face intense competition across all of Bayer's business segments. This competition may increase as new products enter the market. Competitors' new products may be safer, technically more advanced or more effective, more convenient to use or more effectively marketed and sold than Bayer's products. Ongoing industry and distribution channel consolidation along with business practices such as aggressive marketing and pricing strategies, not only in the field of generic competition, may adversely affect our results of operations. Furthermore, disruptive technologies or changes to competitors' business models may adversely affect Bayer's business.

Particularly in Pharmaceuticals, Animal Health and Crop Science, Bayer faces competition from generic products, including the generic availability of competitors' branded products, which may be equally safe and effective products that are sold at a substantially lower price than Bayer's products. Bayer's competitors may have greater access to financial resources, more experience in resource allocation or better ability in product innovation. In fiscal year 2017, for example, Consumer Health has been exposed to intensifying competitive pressure with respect to some of its key products in the United States, its most important market, which among other factors had a significant negative impact on Consumer Health's financial performance and will require significant investments in product innovation and geographical expansion, i.e., the launch of existing products in new markets. Overall, competitive pressure could increase further as a result of recent and future consolidation efforts in the markets in which Bayer operates. The current global consolidation process in the seeds and crop protection industry is also altering the future competitive environment for Crop Science.

There is also a risk in Crop Science that digitalization could fundamentally change markets for seeds and crop protection products, and have an impact on value creation and access to markets and customers. Should we be unable to profit from or counteract these developments through suitable initiatives, this could lead to a loss of

customers, market share or business value and necessitate higher subsequent investments. The risk of existing business models being disrupted by digitalization or new digital products is also present for Consumer Health. Digitalization is a key factor in gaining a competitive advantage. If Bayer fails to adequately integrate this development into our existing business models, we could lose customers or market share.

**1.1.5 *Patents protecting products that are currently profitable for Bayer are subject to expiration, and there can be no assurance that Bayer will be successful in developing new products that upon market approval will achieve the commercial success to counterbalance the expected decline in revenues generated by such products upon the expiration of their patents.***

Patents protect Bayer's intellectual property and Bayer has a portfolio that contains a considerable amount of patent protected products. In the event of successful commercialization of a product protected by patents, profits can be invested to enable Bayer's continued, sustainable research and development ("R&D"). Due to the long period of time between the patent application and the market launch of a product, Bayer generally only has a few years in which to earn an adequate return on its intellectual property. Upon patent expiration, drug prices usually decrease due to competition from generics as well as potentially new and better drugs for the same indication. As patents protecting commercially successful products become subject to expiration, Bayer has to continue its R&D activities to create new, commercially viable products in order to counterbalance the expected decline in revenues generated by currently commercially successful products upon the expiration of their patents. For example, Bayer's bestselling drugs Xarelto™, an oral anticoagulant for the treatment and prevention of blood clots, and EYLEA™, an eye medicine, in the medium term will both gradually become subject to patent expiration in key markets, which, if not counterbalanced by the timely development and market launch of new commercially successful drugs, could lead to a decline in Bayer's revenues.

Despite a continuous increase in expenditure for R&D over the past years and other efforts to boost innovation, such as the establishment of Leaps by Bayer (formerly Bayer LifeScience Center), a strategic innovation unit, and despite significant expenditures that Bayer may invest in R&D in the future, there can be no assurance that Bayer will be successful in developing commercially promising intellectual property. Risks associated with the R&D process include, among others, disappointing results in preclinical trials for drug candidates, negative study results (e.g., regarding the toxicological profile of active ingredients or metabolites), clinical trials for drug candidates failing to meet trial endpoints, the need for additional studies, delays of product launches, limitations on product scope (e.g., regional limitations, application limitations), failure to obtain adequate patent protection, competitors bringing a product to market first, regulatory approval for a product not being granted for intended use and failure to identify and obtain approval for new indications or applications of successful existing products. Failure to develop commercially successful new products in a continuous manner may negatively impact the Bayer Group's competitiveness and results of operations.

**1.1.6 *There can be no assurance that Bayer will identify a sufficient number of research candidates and that Bayer's products will receive and maintain any necessary regulatory approvals, and any increase in regulatory and legal requirements, including as a result of higher public expectations, could lead to more costly and lengthy registration or approval procedures and could impair or preclude Bayer's product development and commercialization efforts.***

While Bayer focuses on continuously developing and successfully commercializing innovative products and solutions based on scientific knowledge, it cannot, despite all efforts, assure that it will identify a sufficient number of research candidates and that all of the products it is currently developing or will develop in the future will achieve planned approval, registration or commercial success. Among other factors, this may be due to the failure to meet technical, capacity- and time-related requirements or the inability to meet trial objectives in product developments. The performance of research partners could also have a limiting effect in this respect. Delays or cost overruns could occur during product registration or launch.

In addition to regulatory requirements covering the testing, approval, manufacturing, labeling and marketing of products, the expectations of the public and the regulatory authorities with regard to the safety and efficacy of chemical, biological and pharmaceutical products are constantly rising. Regulatory authorities have substantial discretion to require additional testing, to delay or withhold registration or re-registration and marketing approval and to otherwise preclude the manufacture, distribution and sale of a product. Against this background, Bayer, for example, continues to anticipate considerably more stringent regulatory requirements, for example for clinical studies or production processes in the area of health or at Crop Science in the monitoring of genetically modified organisms, particularly at country level. These factors may negatively affect product development costs

and the time it takes to obtain registration or marketing approval for Bayer's products and may lead to necessary adjustments of the product portfolio.

In addition, modern agricultural methods, the application of certain classes of crop protection products and the use of genetic engineering are repeatedly the subject of intense public debate. This political opinion-forming may yield legislative and regulatory decisions that significantly limit the use of Bayer's products or may even result in voluntary or mandated product withdrawals. In addition, decisions, for example restrictions imposed by the European Union ("EU"), also affect agricultural imports from other parts of the world and therefore Bayer's business in those regions. In addition, public perception of actual or perceived adverse effects on human health and the environment could result in the adoption of more stringent legislation and regulation that may negatively affect the markets for Bayer's products. Potential issues involve topics such as pollinators, biodiversity, water quality (ecological status), active ingredients in the environment, reproductive toxicity, endocrine effects, genetically modified organisms and perceived lack of benefits. For example, there is an ongoing regulatory and public debate fueled materially by non-governmental organizations and political parties attacking neonicotinoids, a class of insecticides. Despite favorable scientific research on neonicotinoids, this public debate has led and may in the future lead to legal and regulatory restrictions on the use of neonicotinoids in a number of jurisdictions, including the EU, France, Canada, the United States and Brazil, in a variety of contexts (proposed and adopted legislation, challenges to product registrations, action by regulatory authorities, litigation). Such developments could impair the Bayer Group's competitiveness and results of operations. See also "1.1.11 Defects or quality issues associated with Bayer's products or Bayer's failure to respect safety requirements may require it to withdraw products from the market, which could expose Bayer to product liability claims and other litigation, adversely affect its results of operations, including as a result of damage payments being imposed, and negatively impact Bayer's and its brands' reputation.," "1.1.12 Bayer is subject to extensive and increasingly stringent environmental, health and safety laws, regulations and standards, which may result in restrictions on production or marketing of its products, increased costs to ensure compliance, damage to Bayer's reputation, legal liability and remediation efforts." and "1.1.19 Consumer resistance to plant biotechnology may negatively affect Bayer's public image and impact Bayer's sales volumes and revenues."

As a result of the Transaction, Bayer expects to become exposed to additional regulatory and legal requirements and risks, see "1.2.3 As a result of the Transaction, Bayer's risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively."

**1.1.7 Bayer's business and results of operations may be adversely affected if Bayer is unable to obtain or defend its intellectual property or if the rights associated with its intellectual property do not provide effective protection.**

A considerable amount of Bayer's products is protected by patents. Bayer's success depends to a significant degree upon its ability to obtain and defend those patents as well as other intellectual property and proprietary information of the Group. The patent application process is time intensive and expensive. There can be no assurance that Bayer may continue to succeed in applying for and being granted patents to protect its intellectual property.

Even if Bayer succeeds in obtaining patents covering its products, third parties or government authorities may challenge or seek to invalidate or circumvent its patents and patent applications. Generic manufacturers and others may attempt to contest patents prior to their expiration. Sometimes a generic version of a product may even be launched "at-risk" prior to the issuance of a final patent decision. When a patent defense is unsuccessful, or if one of Bayer's patents expires, prices are likely to come under pressure because of increased competition from generic products entering the market.

Furthermore, Bayer may be unable to prevent third parties from using its intellectual property and other proprietary information without its authorization or independently developing intellectual property that is similar to or competes with Bayer's products, particularly in those countries where the laws do not protect proprietary rights to the same degree as in Germany, the European Union or the United States. Statutory differences in patentable subject matter may limit the protection Bayer can obtain on certain products it has developed. Complicated factual and legal issues can also introduce uncertainty as to the validity, scope and enforceability of its patents and other intellectual property rights. Moreover, there can be no assurance that Bayer will be able to identify infringements by third parties of Bayer's patents in time to take the necessary legal action.

Bayer is currently involved in a number of legal proceedings to enforce patent rights relating to its products, which it considers to entail material risks. For example, Bayer and its collaboration partner Janssen Pharmaceuticals, Inc. have filed patent infringement suits in a U.S. federal court in 2015 and 2016 against a number of pharmaceutical companies with respect to the generic use of Xarelto™, Bayer's bestselling drug, an oral anticoagulant for the treatment and prevention of blood clots. Legal proceedings initiated by Bayer to protect its proprietary rights can be expensive and time-consuming, regardless of the merits of any claim, and there can be no assurance that Bayer will prevail. See also "1.1.13 Bayer is exposed to material risks from legal disputes and proceedings." If Bayer fails to prevail in any of these legal proceedings, Bayer may be deprived of market exclusivity for the affected patented product or, in some cases, third-party patents may prevent the Company from marketing and selling the affected product in a particular geographic area or globally.

For information relating to risks that may impact Bayer's ability to realize the full value of the intellectual property of the combined agriculture business of Bayer and Monsanto (the "**Combined Agriculture Business**") following completion of the Transaction, see "1.2.3 As a result of the Transaction, Bayer's risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively."

**1.1.8 Bayer may inadvertently infringe on the intellectual property rights of third parties and could be enjoined from using or selling the infringing products or technology and/or required to pay monetary damages or royalties.**

Many of Bayer's competitors have a substantial amount of intellectual property that Bayer must continually strive to avoid infringing. In this context, there can be no assurances that Bayer's processes and products and other activities do not and will not infringe issued patents (whether present or future) or other intellectual property rights belonging to others. As a result, Bayer could become liable for infringement of intellectual property rights of third parties or could experience supply and production restrictions and disruptions as a result of actual or alleged infringements of intellectual property rights.

Legal action by third parties for alleged infringement of patent or proprietary rights by Bayer may impede or even halt the development, manufacturing or sale of certain products or require Bayer to pay monetary damages or royalties to third parties. In addition, as is often the case for intellectual property litigation, any legal proceedings may prove to be burdensome and costly.

Furthermore, Bayer may have to obtain third-party licenses to gain access to technology, which could entail considerable costs, including in terms of royalties to be paid. Bayer may be unable to acquire licenses that it will need for its future business with the appropriate scope, under acceptable conditions or at all. In addition, licenses Bayer currently holds may not continue to be effective, and Bayer may be prevented from making or marketing products.

**1.1.9 Bayer is exposed to risks in connection with its acquisitions of companies and businesses, which could jeopardize its achievement of targets, lead to impairments and negatively impact its results of operations.**

Where it appears strategically advantageous, Bayer may supplement its organic growth through acquisitions of companies or businesses. Failure to successfully integrate a newly acquired business or unexpectedly high integration costs could jeopardize the achievement of qualitative or quantitative targets, including those relating to cost and revenue synergies, and adversely impact results of operations. Bayer's due diligence processes conducted prior to acquisitions may fail to identify risk-relevant factors at the acquired company. For example, with respect to the acquisition of the consumer care business of the U.S. company Merck & Co., Inc., Whitehouse Station, New Jersey, United States ("**Merck & Co., Inc.**"), completed in October 2014, Bayer has had to lower expectations with respect to the financial performance of certain products and groups of products acquired and has been required to make and will continue to make significant investments in relation to the acquired business and certain products, particularly in the United States. Such developments could eventually negatively affect Bayer's business, financial condition and results of operations, also through the recognition of impairment losses on intangible assets acquired. See also "1.1.10 Bayer may be required to recognize significant impairments that reduce the value of the Bayer Group." For information on risks associated with the Transaction, see "1.2 Risks Related to the Acquisition of Monsanto."

**1.1.10 Bayer may be required to recognize significant impairments that reduce the value of the Bayer Group.**

Bayer has a significant amount of intangible assets, including goodwill, on its consolidated statements of financial position, including as a result of the Transaction, and if it continues to acquire businesses in the future, may record significant additional intangible assets and goodwill. Apart from goodwill, Bayer's intangible assets consist mainly of trademarks and patents and technologies. Bayer tests goodwill and other intangible assets with an indefinite useful life or not yet available for use (such as research and development projects) for impairment if there is an indication of possible impairment or at least annually in the fourth quarter. Other intangible assets with a determinable useful life are amortized on a straightline basis over the period of their useful life, except where their actual depletion demands a different amortization pattern. Determination of the expected useful lives of such assets and the amortization patterns is based on estimates of the period for which they will generate cash flows. An impairment test is performed if there is an indication of possible impairment. Since Bayer utilizes a discounted cash flow methodology to calculate the fair value of its cash-generating units and groups of cash-generating units (i.e., strategic business entities or groups of strategic business entities, as well as certain product families), continued weak demand for a specific product line or business could result in an impairment.

Although Bayer believes the estimates of the useful lives of certain assets, assumptions concerning the macroeconomic environment and developments in the industries in which it operates, and estimates of the discounted future cash flows are appropriate, changes in assumptions or circumstances, could require changes in the analysis. This could lead to the recognition of additional impairment losses in the future, if developments are contrary to expectations, which could have a material adverse impact on Bayer's financial position and results of operations. At Pharmaceuticals, impairments may be required to be recognized at any time, particularly, if Bayer's research and development activities do not progress as planned. At Consumer Health, a weaker market environment led to impairment losses for fiscal year 2017 of €155 million related to a sunscreen product brand (Coppertone™) and of €47 million on a trademark in the allergies area (Aerius™). For more information on impairment risks associated with the Transaction, see "1.2.8 Change of control, prohibition on merger or similar provisions in agreements and instruments to which Monsanto is a party may be triggered or alleged to be triggered by the Transaction and may lead to adverse consequences for the Bayer Group, including the loss of significant contractual rights and benefits, the possible termination of material agreements or the requirement to repay outstanding indebtedness."

**1.1.11 Defects or quality issues associated with Bayer's products or Bayer's failure to respect safety requirements may require it to withdraw products from the market, which could expose Bayer to product liability claims and other litigation, adversely affect its results of operations, including as a result of damage payments being imposed, and negatively impact Bayer's and its brands' reputation.**

Bayer assesses the potential health and environmental risks of a product along the entire value chain – from R&D through production, marketing and use by the customer to disposal. Despite extensive studies prior to approval or registration and Bayer's extensive monitoring of safety requirements and developments, it is possible that products could be partially or completely withdrawn from the market due to the occurrence of unexpected adverse side effects, product defects or other factors. Such a withdrawal may be voluntary or result from legal or regulatory measures. Furthermore, in Crop Science, the presence of traces of unwanted genetically modified organisms in agricultural products and/or food or feed cannot be entirely excluded. The above risks could expose Bayer to product liability claims and other litigation and potential resulting payments of damages may have a substantial negative impact on Bayer's results of operations. In addition, defects or quality issues associated with Bayer's products could damage Bayer's and its brands' reputation.

**1.1.12 Bayer is subject to extensive and increasingly stringent environmental, health and safety laws, regulations and standards, which may result in restrictions on production or marketing of its products, increased costs to ensure compliance, damage to Bayer's reputation, legal liability and remediation efforts.**

Bayer is subject to a broad range of environmental, health and safety laws, regulations and standards in each of its operational jurisdictions. These requirements are comprehensive and relate to the entire value chain, including research and development, production, marketing, customer use and disposal. They cover not only product safety but also employee and environmental protection. Greenhouse gas emissions, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste



materials are also covered. In light of the magnitude and complexity of these laws, regulations and standards, compliance with them or the establishment of effective monitoring systems may require a significant amount of financial and other resources. Misconduct and non-compliance with these requirements may result in personal injury, property and environmental damage, loss of production, business interruptions and/or liability for compensation payments. In addition, actual or perceived violations of these laws, regulations and standards may adversely affect Bayer's public image and relationships with its customers.

Furthermore, the scope of environmental, health and safety laws and regulations to which Bayer is subject may increase. Such changes in laws and regulations could inhibit or interrupt Bayer's operations, or require modifications to its facilities. There can be no assurance that Bayer will be able to pass on any costs of such measures to its customers. For example, chemical substances are subject to the European chemicals regulation 1907/2006/EC<sup>1</sup> ("REACH"). Alongside the standard registration obligation under REACH there is also an authorization procedure that can lead to the replacement of, or a ban on the use of, particularly hazardous substances. Already registered substances are also regularly evaluated by the authorities. For Bayer substances this can result in additional testing requirements, new risk management measures or the inclusion of substances in the REACH authorization procedure. Should Bayer due to a denial of authorization not be successful in supporting all current uses of certain substances in production or sourcing processes, Bayer may be forced to change these processes.

Bayer recognizes provisions for environmental protection that mainly relate to the rehabilitation of contaminated land, re-cultivation of landfills and redevelopment and water protection measures. However, estimating the future costs of environmental protection and remediation involves many uncertainties and is based on certain assumptions, particularly with regard to the status of laws, regulations and the information available about conditions in the various countries and at the individual sites. Significant factors in estimating the costs include previous experiences in similar cases, the conclusions in expert opinions obtained regarding the Group's environmental programs, current costs and new developments affecting costs, management's interpretation of current environmental laws and regulations, the number and financial position of third parties that may become obligated to participate in any remediation costs on the basis of joint liability, and the remediation methods likely to be deployed. Changes in these assumptions could impact future reported results of the Group. Given the difficulties inherent in estimating liabilities in the businesses in which the Group operates, especially for Crop Science, for which the risk of environmental damage is greater in relative terms, it remains possible that material additional costs may be incurred beyond the amounts accrued. It may transpire during remediation work that additional expenditures are necessary over an extended period and that these exceed existing provisions and cannot be reasonably estimated.

Despite its efforts to comply with environmental, health and safety laws, Bayer may face remediation liabilities and legal proceedings concerning environmental, health and safety matters. For example, in the United States, Bayer is one of numerous parties involved in a series of claims brought by federal and state environmental protection agencies. The claims arise from operations by entities which historically were conducted near Newark Bay or surrounding bodies of water, or which allegedly discharged hazardous waste into these waterways or onto nearby land. Bayer and the other potentially responsible parties are being asked to remediate and contribute to the payment of past and future remediation or restoration costs and damages. In August 2016, Bayer learned that two major potentially responsible parties had filed for protection under Chapter 11 of the U.S. Bankruptcy Code. While Bayer remains unable to determine the extent of its liability for these matters, this development is likely to adversely affect the share of costs potentially allocated to Bayer. In the Lower Passaic River matter, a group of more than sixty companies including Bayer is investigating contaminated sediments in the riverbed under the supervision of the United States Environmental Protection Agency ("EPA") and other governmental authorities. Future remediation will involve some form of dredging, the nature and scope of which are not yet defined, and potentially other tasks. The cost of the investigation and the remediation work may be substantial if the final remedy involves extensive dredging and disposal of impacted sediments. In the Newark Bay matter, an unaffiliated party is currently conducting an investigation of sediments in Newark Bay under EPA supervision. The investigation is in a preliminary stage. Bayer has contributed to certain investigation costs in the past and may incur costs for future investigation and remediation activities in Newark Bay. Bayer has also been notified by governmental authorities acting as natural resource trustees that it may have liability for natural resource damages arising from the

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1 Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

contamination of the Lower Passaic River, Newark Bay and surrounding water bodies. Bayer is currently unable to determine the extent of its liability and has not recorded any provisions with respect to these matters.

**1.1.13 Bayer is exposed to material risks from legal disputes and proceedings.**

The Bayer Group is exposed to numerous risks from legal disputes and proceedings to which it is currently a party or which could arise in the future, particularly in the areas of product liability, competition and antitrust law, anticorruption law, patent law, tax law, data protection and environmental protection. Litigation and other judicial proceedings generally raise complex issues and are subject to many uncertainties and complexities, including, but not limited to, the facts and circumstances of the particular case, the jurisdiction in which each suit is brought and differences in applicable law. The outcome of any current or future proceedings can therefore not normally be predicted. It is particularly difficult to assess the likely outcomes of class actions for damages in the United States, which may give rise to significant financial and reputational risks for the Bayer Group. While Bayer has set up provisions for risks arising out of certain of the legal disputes and proceedings it is involved in, it is possible that legal or regulatory judgments or future settlements could significantly affect Bayer's results of operations and give rise to charges in excess of currently established provisions. In addition, while Bayer has insurance coverage as customary in the industry, Bayer could be found liable in cases not or not sufficiently covered by insurance.

Some of Bayer's legal disputes have already led to material payments in settlements and Bayer may agree to pay or be required to pay similarly large or greater amounts in settlement payments, fines, penalties or other damages in respect of current or future legal or regulatory disputes. The effects of such payments may materially impact Bayer's business and results of operations. In addition, these disputes could result in reduced revenues from products concerned or due to reputational harm more generally. For example, as of January 30, 2018, Bayer had reached agreements, without admission of liability, to settle approximately 10,600 claims in the U.S. for a total amount of approximately US\$2.1 billion in connection with product-related litigation relating to Yasmin™ / YAZ™, which are oral contraceptives and among Pharmaceuticals best-selling products. Another recent example of legal proceedings that involve material risk relates to Pharmaceuticals' best-selling product in 2016 and 2017, Xarelto™, an oral anticoagulant for the treatment and prevention of blood clots. As of April 13, 2018, U.S. lawsuits from approximately 23,200 recipients of Xarelto™ had been served upon Bayer. Plaintiffs allege that users have suffered personal injuries from the use of Xarelto™, including cerebral, gastrointestinal or other bleeding and death, and seek compensatory and punitive damages. Additional lawsuits are anticipated. As of April 13, 2018, Bayer had been served with U.S. lawsuits from approximately 16,800 users of Essure™, a medical device offering permanent birth control with a nonsurgical procedure. Plaintiffs allege personal injuries from the use of Essure™, including hysterectomy, perforation, pain, bleeding, weight gain, nickel sensitivity, depression and unwanted pregnancy, and seek compensatory and punitive damages. Additional lawsuits are anticipated. The provisions relating to the Yasmin™ / YAZ™ and Essure™ claims exceed the available insurance coverage. In addition, investigations of possible legal or regulatory violations, such as potential infringements of antitrust, anticorruption or data privacy laws or certain marketing, distribution and product promotion methods, may result in the imposition of civil or criminal penalties—including substantial monetary fines—and/or other adverse financial consequences and harm Bayer's reputation. See also "1.1.26 Bayer is subject to certain anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations with respect to its operations and noncompliance with such laws and regulations may subject Bayer to criminal and/or civil liability and harm its business and reputation."

**1.1.14 The theft, misuse and counterfeiting of products by third parties exposes Bayer to reputational risks and could undermine Bayer's competitiveness.**

Bayer faces risks in connection with the theft, misuse and illegal trading of counterfeit medicines and crop protection products by criminal third parties. In most cases, the composition and quality of counterfeit products are inferior to those of the original products. No local regulatory authority assures the quality of the manufacturing or distribution process. This means that any associated defects and adverse reactions will not be easily recognized or monitored and, if needed, an effective product recall would not be possible. Moreover, the professionalism and complexity of product-related crime has increased significantly in recent years. Products originating from illegal third-party manufacturing not only endanger patients, users, animals and the environment, but also jeopardize the reputation of Bayer and its products and undermine Bayer's competitiveness. Bayer's preventative measures and assistance to authorities' efforts to prosecute offenders may be insufficient to prevent product counterfeiting.

**1.1.15 *Bayer's dependence on external partnerships, including with suppliers, could adversely impact Bayer's business, operations and reputation.***

Along the value chain, Bayer relies on collaboration with various third parties. Bayer has no direct influence on the operations of such partners and has limited ability to control the quality of products and services provided by such partners. The sub-optimal performance by collaboration partners or failure of a third-party supplier, contractor or other external partner to deliver as expected may affect the development, manufacture or marketing of Bayer's products and services and adversely impact its business. In particular, this could result in disruptions to Bayer's product development, supply and production processes, an increase in production costs, customer dissatisfaction and damage to Bayer's reputation. In Pharmaceuticals, for instance, the marketing rights for certain products and countries are held by third parties. For example, Bayer's best-selling pharmaceutical product, Xarelto™, is marketed in the United States by a subsidiary of Johnson & Johnson. Bayer depends upon the success of these third parties in performing their responsibilities and upon their continued cooperation to successfully market its products in the markets concerned. Inadequate performance by collaboration partners could adversely affect the development of Bayer's sales and costs. Furthermore, some materials, particularly in our Pharmaceuticals segment, are provided by only a very limited number of suppliers. Production may be disrupted by delays in delivery. Price adjustments may also occur that could have a negative impact on the margin for Bayer's products. While Bayer strives to counter these risks by establishing alternative suppliers, concluding long-term agreements, expanding inventories or producing raw materials itself and by employing Strategic Material Review Committees to regularly examine and assess supplier risks, there can be no assurance that these countermeasures will be successful.

There is also a risk that Bayer's corporate values, ethical requirements, compliance and sustainability are not adequately accounted for by its external network and partners. In its selection of new and established suppliers, Bayer applies, in addition to economic standards, certain ethical, environmental, social and governance standards that are defined in the Bayer Group's Supplier Code of Conduct. The Supplier Code of Conduct sets forth Bayer's sustainability principles, explains what Bayer expects from its partners along the value chain, and requires them to observe any relevant legal, regulatory or contractually agreed requirements, generally recognized standards as well as Bayer's standards in areas including environmental protection, occupational safety and human rights. However, there can be no assurance that Bayer's current or future suppliers have fully implemented the Supplier Code of Conduct or that Bayer's supplier assessments and audits will identify all instances of noncompliance with the Supplier Code of Conduct. For a description of risks associated with noncompliance with voluntary commitments, see "1.1.20 *Any actual or perceived violation of the commitments made by Bayer with a view to ensuring sustainable development and ethical conduct in its business activities may damage the reputation of the Bayer brand.*"

**1.1.16 *Bayer's production and procurement activities are exposed to various risks, including in connection with technical failures, natural disasters, regulatory action or legislative changes.***

Risks associated with the manufacturing, filling, storage or shipping of products may result in personal injury, property damage, environmental contamination, loss of production, business interruptions and/or liability for compensation payments. Bayer's quality, health, environmental protection and safety management teams may not be able to fully mitigate such risks.

Operations at Bayer's sites may also be disrupted, among others, by natural disasters such as earthquakes, fires or explosions, pandemics and epidemics, power outages, terrorist attacks, cyber-attacks or other critical events. This also applies to external partners along the value chain. For example, some of our production sites are located in regions that could be affected by natural disasters such as flooding or earthquakes. Such events could result in personal injury and damage to our reputations as well as lead to declines in revenues and/or margins and necessitate the reconstruction of damaged infrastructure.

Disruption may also result from possible regulatory or legislative changes in the respective countries of operation. In biotechnical production especially, disruptions may occur as a result of regulatory non-compliance due to contamination, for example. The complexity of multistage manufacturing processes for active ingredients or biotechnology products strengthens the potential for disruption and may limit product availability. This applies, for instance, to the biotech products of Pharmaceuticals because of their highly complex manufacturing processes, where limitations on and interruptions to product supply could result in product supply shortages in the market. There can be no assurance that Bayer will be able to fully preclude this risk through its numerous preventative actions, including a strategy of distributing production for certain products among multiple sites or of building up safety stocks. If Bayer is unable to meet demand for its products, sales may undergo a structural decline. In



addition, potential infringements of current or changing regulatory requirements may result in the imposition of civil or criminal liabilities, including substantial monetary fines, a restriction on our freedom to operate, and/or other adverse financial consequences. They could also harm Bayer's reputation and lead to declining sales and/or margins.

For example, manufacturing of pharmaceutical products and product candidates is subject to compliance with the Current Good Manufacturing Practices ("cGMP") enforced by the United States Food and Drug Administration ("FDA") and other international regulations. As the responsible manufacturer and supplier, Bayer is liable for any noncompliance with current marketing authorizations, which may involve the shutdown of production facilities and other interruptions of production that could, in turn, lead to third-party litigation and significant costs associated with remedial actions. In addition, health authorities have in some cases imposed significant penalties for failures to comply with cGMP and other applicable regulations. A failure to comply with applicable rules could also lead to a delay in the approval of new products to be manufactured at the impacted site or a refusal to admit products manufactured at the facilities concerned into the market. If any of these risks were to materialize they could have a significant adverse effect on Bayer's ongoing business and results of operations.

In this context, Bayer is currently addressing certain observations related to deficiencies in cGMP raised by the FDA in a "Warning Letter" issued in November 2017 related to one of Bayer's main pharmaceutical production sites, the Supply Center Leverkusen, situated in Leverkusen, Germany. The Supply Center Leverkusen is engaged in the process of drug manufacturing including solid oral dosages forms. The issuance of the Warning Letter followed a routine inspection of the site by the FDA in January 2017, subsequent to which Bayer promptly instituted corrective and preventive actions. Following the receipt of the Warning Letter, a further comprehensive response was submitted, which is currently under review by the FDA. Release and distribution of products from the Supply Center Leverkusen continues. However, due to ongoing remediation and modernization measures at the site, there are certain supply limitations in individual countries, which affect Bayer's mature product portfolio and which are expected to continue to occur during the remainder of 2018. Accordingly, for the three months ended March 31, 2018, temporary supply disruptions for some of Bayer's established Pharmaceuticals and Consumer Health products had a negative impact on these segments' results of operations, as expected. More generally, at this stage in the process, Bayer cannot exclude with certainty that the risks and the significant adverse effects described in the preceding paragraph will materialize.

**1.1.17 *Pharmaceuticals is exposed to pricing pressure resulting from regulation and market conditions, which may negatively impact Bayer's business and results of operations.***

Pharmaceuticals' growth and market share could be impaired by increasing global cost pressure on health systems as well as price regulations. Prices of pharmaceutical products are subject to regulatory monitoring and control in many markets, in part due to global cost pressure on health care systems, and government reimbursement systems often favor less expensive generic medicines over branded products. In addition, in some markets, major health care and health insurance providers can exert substantial pressure on prices, and pharmaceutical companies are coming under increasing pressure to justify the costs of their products as compared to the products' benefits. At the same time, there is considerable uncertainty surrounding the regulatory framework in the United States. Government price controls could reduce earnings from Bayer's pharmaceutical products and may occasionally make the market launch of a new product unprofitable. Furthermore, Bayer's growth and the development of its market share has in the past, and could in the future, be negatively affected by innovative and aggressive (pricing) policies by competitors, including generic competitors. Bayer expects the current extent of regulatory controls and pricing pressures to persist or increase. If such price controls and the pressure on prices intensify, it could be necessary to adjust Bayer's business model, which could have an adverse effect on Bayer's results of operations.

**1.1.18 *Bayer's business operations and financial performance may be affected by variations of weather conditions and other seasonal factors as well as by resistances.***

Crop Science's business operations and financial performance, in particular, are subject to weather conditions and other seasonal factors as well as resistances, which can vary unpredictably from period to period. Specifically, weather conditions can affect the presence of disease and pests in the short term on a regional basis and, accordingly, can affect the demand for crop protection products and the mix of products used. For example, in fiscal year 2017, Crop Science's results were significantly adversely impacted by developments in Brazil (the world's second largest agriculture market), which, among other factors, were caused by variations of weather conditions. Weather conditions may also affect the quality, volume and cost of seeds produced for sale. Seed yields

can be higher or lower than planned and significantly higher yields could lead to Bayer purchasing more seeds from contract growers than can be sold during the limited product life of the seeds, which could lead to inventory provisions and write-offs. In addition, weather conditions have a significant impact on the overall development of the agricultural market and are a significant factor in determining its cyclicity. Furthermore, if weeds or pests show signs of resistance against Crop Science's products and Crop Science is unable to develop and market new formulae or treatments which perform well in the face of resistances, its sales volume could decline. Bayer expects that risks associated with variations of weather conditions and other seasonal factors as well as with resistances will gain further significance as a result of the Transaction, given that Crop Science including Monsanto's business has become Bayer's largest division in terms of net sales as a result of the Transaction. Weather conditions and other seasonal factors may also impact the demand for some of Consumer Health's best-selling products in the cold, allergy, sinus & flu and sun protection categories, which could significantly affect Consumer Health's results of operations.

**1.1.19 Consumer resistance to plant biotechnology may negatively affect Bayer's public image and impact Bayer's sales volumes and revenues.**

Crop Science is active in the field of agricultural biotechnology R&D in, and marketing of, crop protection and seeds, including genetically modified seeds. The high public profile of biotechnology in food production and lack of consumer acceptance of products to which Bayer has devoted substantial resources could negatively affect Bayer's public image and impact Bayer's sales volumes and revenues. The current resistance from consumer groups, particularly in Europe, to genetically modified crops could not only limit Bayer's projected sales in such markets, but also has the potential to spread to and influence the acceptance of products developed through biotechnology in other regions of the world. Opposition to plant biotechnology in cultivation countries and in some import regions appears to be a long-lasting trend impacting major seed markets globally. Declining acceptance of biotechnology could have a negative impact on public policy and restrict businesses' freedom to operate, which could materially and adversely affect Bayer's future sales volumes and revenues.

Moreover, as a result of the Transaction, Bayer's risk profile is expected to shift, and Bayer anticipates that risks associated with biotechnology products, such as those described above, will gain further significance. For a description of risks associated with Monsanto's biotechnology products, see "1.2.5 *The lack of public understanding and acceptance or perceived public acceptance of Monsanto's biotechnology and other agricultural products as well as of the merits of the Transaction could harm Bayer's reputation and, as a consequence, negatively affect Bayer's business and results of operations.*"

**1.1.20 Any actual or perceived violation of the commitments made by Bayer with a view to ensuring sustainable development and ethical conduct in its business activities may damage the reputation of the Bayer brand.**

Many stakeholders evaluate companies according to whether they conduct themselves not just "legally" but also "legitimately." The Bayer Group is dedicated to maintaining its sustainable development and addressing its social and ethical responsibilities in all areas of its business activity. For example, Bayer is a founding member of the United Nations Global Compact, a strategic initiative for companies that undertake to align their business activities and strategies with ten universally recognized principles in the areas of human rights, labor standards, environmental protection and the fight against corruption. Bayer also supports the chemical industry's Responsible Care™ initiative, a voluntary commitment to conserve natural resources, safely operate facilities and minimize the environmental impact of Bayer's activities. Bayer's commitment to sustainable development is reflected in its inclusion in major sustainability indices that assess companies according to environmental, social and governance criteria.

With the aim of ensuring the sustainability of its activities along the entire value chain, Bayer has introduced a Supplier Code of Conduct and conducts supplier assessments and audits to verify implementation and compliance by its third-party partners. For more information, see "1.1.15 *Bayer's dependence on external partnerships, including with suppliers, could adversely impact Bayer's business, operations and reputation.*"

Any actual or perceived violation of Bayer's voluntary commitments, such as the United Nations Global Compact, the Responsible Care™ initiative or the Supplier Code of Conduct, and any resulting adverse media reporting or negative public perception of Bayer may damage the reputation of the Bayer brand.

**1.1.21 *There can be no assurance that Bayer will be able to recruit and retain a sufficient number of qualified employees at all sites in the future and difficulties in recruiting, retaining and further developing specialized employees could have significant adverse consequences for Bayer's future development.***

Skilled and dedicated employees are essential for Bayer's success. Particularly in countries with full employment and in the emerging markets of Asia and Latin America, the number of people with the technical and language skills needed to meet the demanding requirements of an international enterprise remains relatively small. Globally, the recruitment of talent in the areas of new technologies, e.g., digital and biotechnology, in particular, is challenging. Accordingly, those who possess these skills are highly sought after. Difficulties in recruiting, hiring, retaining and further developing specialized employees could have significant adverse consequences for Bayer's future development. Furthermore, an inadequate or non-transparent company culture and strategy, as well as the resulting objectives and demands placed on employees, may lead to declining motivation and unsatisfactory performance and have a negative impact on Bayer's attractiveness as an employer.

**1.1.22 *Bayer is dependent on the uninterrupted operation of its global information technology systems.***

Business and production processes and the internal and external communications of the Bayer Group are dependent on global information technology systems. The confidentiality of internal and external data is of fundamental importance in this connection. Information systems are generally susceptible to disruptions, damage, power outages, malicious attacks, computer viruses, fire and similar events. The disruption or interruption of the operation of these systems or the loss of important data, for example due to cyber-crime or during transition of data to an outsourced provider cannot be ruled out. In addition, the overall risk of cyber-attacks is increasing. Security vulnerabilities in information technology solutions and insufficient contingency planning measures may lead to incidents that affect the entire Bayer Group. A significant technical disruption or failures of information technology systems could severely impair Bayer's business and production processes. A loss of data confidentiality, integrity or authenticity, for example due to cyber-attacks, could lead to manipulation and/or the uncontrolled outflow of data, including customer, vendor, employee, research, patient, product, production and other data, and know-how, which could, in turn, expose the Bayer Group to liability and reputational harm.

Bayer's information technology systems are continuously extended, upgraded and decommissioned. Acquisitions such as that of the consumer care business of Merck & Co., Inc. and of Dihon Pharmaceutical Group Co. Ltd. have also required or, with respect to the Transaction, are expected to require the integration of different information technology systems and software applications. During such integration phases, the interaction and interdependencies between various components can in some cases make the systems more susceptible to disruptions than in cases where entire systems are brought into service at the same time. The integration and improvement of systems requires additional efforts, particularly by means of efficient monitoring. Bayer expects its exposure to IT related risks and cyber-attacks to increase as a result of the Transaction, see "1.2.3 *As a result of the Transaction, Bayer's risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively.*"

**1.1.23 *The Bayer Group is exposed to financial risk, including liquidity, credit and market price risks.***

Liquidity risks reflect the possible inability of the Bayer Group to meet current or future payment obligations due to a lack of cash or cash equivalents.

Credit risks arise from the possibility that the value of receivables or other financial assets of the Bayer Group may be impaired because counterparties, including financial institutions in case of a renewed financial markets crisis, cannot meet their payment or other performance obligations. The maximum default risk is reduced by existing collateral, especially under Bayer's global credit insurance programs. Positive and negative fair values of derivative financial instruments may be netted when certain conditions are fulfilled.

Foreign currency risks for the Bayer Group result from changes in exchange rates and the related changes in the value of financial instruments (including receivables and payables) and of anticipated payment receipts and disbursements in the functional currency. For example, in a hypothetical adverse scenario in which the euro depreciates by 10% against all other currencies compared with the exchange rates as of March 31, 2018, the estimated hypothetical loss of cash flows from derivative and non-derivative financial instruments would have diminished earnings and equity (other comprehensive income) of the Bayer Group (excluding Monsanto) as of March 31, 2018 by €332 million (December 31, 2017: €346 million). Of this amount, €131 million is related to the U.S. dollar, €65 million to the Chinese renminbi, €42 million to the Japanese yen and €38 million to the Canadian

dollar. Currency effects on anticipated exposure are not taken into account. Derivatives used to hedge anticipated currency exposure that are designated for hedge accounting would have diminished equity by €346 million. For the exchange rate related risks associated with the Transaction, see “1.2.13 *Fluctuations in exchange rates could have a significant impact on the amount of debt Bayer incurs and the results of operations of Bayer following completion of the Transaction.*” As a result of the Transaction, Bayer expects its exposure to foreign currency risks to increase in light of the geographical scope of Monsanto’s business, see “1.2.3 *As a result of the Transaction, Bayer’s risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively.*”

Interest-rate risks result for the Bayer Group through changes in capital market interest rates, which in turn could lead to changes in the fair value of fixed-rate financial instruments and changes in interest payments in the case of floating-rate instruments. For example, a sensitivity analysis based on the net floating-rate receivables and payables position of the Bayer Group (excluding Monsanto) as of March 31, 2018, taking into account the interest rates relevant for its receivables and payables in all principal currencies, produced the following result: a hypothetical increase of 100 basis points or one percentage point in these interest rates (assuming constant currency exchange rates) as of January 1, 2018 would have raised Bayer’s interest expense for the three months ended March 31, 2018 by €11 million (December 31, 2017: €13 million). For the interest rate related risks associated with the Transaction, see “1.2.12 *Fluctuations in interest rates could have a significant impact on the results of operations of Bayer following completion of the Transaction.*”

**1.1.24 *The Bayer Group faces risks from capital market developments in connection with its pension and post-employment benefit obligations.***

The Bayer Group has obligations to current and former employees related to pensions and other post-employment benefits. Changes in relevant valuation parameters such as interest rates, mortality and rates of increases in compensation may raise the present value of Bayer’s pension obligations. This may lead to increased costs for pension plans or diminish equity due to actuarial losses being recognized in other comprehensive income.

A large proportion of Bayer’s pension and other post-employment benefit obligations is covered by plan assets including fixed-income securities, shares, real estate and other investments. Declining or even negative returns on these investments may adversely affect the future fair value of plan assets. This in turn may diminish equity, and/or it may necessitate additional contributions by Bayer.

**1.1.25 *There can be no assurance that Bayer’s internal control system provides adequate protection against errors in the Group’s financial statements or against financial loss resulting from incorrect Group financial statements.***

Bayer has an internal control system in place for the Group’s accounting and financial reporting. This internal control system is designed to identify and prevent errors in the Group’s financial statements, to protect Bayer against financial loss resulting from incorrect Group financial statements and to ensure timely, accurate and meaningful documentation of processes relevant to the internal control system. However, due to the risk-based approach of Bayer’s internal control system, there can be no assurance that the internal control system, irrespective of its design, fully protects Bayer against material misstatements, which might, for example, result from intentional or unintentional omitted posting of business transactions (incomplete postings), erroneous posting of business transactions (incorrect postings), erroneous evaluation of assets, stocks, overdue receivables and the like, incorrect consolidation of a legal entity’s financial statements and incorrect configuration of financial systems as well as other irregularities.

**1.1.26 *Bayer is subject to certain anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations with respect to its operations and noncompliance with such laws and regulations may subject Bayer to criminal and/or civil liability and harm its business and reputation.***

Bayer is subject to certain anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations, including in the United States, the United Kingdom and other foreign jurisdictions, in which it conducts its operations. Anti-corruption laws are often interpreted broadly and may prohibit companies, their employees as well as their third-party partners, such as agents, clinical research organizations, legal counsels, accountants, consultants, contractors and other partners, from authorizing, promising, offering, providing, soliciting or receiving, directly or indirectly, corrupt or improper payments or anything else of value to or from recipients in the public or private sector. Bayer and its third-party partners may have direct and/or indirect interactions with

officials and employees of government agencies or government-affiliated hospitals, universities and other organizations, including in connection with obtaining necessary permits, licenses, patent registrations and other regulatory approvals. Bayer could, depending on the circumstances, be held liable for the corrupt or other illegal activities of its personnel and third-party partners. In addition, to the extent that there is a finding of potentially non-compliant behavior in connection with contracts involving public sector entities, including multi-lateral international financial institutions, Bayer may be barred from participating in such entities' public tenders for a certain period of time. Any of the foregoing could not only harm Bayer's business, but also its reputation. Accordingly, Bayer has established a global compliance management system to ensure the observance of laws and regulations. See also "1.1.15 Bayer's dependence on external partnerships, including with suppliers, could adversely impact Bayer's business, operations and reputation." In this context, the World Bank has reviewed certain World Bank-financed contracts involving the procurement of Bayer manufactured contraceptive pharmaceuticals by the governments of Bangladesh and Nepal. In a letter to Bayer in March 2018, the World Bank concluded it believes that there is sufficient evidence of a sanctionable practice and recommended that a sanctions case be brought against Bayer. Bayer has conducted internal investigations with the assistance of independent counsel and has strongly rejected the allegations in a written response to the World Bank. The dialogue with the World Bank continues and at this point in time, no statements on the outcome of this exchange and potential disadvantages for Bayer that may result therefrom can be made.

Export control, sanctions, and other trade laws and regulations restrict Bayer's business dealings with certain sanctioned countries, persons and/or organizations. Bayer has operations in several countries that may be subject to various sanctions. Accordingly, Bayer has implemented compliance procedures to ensure that Bayer's operations with respect to these countries comply with all applicable sanctions. However, there can be no assurance that other persons and entities with whom Bayer now, or in the future, may engage in transactions will not become subject to sanctions, that the countries in which Bayer currently operates will not be subject to further and more restrictive sanctions in the future and that additional sanctions will not be imposed on other countries or entities with which Bayer does business.

**1.1.27 Due to a complex multi-level group structure and the extended geographic reach of Bayer's business activities, Bayer could incur greater tax liabilities than expected and be affected by changes to the regulatory framework in particular in relation to the non-deductibility of interest payments, the future tax treatment of dividend payments in various jurisdictions and the introduction of additional taxes.**

The companies of the Bayer Group operate in many countries that have complex tax systems and their taxation depends on various aspects of tax laws and regulations, including double taxation treaties concluded, in numerous jurisdictions, as well as their respective application and interpretation. Due to the nature of operating activities performed by Bayer, the tax issues Bayer faces are complex. This could lead to disputes with tax authorities and could further lead to an increase in tax liabilities, even for past periods. Bayer has a multi-level corporate and capital structure in place and future changes in the tax treatment of intra-group distributions in various jurisdictions or the introduction or tightening rules restricting the tax deductibility of interest expenses, as currently discussed in various jurisdictions, could lead to an increase in Bayer Group's overall tax burden. All these effects and, in addition, the introduction of new customs duties, levies or other fees or increases in existing ones, or other adverse developments of relevant tax laws or the application thereof, could adversely affect the Group's business, financial condition, results of operations and prospects.

**1.1.28 Pending and future tax audits and changes to the interpretation of fiscal regulations could lead to additional tax liabilities.**

The companies of the Bayer Group are subject to routine tax audits by various tax authorities in the jurisdictions in which they operate. Pending and future audits in any of the jurisdictions in which Bayer operates may result in additional tax and interest payments which would negatively affect Bayer's results of operations and financial condition. This may be the case, for example, with respect to major acquisitions, divestitures, restructurings and other reorganizations that the Bayer Group underwent in the past. Besides this, the Bayer Group operates tax groups and fiscal unities in a number of jurisdictions throughout the world whose existence or due operation could be challenged by the respective local tax authorities. Complex tax regulations may give rise to uncertainties with respect to their interpretation and the amount and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements of the Bayer Group, differences arising between actual results and the assumptions made, or future changes to such assumptions could necessitate adjustments to tax income and expenses in the future. The Bayer



Group establishes provisions for taxes for liabilities to the tax authorities of the respective countries that are uncertain as to their amount and the probability of their occurrence. The amount of such provisions is based on various factors, such as experience with previous tax audits and differing legal interpretations by the taxable entity and the responsible tax authority. It cannot be excluded that the provisions established may prove insufficient to cover the pertaining risks. Changes in fiscal regulations or the interpretation of tax laws by the courts or the tax authorities in any of the jurisdictions in which Bayer conducts its business may also have adverse consequences for the Bayer Group.

**1.1.29 *Bayer may be exposed to potential risks in connection with the recent U.S. tax reform, which cannot be fully assessed at this point in time.***

On December 22, 2017, the United States enacted new tax legislation, the “Tax Cuts and Jobs Act of 2017,” which provides for substantial changes to the U.S. taxation of individuals and businesses and aims to attract new investments, jobs and growth in the United States. Although the new law decreases tax rates applicable to corporations in the United States substantially, Bayer is unable to fully or finally assess what all of the consequences of the legislation will be at this point in time. In particular, significant uncertainties remain as to how the U.S. government will implement the new legislation, including with respect to the deductibility of interest expense, participation exemption regime, one-time transition tax, minimum tax on so-called ‘global intangible low-tax income’ and base erosion and anti-abuse tax.

While Bayer has recorded certain one-time effects in an aggregate amount of €455 million in connection with the U.S. tax reform, which result from the revaluation of deferred tax items and the recognition of an additional tax on unrepatriated profits in its consolidated financial statements as of and for the year ended December 31, 2017, overall, Bayer currently expects the U.S. tax reform to have a favorable impact on the Group in coming years.

Since the legislation is new and unclear in many respects, Bayer expects additional rules and regulations to be issued in the medium term. This could entail potential risks that cannot be fully assessed at this point in time. In particular, it cannot be excluded that Bayer’s tax positions may be affected by such future legislative and regulatory action, which could lead to an increase in Bayer’s effective tax rate and could adversely affect its financial condition and results of operations. For information on the expected impact of the U.S. tax reform on the combined business and operations of Bayer and Monsanto and associated risks, see “1.2.3 *As a result of the Transaction, Bayer’s risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively.*”

**1.1.30 *Bayer is exposed to financial risks from the development of the price of the shares in Covestro AG.***

At the end of September 2017, Bayer lost control of its subsidiary Covestro AG due to the sale of shares and the signing of a control termination agreement. As a result, Covestro AG and its consolidated subsidiaries (“**Covestro**”) were no longer required to be fully consolidated in Bayer’s consolidated financial statements and Covestro ceased to be a reportable segment of the Bayer Group. While Covestro’s operative risks are therefore no longer a part of Bayer’s risk profile, Bayer remains exposed to financial risks in connection with the remaining direct interest of 6.8% it currently holds in Covestro AG, which is accounted for as other financial asset measured at fair value through profit or loss. Bayer therefore is exposed to financial risks from the development of the price of the shares in Covestro AG (the “**Covestro Shares**”), which may impact the value of its remaining equity interest. In addition, in connection with senior, unsecured exchangeable bonds in a nominal amount of €1.0 billion due 2020, with a coupon of 0.05% per annum issued by Bayer in June 2017, which may either be settled in cash or by delivery of Covestro Shares or by a combination thereof (the “**Exchangeable Bonds**”), Bayer faces the risk that at maturity of the Exchangeable Bonds the price of the Covestro Shares could be lower than the conversion price for the Exchangeable Bonds, in which case Bayer would be required to fund the difference.

## 1.2 Risks Related to the Acquisition of Monsanto

### 1.2.1 ***Certain divestiture actions and other commitments that Bayer was required to undertake in connection with obtaining regulatory approvals to complete the Transaction could negatively impact Bayer's strategic planning and necessitate substantial adjustments to its operational and financial structures, which, in turn, could have a material adverse effect on the current and future business, results of operations, financial condition and prospects of Bayer. In addition, there is a limited residual risk that additional remedies could be required.***

In connection with obtaining required antitrust and other regulatory approvals to complete the Transaction, Bayer was required to commit to the divestiture of certain of its assets and businesses to third parties, to agree to restrictions on its ability to operate in certain jurisdictions following completion of the Transaction and to make certain other commitments to regulatory authorities regarding ongoing operations.

In this context, Bayer, in separate transactions entered into in October 2017 and April 2018, respectively, has agreed to sell selected Crop Science businesses to BASF SE, Ludwigshafen, Germany, for an aggregate base purchase price of approximately €7.6 billion (the “**Transaction-related Divestments**”). The base purchase prices agreed will be subject to customary purchase price adjustment mechanisms and, with respect to the transaction entered into in October 2017, will be reduced by €0.2 billion at closing as a result of the Transaction not having closed by January 1, 2018. The businesses to be divested generated total sales of €2.2 billion for the fiscal year ended December 31, 2017 and of €0.9 billion for the three months ended March 31, 2018. The agreements relating to the Transaction-related Divestments contain both customary and divestment-specific representations and warranties, interim operating covenants and indemnities in respect of the assets being sold. They also require Bayer and BASF to enter into certain transition services agreements (including for services from BASF to Bayer) at closing, as well as long-term agreements in respect of product supply, tolling services, distribution services, intellectual property, site cooperation, site leasing and other long-term arrangements.

Until the closing of the Transaction-related Divestments, Bayer and Monsanto will be held separate as required by the U.S. Department of Justice. Bayer currently expects to be able to commence the integration of the two organizations in approximately two months. However, if the expected timing for completion of the Transaction-related Divestments were to be unduly delayed, the expected integration timeline could slip, which could delay the achievement of Bayer's strategic objectives as well as synergies and other operational targets in connection with the Transaction.

Following completion of the Transaction-related Divestments, Bayer will remain active in the areas covered by the Transaction-related Divestments as a result of the programs, products and offerings it has acquired from Monsanto upon completion of the Transaction and it has also taken the Transaction-related Divestments into account in developing the strategic objectives, synergy and other operational targets for the Combined Agriculture Business. However, the Transaction-related Divestments will require certain adjustments to Bayer's strategic and business planning in the near-term and the impact of the Transaction-related Divestments in the medium to long term cannot be assessed with certainty at this stage. See also “1.2.2 Bayer's strategic objectives and operational targets for the Transaction are based on certain assumptions and estimates by Bayer's management that may prove inaccurate, including the ability to benefit from the Combined Agriculture Business's improved innovation capabilities, as well as future macroeconomic and market developments.”

In addition, in connection with obtaining regulatory approvals to complete the Transaction in certain jurisdictions, Bayer and Monsanto have been required to make certain other commitments, including behavioral commitments, which, among others, involve the granting of licenses to certain of the Combined Agriculture Business's technologies and licensing practices, the transparency of commercial policies and the organization of distribution and sales activities. Furthermore, as part of the review process by the Committee on Foreign Investment in the United States, Bayer entered into a National Security Agreement (“**NSA**”) with the United States Government. Among other matters, the NSA requires U.S. governmental approval of certain transfers of asset ownership, which may *inter alia* apply in the event of a change of control of Bayer. The NSA also provides for certain corporate governance requirements to ensure compliance with its terms.

The measures described above could negatively impact Bayer's strategic planning, necessitate substantial adjustments to its operational and financial structures and, accordingly, could have a material adverse effect on the current and future business, results of operations, financial condition and prospects of Bayer.

As a formal matter, even after closing of the Transaction on June 7, 2018, there is a limited residual risk that additional remedies related to the divestments already agreed may be required by the EU Commission or the

U.S. Department of Justice, should they conclude that this would be necessary in order for the agreed purchaser BASF to operate the divested businesses effectively.

**1.2.2 *Bayer's strategic objectives and operational targets for the Transaction are based on certain assumptions and estimates by Bayer's management that may prove inaccurate, including the ability to benefit from the Combined Agriculture Business's improved innovation capabilities, as well as future macroeconomic and market developments.***

Through the Transaction, Bayer intends to create an agriculture business offering advanced customized agronomic solutions designed to help farmers achieve the productivity increases needed to feed an ever growing world population. In line with its strategic priorities to be a world-class life science company, Bayer intends, through the Transaction, to create a global leader committed to transforming agriculture, which offers advanced customized agronomic solutions, seeds and traits, as well as crop protection tailored to farmers' needs and enhanced by digital agronomic advice.

Bayer believes the agricultural industry offers long-term growth prospects driven by sustainable megatrends, including projected global population growth, higher protein intake, declining total size of farmland per capita and negative effects on yields resulting from climate change. Bayer anticipates that, as a result, a significant increase in productivity will be required to meet the future demand for food and feed products. Bayer is convinced the Transaction brings together two highly complementary businesses and expects the Combined Agriculture Business to benefit from Monsanto's seeds and traits, its digital farming platform and Bayer's broad crop protection product line across a comprehensive range of indications and crops.

On an operational level, Bayer anticipates the integration of Monsanto to result in significant cost- and sales related synergies and estimates approximately US\$1.2 billion in annual synergies (net EBITDA impact before special items) as of 2022. The cost synergy target now amounts to approximately US\$ 1.0 billion net EBITDA impact before special items, compared to an initial cost synergy estimate of US\$ 1.2 billion net EBITDA impact before special items announced in September 2016. The reduction of the synergy target reflects the divestments related to remedies required by regulatory authorities. The larger than expected scope of divestments reduces the basis (e.g., through the transfer of the cost base) underlying the initial cost and sales synergy estimate. Bayer expects approximately 70% of the cost synergies to stem from savings in selling, general and administrative expenses. Bayer expects that the ramp-up of cost synergies will follow a typical, back-end loaded pattern and anticipates related, cumulative one-time costs required to generate these synergies to amount to approximately US\$1.5 billion until 2022. With regard to expected sales synergies, Bayer targets to achieve approximately US\$200 million net EBITDA impact before special items as of 2022. Bayer expects that more than 60% of the targeted sales synergies will be generated in four countries (U.S., Brazil, Argentina and Mexico). Bayer anticipates deriving sales synergies mainly from a broader product portfolio of seed and crop protection products and a greater geographic footprint by combining sales forces. The full synergy potential of the combined business and operations of Bayer and Monsanto is expected to be realized in the medium to long term. Bayer expects further sales synergies to be driven by a stronger offering of customized agronomic solutions to farmers as well as joint innovation capabilities and innovative systems and technology applications. From an earnings perspective, Bayer plans to have its shareholders benefit from accretion to core earnings per share in 2019 and, as of 2021, expects accretion to increase to double-digit percentage figures.

Bayer's strategic objectives, synergy and other operational targets and earnings impact expectations with respect to the Transaction are based on certain assumptions and estimates by Bayer's management that may prove inaccurate, including, in particular, (i) Monsanto's sales growth, earnings, cash flow potential and cost bases, (ii) the ability to consolidate Monsanto's and Bayer's cost base in terms of selling, general and administrative expenses, R&D cost and cost of goods sold, (iii) the ability to benefit from the Combined Agriculture Business's improved innovation capabilities, as well as (iv) future macroeconomic, market and regulatory developments. For example, from a longer term perspective, there is a risk that the agricultural industry may not grow in size, or not grow as predicted, and that the business combinations of other market participants could further increase competition and render profit margins less attractive than anticipated. Moreover, it cannot be excluded that regulatory scrutiny or political decisions in major countries may lead to the revocation of registration or the restriction of application for important products in the portfolio of the Combined Agriculture Business. Should any of Bayer's assumptions and estimates underlying expected targets prove inaccurate, this could lead to the business combination with Monsanto falling short of Bayer's synergy forecast and other forecasts and the expectations of market participants.



Overall, the anticipated synergies and earnings impacts described in the foregoing are based on current assumptions with regard to U.S. GAAP to IFRS conversion which could impact the timing of revenue and income recognition, and foreign exchange rate assumptions for key currencies. Accordingly, updates of the anticipated synergies and earnings impacts made in the future, if any, and, ultimately, the actual synergies and earnings impacts achieved may differ from the anticipated synergies and earnings impacts described in the foregoing, including in terms of the timing of their realization. Such differences may be significant.

In addition, the integration of Monsanto's business entails certain risks, which may impair Bayer's ability to realize the anticipated benefits from combining the businesses of Bayer and Monsanto. See also "1.2.6 *In connection with the integration of Monsanto's business, Bayer could encounter difficulties that may disrupt its operations or otherwise negatively affect its business and results of operations, and may jeopardize the realization of the expected benefits of the Transaction.*"

If Bayer's strategic objectives, operational targets and earnings impact expectations with respect to the Transaction are not met, or not met in full or take longer to realize than expected and the Transaction turns out not to be accretive to Bayer's core earnings per share to the expected extent or within the expected timeframe or at all, this could negatively affect the market price of Bayer's shares and future dividend payments. In addition, no assurance can be given that a corresponding benefit will be available to offset the costs, including transaction and integration costs, incurred by Bayer in connection with the Transaction. The integration of two companies of significant size, domiciled in different countries entails considerable challenges. Therefore, the contemplated synergy effects may prove impossible to realize, in whole or in part.

**1.2.3 As a result of the Transaction, Bayer's risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively.**

As a result of the Transaction, the importance of Crop Science for the Bayer Group has increased significantly, taking into account that the Combined Agriculture Business would have contributed nearly half of the sales of the Bayer Group in life sciences on an aggregated basis for 2017. In addition, the operational focus of Crop Science is expected to shift as a result of the strengthening of the seeds and traits business. As a result, Bayer's risk profile may change and risks that have previously not been relevant or less relevant in the Group's overall risk assessment may gain significance. In addition, there may also be new risks associated with the Combined Agriculture Business, of which Bayer is currently not yet aware or which it is not yet able to assess conclusively. For a description of the risks which may arise in connection with the integration of Monsanto see "1.2.6 *In connection with the integration of Monsanto's business, Bayer could encounter difficulties that may disrupt its operations or otherwise negatively affect its business and results of operations, and may jeopardize the realization of the expected benefits of the Transaction.*"

From today's perspective, Bayer believes that it may face increased or additional risks principally in the areas described below as a result of the Transaction. The following discussion is not meant to be exhaustive and, in addition, other risks and unexpected issues may arise that Bayer is currently unaware of or unable to assess:

- *Increased reputational risks:* Bayer expects to face increased reputational risks due to the public perception of Monsanto, the Combined Agriculture Business and its products, especially the *Roundup* branded herbicides and other glyphosate-based herbicides, and products involving genetically modified organisms in some parts of the world. See "1.2.5 *The lack of public understanding and acceptance or perceived public acceptance of Monsanto's biotechnology and other agricultural products as well as of the merits of the Transaction could harm Bayer's reputation and, as a consequence, negatively affect Bayer's business and results of operations.*"
- *Exposure to additional regulatory and legal requirements and risks:* As a result of the Transaction, the Bayer Group may face additional regulatory and legal requirements, such as those resulting from Monsanto's stronger focus on seed, modified plant traits and phosphate mining. Related operations require permits and are subject to requirements relating to the development, manufacture and distribution of products, including with respect to the testing and planting of seeds containing biotechnology traits and the import of crops grown from those seeds. The detection of the presence of biotech traits not approved in the country of planting may affect seed availability or result in export disruption, compliance action, such as crop destruction, product recalls or litigation. Monsanto's products may require approvals which the Combined Agriculture Business may not be able to obtain or maintain and, as a result, the sale of the

Combined Agriculture Business's products may be restricted or prohibited. For example, low volatility dicamba herbicides approved for use with dicamba-tolerant soybeans and cotton, including Monsanto's *XtendiMax* with *VaporGrip* Technology ("**XtendiMax**") formulation, are facing off-target-movement concerns in the United States. In October, 2017, the EPA approved updated labels for these products, including a "restricted use pesticide" designation, which will limit sale and use to certified applicators or those acting under their supervision. Additional measures imposed, some by state regulatory bodies, for example include further restrictions on the time of day for application, on the dates during which in-crop applications of the approved formulations can be made and on maximum temperatures for spraying the products. One state has imposed a ban from April 16, 2018 to October 31, 2018. In addition, several non-governmental organizations have brought suit against the EPA, in which Monsanto has intervened, challenging over-the-top approval of *XtendiMax*, and multiple growers have filed actions against Monsanto alleging crop damage and antitrust violations. These actions are currently pending in federal court. It cannot be excluded that regulatory scrutiny or legal action may lead to the imposition of further application restrictions or expiration or invalidation of the *XtendiMax* registration at the state and/or federal level. The likelihood and the business impact of such additional restrictions being imposed, which could also affect Dicamba-tolerant crop systems offered by Monsanto, cannot be assessed conclusively at this point in time. While the EU approval for Monsanto's herbicide active ingredient glyphosate was renewed for five years at the end of November 2017, each EU member state is responsible for the authorization of plant protection products containing glyphosate on a national level. This may lead to restrictions in some countries within the EU, subject to certain provisions and assessments they have to take into account in their decision making. Similarly, in the United States, glyphosate is currently undergoing a routine regulatory review of the pesticide registration, which may result in new labeled use restrictions. In addition, in the United States Monsanto is faced with multiple personal injury actions in state and federal courts regarding glyphosate. See also, "1.1.6 *There can be no assurance that Bayer will identify a sufficient number of research candidates and that Bayer's products will receive and maintain any necessary regulatory approvals, and any increase in regulatory and legal requirements, including as a result of higher public expectations, could lead to more costly and lengthy registration or approval procedures and could impair or preclude Bayer's product development and commercialization efforts.*" and "1.2.4 *As a result of the Transaction, Bayer has assumed the litigation risk arising in connection with Monsanto's pending and future litigation. Adverse outcomes in legal proceedings, including environmental remediation matters, could subject the Bayer Group to substantial damages and adversely affect the Bayer Group's results of operations.*"

- *Increased exposure to certain geographical regions:* Given the geographical scope of Monsanto's operations, which have a strong focus on North and South America, Bayer's exposure to certain geographical regions characterized by greater economic and political uncertainty and greater market volatility, including in particular Argentina, Mexico and Brazil, has increased as a result of the Transaction. See also, "1.1.1 *Sales and growth of the Bayer Group are dependent on the conditions of the global economy in general and of the economies where the Bayer Group operates in particular.*" and "1.1.2 *Continued elevated levels of political and economic uncertainty could have unpredictable consequences for the markets in which Bayer operates and for the greater economy.*" In addition, Bayer expects its exposure to foreign exchange risk to increase, in particular as regards the exchange rate of the euro to the U.S. dollar, but also to important Latin American currencies such as the Argentine peso, the Mexican peso and the Brazilian real. Finally, given that the planting seasons in a significant part of the geographical regions that Monsanto operates in, most notably Latin America, are not aligned with Bayer's fiscal year, the predictability of earnings and cash flows for the business at the beginning of Bayer's fiscal year is expected to decrease. See also "1.1.3 *Actual macroeconomic and market developments may deviate from those that Bayer's management expects and may have predicted, which could adversely affect Bayer's results of operations, and if assumptions made in preparing Bayer's financial and operational forecasts or estimates prove inaccurate, Bayer's actual performance may fall materially short of its forecasts or estimates or the expectations of market observers.*"

- *Fluctuations in commodity prices:* As a result of the strengthened seeds and traits business, Bayer's exposure to commodity prices can be expected to increase, given that production of seeds is contracted with growers at fair value and the seeds are retained in inventory until sold. These purchases are expected to constitute a significant portion of the manufacturing costs for the Combined Agriculture Business's seeds. In addition, costs associated with chemical manufacturing operations that use chemical intermediates and energy, which are subject to increases in price as the costs of oil and natural gas increase, can be expected to increase.
- *Inability to effectively monetize the Combined Agriculture Business's IP:* Competitors, farmers, or others in the chain of commerce may raise legal challenges to Monsanto's rights or illegally infringe on its rights, including through means that may be difficult to prevent or detect. For example, the practice by some farmers of saving seeds from non-hybrid crops (such as soybeans, canola and cotton) containing Monsanto's biotechnology traits has prevented Monsanto and may continue to prevent the Combined Agriculture Business from realizing the full value of its intellectual property, particularly outside the United States.
- *Increased tax risk:* The combination of two global businesses such as Bayer's and Monsanto's entails inherent tax risks that are being identified and will need to be addressed in the course of the integration of Monsanto into the Bayer Group. In particular, potential adverse impacts arising out of the different corporate and capitalization structures as well as business structures of Bayer and Monsanto on Bayer Group's tax situation will need to be assessed. Besides this, Bayer Group's exposure to the tax environment in emerging markets, including jurisdictions with complex tax systems and multifaceted enforcement procedures will increase as a result of the Transaction. In addition, on December 22, 2017, the United States enacted new tax legislation, the "Tax Cuts and Jobs Act of 2017." While Monsanto has disclosed certain provisional estimates in its income tax provisions for the six months ended February 28, 2018 it is still in the process of evaluating the impact this law will have on its consolidated financial statements and calculating the related impact to its tax expense. Monsanto expects the largest impact to it from this legislation to be from the provisions that lower the Federal corporate tax rate to 21% beginning on January 1, 2018, and impose a one-time transition tax on earnings outside the United States that have previously not been subject to United States tax, which must be paid beginning in fiscal 2019 through fiscal 2026. The adjustments to Monsanto's tax expense for this legislation could materially affect its consolidated financial statements and will be recorded beginning in the period of enactment. While Bayer currently does not expect an overall negative impact of the U.S. tax reform, as regards the 'global intangible low-tax income' ("GILTI") provision, which applies a minimum tax on GILTI earned by non-U.S. affiliates that are partially or wholly owned by U.S. companies, Bayer currently estimates that such provision could have an impact, depending on the ultimate U.S. ownership of non-U.S. affiliates after integration of Monsanto. Bayer expects additional rules and regulations to be issued in the medium term. This could entail potential risks that cannot be fully assessed at this point in time. In particular, it cannot be excluded that Bayer's positions described above may be affected by such future legislative and regulatory action, which could lead to an increase in the Bayer Group's effective tax rate and could adversely affect its financial condition and results of operations. See also "1.1.29 Bayer may be exposed to potential risks in connection with the recent U.S. tax reform, which cannot be fully assessed at this point in time."
- *Heightened security and IT risks:* Opponents of agricultural biotechnology have attacked, and may in the future attack, farmers' fields and facilities used by agricultural biotechnology companies such as Monsanto. Bayer expects its exposure to such attacks, also in the form of cybersecurity incidents, to increase as a result of the Transaction. Security breaches and disruptions to IT systems could seriously harm the Bayer Group's operations. See also "1.1.22 Bayer is dependent on the uninterrupted operation of its global information technology systems."
- *Potential downgrade in sustainability ratings:* There is also a risk that Bayer's sustainability ratings may be downgraded as a result of the Transaction. This could mean that Bayer may no longer satisfy the investment criteria of certain sustainability-oriented investors. Any negative

effects on Bayer's reputation or potential downgrades in sustainability ratings resulting from the Transaction could lead to a decline in the price of the Notes.

**1.2.4 As a result of the Transaction, Bayer has assumed the litigation risk arising in connection with Monsanto's pending and future litigation. Adverse outcomes in legal proceedings, including environmental remediation matters, could subject the Bayer Group to substantial damages and adversely affect the Bayer Group's results of operations.**

As disclosed in its annual report on Form 10-K and its interim reports on Form 10-Q, from time to time, Monsanto has been and continues to be involved in lawsuits concerning intellectual property, biotechnology, torts, contracts, antitrust allegations, product claims and other matters, as well as governmental inquiries and investigations or litigation against government regulators concerning prior regulatory approvals. Pending and future lawsuits and governmental inquiries and investigations may have outcomes that may be significant to the Bayer Group's results of operations in the period recognized or limit the ability to engage in business activities. While Monsanto has insurance related to its business operations, it may not apply to or fully cover any liabilities incurred as a result of these lawsuits. In addition, Monsanto is required to indemnify its former parent Pharmacia LLC ("**Pharmacia**") for certain liabilities that are primarily related to Pharmacia's former chemical and agricultural businesses. Monsanto has recorded reserves for potential liabilities where it believes the liability to be probable and reasonably estimable. However, actual costs may be materially different from this estimate. The degree to which the Bayer Group may ultimately be responsible for the particular matters reflected in the reserve is uncertain.

In particular, Monsanto has disclosed the following in its annual report on Form 10-K and its interim reports on Form 10-Q in relation to its environmental and litigation liabilities and certain material proceedings it is defending:

Monsanto is involved in environmental remediation and legal proceedings to which Monsanto is party in its own name and proceedings to which its former parent, Pharmacia, or its former subsidiary, Solutia, Inc. ("**Solutia**"), is a party but that Monsanto manages and for which Monsanto is responsible pursuant to certain indemnification agreements. In addition, Monsanto has liabilities established for various product claims. With respect to certain of these proceedings, Monsanto has a liability recorded of US\$277 million and US\$254 million as of August 31, 2017, and February 28, 2018, respectively, for the estimated contingent liabilities. Included in this liability are amounts related to environmental remediation of sites associated with Pharmacia's former chemicals and agricultural businesses, with no single site representing the majority of the environmental liability. These sites are in various stages of environmental management. At some sites, work is in the early stages of assessment and investigation, while at others the cleanup remedies have been implemented and the remaining work consists of monitoring the integrity of that remedy. The extent of Monsanto's involvement at the various sites ranges from less than one percent to 100 percent of the costs currently anticipated. At some sites, Monsanto is acting under court or agency order, while at others it is acting with very minimal government involvement. Monsanto does not currently anticipate any material loss in excess of the amount recorded for the environmental sites reflected in the liability. However, it is possible that new information about these sites for which the accrual has been established, such as results of investigations by regulatory agencies, Monsanto or other parties, could require Monsanto to reassess its potential exposure related to environmental matters. Monsanto's future remediation expenses at these sites may be affected by a number of uncertainties. These uncertainties include, but are not limited to, the method and extent of remediation, the percentage of material attributable to Monsanto at the sites relative to that attributable to other parties and the financial capabilities of the other potentially responsible parties. The above-mentioned liability also includes amounts related to certain third-party litigation with respect to Monsanto's business, as well as tort litigation related to Pharmacia's former chemical business, including lawsuits involving polychlorinated biphenyls ("**PCBs**"), dioxins, and other chemical and premises liability litigation. Additional matters that are not reflected in the liability may arise in the future, and Monsanto may manage, settle, or pay judgments or damages with respect thereto in order to mitigate contesting potential liability.

Monsanto has also disclosed that it has been named in lawsuits brought by various governmental entities claiming that Monsanto, Pharmacia and Solutia, collectively as manufacturers of PCBs, should be responsible for a variety of damages due to PCBs in bodies of water, regardless of how the PCBs came to be located there. Monsanto has also reported that it is defending lawsuits in various state and federal courts, in which approximately 5,200 plaintiffs claim to have been injured by exposure to glyphosate-based products manufactured by Monsanto. In addition, Monsanto has disclosed that legal actions have been filed in Brazil that raise various issues challenging the right to collect certain royalties for Roundup Ready soybeans, such as whether Brazilian pipeline patents have the duration of their corresponding U.S. patents (2014 for Roundup Ready soybeans) and whether Brazil's Plant Variety Protection law affects the enforceability of patents. These issues are currently under judicial review in Brazil.

**1.2.5 *The lack of public understanding and acceptance or perceived public acceptance of Monsanto's biotechnology and other agricultural products as well as of the merits of the Transaction could harm Bayer's reputation and, as a consequence, negatively affect Bayer's business and results of operations.***

Bayer is educating both Bayer's and Monsanto's stakeholders about the rationale and anticipated merits of the Transaction. However, there can be no assurance that customers, investors and employees, in each case existing and prospective, and the general public will be receptive to these arguments and that the Transaction will not negatively affect Bayer's standing or reputation.

Some opponents of technologies used by Monsanto or both companies, such as in connection with Roundup branded and other glyphosate-based herbicides or in connection with genetically modified organisms, actively raise public concern about the potential for adverse effects of certain products, such as the herbicide glyphosate or genetically modified corn or soy beans, on human or animal health, other plants and the environment. The potential for low-level presence of commercial biotechnology traits in conventional seed, or in the grain or products produced from conventional or organic crops, is another factor that may affect general public acceptance of these traits. There is a risk that this type of considerations, including a generally skeptical attitude vis-à-vis genetic modification, and a negative public perception of Monsanto and the Transaction could harm Bayer's reputation with its customers, suppliers, unions and the general public. See also "1.1.19 *Consumer resistance to plant biotechnology may negatively affect Bayer's public image and impact Bayer's sales volumes and revenues.*" This increased reputational risk could affect not only the Combined Agriculture Business, but also Bayer's other operations and activities. In particular, it could impair the Group's Public and Governmental Affairs Committee's activities, negatively affect the Bayer Group's ability to obtain government approvals for products and the timing of such approvals and increase the likelihood of various forms of opposition against the Combined Agriculture Business from the general public, from activists and from non-governmental organizations. Generally, there is also an increased risk that political opinion forming in this area may yield legislative and regulatory decisions that may negatively impact Bayer's business. See "1.1.6 *There can be no assurance that Bayer will identify a sufficient number of research candidates and that Bayer's products will receive and maintain any necessary regulatory approvals, and any increase in regulatory and legal requirements, including as a result of higher public expectations, could lead to more costly and lengthy registration or approval procedures and could impair or preclude Bayer's product development and commercialization efforts.*"

**1.2.6 *In connection with the integration of Monsanto's business, Bayer could encounter difficulties that may disrupt its operations or otherwise negatively affect its business and results of operations, and may jeopardize the realization of the expected benefits of the Transaction.***

The acquisition of Monsanto is designed to result in the integration of a global enterprise with core competencies in the fields of health care and agriculture and a global agriculture company. While the companies have different corporate cultures and, until closing of the Transaction-related Divestments, will be held separate as required by the U.S. Department of Justice, following completion of the Transaction-related Divestments, Bayer will start to integrate Monsanto's business with its Crop Science business. These processes hold special challenges for both parties and expose Bayer to a number of risks that could, among others, arise from the circumstances described below. The following discussion is not meant to be exhaustive and, in addition, other risks and unexpected issues may arise that Bayer is currently unaware of or unable to assess.

- *Commitment of management capacity:* The integration of Bayer and Monsanto has required and can be expected to continue to require significant resources in terms of time and attention by both companies' managements. If integration issues divert management from other responsibilities, Bayer's business could be adversely affected.
- *Possible loss of key employees:* Both companies depend on Bayer's and Monsanto's executives and talent for the successful integration and implementation of a joint strategy. Should the companies be unsuccessful in retaining these employees, for example due to potential uncertainty among employees regarding jobs, company locations or corporate culture, this could impede efficient integration and leveraging the companies' respective strengths. In particular, know-how of managerial staff and talented employees could be lost, which could negatively affect innovation capability and lead to business disruptions.
- *Transaction and integration costs:* Bayer and Monsanto have incurred and expect to continue to incur a number of non-recurring expenses associated with the Transaction and the integration of

Monsanto's operations in the Bayer Group, which could be significant. These include financial advisory, legal, accounting, consulting and other advisory fees and expenses, investments in IT, business continuity and the adaptation of quality, health, safety & environment (QHSE) systems, reorganization and restructuring costs, severance/employee benefit-related expenses, public company filing fees and other regulatory expenses and related charges.

- *Disruption to business operations:* In connection with the integration of Monsanto, inadequate or misaligned commercial priorities, insufficient speed of decision-making, insufficient demand, supply and production planning, changes relating to product registration or production permits (for example as a result of the change in ownership), or unavailability of required production capacity could lead to supply interruptions that may result in business loss and reputational damage. In addition, failure to harmonize potentially diverging corporate and commercial policies of Bayer and Monsanto could negatively impact stakeholder loyalty and cause customers to enter into extensive negotiations or to change existing business relationships. A failure to harmonize external co-operations (for example in the area of R&D) could entail a loss of partners, loss of projects, overlaps and legal implications. There is also a risk that any negative perception of the Transaction may impair Bayer's ability to attract and retain its key stakeholders and could cause suppliers, customers and other counterparties to change existing business relationships.
- *Geographic, organizational and cultural coordination:* As a result of the Transaction, the Bayer Group is expected to confront a number of challenges inherent in the combination of two companies of the size, geographical diversity and scope of Bayer and Monsanto, including for example: (i) challenges in relation to developing and executing a successful strategy and business plan for the Combined Agriculture Business, (ii) difficulties in combining the businesses and workforces due to, among other factors, differences in corporate cultures and the intention to maintain multiple key locations for the Combined Agriculture Business, (iii) impediments to effectively align two global compliance organizations designed to oversee conduct in specific corporate contexts and (iv) risks associated with coordinating geographically separate and dispersed organizations.
- *Integration of internal controls and compliance procedures:* Monsanto has internal controls and compliance procedures in place to identify business and financial risks, including compliance risks, at an early stage and take appropriate action to manage them. While Bayer expects that Monsanto's control systems are designed to comply with legal and other requirements applicable or relevant to Monsanto, there can be no assurance that they cover all topics deemed relevant to Bayer. While Bayer will aim to bring Monsanto's internal controls and compliance procedures in line with those of the Bayer Group as quickly as possible now that the Transaction has been completed, there can be no assurance that Bayer's control and risk management system can provide adequate protection against losses arising from business risks, including compliance risks, or (alleged) fraudulent actions arising in connection with Monsanto's business operations.
- *Unidentified risks and liabilities:* Bayer performed due diligence as part of the acquisition of Monsanto. However, due to the expedited process preceding the signing of the Merger Agreement, Bayer may not yet be aware of all material risks and such risks may only be detected in the course of the integration process. See also "1.2.3 As a result of the Transaction, Bayer's risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively." In addition, there is a risk that Monsanto's liabilities, especially its contingent liabilities, may prove to be higher than anticipated.
- *Warranty claims limited in scope:* The Merger Agreement governing the Transaction does not provide for the assertion of claims for indemnification.

If any of the risks discussed were to materialize, this could disrupt the Bayer Group's operations and cause the integration of Monsanto to become more onerous, time-consuming and costly than anticipated. In addition, the potential benefits of the Transaction may not be realized to the full extent, in a timely fashion or at all; in particular, Bayer may not be able to capitalize on the expected opportunities for cost and sales synergies. See also "1.2.2 Bayer's strategic objectives and operational targets for the Transaction are based on certain assumptions and estimates by Bayer's management that may prove inaccurate, including the ability to benefit from



*the Combined Agriculture Business's improved innovation capabilities, as well as future macroeconomic and market developments."*

**1.2.7 *The size of the Bayer Group after the Transaction, contractual limitations it is subject to, its position in the markets in which it operates as well as increased levels of indebtedness may decrease Bayer's ability to successfully carry out further acquisitions, investments, joint ventures and business integrations.***

In the past, Bayer has made acquisitions of and investments in, and has entered into joint ventures and similar arrangements with, other companies and businesses. Much of Bayer's growth in past years has been attributable to such transactions, including the acquisition of the consumer care business of Merck & Co., Inc., United States, in 2014 and the combination of Bayer AG and Schering AG in 2006/2007.

Following closing of the Transaction, Bayer may be unsuccessful in the implementation of future acquisitions, investments or joint ventures or alliances. Bayer cannot enter into further transactions unless it can identify suitable candidates and agree on the terms with them. The size of the Bayer Group after the Transaction and its position in the markets in which it will operate may make it more onerous to identify suitable candidates, including because it may be harder for Bayer to obtain regulatory approval for future transactions. If appropriate opportunities do become available, Bayer may seek to acquire or invest in other businesses; however, any future acquisition, investment or joint venture may pose regulatory, antitrust and other risks, as well as integration risks in jurisdictions where the Bayer Group then has a presence. Furthermore, even if Bayer is able to identify suitable candidates for acquisitions, investments and joint ventures in the future, its elevated levels of indebtedness incurred in connection with the Transaction may further restrict Bayer's ability to enter into such transactions.

All of the above risks and restrictions may limit Bayer's ability to implement its global strategy and its ability to achieve future business growth.

**1.2.8 *Change of control, prohibition on merger or similar provisions in agreements and instruments to which Monsanto is a party may be triggered or alleged to be triggered by the Transaction and may lead to adverse consequences for the Bayer Group, including the loss of significant contractual rights and benefits, the possible termination of material agreements or the requirement to repay outstanding indebtedness.***

Monsanto is a party to raw material purchase, collaboration, trait licensing and other agreements, guarantees and instruments, including debt securities, which may contain change of control or similar provisions that may be triggered (or be alleged to be triggered) by the Transaction. Some of these agreements may be material, and may contain change of control provisions which provide for or permit (or be alleged to provide for or permit) the termination of the agreement or other remedies upon the occurrence of a change of control of one of the parties or, in the case of certain debt instruments, entitle holders to require repayment of all outstanding indebtedness owed to them. Certain of these provisions may be triggered (or be alleged to be triggered) as a result of the Transaction.

If, upon review of these agreements, Bayer and Monsanto determine that such provisions can be waived by the relevant counterparties, they may decide to seek such waivers. In the absence of such waivers, the operation of the change of control or restriction on merger provisions, if any, could result in the loss of material contractual rights and benefits, the termination of the relevant agreements or the requirement to make certain payments including the repayment of outstanding indebtedness. Alternatively, in respect of certain debt instruments, the parties may decide to seek to effect certain restructuring transactions or redeem the instruments in accordance with their terms. Either such approach may be subject to uncertainty and result in significant costs to the Bayer Group.

In addition, various compensation and benefit programs with members of Monsanto's senior management and directors and other Monsanto employees contain change of control provisions providing for vesting or payment of compensation upon the completion of the Transaction or a qualifying termination of employment thereafter. Bayer has taken into account potential payments arising from the operation of change of control provisions, including compensation arising from certain change of control agreements, but such payments may exceed Bayer's expectations.

**1.2.9 Bayer could be forced to recognize impairment losses on the intangible assets of Monsanto and goodwill of the Crop Science business.**

Following completion of the Transaction, Bayer expects to recognize a substantial portion of the difference between the amount paid for the acquisition and the book value of Monsanto's equity as intangible assets of Monsanto and goodwill of the Crop Science business. During the year, these items must either be tested for impairment at least once a year or whenever there are indicators of impairment. If unexpected difficulties were to arise in the course of the integration of Monsanto's business into Bayer, if Monsanto's business were to fail to develop as expected or if any other business development affecting the Crop Science business were to occur that is not anticipated by Bayer, Bayer may, in accordance with IFRS, be forced to recognize an impairment loss on the intangible assets of Monsanto and on the goodwill of the Crop Science business which could have a material adverse effect on its financial condition and results of operations.

**1.2.10 Bayer faces risks from financing the Transaction, including as a result of increased levels of debt and the potential downgrading of credit ratings.**

In connection with the acquisition of Monsanto, Bayer AG, as borrower and guarantor, and Bayer U.S. Finance II LLC, as borrower, entered into a syndicated term loan facilities agreement in an amount of US\$56.9 billion (€48.7 billion) (the "**Loan Facilities Agreement**") with Bank of America, N.A., Credit Suisse AG, London Branch, Goldman Sachs Bank U.S.A., Goldman Sachs Lending Partners LLC, HSBC Bank plc, The Hong Kong and Shanghai Banking Corporation Limited and JPMorgan Chase Bank, N.A., London Branch as committed original lenders, pursuant to which the original lenders agreed to provide financing commitments in an aggregate principal amount of US\$56.9 billion (€48.7 billion), which have been syndicated to more than 20 banks. In addition, on November 22, 2016, Bayer Capital Corporation B.V. placed mandatory convertible notes in a nominal amount of €4.0 billion due 2019 and with a coupon of 5.625% per annum (the "**Mandatory Convertible Notes**"). The Mandatory Convertible Notes are unconditionally and irrevocably guaranteed by Bayer AG and will be mandatorily converted into shares of Bayer AG. On June 14, 2017, Bayer AG issued the Exchangeable Bonds. In accordance with the terms of the Loan Facilities Agreement, the net proceeds from the Mandatory Convertible Notes of €3.96 billion (US\$4.2 billion) and of the Exchangeable Bonds in the amount of €1.05 billion (US\$1.2 billion) were used to reduce the loan amount of the Loan Facilities Agreement.

The increased level of debt that has arisen from drawing on the commitments under the Loan Facilities Agreement in connection with the completion of the Transaction as well as the debt under the Notes and other debt instruments the net proceeds from which shall be used to reduce the amount of the Loan Facilities Agreement could have significant negative consequences, including heightening Bayer's vulnerability to general adverse economic and industry conditions and limiting Bayer's ability to fund future working capital requirements and capital expenditures, to engage in future acquisitions or development activities or to otherwise realize the value of its assets and opportunities. The increased level of debt could also limit Bayer's flexibility in planning for, or reacting to, changes in its business and the industries in which it operates by impairing its ability to obtain additional financing in the future and by placing the Bayer Group at a competitive disadvantage compared to its competitors with less significant levels of debt.

There is a risk that due to changes in the monetary and interest rate policies of central banks such as the European Central Bank or the Board of Governors of the U.S. Federal Reserve System and other central banks, the level of interest rates may generally rise. A rise in general interest rate levels could negatively affect the terms of the refinancing of the Transaction, which would amplify the risks associated with an increased leverage ratio of the Bayer Group.

In May 2016, after Bayer's intention to acquire Monsanto became public, S&P Global Ratings ("**S&P**") placed Bayer's long-term credit rating of A- on CreditWatch with negative outlook. Similarly, Moody's Investors Service, Inc. ("**Moody's**") placed Bayer's long-term rating of A3 under review for downgrade. On June 4, 2018 S&P and Moody's updated their rating assessment taking into account the imminent closing of the Transaction and its envisaged financing. S&P assigned a BBB long-term rating and again confirmed Bayer's A-2 short-term rating, each with a stable outlook. Moody's assigned a Baa1 long-term rating and a P-2 short-term rating, each with a negative outlook. In addition, on June 5, 2018, Fitch Ratings ("**Fitch**") assigned an A- long-term rating and a F-2 short-term rating, each with a stable outlook.

Despite the current assignment of ratings, Bayer continues to face the risk of potential further rating downgrades in the future. Any downgrade of Bayer's credit ratings would result in an increase in the interest payable under the Loan Facilities Agreement. It could also have a negative impact on the pricing and availability of



any financing to Bayer. While Bayer has integrated several other businesses and established a track record of disciplined deleveraging in connection with past M&A projects of significant size, the Bayer Group may be unable to generate the strong cash flows necessary to reduce its financial indebtedness after the Transaction, which may have a detrimental impact on Bayer's credit ratings and refinancing capabilities. Any such downgrade could also have a material adverse effect on Bayer's refinancing of other existing indebtedness and financing its ongoing operations, including by increasing Bayer's cost of borrowing and significantly harming its financial condition and results of operations.

**1.2.11 Bayer is exposed to risks arising from the necessity to refinance the loans taken out for the Transaction.**

In connection with the closing of the Transaction, an aggregate amount of US\$43.4 billion (€37.2 billion) was drawn down under the Loan Facilities Agreement to finance the purchase price for Monsanto and is currently outstanding. A substantial portion of the loans under the Loan Facilities Agreement are, subject to extension options, repayable on the first anniversary of the first utilization of any of the facilities thereunder (but at the latest 21 months after the date of the signing of the Loan Facilities Agreement). Further, margins payable on the loans under the Loan Facilities Agreement (or commitment fees on any undrawn facilities) increase over the term of the Loan Facilities Agreement. Fees may also be applicable after certain durations or extensions of the outstanding loans.

Bayer intends to refinance the amounts drawn down under the Loan Facilities Agreement primarily with proceeds from a combination of debt and equity offerings. Proceeds of approximately €6.0 billion are expected to be raised through the rights offering of new shares (the "**Rights Offering**") which is expected to close on June 22, 2018. In addition, Bayer is raising approximately € 4.96 billion through the offering of the Notes and plans to issue senior unsecured notes in an aggregate nominal amount of US\$15.0 billion through a finance subsidiary on or about June 25, 2018 (the "**US\$ Bond Offering**" and together with the offering of the Notes the "**Bond Offerings**"). However, Bayer may not be able to effect any future offerings in the capital markets or other forms of refinancing as planned in terms of timing, economic terms or at all, especially in challenging market conditions. It cannot be excluded that the necessity to adjust current plans for any future capital markets offerings or other forms of refinancing may lead to terms under such refinancing measures which entail additional costs and/or lead to an increased level of indebtedness, in each case to the detriment of Bayer.

Failure to complete the refinancing measures for the Transaction as planned would constrain Bayer's ability to refinance its indebtedness under the Loan Facilities Agreement and require Bayer to seek alternative refinancing sources, which may be unavailable or result in higher costs. Whether or not Bayer will be able to refinance the indebtedness incurred in connection with the Transaction as planned, the portion of Bayer's consolidated statements of financial position that will be represented by debt will increase substantially as compared to its historical position of €1,650 million as of March 31, 2018 (net financial debt).

**1.2.12 Fluctuations in interest rates could have a significant impact on the results of operations of Bayer following completion of the Transaction.**

Bayer will finance part of the all-cash consideration for the Transaction with variable- and fixed-rate debt instruments, exposing Bayer to the fluctuations of variable and fixed interest rates.

Bayer has entered, and may in the future enter, into financial transactions to mitigate these interest rate risks in connection with the Transaction. These financial transactions and any other efforts taken to better hedge its exposure to interest rates may result in increased costs. In particular, while the Transaction has been partially hedged by Bayer against interest rate fluctuations, an increase in variable and/or fixed interest rates may require Bayer to incur additional interest expense and interest cash outflow for the debt instruments issued, or which may be issued in the future, in connection with the Transaction.

Bayer also expects its exposure to interest rate fluctuations to increase as a result of the Transaction, given that the maturity profile of Monsanto's debt, which has been assumed by Bayer, is significantly longer than Bayer's.

**1.2.13 Fluctuations in exchange rates could have a significant impact on the amount of debt Bayer incurs and the results of operations of Bayer following completion of the Transaction.**

Bayer has paid the all-cash consideration for the Transaction in U.S. dollars, but some of the long-term refinancing of the Loan Facilities Agreement may occur in other currencies. Bayer has in the past entered into, and

will continue to enter into, financial transactions to mitigate exchange risk between euro and U.S. dollars in connection with the refinancing. However, an appreciation of the U.S. dollar against the euro between completion of the Transaction and the execution of measures to refinance the Loan Facilities Agreement may require Bayer to incur additional indebtedness to repay the amounts drawn down under the Loan Facilities Agreement. In addition, Bayer is exposed to translational risk to the extent it refinances itself in U.S. dollars.

Following completion of the Transaction, Bayer continues to report its consolidated results in euro. After taking into account the effects of the Transaction, given the geographic focus of Monsanto's operations on North and Latin America, Bayer will derive an increased portion of its revenues from operating companies that have non-euro functional currencies, including the U.S. dollar. Consequently, any fluctuations in exchange rates between such operating companies' functional currencies and the euro will affect the consolidated income statement and statements of financial position when the results of those operating companies are translated into euro for reporting purposes of the Bayer Group.

**1.2.14 *The pro forma financial information prepared by Bayer is subject to significant limitations and may not necessarily reflect what Bayer's financial position and results of operations would have been, had the integration and consolidation of Monsanto already taken place and may not be indicative of the financial positions and results of operations that Bayer will achieve in the future.***

Bayer prepared pro forma financial information dated June 5, 2018 in accordance with European Commission Regulation (EC) No. 809/2004 of April 29, 2004 to illustrate certain effects of Bayer's gradual reduction of its direct interest in Covestro AG to currently 6.8% in a series of transactions, a successful completion of the Transaction and the Transaction-related Divestments as well as the financing related to the Transaction (the "Pro Forma Financial Information"). The Pro Forma Financial Information was not prepared in accordance with the requirements in Article 11 of Regulation S-X issued by the SEC. Based on information available at the time of the preparation of the Pro Forma Financial Information, certain significant adjustments were made to Monsanto's financial information, which included the alignment of Monsanto's reporting periods with Bayer's reporting periods, the alignment of the presentation principles used by Monsanto in its historical financial information with the presentation principles used by Bayer in its historical financial information, the conversion of Monsanto's historical financial information, which is prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP), to Bayer's IFRS accounting principles and the translation of Monsanto's financial information from U.S. dollar to euro. In connection with these adjustments, certain assumptions were made, all of which are reflected in the notes to the Pro Forma Financial Information. The pro forma adjustments made are preliminary and subject to change. Also, the effects of the recently enacted U.S. tax reform are partially reflected in Monsanto's historical financial information used in the preparation of the Pro Forma Financial Information, and are already reflected in Bayer's historical financial information used in the preparation of the Pro Forma Financial Information. To align the presentation and accounting policies of the historical financial information presented in the Pro Forma Financial Information, Bayer made certain tax-related adjustments to Monsanto's historical financial information based on publicly available and other available information of Monsanto. The actual impact of the U.S. tax reform on Monsanto's historical financial information may, however, differ materially from that reflected in the assumptions-based adjustments made by Bayer to Monsanto's historical financial information in preparation of the Pro Forma Financial Information.

The business combination related adjustments for the Transaction considered in the Pro Forma Financial Information were prepared using the acquisition method of accounting for the business combination in accordance with IFRS 3 ("Business Combinations"). Due to the Transaction only having been completed at the date of the preparation of the Pro Forma Financial Information and to the limited information available at that date, only a preliminary purchase price allocation has been performed. This purchase price allocation is based on the most current available information using certain estimates and assumptions in order to assess the fair value of the assets acquired and liabilities assumed. The final purchase price allocation will be carried out based on the actual total consideration transferred and the fair values of the acquired net assets as of June 7, 2018, the actual future acquisition date. Therefore, the final purchase price allocation may differ significantly from the preliminary purchase price allocation performed for purposes of the Pro Forma Financial Information. The fair value amounts assigned to the identifiable assets acquired and liabilities assumed are preliminary and subject to change, when Bayer receives further information it believes to be necessary to finalize its fair value assessments. Investors assessing the Pro Forma Financial Information should note that following completion of the Transaction, a purchase price allocation is expected to lead to the recognition of fair value step ups and charges in the assets, liabilities and contingent liabilities of Monsanto, resulting inter alia in reduced earnings mainly due to the additional amortization and depreciation expenses and the step up of inventories. Depending on which assets are affected, the

amortization and depreciation periods may differ. In addition, the Pro Forma Financial Information does not reflect the cost of any integration activities or the expected synergies from the Transaction. The Pro Forma Financial Information is based on certain pro forma assumptions with respect to timing and financing of the Transaction including the Transaction-related Divestments, outlined in the notes to the Pro Forma Financial Information, and is intended for illustrative purposes only. The Pro Forma Financial Information of Bayer assumes, in particular, that the Transaction including the Transaction-related Divestments and the financing related to the Transaction occurred on January 1, 2017, for purposes of the pro forma income statements and as of March 31, 2018 for purposes of the pro forma statement of financial position. Due to its nature, the Pro Forma Financial Information describes only a hypothetical situation and neither reflects the actual net assets, financial position and results of operations of Bayer after completion of the Transaction nor does it indicate the future development of the net assets, financial position and results of operations of Bayer.

Furthermore, the Pro Forma Financial Information does not reflect future exceptional charges resulting from the Transaction or future events that may occur, including restructuring activities or other costs related to the integration of Monsanto, and does not consider potential impacts of current market conditions on the results of operations.

As a result of the factors described above, investors should not place undue reliance on the Pro Forma Financial Information. In particular, the Pro Forma Financial Information may not reflect what Bayer's financial position and results of operations would have been had the Transaction already been effected during the relevant periods and may not be indicative of the financial position and results of operations that Bayer will achieve in the future.

### **1.3 Risks Related to the Notes**

#### **1.3.1 Notes may not be suitable investments for all investors.**

Each potential investor in the Notes must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

- have sufficient knowledge and experience to make a meaningful evaluation of the relevant Notes, the merits and risks of investing in the Notes and the information contained or incorporated by reference in this Offering Memorandum or any applicable supplement;
- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation and the investment(s) it is considering, an investment in the Notes and the impact the Notes will have on its overall investment portfolio;
- have sufficient financial resources and liquidity to bear all of the risks of an investment in the Notes;
- understand thoroughly the terms of the Notes and be familiar with the behavior of financial markets;
- be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks; and
- recognize that it may not be possible to dispose of the Notes for a substantial period of time or at all.

#### **1.3.2 The development of market prices of the Notes depends on various factors.**

The development of the market prices of the Notes depends on various factors, such as changes in market interest rate levels, the policies of central banks, overall economic developments, inflation rates or the lack of or excess demand for the Notes. The Holders are therefore exposed to the risk of unfavorable development of the market prices of their Notes should they sell the Notes prior to final maturity. If a Holder of Notes decides to hold the Notes until final maturity, the Notes will be redeemed at the amount stated in the Terms and Conditions.

**1.3.3 Investors investing in the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029 are subject to risks relating to fixed interest rate notes.**

The Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029 bear interest at a fixed rate. A holder of a fixed interest rate note bears the risk that the price of such note may fall as a result of changes in the current interest rate on the capital market (the “**Market Interest Rate**”). While the nominal interest rate of a note with a fixed interest rate is fixed in advance for the entire duration or during a certain period, the Market Interest Rate typically changes on a daily basis. As the Market Interest Rate changes, the price of a note with a fixed interest rate also changes – but in the opposite direction. If the Market Interest Rate increases, the price of a note with a fixed interest rate typically falls until the yield of such note approximately equals the Market Interest Rate. If the Market Interest Rate decreases, the price of a fixed interest rate note typically increases until the yield of such note is approximately equal to the Market Interest Rate. Potential investors should be aware that movements of the Market Interest Rate may adversely affect the market price of the fixed interest rate notes and lead to losses for the Holders if they sell their fixed interest rate notes.

**1.3.4 Risks relating to the floating rate Floating Rate Notes 2022.**

A holder of a Floating Rate Note 2022 is exposed to the risk of fluctuating interest rate levels and uncertain interest income. Fluctuating interest rate levels make it impossible to determine the yield of Floating Rate Notes 2022 in advance.

Neither the current nor the historical value of the relevant floating rate should be taken as an indication of the future development of such floating rate during the term of the Floating Rate Notes 2022.

**1.3.5 Risk of financial benchmark and reference interest rate continuity in respect of Floating Rate Notes 2022.**

Benchmarks such as the Euro Interbank Offered Rate (“**EURIBOR**”), to which the interest of notes bearing a floating rate of interest may be linked to, have become the subject of regulatory scrutiny and recent national and international regulatory guidance and proposals for reform. Some of these reforms are already effective while others are still to be implemented. These reforms may cause the relevant benchmarks to perform differently than in the past, or have other consequences which may have a material adverse effect on the value of and the amount payable under Floating Rate Notes 2022 bearing or paying a floating rate of interest.

International proposals for reform of benchmarks include the Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 (the “**Benchmark Regulation**”) which entered into force on 1 January 2018. In addition, there are numerous other proposals, initiatives and investigations which may impact benchmarks.

Any changes or expected changes to a benchmark as a result of the Benchmark Regulation or other initiatives, could have a material adverse effect on the costs of refinancing a benchmark or the costs and risks of administering or otherwise participating in the setting of a benchmark and complying with any such regulations or requirements. Such factors may have the effect of discouraging market participants from continuing to administer or participate in certain benchmarks, trigger changes in the rules or methodologies used in certain benchmarks or lead to the disappearance of certain benchmarks. Although it is uncertain whether or to what extent any of the abovementioned changes and/or any further changes in the administration or method of determining a benchmark could affect the level of the published rate, including to cause it to be lower and/or more volatile than it would otherwise be, and/or could have an effect on the value of the notes whose interest or principal return is linked to the relevant benchmark, investors should be aware that they face the risk that any changes to the relevant benchmark may have a material adverse effect on the value of and the amount payable under notes whose rate of interest or principal return is linked to a benchmark.

Benchmarks could also be discontinued entirely. If a benchmark were to be discontinued or otherwise unavailable, the rate of interest for floating rate notes, which are linked to such benchmark will be determined for the relevant period by the fall-back provisions applicable to such notes, which in the end could result in the same rate being applied until maturity of the floating rate notes, effectively turning the floating rate of interest into a fixed rate of interest. Any of the foregoing could have a material adverse effect on the value or liquidity of, and the amounts payable on floating rate notes whose rate of interest is linked to a discontinued benchmark.

**1.3.6 There is no active public trading of the Notes and it is unclear whether such active trading will develop.**

Application has been made for the Notes to be admitted to trading on the Regulated Market of the Luxembourg Stock Exchange (*Bourse de Luxembourg*) and to be listed on the official list of the Luxembourg Stock Exchange (*Bourse de Luxembourg*). However, no assurance can be given as to whether such admission to trading and/or listing will be obtained and for how long it may be sustained.

Furthermore, the future development of a market for the Notes or the ability of holders to sell their Notes or the price at which holders may be able to sell their Notes is currently uncertain. If such a market were to develop, the Notes could trade at prices that may be higher or lower than the initial offer price depending on a variety of factors (e.g., prevailing interest rates, Bayer's operating results, the market for similar securities and general economic conditions, performance and prospects as well as recommendations of securities analysts). The liquidity of, and the trading market for, the Notes may also be adversely affected by a general decline in debt securities markets. Such a decline may affect any liquidity and trading of the Notes independent of Bayer's financial performance and prospects. In an illiquid market, investors might not be able to sell Notes at fair market prices, or at all. The possibility to sell Notes may also be restricted by country specific reasons. Potential investors must therefore be prepared to retain the Notes for an unspecified time period.

**1.3.7 Risk of Early Redemption.**

The Issuer has the right to call the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029 prior to maturity, and the Notes are subject to early redemption upon the occurrence of events specified in the Terms and Conditions (early redemption event). In addition, the Issuer will always have the right to redeem the Notes if the relevant Issuer and/or Guarantor are required to pay additional amounts (gross-up payments) on the Notes for reasons of taxation as set out in the Terms and Conditions. If the Issuer redeems the Notes prior to maturity or the Notes are subject to early redemption due to an early redemption event, a Holder of such Notes is exposed to the risk that due to such early redemption its investment will have a lower than expected yield. The Issuer can be expected to exercise its optional call right relating to Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029 if the yield on comparable debt instruments in the capital market has fallen, which means that the investor may only be able to reinvest the redemption proceeds in comparable debt instruments with a lower yield. On the other hand, the Issuer can be expected not to exercise such optional call rights if the yield on debt instruments in the capital market has increased. In this event an investor will not be able to reinvest the redemption proceeds in debt instruments with a higher yield. It should be noted, however, that the Issuer may exercise any optional call right irrespective of market interest rates.

**1.3.8 Holders are subject to exchange rate risks and exchange controls.**

The Notes are denominated in Euros. Potential investors should bear in mind that an investment in the Notes involves currency risks. This presents certain risks relating to currency conversions if financial activities of the investor are denominated principally in a currency or currency unit (the "**Investor's Currency**") other than the Euro. These include the risk that exchange rates may change significantly (including changes due to devaluation of the Euro or revaluation of the Investor's Currency) and the risk that authorities with jurisdiction over the Investor's Currency may impose or modify exchange controls. An appreciation in the value of the Investor's Currency relative to the Euro would decrease (i) the Investor's Currency-equivalent yield on the Notes, (ii) the Investor's Currency equivalent value of the principal payable on the Notes, and (iii) the Investor's Currency-equivalent market value of the Notes.

In addition, government and monetary authorities may impose (as some have done in the past) exchange controls that could adversely affect applicable currency exchange rates. As a result, investors may receive less interest or principal than expected, or no interest or principal at all.

**1.3.9 An investment in the Notes may be subject to inflation risks.**

The inflation risk is the risk of a future depreciation of currencies. The real yield from an investment is reduced by inflation. The higher the rate of inflation, the lower the real yield on the Notes. If the inflation rate were to increase and match or exceed the nominal yield, the real yield of the Notes would be zero or even negative.



**1.3.10 Credit Ratings may not reflect all risks and are subject to change.**

Ratings assigned to the Issuer or Guarantor by rating agencies are an indicator of the Issuer's or Guarantor's (as applicable) ability to meet its obligations under the Notes or the Guarantee (as applicable) in a timely manner. The lower the assigned rating is on the respective scale the higher the respective rating agency assesses the risk that obligations will be met in a timely manner or at all. The market value of the Notes from time to time is likely to depend upon the credit rating assigned to the long-term debt of the Issuer and the Guarantor. Rating agencies may change, suspend or withdraw their ratings at short notice and this may affect the price and the market value of the Notes. Therefore, investors may incur financial disadvantages as he may not be able to sell their Notes or will only be able to do so at a discount to the issue price or the purchase price paid by such Holder.

One or more independent credit rating agencies may assign credit ratings to the Notes. The ratings may not reflect the potential impact of all risks related to the structure, market and additional factors discussed herein, and other factors that may affect the value of the Notes. In addition, S&P, Moody's, Fitch or any other rating agency may change its methodologies for rating securities with features similar to the Notes in the future. This may include the relationship between ratings assigned to an issuer's senior securities and ratings assigned to securities with features similar to the Notes, sometimes called "notching". If the rating agencies were to change their practices for rating such securities in the future and the ratings of the Notes were to be subsequently lowered as a consequence thereof, this may have a negative impact on the market price of the Notes.

A credit rating is not a recommendation to buy, sell or hold Notes and may be revised or withdrawn by the rating agency at any time.

**1.3.11 The Terms and Conditions, including the terms of payment of principal and interest, can be amended by a Holders' resolution and any such resolution will be binding for all Holders. Any such resolution may effectively be passed with the consent of less than a majority of the aggregate principal amount of the Notes then outstanding.**

The Terms and Conditions may be amended or other measures relating to the Notes may be resolved by a majority resolution of the Holders. The voting process under the Terms and Conditions will be governed by the German Act on Issues of Debt Securities (*Gesetz über Schuldverschreibungen aus Gesamtemissionen* ("**SchVG**")), pursuant to which the required quorum is principally set at 50% of the aggregate principal amount of the Notes then outstanding. In case there is no sufficient quorum, there is no minimum quorum requirement at a second meeting (unless the resolution to be passed requires a qualified majority, in which case Holders representing at least 25% of outstanding Notes by principal amount must participate in the meeting or voting).

As the relevant majority for Holders' resolutions is generally based on votes cast, rather than on principal amount of the Notes then outstanding, the aggregate principal amount required to vote in favor of an amendment will vary based on the Holders' votes participating. Therefore, a Holder may be outvoted by a majority resolution of such Holders and lose rights towards the Issuer or Guarantor against its will in the event that Holders holding a sufficient aggregate principal amount of the Notes participate in the vote and agree to amend the Terms and Conditions or on other matters relating to the Notes by majority vote in accordance with the Terms and Conditions and the SchVG.

The Notes provide for the appointment of a Holders' representative. It is therefore possible that a Holder may be deprived of its individual right to pursue and enforce its rights against the Issuer or Guarantor under the Terms and Conditions or the Guarantee, such rights passing to the Holders' representative who is then exclusively responsible for claiming and enforcing the rights of all the Holders.

**1.3.12 The Issuer or the Guarantor may partly or completely fail to make payments on the Notes.**

Any person who purchases Notes is relying on the creditworthiness of the Issuer or the Guarantor and has no rights against any other person. Holders are subject to the risk that the Issuer and the Guarantor partly or completely fail to make payments on the Notes which the Issuer and the Guarantor are obliged to make. The worse the creditworthiness of the Issuer and the Guarantor, the higher the risk of a loss (see also "*1.1 Risks Related to Bayer*" above). A materialization of the credit risk may result in partial or complete failure of the Issuer to make payments under the Notes and in partial or complete failure of the Guarantor to make payments under the Guarantee.

In addition, even if the likelihood that the Issuer and the Guarantor will be in a position to fully perform all obligations under the Notes and the Guarantee when they fall due, actually has not decreased, market participants could nevertheless be of that opinion. In particular, market participants may be of this opinion if their assessment of the creditworthiness of corporate debtors in general or debtors operating in the same industry as the Issuer and the Guarantor adversely changes.

If any of these risks occurs, third parties would only be willing to purchase Notes for a lower price than before the materialization of said risk, or not at all. Therefore, the market value of the Notes may decrease and investors could lose some or all of their investment.

**1.3.13 *The Issuer will depend on payments from other members of the Group to make payments on the Notes.***

The Issuer was established to finance activities of the Bayer Group. As such, it raises funds and on-lends monies to companies within the Bayer Group by way of intra-group loans. The terms of such intra-group loans match those of the payment obligations of the Issuer under the Notes. In the event that a Guarantor or another Group company fails to make a payment under an intra-group loan, the Issuer may not be able to meet its payment obligations under the Notes.

**1.3.14 *The Holders' only remedy against the Issuer and the Guarantor is the institution of legal proceedings to enforce payment or to file an application for insolvency proceedings.***

The only remedy against the Issuer and the Guarantor available to the Holders for recovery of amounts which are due in respect of the Notes will be the institution of legal proceedings to enforce payment of the amounts or to file an application for the institution of insolvency proceedings. In an insolvency or liquidation of the Issuer or the Guarantor, any Holder may only declare its Notes due and payable and claim the amounts due and payable under the Notes or the Guarantee after the Issuer or the Guarantor has discharged or secured in full (i.e., not only with a quota) all claims that rank senior to the Notes and the Guarantor in such proceedings.

**1.3.15 *No assurance can be given as to the impact of any possible judicial decision or change of laws or administrative practices after the date of this Offering Memorandum.***

The Terms and Conditions are based on the laws of Germany in effect as at the date of this Offering Memorandum. No assurance can be given as to the impact of any possible judicial decision or change in laws or administrative practice or the official application or interpretation of applicable laws after the date of this Offering Memorandum.

**1.3.16 *In case of certain events of default, the Notes will only be repayable if Holders holding at least 25% of the aggregate principal amount of the Notes then outstanding declare the Notes due and payable. Such declaration of acceleration may be rescinded by a majority resolution of the Holders.***

Under the Terms and Conditions, any notice declaring the Notes due and payable in case of certain events of default shall only become effective when the Paying Agent has received such default notices from Holders representing at least 25% of the aggregate principal amount of Notes then outstanding. In addition, the SchVG provides that even if the threshold of 25% for a default notice has been reached, the Holders could rescind such acceleration by majority resolution within three months. A simple majority of votes would be sufficient for a resolution on the rescission of such acceleration but, in any case, more Holders would have to consent to a rescission than have delivered default notices. Therefore, Holders will be unable to accelerate the Notes upon the occurrence of certain events of default, unless the required quorum of Holders delivers default notices and such acceleration is not rescinded by a majority resolution of the Holders.

**1.3.17 *The Notes may not, or may cease to satisfy the criteria to be recognized as eligible collateral for the Eurosystem.***

The Notes are issued in new global note form. The new global note form has been introduced to allow for the possibility of debt instruments being issued and held in a manner which will permit them to be recognized as eligible collateral for monetary policy of the Eurosystem and intra-day credit operations by the Eurosystem upon issue or at any or all times during their life. However, in any particular case such recognition will depend upon satisfaction of the Eurosystem eligibility criteria at the relevant time and the Notes may not, or may cease to qualify

as eligible collateral for the Eurosystem. Investors should make their own assessment as to whether the Notes meet such Eurosystem eligibility criteria.

**1.3.18 *The income under the Notes may be reduced by taxes.***

Potential investors should be aware that they may be required to pay taxes or other charges or duties in accordance with applicable laws and practices of the country where the Notes are transferred or other jurisdictions. In some jurisdictions, no official statements of the tax authorities or court decisions may be available for financial instruments such as the Notes. Potential investors should not rely on the tax discussions contained in this Offering Memorandum but obtain their own tax advisor's advice on their individual taxation with respect to the acquisition, sale and redemption of Notes. Only these advisors are in a position to duly consider the specific situation of the relevant investor.

**1.3.19 *A change of law may subject noteholders to withholding tax or other taxes.***

No assurance can be given as to the impact of any possible judicial decision or change to Dutch, German or any applicable law or administrative practice (including, for example, any future implementation of a withholding tax or financial transaction tax) after the date on which the Notes issued in relation to this offering. If a change in law leads to a mandatory imposition of a withholding tax or any other tax relating to the sale, transfer or disposition or any other transaction related to the Notes, the value of the Notes may decline.

In 2017, the new Dutch coalition government announced its intention to introduce an interest withholding tax in respect of interest payments to "low tax jurisdictions" and in situations which are considered "abusive." On February 23, 2018, the Dutch State Secretary of Finance published a letter addressing, among other matters, the previously announced introduction of an interest withholding tax. An important clarification is that the new withholding tax will only apply to intra-group payments. Payments of interest on, for instance, publicly held listed securities should therefore fall outside of the scope of this new withholding tax.

**1.3.20 *The Financial Transactions Tax could apply to certain dealings in the Notes.***

The European Commission has published a proposal for a directive for a common financial transactions tax ("FTT") in Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia (the "**Participating Member States**"). However, Estonia has since stated that it will not participate in such FTT. If introduced in its current form, the proposed FTT could apply to certain dealings in the Notes, in particular where at least one party is a financial institution. The FTT, could apply to persons both within and outside of the Participating Member States. As a result, holders may incur additional costs for the execution of transactions with Notes. For further information with respect to the FTT, potential investors should refer to "*18. Taxation—18.4 The Proposed Financial Transactions Tax*".

**1.3.21 *Incidental costs related in particular to the purchase and sale of Notes may have a significant impact on the profit potential of the Notes.***

When Notes are purchased or sold, several types of incidental costs (including transaction fees and commissions) may be incurred. These incidental costs may significantly reduce or eliminate any profit from holding the Notes. Credit institutions generally charge commissions which are either fixed minimum commissions or pro rata commissions, depending on the order value. To the extent that additional (domestic or foreign) parties are involved in the execution of an order (e.g., domestic dealers or brokers in foreign markets), investors may also be charged brokerage fees, commissions and other fees and expenses of such parties (third-party costs).

In addition to such costs directly related to the purchase of Notes (direct costs), investors may also incur follow-up costs (e.g., custody fees). Investors should inform themselves about any additional costs incurred in connection with the purchase, custody or sale of the Notes before investing in the Notes. These additional costs may significantly reduce or eliminate any profit from holding the Notes.

**1.3.22 *Investors will have to rely on the procedures of the Clearing System for transfer, payment and communication with the Issuer.***

The Notes will be represented by the Global Notes. These will be deposited with a common safekeeper on behalf of the Clearing System. Investors will not be entitled to receive definitive notes. Euroclear and CBL will maintain records of the beneficial interests in the Global Notes. While the Notes are represented by the Global Notes, investors will only be able to trade their beneficial interests through Euroclear and Clearstream and the



Issuer will discharge its payment obligations under the Notes by making payments to, or to the order of, the Clearing System for distribution to the Holders. Holders must rely on the procedures of Euroclear and Clearstream to receive payments under the Notes. The Issuer has no responsibility or liability for the records relating to, or payments made in respect of beneficial interests in, the Global Notes.

## 2. TERMS AND CONDITIONS OF THE NOTES AND THE GUARANTEE (DEUTSCH / ENGLISH)

### 2.1 Anleihebedingungen / Terms and Conditions (Notes)

The following are the texts of the Terms and Conditions applicable to the Floating Rate Notes 2022 and to the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029. The Terms and Conditions of each of the Floating Rate Notes 2022, the Fixed Rate Notes 2022, the Notes 2026 and the Notes 2029 will be an integral part of the respective Global Notes.

These Terms and Conditions are written in the German language and provided with an English language translation. The German text shall be the legally binding version. The English language translation is provided for convenience only.

Nachfolgend sind die Texte der Anleihebedingungen für die Variabel Verzinslichen Schuldverschreibungen 2022 und für die Festverzinslichen Schuldverschreibungen 2022, die Schuldverschreibungen 2026 und die Schuldverschreibungen 2029 abgedruckt. Die Anleihebedingungen für die Variabel Verzinslichen Schuldverschreibungen 2022, die Festverzinslichen Schuldverschreibungen 2022, die Schuldverschreibungen 2026 und die Schuldverschreibungen 2029 werden Bestandteil der jeweiligen Globalurkunde.

Diese Anleihebedingungen sind in deutscher Sprache abgefasst und mit einer englischen Übersetzung versehen. Der deutsche Wortlaut ist rechtsverbindlich. Die englische Übersetzung dient nur zur Information.

#### 2.1.1 Floating Rate Notes 2022

##### ANLEIHEBEDINGUNGEN

(die "Anleihebedingungen")

###### § 1

##### WÄHRUNG, STÜCKELUNG, FORM, BEGRIFFSBESTIMMUNGEN

(1) *Währung; Stückelung.* Die Schuldverschreibungen (die "**Schuldverschreibungen**") der Bayer Capital Corporation B.V. (die "**Emittentin**") werden in Euro (die "**festgelegte Währung**") im Gesamtnennbetrag (vorbehaltlich § 1 Absatz 4) von EUR 750.000.000 (in Worten: Euro siebenhundertfünzig Millionen) in Stückelungen von je EUR 100.000 (die "**festgelegte Stückelung**") begeben.

(2) *Form.* Die Schuldverschreibungen lauten auf den Inhaber.

(3) *Vorläufige Globalurkunde — Austausch.*

(a) Die Schuldverschreibungen sind anfänglich durch eine vorläufige Globalurkunde (die "**vorläufige Globalurkunde**") ohne Zinsscheine verbrieft. Die vorläufige Globalurkunde wird gegen Schuldverschreibungen in den festgelegten Stückelungen, die durch eine Dauerglobalurkunde (die "**Dauerglobalurkunde**") und zusammen mit der vorläufigen Globalurkunde die "**Globalurkunden**" und jede eine "**Globalurkunde**") ohne Zinsscheine verbrieft sind, ausgetauscht. Die vorläufige Globalurkunde und die Dauerglobalurkunde tragen jeweils die

##### TERMS AND CONDITIONS

(the "Terms and Conditions")

###### § 1

##### CURRENCY, DENOMINATION, FORM, CERTAIN DEFINITIONS

(1) *Currency; Denomination.* The notes (the "**Notes**") of Bayer Capital Corporation B.V. (the "**Issuer**") are being issued in Euro (the "**Specified Currency**") in the aggregate principal amount (subject to § 1(4)) of EUR 750,000,000 (in words: Euro seven hundred fifty million) in denominations of EUR 100,000 each (the "**Specified Denomination**").

(2) *Form.* The Notes are being issued in bearer form.

(3) *Temporary Global Note — Exchange.*

(a) The Notes are initially represented by a temporary global note (the "**Temporary Global Note**") without coupons. The Temporary Global Note will be exchangeable for Notes in Specified Denominations represented by a permanent global note (the "**Permanent Global Note**" and, together with the Temporary Global Note, the "**Global Notes**" and each a "**Global Note**") without coupons. The Temporary Global Note and the Permanent Global Note shall each be signed by one authorized signatory of the Issuer and shall each be authenticated by or on behalf

Unterschrift eines ordnungsgemäß bevollmächtigten Vertreters der Emittentin und sind jeweils von der Zahlstelle oder in deren Namen mit einer Kontrollunterschrift versehen. Einzelurkunden und Zinsscheine werden nicht ausgegeben.

- (b) Die vorläufige Globalurkunde wird frühestens an einem Tag (der "**Austauschtag**") gegen die Dauerglobalurkunde austauschbar, der 40 Tage nach dem Tag der Ausgabe der vorläufigen Globalurkunde liegt. Ein solcher Austausch soll nur nach Vorlage von Bescheinigungen gemäß U.S. Steuerrecht erfolgen, wonach der oder die wirtschaftlichen Eigentümer der durch die vorläufige Globalurkunde verbrieften Schuldverschreibungen keine U.S.-Personen sind (ausgenommen bestimmte Finanzinstitute oder bestimmte Personen, die Schuldverschreibungen über solche Finanzinstitute halten). Zinszahlungen auf durch eine vorläufige Globalurkunde verbrieft Schuldverschreibungen erfolgen erst nach Vorlage solcher Bescheinigungen. Eine gesonderte Bescheinigung ist hinsichtlich einer jeden solchen Zinszahlung erforderlich. Jede Bescheinigung, die am oder nach dem 40. Tag nach dem Tag der Ausgabe der vorläufigen Globalurkunde eingeht, wird als ein Ersuchen behandelt, diese vorläufige Globalurkunde gemäß diesem Absatz (b) dieses § 1 Absatz 3 auszutauschen. Wertpapiere, die im Austausch für die vorläufige Globalurkunde geliefert werden, sind nur außerhalb der Vereinigten Staaten (wie in § 4 Absatz 3 definiert) zu liefern.

(4) *Clearing System.* Die Globalurkunden werden jeweils von einem oder im Namen eines Clearing Systems verwahrt, bis sämtliche Verbindlichkeiten der Emittentin aus den Schuldverschreibungen erfüllt sind. "**Clearing System**" bedeutet jeweils folgendes: Clearstream Banking, société anonyme, 42 Avenue JF Kennedy, 1855 Luxemburg, Großherzogtum Luxemburg ("**CBL**") und Euroclear Bank SA/NV, Boulevard du Roi Albert II, 1210 Brussels, Belgium ("**Euroclear**"), (CBL and Euroclear jeweils ein "**ICSD**" und zusammen die "**ICSDs**").

Die Schuldverschreibungen werden in Form einer new global note ("**NGN**") ausgegeben und von einem common safekeeper im Namen beider ICSDs verwahrt.

Der Gesamtnennbetrag der durch die Globalurkunde verbrieften Schuldverschreibungen entspricht dem jeweils in den Registern beider ICSDs eingetragenen Gesamtnennbetrag. Die Register der ICSDs (unter denen man die Register versteht, die jeder ICSD für seine Kunden über den Betrag ihres Anteils an den Schuldverschreibungen führt) sind maßgeblicher

of the Paying Agent. Definitive notes and interest coupons will not be issued.

- (b) The Temporary Global Note shall be exchangeable for the Permanent Global Note from a date (the "**Exchange Date**") 40 days after the date of issue of the Temporary Global Note. Such exchange shall only be made upon delivery of certifications to the effect that the beneficial owner or owners of the Notes represented by the Temporary Global Note are not U.S. persons (other than certain financial institutions or certain persons holding Notes through such financial institutions) as required by U.S. tax law. Payment of interest on Notes represented by a Temporary Global Note will be made only after delivery of such certifications. A separate certification shall be required in respect of each such payment of interest. Any such certification received on or after the 40th day after the date of issue of the Temporary Global Note will be treated as a request to exchange such Temporary Global Note pursuant to this subparagraph (b) of this § 1(3). Any securities delivered in exchange for the Temporary Global Note shall be delivered only outside of the United States (as defined in § 4(3)).

(4) *Clearing System.* Each of the Global Notes will be kept in custody by or on behalf of the Clearing System until all obligations of the Issuer under the Notes have been satisfied. "**Clearing System**" means each of the following: Clearstream Banking, société anonyme, 42 Avenue JF Kennedy, 1855 Luxemburg, Großherzogtum Luxemburg ("**CBL**") and Euroclear Bank SA/NV, Boulevard du Roi Albert II, 1210 Brussels, Belgium ("**Euroclear**"), (CBL and Euroclear each an "**ICSD**" and together the "**ICSDs**").

The Notes are issued in new global note ("**NGN**") form and are kept in custody by a common safekeeper on behalf of both ICSDs.

The aggregate principal amount of Notes represented by the Global Note shall be the aggregate amount as entered from time to time in the records of both ICSDs. The records of the ICSDs (which expression means the records that each ICSD holds for its customers and which reflect the amount of such customer's interest in the Notes) shall be conclusive evidence of the

Nachweis über den Gesamtnennbetrag der durch die Globalurkunde verbrieften Schuldverschreibungen, und eine zu diesen Zwecken von einem ICSD jeweils ausgestellte Bescheinigung mit dem Betrag der so verbrieften Schuldverschreibungen ist ein maßgeblicher Nachweis über den Inhalt des Registers des jeweiligen ICSD zu diesem Zeitpunkt.

Bei Rückzahlung oder einer Zinszahlung bezüglich der durch die Globalurkunde verbrieften Schuldverschreibungen bzw. bei Kauf und Entwertung der durch die Globalurkunde verbrieften Schuldverschreibungen stellt die Emittentin sicher, dass die Einzelheiten über Rückzahlung und Zinszahlung bzw. Kauf und Löschung bezüglich der Globalurkunde *pro rata* in die Unterlagen der ICSDs eingetragen werden, und dass, nach jeder Eintragung, vom Gesamtnennbetrag der in die Register der ICSDs aufgenommenen und durch die Globalurkunde verbrieften Schuldverschreibungen der Gesamtbetrag der zurückgezahlten bzw. gekauften und entwerteten Schuldverschreibungen abgezogen wird.

Bei Austausch eines Anteils von ausschließlich durch eine vorläufige Globalurkunde verbrieft Schuldverschreibungen wird die Emittentin sicherstellen, dass die Einzelheiten dieses Austauschs *pro rata* in die Register der ICSDs aufgenommen werden.

(5) *Gläubiger von Schuldverschreibungen*. "**Gläubiger**" bedeutet jeder Inhaber eines Miteigentumsanteils oder vergleichbarer Rechte an den Globalurkunden.

## § 2

### STATUS, NEGATIVVERPFLICHTUNG, GARANTIE

(1) *Status*. Die Schuldverschreibungen begründen nicht besicherte und nicht nachrangige Verbindlichkeiten der Emittentin, die untereinander und mit allen anderen gegenwärtigen und zukünftigen nicht besicherten und nicht nachrangigen Verbindlichkeiten der Emittentin gleichrangig sind, soweit diesen Verbindlichkeiten nicht durch gesetzliche Bestimmungen ein Vorrang eingeräumt wird.

(2) *Negativverpflichtung*. Die Emittentin verpflichtet sich, solange Schuldverschreibungen ausstehen, jedoch nur bis zu dem Zeitpunkt, an dem alle Beträge an Kapital und Zinsen der Zahlstelle zur Verfügung gestellt worden sind, für andere, nachstehend definierte Wertpapieremissionen nach dem Tag der Begebung der Schuldverschreibungen kein Sicherungsrecht ("**Pfandrecht**") am eigenen inländischen Vermögen zu bestellen, ohne die Gläubiger zur gleichen Zeit und im gleichen Rang an einem solchen Pfandrecht teilhaben zu lassen (ein solches Pfandrecht kann auch zugunsten einer Person, die als Treuhänder der Gläubiger tätig ist, bestellt werden), mit der Maßgabe, dass diese Verpflichtung keine Anwendung findet, falls die

aggregate principal amount of Notes represented by the Global Note and, for these purposes, a statement issued by an ICSD stating the amount of Notes so represented at any time shall be conclusive evidence of the records of the relevant ICSD at that time.

Upon any redemption or payment of interest being made in respect of, or purchase and cancellation of, any of the Notes represented by the Global Note the Issuer shall procure that details of any redemption, payment of interest or purchase and cancellation (as the case may be) in respect of the Global Note shall be entered *pro rata* in the records of the ICSDs and, upon any such entry being made, the aggregate principal amount of the Notes recorded in the records of the ICSDs and represented by the Global Note shall be reduced by the aggregate principal amount of the Notes so redeemed or purchased and cancelled.

Upon the exchange of only a portion of the Notes represented by a Temporary Global Note, the Issuer shall procure that details of such exchange shall be entered *pro rata* in the records of the ICSDs.

(5) *Holder of Notes*. "**Holder**" means any holder of a proportionate co-ownership or similar rights in the Global Notes.

## § 2

### STATUS, NEGATIVE PLEDGE, GUARANTEE

(1) *Status*. The obligations under the Notes constitute unsecured and unsubordinated obligations of the Issuer ranking *pari passu* among themselves and *pari passu* with all other present or future unsecured and unsubordinated obligations of the Issuer except for any obligations preferred by law.

(2) *Negative Pledge*. The Issuer undertakes, as long as Notes are outstanding but only up to the time all amounts of principal and interest have been provided to the Paying Agent, not to provide after the issue date of the Notes any security interest ("**Lien**") upon its domestic assets for other Security Issues (as defined below) without at the same time letting the Holders share *pari passu* in such Lien (such Lien may also be provided to a person acting as trustee for the Holders); provided, however, that this undertaking shall not be applicable in the event the Issuer shall create, assume or suffer to exist Liens of the following character:

Emittentin Pfandrechte folgender Art bestellt, übernimmt oder bestehen lässt:

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| (a) Pfandrechte, die auf einem Vermögensgegenstand zum Zeitpunkt des Erwerbs durch die Emittentin lasten;  | (a) any Lien existing on property at the time of the acquisition thereof by the Issuer;   |
| (b) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor dem Erwerb, zum Zeitpunkt des Erwerbs oder innerhalb von 12 Monaten nach dem Erwerb eines Vermögensgegenstandes durch die Emittentin zum Zwecke der vollständigen oder teilweisen Kaufpreisfinanzierung eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diesen Kaufpreis hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;   | (b) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the acquisition of property by the Issuer for the purpose of financing all or any part of the purchase price thereof and any Lien to the extent that it secures debt which is in excess of such purchase price and for the payment of which recourse may be had only against such property;  |
| (c) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor, zum Zeitpunkt, oder innerhalb von 12 Monaten nach der Fertigstellung einer Errichtung, Veränderung, Instandsetzung oder Verbesserung eines Vermögensgegenstandes der Emittentin zum Zwecke der vollständigen oder teilweisen Finanzierung der dabei entstehenden Kosten eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diese Kosten hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;  | (c) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the completion of the construction, alteration, repair or improvement of property of the Issuer for the purpose of financing all or any part of the cost thereof and any Lien to the extent that it secures debt which is in excess of such cost and for the payment of which recourse may be had only against such property;  |
| (d) Pfandrechte an gegenwärtigen oder zukünftigen Ansprüchen der Emittentin gegen die Garantin oder eine ihrer Tochtergesellschaften aufgrund der Weiterleitung von Erlösen aus Wertpapieremissionen, soweit diese Pfandrechte zur Sicherung von Verpflichtungen aus der Wertpapieremission dienen;  | (d) any Lien over any existing or future claims of the Issuer against the Guarantor or any of its subsidiaries as a result of passing on proceeds from any Security Issue, provided that such Lien serves as security interest for obligations under the Security Issue;  |
| (e) jedwede vollständige oder teilweise Verlängerung, Erneuerung oder Ersetzung (oder wiederholte Verlängerungen, Erneuerungen oder Ersetzungen) eines der vorstehend in den Klauseln (a) bis (d) aufgeführten Pfandrechte, soweit der Nennbetrag der dadurch besicherten Verbindlichkeit den im Zeitpunkt einer solchen Verlängerung, Erneuerung oder Ersetzung besicherten Nennbetrag nicht übersteigt (mit der Ausnahme, dass zusätzliche Verbindlichkeiten sowie damit verbundene Finanzierungskosten durch das Pfandrecht besichert werden können, wenn diese zusätzlichen Verbindlichkeiten zur Mittelbeschaffung für die Fertigstellung eines bestimmten Vorhabens eingegangen werden), und soweit das Pfandrecht auf denselben | (e) any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part of any Lien referred to in clauses (a) through (d) above, so long as the principal amount of debt so secured does not exceed the principal amount secured at the time of extension, renewal or replacement (except that, where an additional principal amount of debt is incurred to provide funds for the completion of a specific project, the additional principal amount and any related financial costs, may be secured by the Lien as well) and the Lien is limited to the same property subject to the Lien so extended, renewed or replaced (plus improvements on the property); |

Vermögensgegenstand, an welchem das verlängerte, erneuerte oder ersetzte Pfandrecht bestanden hat, beschränkt bleibt (einschließlich Wertverbesserungen des Vermögensgegenstandes);

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| <p>(f) Pfandrechte, die kraft Gesetzes entstehen;</p> <p>(g) Pfandrechte, die aus oder in Verbindung mit der Veräußerung oder der Vermietung von Vermögensgegenständen an Leasinggesellschaften entstehen, die den Gesamtbetrag von €1.000.000.000 pro Jahr oder den Gegenwert in anderen Währungen nicht übersteigen (seit dem Tag der Begebung der Schuldverschreibungen); und</p> <p>(h) Pfandrechte, die Verbindlichkeiten besichern, deren Betrag €250.000.000 (aggregiert mit dem Betrag von anderen Verbindlichkeiten, die ein Pfandrecht besitzen, welches nach den vorstehenden Unterabsätzen nicht erlaubt ist) oder den Gegenwert in anderen Währungen zu jeder Zeit nicht übersteigt.</p> | <p>(f) any Lien arising by operation of law;</p> <p>(g) any Lien arising from or related to a disposal or lease-out of assets to any person whose core business is the leasing business (<i>Leasinggesellschaften</i>) that does not exceed an aggregate of €1,000,000,000 per year or the equivalent in other currencies (as from the issue date of the Notes); and</p> <p>(h) any Lien securing indebtedness the amount of which (when aggregated with the amount of any other indebtedness which has the benefit of a Lien not allowed under the preceding subparagraphs) does not exceed €250,000,000 or its equivalent in other currencies at any time.</p> |
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In Bezug auf von der Emittentin begebene asset-backed Emissionen, schließen die im ersten Satz dieses Abschnittes (2) benutzten Worte "Vermögen" und "Wertpapieremission" nicht Vermögensgegenstände und Wertpapieremissionen der Emittentin ein, solange das Vermögen, das derartige Emissionen deckt zusammen €2.000.000.000 nicht übersteigt.

In respect of asset-backed securitizations originated by the Issuer, the expressions "assets" and "Security Issue" as used in the first sentence of this subparagraph (2) do not include assets and Security Issues of the Issuer if the assets backing such securitizations do not in aggregate exceed €2,000,000,000.

**"Wertpapieremission"** bedeutet jede Zahlungsverpflichtung aus der Aufnahme von Geld in der Form von oder verbrieft durch Schuldverschreibungen oder ähnliche(n) Wertpapiere(n) mit einer ursprünglichen Laufzeit von mehr als einem Jahr, die an einer Wertpapierbörse oder in einem over-the-counter Wertpapiermarkt notiert, eingeführt oder gehandelt werden oder die anderweitig öffentlich gehandelt werden oder gehandelt werden sollen.

**"Security Issue"** shall mean any obligation for the payment of borrowed money represented by bonds, notes, debentures or any similar securities which are quoted, listed or traded on any stock exchange or over-the-counter securities market or which are otherwise publicly traded or intended to be publicly traded, having an original maturity of more than one year.

(3) *Garantie und Negativverpflichtung der Garantin.* Bayer Aktiengesellschaft (die "**Garantin**") hat eine unbedingte und unwiderrufliche Garantie (die "**Garantie**") vom 22. Juni 2018 für die ordnungsgemäße Zahlung von Kapital und Zinsen und sonstiger auf die Schuldverschreibungen zahlbarer Beträge übernommen.

(3) *Guarantee and Negative Pledge of the Guarantor.* Bayer Aktiengesellschaft (the "**Guarantor**") has given its unconditional and irrevocable guarantee (the "**Guarantee**") dated June 22, 2018 for the due and punctual payment of principal of, and interest on, and any other amounts payable under any Note.

Die Garantie begründet eine unbedingte, unbesicherte und nicht nachrangige Verbindlichkeit der Garantin, die vorbehaltlich solcher Verbindlichkeiten, die aufgrund Gesetz vorrangig sind, mit allen anderen jeweils bestehenden, nicht besicherten und nicht nachrangigen Verbindlichkeiten der Garantin gleichrangig ist.

The Guarantee constitutes an unconditional, unsecured and unsubordinated obligation of the Guarantor and ranks *pari passu* with all other present or future unsecured and unsubordinated obligations of the Guarantor outstanding from time to time, subject to any obligations preferred by law.

Die Garantin übernimmt außerdem eine Negativverpflichtung (die "**Negativverpflichtung**"),

The Guarantor has further undertaken in a negative pledge (the "**Negative Pledge**"), as long as Notes are

solange Schuldverschreibungen ausstehen, jedoch nur bis zu dem Zeitpunkt, an dem alle Beträge an Kapital und Zinsen der Zahlstelle zur Verfügung gestellt worden sind, für andere, vorstehend definierte Wertpapieremissionen nach dem Tag der Begebung der Schuldverschreibungen kein Pfandrecht, wie vorstehend definiert, am eigenen inländischen Vermögen zu bestellen, ohne die Gläubiger zur gleichen Zeit und im gleichen Rang an einem solchen Pfandrecht teilhaben zu lassen (ein solches Pfandrecht kann auch zugunsten einer Person, die als Treuhänder der Gläubiger tätig ist, bestellt werden), mit der Maßgabe, dass diese Verpflichtung keine Anwendung findet, falls die Garantin Pfandrechte folgender Art bestellt, übernimmt oder bestehen lässt:

- (a) Pfandrechte, die auf einem Vermögensgegenstand zum Zeitpunkt des Erwerbs durch die Garantin lasten;
- (b) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor dem Erwerb, zum Zeitpunkt des Erwerbs oder innerhalb von 12 Monaten nach dem Erwerb eines Vermögensgegenstandes durch die Garantin zum Zwecke der vollständigen oder teilweisen Kaufpreisfinanzierung eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diesen Kaufpreis hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;
- (c) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor, zum Zeitpunkt, oder innerhalb von 12 Monaten nach der Fertigstellung einer Errichtung, Veränderung, Instandsetzung oder Verbesserung eines Vermögensgegenstandes der Garantin zum Zwecke der vollständigen oder teilweisen Finanzierung der dabei entstehenden Kosten eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diese Kosten hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;
- (d) jedwede vollständige oder teilweise Verlängerung, Erneuerung oder Ersetzung (oder wiederholte Verlängerungen, Erneuerungen oder Ersetzungen) eines der vorstehend in den Klauseln (a) bis (c) aufgeführten Pfandrechte, soweit der Nennbetrag der dadurch besicherten Verbindlichkeit den im Zeitpunkt einer solchen Verlängerung, Erneuerung oder Ersetzung besicherten Nennbetrag nicht übersteigt (mit der Ausnahme, dass zusätzliche Verbindlichkeiten

outstanding but only up to the time all amounts of principal and interest have been provided to the Paying Agent, not to provide after the issue date of the Notes any Lien (as defined above) upon its domestic assets for other Security Issues (as defined above) without at the same time letting the Holders share *pari passu* in such Lien (such Lien may also be provided to a person acting as trustee for the Holders); provided, however, that this undertaking shall not be applicable in the event the Guarantor shall create, assume or suffer to exist Liens of the following character:

- (a) any Lien existing on property at the time of the acquisition thereof by the Guarantor;
- (b) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the acquisition of property by the Guarantor for the purpose of financing all or any part of the purchase price thereof and any Lien to the extent that it secures debt which is in excess of such purchase price and for the payment of which recourse may be had only against such property;
- (c) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the completion of the construction, alteration, repair or improvement of property of the Guarantor for the purpose of financing all or any part of the cost thereof and any Lien to the extent that it secures debt which is in excess of such cost and for the payment of which recourse may be had only against such property;
- (d) any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part of any Lien referred to in clauses (a) through (c) above, so long as the principal amount of debt so secured does not exceed the principal amount secured at the time of extension, renewal or replacement (except that, where an additional principal amount of debt is incurred to provide funds for the completion of a specific project, the



sowie damit verbundene Finanzierungskosten durch das Pfandrecht besichert werden können, wenn diese zusätzlichen Verbindlichkeiten zur Mittelbeschaffung für die Fertigstellung eines bestimmten Vorhabens eingegangen werden), und soweit das Pfandrecht auf denselben Vermögensgegenstand, an welchem das verlängerte, erneuerte oder ersetzte Pfandrecht bestanden hat, beschränkt bleibt (einschließlich Wertverbesserungen des Vermögensgegenstandes);

- (e) Pfandrechte, die kraft Gesetzes entstehen;
- (f) Pfandrechte, die aus oder in Verbindung mit der Veräußerung oder der Vermietung von Vermögensgegenständen an Leasinggesellschaften entstehen, die den Gesamtbetrag von €1.000.000.000 pro Jahr oder den Gegenwert in anderen Währungen nicht übersteigen (seit dem Tag der Begebung der Schuldverschreibungen); und
- (g) Pfandrechte, die Verbindlichkeiten besichern, deren Betrag €250.000.000 (aggregiert mit dem Betrag von anderen Verbindlichkeiten, die ein Pfandrecht besitzen welches nach den vorstehenden Unterabsätzen nicht erlaubt ist) oder den Gegenwert in anderen Währungen zu jeder Zeit nicht übersteigt.

In Bezug auf von der Garantin begebene asset-backed Emissionen, schließen die im ersten Satz des zweiten Absatzes dieses Abschnittes (3) benutzten Worte "Vermögen" und "Wertpapieremission" nicht Vermögensgegenstände und Wertpapieremissionen der Garantin ein, solange das Vermögen, das derartige Emissionen deckt, zusammen €2.000.000.000 nicht übersteigt.

Die Garantie und die Negativverpflichtung stellen einen Vertrag zugunsten eines jeden Gläubigers als begünstigtem Dritten gemäß § 328 Absatz 1 BGB dar, welcher das Recht eines jeden Gläubigers begründet, Erfüllung aus der Garantie und der Negativverpflichtung unmittelbar von der Garantin zu verlangen und die Garantie und die Negativverpflichtung unmittelbar gegenüber der Garantin durchzusetzen.

### § 3 ZINSEN

(1) *Zinszahlungstage.*

(a) Die Schuldverschreibungen werden bezogen auf ihren Nennbetrag vom 26. Juni 2018 an (der "**Verzinsungsbeginn**") (einschließlich) bis zum ersten Zinszahlungstag (ausschließlich) und danach von jedem Zinszahlungstag (einschließlich) bis zum nächstfolgenden Zinszahlungstag (ausschließlich) verzinst. Zinsen auf die Schuldverschreibungen sind an jedem Zinszahlungstag zahlbar.

additional principal amount and any related financial costs, may be secured by the Lien as well) and the Lien is limited to the same property subject to the Lien so extended, renewed or replaced (plus improvements on the property);

- (e) any Lien arising by operation of law;
- (f) any Lien arising from or related to a disposal or lease-out of assets to any person whose core business is the leasing business (*Leasinggesellschaften*) that does not exceed an aggregate of €1,000,000,000 per year or the equivalent in other currencies (as from the issue date of the Notes); and
- (g) any Lien securing indebtedness the amount of which (when aggregated with the amount of any other indebtedness which has the benefit of a Lien not allowed under the preceding subparagraphs) does not exceed €250,000,000 or its equivalent in other currencies at any time.

In respect of asset-backed securitizations originated by the Guarantor, the expressions "assets" and "Security Issue" as used in the first sentence of the second paragraph of this subparagraph (3) do not include assets and Security Issues of the Guarantor if the assets backing such securitizations do not in aggregate exceed €2,000,000,000.

The Guarantee and Negative Pledge constitute a contract for the benefit of the Holders from time to time as third party beneficiaries in accordance with § 328 subparagraph 1 *BGB* (German Civil Code), giving rise to the right of each Holder to require performance of the Guarantee and the Negative Pledge directly from the Guarantor and to enforce the Guarantee and the Negative Pledge directly against the Guarantor.

### § 3 INTEREST

(1) *Interest Payment Dates.*

(a) The Notes shall bear interest on their principal amount from June 26, 2018 (the "**Interest Commencement Date**") (inclusive) to the first Interest Payment Date (exclusive) and thereafter from each Interest Payment Date (inclusive) to the next following Interest Payment Date (exclusive). Interest on the Notes shall be payable on each Interest Payment Date.

(b) "**Zinszahlungstag**" bedeutet jeder 26. März, 26. Juni, 26. September und 26. Dezember.

(c) Fällt ein Zinszahlungstag auf einen Tag, der kein Geschäftstag (wie nachstehend definiert) ist, so wird der Zinszahlungstag auf den nächstfolgenden Geschäftstag verschoben, es sei denn, jener würde dadurch in den nächsten Kalendermonat fallen; in diesem Fall wird der Zinszahlungstag auf den unmittelbar vorausgehenden Geschäftstag vorgezogen.

(d) "**Geschäftstag**" bedeutet einen Tag (außer einem Samstag oder Sonntag), an dem das Clearing System sowie alle betroffenen Bereiche des Trans-European Automated Real-time Gross Settlement Express Transfer Systems 2 ("**TARGET**") offen sind, um Zahlungen abzuwickeln.

(2) *Zinssatz*. Der Zinssatz (der "**Zinssatz**") für jede Zinsperiode (wie nachstehend definiert) ist, sofern nachstehend nichts abweichendes bestimmt wird, der Referenzzinssatz für die jeweilige Zinsperiode zuzüglich der Marge (wie nachstehend definiert), wobei alle Festlegungen durch die Berechnungsstelle erfolgen.

"**Referenzzinssatz**" bezeichnet die 3-Monats Euro Interbank Offered Rate (ausgedrückt als Prozentsatz *per annum*), die auf der Bildschirmseite am Zinsfestlegungstag (wie nachstehend definiert) gegen 11.00 Uhr (Brüsseler Ortszeit) angezeigt wird.

"**Zinsperiode**" bezeichnet den Zeitraum von dem Verzinsungsbeginn (einschließlich) bis zum ersten Zinszahlungstag (ausschließlich) bzw. von jedem Zinszahlungstag (einschließlich) bis zum jeweils darauffolgenden Zinszahlungstag (ausschließlich).

"**Zinsfestlegungstag**" bezeichnet den zweiten TARGET Geschäftstag vor Beginn der jeweiligen Zinsperiode. "**TARGET-Geschäftstag**" bezeichnet einen Tag, an dem alle betroffenen Bereiche des Trans-European Automated Real-time Gross Settlement Express Transfer Systems 2 ("**TARGET**") offen sind, um Zahlungen abzuwickeln.

Die "**Marge**" beträgt 0,55 % *per annum*.

"**Bildschirmseite**" bedeutet Reuters Bildschirmseite EURIBOR01 oder jede Nachfolgeside.

Sollte zu der genannten Zeit die maßgebliche Bildschirmseite nicht zur Verfügung stehen oder kein Referenzzinssatz angezeigt werden, wird die Berechnungsstelle von den Referenzbanken (wie nachstehend definiert) deren jeweilige Angebotssätze (jeweils als Prozentsatz *per annum* ausgedrückt) für Einlagen in der festgelegten Währung für die betreffende Zinsperiode gegenüber führenden Banken Interbanken-Markt um ca. 11.00 Uhr (Brüsseler Ortszeit) am Zinsfestlegungstag anfordern. Falls zwei oder mehr Referenzbanken der Berechnungsstelle solche Angebotssätze nennen, ist der Referenzzinssatz für die

(b) "**Interest Payment Date**" means each March 26, June 26, September 26 and December 26.

(c) If any Interest Payment Date would otherwise fall on a day which is not a Business Day (as defined below), it shall be postponed to the next day which is a Business Day unless it would thereby fall into the next calendar month, in which event the payment date shall be the immediately preceding Business Day.

(d) "**Business Day**" means a day (other than a Saturday or a Sunday) on which the Clearing System as well as all relevant parts of the Trans-European Automated Real-time Gross Settlement Express Transfer System 2 ("**TARGET**") are open to effect payments.

(2) *Rate of Interest*. The rate of interest (the "**Rate of Interest**") for each Interest Period (as defined below) will, except as provided below, be the Reference Rate for that Interest Period plus the Margin (as defined below), all as determined by the Calculation Agent.

"**Reference Rate**" means the 3-month Euro Interbank Offered Rate (expressed as a percentage rate per annum) which appears on the Screen Page as of 11:00 a. m. (Brussels time) on the Interest Determination Date (as defined below).

"**Interest Period**" means each period from (and including) the Interest Commencement Date to (but excluding) the first Interest Payment Date and from (and including) each Interest Payment Date to (but excluding) the following Interest Payment Date.

"**Interest Determination Date**" means the second TARGET Business Day prior to the commencement of the relevant Interest Period. "**TARGET Business Day**" means a day on which all relevant parts of the Trans-European Automated Real-time Gross Settlement Express Transfer System 2 ("**TARGET**") are open to effect payments.

"**Margin**" means 0.55 percent *per annum*.

"**Screen Page**" means Reuters screen page EURIBOR01 or any successor page.

If the Screen Page is not available or if no quotation of the Reference Rate appears as at such time, the Calculation Agent shall request each of the Reference Banks (as defined below) to provide the Calculation Agent with its offered quotation (expressed as a percentage rate per annum) for deposits in the Specified Currency for the relevant Interest Period to leading banks in the interbank market of the Euro-Zone at approximately 11.00 a.m. (Brussels time) on the Interest Determination Date. If two or more of the Reference Banks provide the Calculation Agent with such offered quotations, the Reference Rate for such

betreffende Zinsperiode das arithmetische Mittel (falls erforderlich, auf- oder abgerundet auf das nächste ein Tausendstel Prozent, wobei 0,0005 aufgerundet wird) dieser Angebotssätze, wobei alle Festlegungen durch die Berechnungsstelle erfolgen.

Falls an einem Zinsfestlegungstag nur eine oder keine der Referenzbanken der Berechnungsstelle solche im vorstehenden Absatz beschriebenen Angebotssätze nennt, ist der Referenzzinssatz für die betreffende Zinsperiode der Satz *per annum*, den die Berechnungsstelle als das arithmetische Mittel (falls erforderlich, auf- oder abgerundet auf das nächste ein Tausendstel Prozent, wobei 0,0005 aufgerundet wird) der Angebotssätze ermittelt, die von der Berechnungsstelle in angemessener Sorgfalt ausgewählten Großbanken im Interbanken-Markt in der Euro-Zone der Berechnungsstelle auf deren Anfrage als den jeweiligen Satz nennen, zu dem sie um ca. 11:00 Uhr (Brüsseler Ortszeit) an dem betreffenden Zinsfestlegungstag Darlehen in der festgelegten Währung für die betreffende Zinsperiode und über einen repräsentativen Betrag gegenüber führenden europäischen Banken anbieten.

Für den Fall, dass der Referenzzinssatz nicht gemäß den vorstehenden Bestimmungen dieses Absatzes ermittelt werden kann, ist der Referenzzinssatz der Angebotssatz auf der Bildschirmseite, wie vorstehend beschrieben, an dem letzten Tag vor dem Zinsfestlegungstag, an dem diese Angebotssätze angezeigt wurden, wobei alle Festlegungen durch die Berechnungsstelle erfolgen.

Sollte der Referenzzinssatz für die jeweilige Zinsperiode nicht auf der maßgeblichen Bildschirmseite zur Verfügung stehen, weil der Referenzzinssatz nicht mehr berechnet oder verwaltet wird, und ein geeigneter Ersatz-Referenzzinssatz zur Verfügung stehen, der entweder als Nachfolger des Referenzzinssatzes offiziell bekanntgegeben wird oder, falls dies nicht der Fall ist, nach Ansicht der Emittentin nach Konsultation mit einem von ihr bestellten unabhängigen Sachverständigen dem Referenzzinssatz in seiner Zusammensetzung möglichst nahekommt und die Gläubiger nicht benachteiligt, tritt an die Stelle des Referenzzinssatzes für die Restlaufzeit der Schuldverschreibungen dieser Ersatz-Referenzzinssatz. Voraussetzung hierfür ist, dass der Ersatz-Referenzzinssatz gemäß Artikel 29 Absatz 1 der Verordnung (EU) 2016/1011 des Europäischen Parlaments und des Rates vom 8. Juni 2016 über Indizes, die bei Finanzinstrumenten und Finanzkontrakten als Referenzzinssatz oder zur Messung der Wertentwicklung eines Investmentfonds verwendet werden (die "**Benchmark-Verordnung**"), (x) von einem Administrator bereitgestellt wird, der in der Europäischen Union angesiedelt ist und in das Register nach Artikel 36 der Benchmark-Verordnung eingetragen

Interest Period shall be the arithmetic mean (rounded if necessary to the nearest one thousandth of a percentage point, with 0.0005 being rounded upwards) of such offered quotations, all as determined by the Calculation Agent.

If on any Interest Determination Date only one or none of the Reference Banks provides the Calculation Agent with such offered quotations as provided in the preceding paragraph, the Reference Rate for the relevant Interest Period shall be the rate per annum which the Calculation Agent determines as being the arithmetic mean (rounded if necessary to the nearest one thousandth of a percentage point, with 0.0005 being rounded upwards) of the rates, as communicated to (and at the request of) the Calculation Agent by major banks in the interbank market in the Euro-Zone, selected by the Calculation Agent acting in good faith, at which such banks offer, as at 11.00 a.m. (Brussels time) on the relevant Interest Determination Date, loans in the Specified Currency for the relevant Interest Period and in a representative amount to leading European banks.

If the Reference Rate cannot be determined in accordance with the foregoing provisions of this paragraph, the Reference Rate shall be the offered quotation on the Screen Page, as described above, on the last day preceding the Interest Determination Date on which such quotations were displayed, all as determined by the Calculation Agent.

If the Reference Rate for the relevant Interest Period has ceased to be published on the Screen Page as a result of the Reference Rate ceasing to be calculated or administered and a suitable substitute reference rate is available which either is officially announced as successor to the Reference Rate or, failing that, in the opinion of the Issuer after consultation with an independent financial adviser appointed by it, comes as close as possible to the composition of the existing Reference Rate and is not prejudicial to the Holders, the existing Reference Rate will be replaced for the remaining term to maturity of the Notes by this substitute reference rate and such substitute reference rate shall be the Reference Rate in relation to the Notes for all future Interest Periods. A precondition for this is that, in accordance with Article 29(1) of the Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the "**Benchmark Regulation**"), the substitute reference rate (x) will be provided by an administrator located in the European Union and which will be included in the register as referred to Article 36 of the Benchmark Regulation or (y) will be provided by

ist oder (y) von einem in einem Drittstaat angesiedelten Administrator für die Verwendung in der Europäischen Union bereitgestellt wird und der Ersatz-Referenzzinssatz sowie der Administrator in das Register nach Artikel 36 der Benchmark-Verordnung eingetragen sind. Eine solche Ersetzung ist gemäß § 13 bekannt zu machen. Wenn kein geeigneter Ersatz-Referenzzinssatz offiziell bekanntgegeben wird als Nachfolger des Referenzzinssatzes oder wenn es der Emittentin nicht möglich ist oder die Emittentin nicht willens ist, den Ersatz-Referenzzinssatz vor dem Zinsfestlegungstag für die nächste folgende Zinsperiode in Übereinstimmung mit diesem Absatz zu bestimmen, dann ist der Referenzzinssatz der Angebotssatz auf der Bildschirmseite, wie vorstehend beschrieben, an dem letzten Tag vor dem Zinsfestlegungstag, an dem dieser Referenzzinssatz angezeigt wurde), wobei alle Festlegungen durch die Berechnungsstelle erfolgen.

**"Referenzbanken"** bezeichnen diejenigen Niederlassungen von vier derjenigen Banken, deren Angebotssätze zur Ermittlung des maßgeblichen Angebotssatzes zu dem Zeitpunkt benutzt wurden, als solch ein Angebot letztmals auf der maßgeblichen Bildschirmseite angezeigt wurde.

**"Euro-Zone"** bezeichnet das Gebiet derjenigen Mitgliedstaaten der Europäischen Union, die gemäß dem Vertrag über die Gründung der Europäischen Gemeinschaft (unterzeichnet in Rom am 25. März 1957), geändert durch den Vertrag über die Europäische Union (unterzeichnet in Maastricht am 7. Februar 1992), den Amsterdamer Vertrag vom 2. Oktober 1997 und den Vertrag von Lissabon vom 13. Dezember 2007, in seiner jeweiligen Fassung, eine einheitliche Währung eingeführt haben oder jeweils eingeführt haben werden.

(3) *Mindestzinssatz.* Wenn der gemäß den obigen Bestimmungen für eine Zinsperiode ermittelte Zinssatz niedriger ist als 0 %, so ist der Zinssatz für diese Zinsperiode 0 %.

(4) *Zinsbetrag.* Die Berechnungsstelle wird zu oder baldmöglichst nach jedem Zeitpunkt, an dem der Zinssatz zu bestimmen ist, den Zinssatz bestimmen und den auf die Schuldverschreibungen zahlbaren Zinsbetrag in Bezug auf die festgelegte Stückelung (der **"Zinsbetrag"**) für die entsprechende Zinsperiode berechnen. Der Zinsbetrag wird ermittelt, indem der Zinssatz und der Zinstagequotient (wie nachstehend definiert) auf jede festgelegte Stückelung angewendet werden, wobei der resultierende Betrag auf die kleinste Einheit der festgelegten Währung auf- oder abgerundet wird, wobei 0,5 solcher Einheiten aufgerundet werden.

(5) *Mitteilung von Zinssatz und Zinsbetrag.* Die Berechnungsstelle wird veranlassen, dass der Zinssatz, der Zinsbetrag für die jeweilige Zinsperiode, die

an administrator located in a third country for use in the European Union and the substitute reference rate as well as the administrator will be included in the register as referred to Article 36 of the Benchmark Regulation. Notice of any such substitution shall be published in accordance with § 13. If no suitable substitute reference rate is officially announced as successor to the Reference Rate or if the Issuer is unable or unwilling to determine the substitute reference rate prior to the Interest Determination Date relating to the next succeeding Interest Period in accordance with this paragraph, the Reference Rate applicable to such Interest Period shall be equal to the offered quotation on the Screen Page, as described above, on the last day preceding the Interest Determination Date on which such offered quotation was displayed, all as determined by the Calculation Agent.

As used herein, **"Reference Banks"** means those offices of four such banks whose offered rates were used to determine such quotation when such quotation last appeared on the Screen Page.

**"Euro-Zone"** means the region comprised of those Member States of the European Union that have adopted, or will have adopted from time to time, the single currency in accordance with the Treaty establishing the European Community (signed in Rome on March 25, 1957), as amended by the Treaty on European Union (signed in Maastricht on February 7, 1992), the Amsterdam Treaty of October 2, 1997 and the Treaty of Lisbon of December 13, 2007, as further amended from time to time.

(3) *Minimum Rate of Interest.* If the Rate of Interest in respect of any Interest Period determined in accordance with the above provisions is less than 0 percent, the Rate of Interest for such Interest Period shall be 0 percent.

(4) *Interest Amount.* The Calculation Agent will, on or as soon as practicable after each time at which the Rate of Interest is to be determined, determine the Rate of Interest and calculate the amount of interest (the **"Interest Amount"**) payable on the Notes in respect of the Specified Denomination for the relevant Interest Period. Each Interest Amount shall be calculated by applying the Rate of Interest and the Day Count Fraction (as defined below) to the Specified Denomination and rounding the resultant figure, with 0.5 of such unit being rounded upwards.

(5) *Notification of Rate of Interest and Interest Amount.* The Calculation Agent will cause the Rate of Interest, each Interest Amount for each Interest Period, each

jeweilige Zinsperiode und der relevante Zinszahlungstag der Emittentin und den Gläubigern gemäß § 13 baldmöglichst, aber keinesfalls später als am vierten auf die Berechnung jeweils folgenden TARGET-Geschäftstag (wie in § 3 Absatz 2 definiert) sowie jeder Börse, an der die betreffenden Schuldverschreibungen zu diesem Zeitpunkt notiert sind und deren Regeln eine Mitteilung an die Börse verlangen, baldmöglichst, aber keinesfalls später als zu Beginn der jeweiligen Zinsperiode mitgeteilt werden. Im Fall einer Verlängerung oder Verkürzung der Zinsperiode können der mitgeteilte Zinsbetrag und Zinszahlungstag ohne Vorankündigung nachträglich angepaßt (oder andere geeignete Anpassungsregelungen getroffen) werden. Jede solche Anpassung wird umgehend allen Börsen, an denen die Schuldverschreibungen zu diesem Zeitpunkt notiert sind, sowie den Gläubigern gemäß § 13 mitgeteilt.

(6) *Verbindlichkeit der Festsetzungen.* Alle Bescheinigungen, Mitteilungen, Gutachten, Festsetzungen, Berechnungen, Quotierungen und Entscheidungen, die von der Berechnungsstelle für die Zwecke dieses § 3 gemacht, abgegeben, getroffen oder eingeholt werden, sind (sofern nicht ein offensichtlicher Irrtum vorliegt) für die Emittentin, die Zahlstelle und die Gläubiger bindend.

(7) *Auflaufende Zinsen.* Der Zinslauf der Schuldverschreibungen endet mit Ablauf des Tages, der dem Tag vorangeht, an dem sie zur Rückzahlung fällig werden. Sollte die Emittentin die Schuldverschreibungen bei Fälligkeit nicht einlösen, fallen auf den ausstehenden Nennbetrag der Schuldverschreibungen ab dem Fälligkeitstag (einschließlich) bis zum Tag der tatsächlichen Rückzahlung (ausschließlich) Zinsen zum gesetzlich festgelegten Satz für Verzugszinsen an.<sup>1</sup>

(8) *Zinstagequotient.* "Zinstagequotient" bezeichnet im Hinblick auf die Berechnung des Zinsbetrages auf eine Schuldverschreibung für einen beliebigen Zeitraum (der "Zinsberechnungszeitraum"): die tatsächliche Anzahl von Tagen im Zinsberechnungszeitraum, dividiert durch 360.

#### § 4 ZAHLUNGEN

(1) (a) Zahlungen auf Kapital. Zahlungen auf Kapital in Bezug auf die Schuldverschreibungen erfolgen nach Maßgabe des nachstehenden Absatzes 2 an das Clearing System oder gegebenenfalls dessen Order zur Gutschrift auf den Konten der jeweiligen Kontoinhaber des Clearing Systems gegen Vorlage und, soweit es sich nicht um eine Teilzahlung handelt, Übergabe der

Interest Period and the relevant Interest Payment Date to be notified to the Issuer and to the Holders in accordance with § 13 as soon as possible after their determination, but in no event later than the fourth TARGET Business Day (as defined in § 3(2)) thereafter, and, if required by the rules of any stock exchange on which the Notes are from time to time listed, to such stock exchange, as soon as possible after their determination, but in no event later than the first day of the relevant Interest Period. Each Interest Amount and Interest Payment Date so notified may subsequently be amended (or appropriate alternative arrangements made by way of adjustment) without notice in the event of an extension or shortening of the Interest Period. Any such amendment will be promptly notified to any stock exchange on which the Notes are then listed and to the Holders in accordance with § 13.

(6) *Determinations Binding.* All certificates, communications, opinions, determinations, calculations, quotations and decisions given, expressed, made or obtained for the purposes of the provisions of this § 3 by the Calculation Agent shall (in the absence of manifest error) be binding on the Issuer, the Paying Agent and the Holders.

(7) *Accrual of Interest.* The Notes shall cease to bear interest as from the beginning of the day on which they are due for redemption. If the Issuer shall fail to redeem the Notes when due, interest shall continue to accrue on the outstanding principal amount of the Notes beyond the due date (including) until the date of the actual redemption of the Notes (excluding) at the default rate of interest established by law.<sup>1</sup>

(8) *Day Count Fraction.* "Day Count Fraction" means, in respect of the calculation of an amount of interest on any Note for any period of time (the "Calculation Period"): the actual number of days in the Calculation Period divided by 360.

#### § 4 PAYMENTS

(1) (a) Payment of Principal. Payment of principal in respect of the Notes shall be made, subject to subparagraph (2) below, to the Clearing System or (if applicable) to its order for credit to the accounts of the relevant account holders of the Clearing System upon presentation and (except in the case of partial payment) surrender of the Global Note representing the Notes at the time

<sup>1</sup> Der gesetzliche Verzugszinssatz beträgt für das Jahr fünf Prozentpunkte über dem von der Deutsche Bundesbank von Zeit zu Zeit veröffentlichten Basiszinssatz, §§ 288 Absatz 1, 247 Absatz 1 BGB.

<sup>1</sup> The default rate of interest established by law is five percentage points above the basic rate of interest published by Deutsche Bundesbank from time to time, §§ 288(1), 247 German Civil Code (BGB).

Globalurkunde, mit der die Schuldverschreibungen verbrieft werden, zum Zeitpunkt der Zahlung in der bezeichneten Geschäftsstelle der Zahlstelle außerhalb der Vereinigten Staaten.

- (b) Zahlung von Zinsen. Die Zahlung von Zinsen auf die Schuldverschreibungen erfolgt nach Maßgabe von Absatz 2 an das Clearing System oder gegebenenfalls dessen Order zur Gutschrift auf den Konten der jeweiligen Kontoinhaber des Clearing Systems.

Die Zahlung von Zinsen auf die Schuldverschreibungen, die durch die vorläufige Globalurkunde verbrieft sind, erfolgt nach Maßgabe von Absatz 2 an das Clearing System oder gegebenenfalls dessen Order zur Gutschrift auf den Konten der jeweiligen Kontoinhaber des Clearing Systems, und zwar nach ordnungsgemäßer Bescheinigung gemäß § 1 Absatz 3(b).

(2) *Zahlungsweise.* Vorbehaltlich geltender steuerlicher und sonstiger gesetzlicher Regelungen und Vorschriften erfolgen zu leistende Zahlungen auf die Schuldverschreibungen in der festgelegten Währung.

(3) *Vereinigte Staaten.* Für die Zwecke des § 1 Absatz 3 und des Absatzes 1 dieses § 4 bezeichnet "**Vereinigte Staaten**" die Vereinigten Staaten von Amerika (einschließlich deren Bundesstaaten und des District of Columbia) sowie deren Territorien (einschließlich Puerto Rico, der U.S. Virgin Islands, Guam, American Samoa, Wake Island und Northern Mariana Islands).

(4) *Erfüllung.* Die Emittentin bzw. die Garantin wird durch Leistung der Zahlung an das Clearing System oder dessen Order von ihrer Zahlungspflicht befreit.

(5) *Zahltag.* Fällt der Fälligkeitstag einer Zahlung in Bezug auf eine Schuldverschreibung auf einen Tag, der kein Zahltag ist, dann wird der Fälligkeitstag auf den nächsten Zahltag verschoben (es sei denn, jener würde dadurch in den nächsten Kalendermonat fallen; in diesem Fall wird der Fälligkeitstag auf den unmittelbar vorausgehenden Zahltag vorgezogen).

Für diese Zwecke bezeichnet "**Zahltag**" einen Tag, der ein Geschäftstag ist.

(6) *Bezugnahmen auf Kapital und Zinsen.* Bezugnahmen in diesen Anleihebedingungen auf einen Kapitalbetrag der Schuldverschreibungen schließen, soweit anwendbar, die folgenden Beträge ein: den Rückzahlungsbetrag der Schuldverschreibungen; sowie jeden Aufschlag sowie sonstige auf oder in Bezug auf die Schuldverschreibungen zahlbaren Beträge. Bezugnahmen in diesen Anleihebedingungen auf Zinsen auf die Schuldverschreibungen sollen, soweit anwendbar, sämtliche gemäß § 7 zahlbaren

of payment at the specified office of the Paying Agent outside the United States.

- (b) *Payment of Interest.* Payment of interest on the Notes shall be made, subject to subparagraph (2), to the Clearing System or (if applicable) to its order for credit to the relevant account holders of the Clearing System.

Payment of interest on the Notes represented by the Temporary Global Note shall be made, subject to subparagraph (2), to the Clearing System or (if applicable) to its order for credit to the relevant account holders of the Clearing System, upon due certification as provided in § 1(3)(b).

(2) *Manner of Payment.* Subject to applicable fiscal and other laws and regulations, payments of amounts due in respect of the Notes shall be made in the Specified Currency.

(3) *United States.* For purposes of § 1(3) and subparagraph (1) of this § 4, "**United States**" means the United States of America (including the States thereof and the District of Columbia) and its possessions (including Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and Northern Mariana Islands).

(4) *Discharge.* The Issuer or, as the case may be, the Guarantor shall be discharged by payment to, or to the order of, the Clearing System.

(5) *Payment Business Day.* If the date for payment of any amount in respect of any Note is not a Payment Business Day then the date for payment shall be postponed until the next day which is a Payment Business Day (unless it would thereby fall into the next calendar month, in which event the date for payment shall be the immediately preceding Payment Business Day).

For these purposes, "**Payment Business Day**" means any day which is a Business Day.

(6) *References to Principal and Interest.* Reference in these Terms and Conditions to principal in respect of the Notes shall be deemed to include, as applicable: the Final Redemption Amount of the Notes; and any premium and any other amounts which may be payable under or in respect of the Notes. Reference in these Terms and Conditions to interest in respect of the Notes shall be deemed to include, as applicable, any additional amounts which may be payable under § 7.

zusätzlichen Beträge einschließen.

(7) *Hinterlegung von Kapital und Zinsen.* Die Emittentin ist berechtigt, beim Amtsgericht Frankfurt am Main Zins- oder Kapitalbeträge zu hinterlegen, die von den Gläubigern nicht innerhalb von zwölf Monaten nach dem Fälligkeitstag beansprucht worden sind, auch wenn die Gläubiger sich nicht in Annahmeverzug befinden. Soweit eine solche Hinterlegung erfolgt, und auf das Recht der Rücknahme verzichtet wird, erlöschen die Ansprüche der Gläubiger gegen die Emittentin.

## § 5 RÜCKZAHLUNG

(1) *Rückzahlung bei Endfälligkeit.*

Soweit nicht zuvor bereits ganz oder teilweise zurückgezahlt oder angekauft und entwertet, werden die Schuldverschreibungen zu ihrem Rückzahlungsbetrag am in den Juni 2022 fallenden Zinszahlungstag (der "**Fälligkeitstag**") zurückgezahlt. Der "**Rückzahlungsbetrag**" in Bezug auf jede Schuldverschreibung entspricht der festgelegten Stückelung der Schuldverschreibungen.

(2) *Vorzeitige Rückzahlung aus steuerlichen Gründen.* Sollte die Emittentin und/oder die Garantin zur Zahlung von zusätzlichen Beträgen (wie in § 7 dieser Anleihebedingungen definiert) aufgrund einer Änderung des Steuerrechts (wie nachstehend definiert) am nächstfolgenden Zinszahlungstag (wie in § 3 Absatz 1 definiert) verpflichtet sein und kann diese Verpflichtung nicht durch das Ergreifen angemessener, der Emittentin und/oder der Garantin zur Verfügung stehender Maßnahmen vermieden werden, kann die Emittentin die Schuldverschreibungen insgesamt, jedoch nicht teilweise, mit einer Kündigungsfrist von nicht weniger als 30 und nicht mehr als 60 Tagen gegenüber der Zahlstelle und gemäß § 13 gegenüber den Gläubigern vorzeitig kündigen und zum Rückzahlungsbetrag zuzüglich bis zu dem für die Rückzahlung festgesetzten Tag (ausschließlich) aufgelaufener Zinsen zurückzahlen. Eine "**Änderung des Steuerrechts**" ist (i) eine Änderung oder Ergänzung der Steuer- oder Abgabengesetze und -vorschriften der Bundesrepublik Deutschland oder der Niederlande oder deren politischen Untergliederungen oder Steuerbehörden, die die Besteuerung oder die Verpflichtung steuerliche Gebühren jeglicher Art zu zahlen beeinflussen, (ii) die Folge einer Änderung oder Ergänzung der Anwendung oder der offiziellen Auslegung dieser Gesetze und Vorschriften, (iii) jede von den Steuerbehörden oder der zuständigen Gerichtsbarkeit in der Bundesrepublik Deutschland oder der Niederlande oder deren politischen Untergliederungen oder Steuerbehörden getroffene Maßnahme/Entscheidung, unabhängig davon, ob eine derartige Maßnahme in Zusammenhang mit der Emittentin oder der Garantin steht, oder (iv) jede Änderung, jede Ergänzung, jede Neufassung,

(7) *Deposit of Principal and Interest.* The Issuer may deposit with the *Amtsgericht* in Frankfurt am Main principal or interest not claimed by Holders within twelve months after the Maturity Date, even though such Holders may not be in default of acceptance of payment. If and to the extent that the deposit is effected and the right of withdrawal is waived, the respective claims of such Holders against the Issuer shall cease.

## § 5 REDEMPTION

(1) *Redemption at Maturity.*

Unless previously redeemed in whole or in part or purchased and cancelled, the Notes shall be redeemed at their Final Redemption Amount on the Interest Payment Date falling in June 2022 (the "**Maturity Date**"). The "**Final Redemption Amount**" in respect of each Note shall be its Specified Denomination.

(2) *Early Redemption for Reasons of Taxation.* If as a result of any Tax Law Change (as hereinafter defined) the Issuer and/or the Guarantor is required to pay additional amounts (as defined in § 7 herein) on the next succeeding Interest Payment Date (as defined in § 3(1)) and this obligation cannot be avoided by the use of reasonable measures available to the Issuer and/or the Guarantor, the Issuer may redeem the Notes, in whole but not in part, upon not less than 30 days' nor more than 60 days' prior notice of redemption given to the Paying Agent and, in accordance with § 13 to the Holders, at the Final Redemption Amount together with interest (if any) accrued to but excluding the date fixed for redemption. A "**Tax Law Change**" is (i) any change in, or amendment to, the laws or regulations of Germany or The Netherlands or any political subdivision or taxing authority thereof or therein affecting taxation or the obligation to pay duties of any kind, (ii) any change in, or amendment to, an official interpretation, administrative guidance or application of such laws or regulations, (iii) any action and/or decision which shall have been taken by any taxing authority, or any court of competent jurisdiction of Germany or The Netherlands or any political subdivision or taxing authority thereof or therein, whether or not such action was taken or brought with respect to the Issuer or the Guarantor, or (iv) any change, amendment, application, interpretation or execution of the laws of Germany or The Netherlands (or any regulations or ruling promulgated thereunder), which change, amendment, action, application, interpretation or execution is officially proposed and would have effect



Anwendung, Auslegung oder Durchsetzung der Gesetze der Bundesrepublik Deutschland (oder jeder dazu ergangenen Verordnung oder Regelung), der oder die offiziell vorgeschlagen wurde (vorausgesetzt, diese Änderung, diese Ergänzung, diese Neufassung, Anwendung, Auslegung oder Durchsetzung würde am oder nach dem Tag, an dem die Schuldverschreibungen begeben werden, wirksam werden).

Eine solche Kündigung darf allerdings nicht (i) früher als 90 Tage vor dem frühestmöglichen Termin erfolgen, an dem die Emittentin und/oder die Garantin verpflichtet wäre, solche zusätzlichen Beträge zu zahlen, falls eine Zahlung auf die Schuldverschreibungen dann fällig sein würde, oder (ii) erfolgen, wenn zu dem Zeitpunkt, zu dem die Kündigung erfolgt, die Verpflichtung zur Zahlung von zusätzlichen Beträgen nicht mehr wirksam ist.

Eine solche Kündigung hat gemäß § 13 zu erfolgen. Sie ist unwiderruflich, muss den für die Rückzahlung festgelegten Termin nennen und eine zusammenfassende Erklärung enthalten, welche die das Rückzahlungsrecht der Emittentin und/oder der Garantin begründenden Umständen darlegt.

(3) *Rückkauf; Vorzeitige Rückzahlung nach Wahl der Emittentin bei geringem ausstehendem Nennbetrag.* Die Emittentin, oder die Garantin oder eine Tochtergesellschaft der Garantin können jederzeit Schuldverschreibungen im Markt oder anderweitig zu jedem beliebigen Preis kaufen. Derartig erworbene Schuldverschreibungen können entwertet, gehalten oder wieder veräußert werden. Falls die Emittentin, oder die Garantin oder eine Tochtergesellschaft der Garantin Schuldverschreibungen in einem Gesamtnennbetrag von 75 % oder mehr des ursprünglich begebenen Gesamtnennbetrages der Schuldverschreibungen erworben hat, und der Gesamtnennbetrag der Schuldverschreibungen in der Globalurkunde um diesen Prozentsatz reduziert wurde, kann die Emittentin die verbleibenden Schuldverschreibungen (insgesamt, jedoch nicht teilweise) kündigen und zum Rückzahlungsbetrag nebst etwaiger bis zum Rückzahlungstag (ausschließlich) aufgelaufener Zinsen zurückzahlen.

(4) *Kontrollwechsel.* Tritt ein Kontrollwechsel ein und kommt es innerhalb des Kontrollwechselzeitraums zu einer Absenkung des Ratings auf Grund des eingetretenen Kontrollwechsels (zusammen, ein "Rückzahlungseignis"), hat jeder Gläubiger das Recht (sofern nicht die Emittentin, bevor die nachstehend beschriebene Rückzahlungsmittelung gemacht wird, die Rückzahlung der Schuldverschreibungen nach § 5 Absatz 2 angezeigt hat), die Rückzahlung seiner Schuldverschreibungen durch die Emittentin zum Rückzahlungsbetrag, zuzüglich bis zum Wahl-Rückzahlungstag (Put

on or after the date on which the Notes were issued.

However, no such notice of redemption may be given (i) earlier than 90 days prior to the earliest date on which the Issuer and/or the Guarantor would be obligated to pay such additional amounts where a payment in respect of the Notes then due, or (ii) if at the time such notice is given, such obligation to pay such additional amounts or make such deduction or withholding does not remain in effect.

Any such notice shall be given in accordance with § 13. It shall be irrevocable, must specify the date fixed for redemption and must set forth a statement in summary form of the facts constituting the basis for the right of the Issuer and/or the Guarantor so to redeem.

(3) *Purchase; Early Redemption for Reason of Minimal Outstanding Amount.* The Issuer, or the Guarantor or any subsidiary of the Guarantor may at any time purchase Notes in the open market or otherwise and at any price. Such acquired Notes may be cancelled, held or resold. In the event that the Issuer, or the Guarantor or any subsidiary of the Guarantor has purchased Notes equal to or in excess of 75 percent of the aggregate principal amount of the Notes initially issued and the aggregate principal amount of the Notes is reduced by this percentage in the Global Note accordingly, the Issuer may call and redeem the remaining Notes (in whole but not in part) at the Final Redemption Amount plus accrued interest until the date of redemption (exclusive).

(4) *Change of Control.* If there occurs a Change of Control and within the Change of Control Period a Rating Downgrade in respect of that Change of Control occurs (together called a "Put Event"), each Holder will have the option (unless, prior to the giving of the Put Event Notice referred to below, the Issuer gives notice to redeem the Notes in accordance with § 5(2)) to require the Issuer to redeem that Note on the Optional Redemption Date at its Final Redemption Amount together with interest accrued to but excluding the Optional Redemption Date.

(ausschließlich) aufgelaufener Zinsen, zum Wahl-Rückzahlungstag (Put) zu verlangen.

Für Zwecke dieses Wahlrechts:

**"Rating Agentur"** ist jede Ratingagentur von S&P Global Ratings ("**S&P**") und Moody's Investors Service ("**Moody's**") oder eine ihrer jeweiligen Nachfolgegesellschaften oder jede andere Rating Agentur vergleichbaren internationalen Ansehens, wie von Zeit zu Zeit durch die Garantin bestimmt.

Eine "**Absenkung des Ratings**" gilt in Bezug auf einen Kontrollwechsel als eingetreten, wenn (a) innerhalb des Kontrollwechselzeitraums ein vorher für die Garantin oder die Schuldverschreibungen vergebenes Rating einer Rating Agentur (i) zurückgezogen oder (ii) von einem Investment Grade Rating (BBB- von S&P/Baa3 von Moody's oder jeweils gleichwertig, oder besser) in ein non-Investment Grade Rating (BB+ von S&P/Ba1 von Moody's oder jeweils gleichwertig, oder schlechter) geändert oder (iii) (falls das für die Schuldverschreibungen vergebene Rating einer Rating Agentur unterhalb des Investment Grade Ratings liegt) um einen ganzen Punkt (von BB+ nach BB von S&P oder Ba1 nach Ba2 von Moody's oder eine ähnliche Absenkung eines gleichwertigen Ratings) abgesenkt wird oder (b) zur Zeit des Kontrollwechsels kein Rating für die Schuldverschreibungen oder die Garantin vergeben ist und keine Rating Agentur während des Kontrollwechselzeitraums ein Investment Grade Rating für die Schuldverschreibungen vergibt (es sei denn, die Garantin ist trotz zumutbarer Anstrengungen innerhalb dieses Zeitraums nicht in der Lage, ein solches Rating zu erhalten, ohne dass dies seine Ursache im Kontrollwechsel hat).

Ein "**Kontrollwechsel**" gilt jedes Mal als eingetreten, wenn eine Person oder mehrere Personen (die "**relevante(n) Person(en)**"), die abgestimmt handeln, oder einer oder mehrere Dritte, die im Auftrag der relevanten Person(en) handeln, zu irgendeiner Zeit mittelbar oder unmittelbar (unabhängig davon, ob der Vorstand oder der Aufsichtsrat der Garantin seine Zustimmung erteilt hat) (i) mehr als 50 % des ausstehenden Grundkapitals der Garantin oder (ii) eine solche Anzahl von Aktien der Garantin hält bzw. halten oder erworben hat bzw. haben, auf die mehr als 50 % der Stimmrechte entfallen.

Der "**Kontrollwechselzeitraum**" ist der Zeitraum, der 120 Tage nach dem Eintritt eines Kontrollwechsels endet.

Der "**Wahl-Rückzahlungstag (Put)**" ist der siebte Tag nach dem letzten Tag des Rückzahlungszeitraums.

Sofort nachdem die Emittentin von einem Rückzahlungsereignis Kenntnis erlangt, wird die Emittentin den Gläubigern gemäß § 13 Mitteilung vom Rückzahlungsereignis machen (eine

For the purposes of such option:

**"Rating Agency"** means each of the rating agencies of S&P Global Ratings ("**S&P**") and Moody's Investors Service ("**Moody's**") or any of their respective successors or any other rating agency of equivalent international standing specified from time to time by the Guarantor.

A "**Rating Downgrade**" shall be deemed to have occurred in respect of a Change of Control (a) if within the Change of Control Period any rating previously assigned to the Guarantor or the Notes by any Rating Agency is (i) withdrawn or (ii) changed from an investment grade rating (BBB- by S&P/Baa3 by Moody's, or its equivalent for the time being, or better) to a non-investment grade rating (BB+ by S&P/Ba1 by Moody's, or its equivalent for the time being, or worse) or (iii) (if the rating assigned to the Notes by any Rating Agency shall be below an investment grade rating) lowered one full rating notch (from BB+ to BB by S&P or Ba1 to Ba2 by Moody's or such similar lower of equivalent rating) or (b) if at the time of the Change of Control, there is no rating assigned to the Notes or the Guarantor and no Rating Agency assigns during the Change of Control Period an investment grade credit rating to the Notes (unless the Guarantor is unable to obtain such a rating within such period having used all reasonable endeavours to do so and such failure is unconnected with the occurrence of the Change of Control).

A "**Change of Control**" shall be deemed to have occurred at each time (whether or not approved by the Management Board or Supervisory Board of the Guarantor) that any person or persons ("**Relevant Person(s)**") acting in concert or any person or persons acting on behalf of any such Relevant Person(s), at any time directly or indirectly acquire(s) or come(s) to own (i) more than 50 percent of the issued ordinary share capital of the Guarantor or (ii) such number of the shares in the capital of the Guarantor carrying more than 50 percent of the voting rights.

**"Change of Control Period"** means the period ending 120 days after the occurrence of the Change of Control.

The "**Optional Redemption Date**" is the seventh day after the last day of the Put Period.

Promptly upon the Issuer becoming aware that a Put Event has occurred, the Issuer shall give notice (a "**Put Event Notice**") to the Holders in accordance with § 13 specifying the nature of the Put Event and the

"**Rückzahlungsmittelung**"), in der die Umstände des Rückzahlungsereignisses sowie das Verfahren für die Ausübung des in diesem § 5 Absatz 4 genannten Wahlrechts angegeben sind.

Zur Ausübung dieses Wahlrechts muss der Gläubiger während der normalen Geschäftsstunden innerhalb eines Zeitraums (der "**Rückzahlungszeitraum**") von 45 Tagen, nachdem die Rückzahlungsmittelung veröffentlicht ist, eine ordnungsgemäß ausgefüllte und unterzeichnete Ausübungserklärung bei der angegebenen Niederlassung der Zahlstelle einreichen (die "**Ausübungserklärung**"), die in ihrer jeweils maßgeblichen Form bei der angegebenen Niederlassung der Zahlstelle erhältlich ist. Ein so ausgeübtes Wahlrecht kann nicht ohne vorherige Zustimmung der Emittentin widerrufen oder zurückgezogen werden.

## § 6

### VERWALTUNGSSTELLEN

(1) *Bestellung; bezeichnete Geschäftsstelle.* Die anfänglich bestellte "**Zahlstelle**" und ihre Geschäftsstelle lauten wie folgt:

Deutsche Bank Aktiengesellschaft  
Taanusanlage 12  
60262 Frankfurt am Main  
Bundesrepublik Deutschland

Die anfänglich bestellte "**Berechnungsstelle**" und ihre Geschäftsstelle lauten wie folgt:

Deutsche Bank Aktiengesellschaft  
Taanusanlage 12  
60262 Frankfurt am Main  
Bundesrepublik Deutschland

Die Zahlstelle und die Berechnungsstelle behalten sich jeweils das Recht vor, jederzeit ihre bezeichnete Geschäftsstelle durch eine andere bezeichnete Geschäftsstelle in der Bundesrepublik Deutschland zu ersetzen.

(2) *Änderung der Bestellung oder Abberufung.* Die Emittentin behält sich das Recht vor, jederzeit die Bestellung einer Zahlstelle zu ändern oder zu beenden und eine zusätzliche oder andere Zahlstelle zu bestellen und die Bestellung einer Berechnungsstelle zu ändern oder zu beenden und eine andere Berechnungsstelle zu bestellen. Die Emittentin wird zu jedem Zeitpunkt (i) eine Zahlstelle und eine Berechnungsstelle unterhalten. Eine Änderung, Abberufung, Bestellung oder ein sonstiger Wechsel wird nur wirksam (außer im Insolvenzfall, in dem eine solche Änderung sofort wirksam wird), sofern die Gläubiger hierüber gemäß § 13 vorab unter Einhaltung einer Frist von mindestens 30 und nicht mehr als 45 Tagen informiert wurden.

circumstances giving rise to it and the procedure for exercising the option set out in this § 5(4).

In order to exercise such option, the Holder must submit during normal business hours at the specified office of the Paying Agent a duly completed option exercise notice ("**Exercise Notice**") in the form available from the specified office of the Paying Agent within the period (the "**Put Period**") of 45 days after a Put Event Notice is given. No option so exercised may be revoked or withdrawn without the prior consent of the Issuer.

## § 6

### AGENTS

(1) *Appointment; Specified Offices.* The initial "**Paying Agent**" and its office are:

Deutsche Bank Aktiengesellschaft  
Taanusanlage 12  
60262 Frankfurt am Main  
Germany

The initial "**Calculation Agent**" and its office are:

Deutsche Bank Aktiengesellschaft  
Taanusanlage 12  
60262 Frankfurt am Main  
Germany

Each of the Paying Agent and the Calculation Agent reserves the right at any time to change its specified office to some other specified office in Germany.

(2) *Variation or Termination of Appointment.* The Issuer reserves the right at any time to vary or terminate the appointment of any Paying Agent and to appoint additional or other Paying Agent or to vary or terminate the appointment of the Calculation Agent and to appoint another Calculation Agent. The Issuer shall at all times maintain a Paying Agent and a Calculation Agent. Any variation, termination, appointment or change shall only take effect (other than in the case of insolvency, when it shall be of immediate effect) after not less than 30 nor more than 45 days' prior notice thereof shall have been given to the Holders in accordance with § 13.

(3) *Bestimmungen, Berechnungen und Anpassungen.* Alle Bestimmungen, Berechnungen und Anpassungen durch die Berechnungsstelle erfolgen in Abstimmung mit der Emittentin und sind, soweit nicht ein offenkundiger Fehler vorliegt, in jeder Hinsicht endgültig und für die Emittentin und alle Gläubiger bindend. Die kann den Rat eines oder mehrerer Rechtsanwälte oder anderer Sachverständiger einholen, deren Beratung oder Dienste sie für notwendig hält, und sich auf eine solche Beratung verlassen. Die Berechnungsstelle übernimmt keine Haftung gegenüber der Emittentin bzw. den Gläubigern im Zusammenhang mit Handlungen, die in gutem Glauben im Einklang mit einer solchen Beratung getätigt, unterlassen oder geduldet wurden oder deren Unterlassung in gutem Glauben im Einklang mit einer solchen Beratung geduldet wurde.

(4) *Beauftragte der Emittentin.* Die Zahlstelle und die Berechnungsstelle handeln ausschließlich als Beauftragte der Emittentin und übernehmen keinerlei Verpflichtungen gegenüber den Gläubigern und es wird kein Auftrags- oder Treuhandverhältnis zwischen ihnen und den Gläubigern begründet.

## § 7 STEUERN

Sämtliche auf die Schuldverschreibungen zu zahlenden Beträge sind an der Quelle ohne Einbehalt oder Abzug von oder aufgrund von gegenwärtig oder zukünftig bestehenden Steuern oder sonstigen Abgaben gleich welcher Art zu leisten, die von oder in der Bundesrepublik Deutschland oder der Niederlande oder für deren Rechnung oder von oder für Rechnung einer mit dem Recht zur Steuererhebung versehenen politischen Untergliederung oder Behörde der Vorgenannten auferlegt oder erhoben werden (zusammen "**Quellensteuer**"), es sei denn, dieser Einbehalt oder Abzug ist gesetzlich vorgeschrieben. In diesem Fall wird die Emittentin diejenigen zusätzlichen Beträge (die "**zusätzlichen Beträge**") zahlen, die erforderlich sind, damit die den Gläubigern zufließenden Nettobeträge nach diesem Einbehalt oder Abzug jeweils den Beträgen an Kapital und Zinsen entsprechen, die ohne einen solchen Abzug oder Einbehalt von den Gläubigern empfangen worden wären. Die Verpflichtung zur Zahlung solcher zusätzlicher Beträge besteht jedoch nicht im Hinblick auf Steuern und Abgaben, die:

- (a) anders als durch Einbehalt oder Abzug von Zahlungen zu entrichten sind, die die Emittentin an den Gläubiger leistet; oder
- (b) von einer als Depotbank oder Inkassobeauftragter des Gläubigers handelnden Person abgezogen oder einbehalten werden oder sonst auf andere Weise zu entrichten sind als dadurch, dass die Emittentin aus den von ihr zu leistenden Zahlungen von Kapital oder Zinsen

(3) *Determinations, Calculations and Adjustments.* All determinations, calculations and adjustments made by the Calculation Agent will be made in conjunction with the Issuer and will, in the absence of manifest error, be conclusive in all respects and binding upon the Issuer and all Holders. The Calculation Agent may engage the advice or services of any lawyers or other experts whose advice or services it deems necessary and may rely upon any advice so obtained. The Calculation Agent will not incur any liability as against the Issuer or the Holders in respect of any action taken, or not taken, or suffered to be taken, or not taken, in accordance with such advice in good faith.

(4) *Agents of the Issuer.* The Paying Agent and the Calculation Agent act solely as agents of the Issuer and do not have any obligations towards or relationship of agency or trust to any Holder.

## § 7 TAXATION

All amounts payable in respect of the Notes shall be payable without deduction or withholding for or on account of any present or future taxes, duties or governmental charges of any nature whatsoever imposed, levied or collected by or on behalf of Germany or The Netherlands or by or on behalf of any political subdivision or authority thereof having power to tax (together "**Withholding Taxes**"), unless such deduction or withholding is required by law. In such event, the Issuer shall pay such additional amounts (the "**additional amounts**") of principal and interest as may be necessary in order that the net amounts received by the Holders after such deduction or withholding shall equal the respective amounts of principal and interest which would have been receivable had no such deduction or withholding been required. No such additional amounts shall, however, be payable on account of any taxes, duties or governmental charges which:

- (a) are payable otherwise than by withholding or deduction from payments made by the Issuer to the Holder, or
- (b) are deducted or withheld by any person acting as custodian bank or collecting agent on behalf of a Holder, or otherwise payable in any manner which does not constitute a deduction or withholding by the Issuer from payments of principal or interest made by it; or

einen Abzug oder Einbehalt vornimmt; oder

- |  |   |
|--|---|
| (c) von einer Zahlstelle abgezogen oder einbehalten werden, wenn eine andere Zahlstelle die Zahlung ohne einen solchen Abzug oder Einbehalt hätte leisten können; oder   | (c) are deducted or withheld by a Paying Agent from a payment if the payment could have been made by another paying agent without such deduction or withholding; or   |
| (d) aufgrund (i) einer Richtlinie oder Verordnung der Europäischen Union betreffend die Besteuerung von Zinserträgen oder (ii) einer zwischenstaatlichen Vereinbarung über deren Besteuerung, an der die Bundesrepublik Deutschland oder die Niederlande oder die Europäische Union beteiligt ist/sind, oder (iii) einer gesetzlichen Vorschrift, die diese Richtlinie, Verordnung oder Vereinbarung umsetzt oder befolgt, abzuziehen oder einzubehalten sind; oder  | (d) are deducted or withheld pursuant to (i) any European Union Directive or Regulation concerning the taxation of savings, or (ii) any international treaty or understanding relating to such taxation and to which Germany or The Netherlands or the European Union is a party/are parties or (iii) any provision of law implementing, or complying with, or introduced to conform with, such Directive, Regulation, treaty or understanding; or  |
| (e) aufgrund einer Rechtsänderung zu zahlen sind, welche später als 30 Tage nach Fälligkeit der betreffenden Zahlung von Kapital oder Zinsen oder, wenn dies später erfolgt, ordnungsgemäßer Bereitstellung aller fälligen Beträge wirksam wird; oder  | (e) are payable by reason of a change in law that becomes effective more than 30 days after the relevant payment becomes due, or is duly provided for, whichever occurs later; or   |
| (f) wegen einer gegenwärtigen oder früheren persönlichen oder geschäftlichen Beziehung des Gläubigers zu Deutschland oder den Niederlanden oder weil der Gläubiger in Deutschland oder den Niederlanden wohnhaft ist bzw. für Zwecke der Besteuerung so behandelt wird oder weil der Gläubiger gewünscht hat, so behandelt zu werden, oder weil der Gläubiger einen dauerhaften Wohnsitz in Deutschland oder den Niederlanden oder in einem anderen Mitgliedstaat der Europäischen Union hat (oder so behandelt wird), zu zahlen sind. Dies gilt jedoch nicht allein deshalb, weil Zahlungen auf die Schuldverschreibungen aus Quellen in Deutschland oder den Niederlanden stammen (oder für Zwecke der Besteuerung so behandelt werden) oder dort besichert sind; oder           | (f) are payable by reason of the Holder having, or having had, some personal or business connection with Germany or The Netherlands or being a (deemed) resident of Germany or The Netherlands or is treated for tax purposes as a resident of Germany or The Netherlands or has elected to be taxed as a resident of Germany or The Netherlands or the Holder having a (deemed) permanent establishment in Germany or The Netherlands or another member state of the European Union and not merely by reason of the fact that payments in respect of the Notes are, or for purposes of taxation are deemed to be, derived from sources in, or are secured in, The Netherlands; or  |
| (g) die nicht erhoben oder einbehalten oder abgezogen worden wären, wenn es der Gläubiger oder der wirtschaftliche Eigentümer der Schuldverschreibungen (für die vorliegenden Zwecke einschließlich Finanzinstitute, über die der Gläubiger oder wirtschaftliche Eigentümer die Schuldverschreibungen hält oder über die Zahlungen auf die Schuldverschreibungen erfolgen) nicht unterlassen hätte, nach einer an den Gläubiger oder wirtschaftlichen Eigentümer gerichteten schriftlichen Aufforderung der Emittentin, einer Zahlstelle oder in deren Namen (die so rechtzeitig erfolgt, dass der Gläubiger bzw. der wirtschaftliche Eigentümer dieser Aufforderung mit zumutbaren Anstrengungen nachkommen kann, in jedem Fall aber mindestens 30 Tage, bevor ein Einbehalt oder | (g) would not have been imposed, withheld or deducted but for the failure of the Holder or beneficial owner of Notes (including, for these purposes, any financial institution through which the Holder or beneficial owner holds the Notes or through which payment on the Notes is made), following a written request by or on behalf of the Issuer or a Paying Agent addressed to the Holder or beneficial owner (and made at a time that would enable the Holder or beneficial owner acting reasonably to comply with that request, and in all events, at least 30 days before any withholding or deduction would be required), to comply with any certification, identification, information or other reporting requirement whether required by statute, treaty, regulation or administrative practice of Germany or The |

Abzug erforderlich wäre), einer aufgrund von Gesetzen, Abkommen, Verordnungen oder der Verwaltungspraxis in Deutschland oder den Niederlanden vorgeschriebenen Bescheinigungs-, Identifizierungs-, Informations-, oder sonstigen Nachweispflicht nachzukommen, die Voraussetzung für eine Befreiung von in Deutschland oder den Niederlanden erhobenen Steuern oder für eine Reduzierung der Höhe des Einbehalts oder Abzugs solcher Steuern ist (u. a. eine Bescheinigung, dass der Gläubiger bzw. der wirtschaftliche Eigentümer nicht in Deutschland oder den Niederlanden ansässig ist); oder

- (h) die aufgrund jeglicher Kombination der Absätze (a) bis (g) zu entrichten sind.

Jede Bezugnahme in dieser Schuldverschreibung oder der in der Schuldverschreibung genannten Garantie auf den Nennbetrag oder Zinsen versteht sich auch als Bezugnahme auf zusätzliche Beträge, die durch die Emittentin gemäß § 7 dieser Anleihebedingungen zahlbar sein können.

Ungeachtet sonstiger hierin enthaltener Bestimmungen, darf die Emittentin Beträge, die gemäß einer beschriebenen Vereinbarung in Section 1471 (b) des U.S. Revenue Code von 1986 (der "**Code**") erforderlich sind oder die anderweitig aufgrund der Sections 1471 bis 1474 des Codes (oder jeder Änderung oder Nachfolgeregelung), der Regelungen oder Verträge darunter, der offiziellen Auslegungen davon oder jeglicher rechtsausführender und zwischenstaatlicher Zusammenarbeit dazu beruhen, einbehalten oder abziehen ("**FATCA Quellensteuer**"). Die Emittentin ist aufgrund einer durch die Emittentin, eine Zahlstelle oder eine andere Partei abgezogenen oder einbehaltenen FATCA Quellensteuer nicht zur Zahlung zusätzlicher Beträge oder anderweitig zur Entschädigung eines Investors verpflichtet.

#### § 8 VORLEGUNGSFRIST

Die in § 801 Absatz 1 Satz 1 BGB bestimmte Vorlegungsfrist wird für die Schuldverschreibungen auf zehn Jahre verkürzt.

#### § 9 KÜNDIGUNG

(1) *Kündigungsgründe.* Jeder Gläubiger ist berechtigt, seine Schuldverschreibung zu kündigen und deren sofortige Rückzahlung zu ihrem Rückzahlungsbetrag (wie in § 5 definiert), zuzüglich etwaiger bis zum Tage der Rückzahlung (ausschließlich) aufgelaufener Zinsen zu verlangen, falls:

- (a) die Emittentin oder die Garantin Kapital oder Zinsen nicht innerhalb von 30

Netherlands, that is a precondition to exemption from, or reduction in the rate of withholding or deduction of, taxes imposed by Germany or The Netherlands (including, without limitation, a certification that the Holder or beneficial owner is not resident in Germany or The Netherlands); or

- h) are payable for any combination of (a) through (g) above.

Any reference in this Note or the guarantee referred to in the Note to principal or interest shall be deemed also to refer to any additional amount to be paid as above by the Issuer which may be payable under this § 7.

Notwithstanding any other provisions contained herein, the Issuer shall be permitted to withhold or deduct any amounts required pursuant to an agreement described in Section 1471 (b) of the U.S. Internal Revenue Code of 1986 (the "**Code**") or otherwise imposed pursuant to Sections 1471 through 1474 of the Code (or any amended or successor provisions), any regulations or agreements thereunder, official interpretations thereof, or any law implementing and intergovernmental approach thereto ("**FATCA withholding**"). The Issuer will have no obligation to pay additional amounts or otherwise indemnify an investor for any such FATCA withholding deducted or withheld by the Issuer, the paying agent or any other party.

#### § 8 PRESENTATION PERIOD

The presentation period provided in § 801 subparagraph 1, sentence 1 *BGB* (German Civil Code) is reduced to ten years for the Notes.

#### § 9 EVENTS OF DEFAULT

(1) *Events of Default.* Each Holder shall be entitled to declare its Notes due and demand immediate redemption thereof at the Final Redemption Amount (as described in § 5), together with accrued interest (if any) to the date of repayment (exclusive), in the event that

- (a) the Issuer or the Guarantor is in default for a continuous period of 30 days in the payment of

- aufeinanderfolgenden Tagen nach dem betreffenden Fälligkeitstag zahlt; oder
- (b) die Emittentin oder die Garantin die ordnungsgemäße Erfüllung irgendeiner anderen wesentlichen Verpflichtung aus den Schuldverschreibungen für einen ununterbrochenen Zeitraum von 30 Tagen unterlässt, nachdem die Zahlstelle schriftlich mitteilt, dass sie hierüber eine Benachrichtigung von einem Gläubiger erhalten hat, mit der Erfüllung bzw. die Beachtung anderer wesentlicher Verpflichtungen aus diesen Anleihebedingungen verlangt wird; oder
- (c) ein am Sitz der Emittentin zuständiges Gericht in einem zwangsweisen Verfahren gemäß gegenwärtig oder künftig anwendbaren Konkurs-, Insolvenz- oder ähnlichem Recht eine Entscheidung oder Zahlungsaussetzung erlässt oder ein Konkursverwalter, Abwickler, Rechtsnachfolger, Vermögensverwalter, Treuhänder, Zwangsverwalter oder ein ähnlicher Funktionsträger für die Emittentin oder die Garantin oder für einen wesentlichen Teil des Vermögens der Emittentin oder der Garantin bestellt wird oder die Auflösung oder der Liquidation der Geschäfte der Emittentin oder der Garantin angeordnet wird, und eine solche Entscheidung oder Anordnung für einen Zeitraum von 90 aufeinanderfolgenden Tagen nicht ausgesetzt wird und wirksam bleibt; oder
- (d) die Emittentin oder die Garantin (i) von sich aus ein Verfahren gemäß gegenwärtig oder künftig anwendbaren Konkurs-, Insolvenz- oder ähnlichem Recht einleitet oder (ii) dem Erlass einer gemäß solchem Recht zwangsweise ergangenen Zahlungsaussetzung zustimmt oder der Bestellung eines, oder Inbesitznahme durch einen, Konkursverwalter(s), Abwickler(s), Rechtsnachfolger(s), Vermögensverwalter(s), Treuhänder(s), Zwangsverwalter(s), oder ähnlichen Funktionsträger(s) für die Emittentin oder die Garantin oder eines wesentlichen Teils des Vermögens der Emittentin oder die Garantin zustimmt oder (iii) allgemein die Bezahlung ihrer Verbindlichkeiten bei Fälligkeit einstellt oder (iv) irgendwelche Maßnahmen zur Förderung einer der vorgenannten Fälle trifft; oder
- (e) falls die Garantie nicht länger rechtswirksam und bindend ist oder die Garantin ihre Verpflichtungen aus der Garantie nicht erfüllt.
- principal or interest on the Notes after the same shall become due and payable, or
- (b) the Issuer or the Guarantor is in default for a continuous period of 30 days after written notice from the Paying Agent that the Paying Agent has received notice thereof from a Holder requesting performance or observance of any other material obligation of these Terms and Conditions, or
- (c) a decree or order for relief is entered by a court having jurisdiction in the premises in respect to the Issuer in an involuntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or a receiver, liquidator, assignee, custodian, trustee, sequestrator or other similar official of the Issuer or the Guarantor or for any substantial part of the property of the Issuer or of the Guarantor is ordered, or the winding up or liquidation of the affairs of the Issuer or of the Guarantor is ordered and any such decree or order continues unstayed and in effect for a period of 90 consecutive days, or
- (d) the Issuer or the Guarantor (i) commences a voluntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or (ii) consents to the entry of an order for relief in an involuntary case under any such law or consents to the appointment of or taking possession by a receiver, liquidator, assignee, custodian, trustee, sequestrator or other similar official of the Issuer or the Guarantor or for any substantial part of the property of the Issuer or the Guarantor, or (iii) fails generally to pay its debts as they become due, or (iv) takes any corporate action in furtherance of any of the foregoing, or
- (e) the Guarantee ceases to be legally valid and binding or the Guarantor fails to fulfil its obligations under the Guarantee.

Das Kündigungsrecht erlischt, falls der Kündigungsgrund vor Ausübung des Rechts geheilt wurde.

The right to declare Notes due shall terminate if the situation giving rise to it has been cured before the right is exercised.



(2) *Quorum.* In den Fällen der Absätze 1(a) bis (e) wird eine Kündigung erst wirksam, wenn bei der Zahlstelle Kündigungserklärungen von Gläubigern von Schuldverschreibungen im Nennbetrag von mindestens 25 % der dann ausstehenden Schuldverschreibungen eingegangen sind. Die Wirkung einer solchen Kündigung entfällt, wenn die Gläubiger dies binnen drei Monaten mit Mehrheit beschließen. Für den Beschluss über die Unwirksamkeit der Kündigung genügt die einfache Mehrheit der Stimmrechte, es müssen aber in jedem Fall mehr Gläubiger zustimmen als gekündigt haben.

(3) *Bekanntmachung.* Eine Benachrichtigung, einschließlich einer Kündigung der Schuldverschreibungen gemäß vorstehendem Absatz 1 ist schriftlich in deutscher oder englischer Sprache gegenüber der Zahlstelle zu erklären und persönlich oder per Einschreiben an deren bezeichnete Geschäftsstelle zu übermitteln. Der Benachrichtigung ist ein Nachweis beizufügen, aus dem sich ergibt, dass der betreffende Gläubiger zum Zeitpunkt der Abgabe der Benachrichtigung Inhaber der betreffenden Schuldverschreibung ist. Der Nachweis kann durch eine Bescheinigung der Depotbank (wie in § 14 Absatz 4 definiert) oder auf andere geeignete Weise erbracht werden.

## § 10 ERSETZUNG

(1) *Ersetzung.* Die Emittentin ist jederzeit berechtigt, sofern sie sich nicht mit einer Zahlung von Kapital oder Zinsen auf die Schuldverschreibungen in Verzug befindet, ohne Zustimmung der Gläubiger die Garantin oder jede andere Gesellschaft, deren stimmberechtigte Anteile zu mehr als 90 % direkt oder indirekt von der Garantin gehalten werden, an Stelle der Emittentin als Hauptschuldnerin (die "**Nachfolgeschuldnerin**") für alle Verpflichtungen aus und im Zusammenhang mit dieser Emission einzusetzen, vorausgesetzt, dass:

- (a) die Nachfolgeschuldnerin alle Verpflichtungen der Emittentin in Bezug auf die Schuldverschreibungen übernimmt;
- (b) die Nachfolgeschuldnerin alle erforderlichen Genehmigungen erhalten hat und berechtigt ist, an die Zahlstelle die zur Erfüllung der Zahlungsverpflichtungen aus den Schuldverschreibungen zahlbaren Beträge in der hierin festgelegten Währung zu zahlen, ohne verpflichtet zu sein, jeweils in dem Land, in dem die Nachfolgeschuldnerin oder die Emittentin ihren Sitz oder Steuersitz haben, erhobene Steuern oder andere Abgaben jeder Art abzuziehen oder einzubehalten;

(2) *Quorum.* In the events specified in subparagraphs (1)(a) through (e), any notice declaring Notes due shall become effective only when the Paying Agent has received such notices from the Holders of at least 25 percent in principal amount of Notes then outstanding. Any such termination shall become ineffective if within three months the majority of the Holders so resolve. The resolution in relation to the ineffectiveness of a termination may be passed by simple majority of the voting rights, provided, however, that in each case there must be more Holders consenting to such resolution than Holders having terminated the Notes.

(3) *Notice.* Any notice, including any notice declaring Notes due, in accordance with subparagraph (1) shall be made by means of a written declaration in the German or English language delivered by hand or registered mail to the specified office of the Paying Agent together with proof that such Holder at the time of such notice is a holder of the relevant Notes by means of a certificate of its Custodian (as defined in § 14(4)) or in other appropriate manner.

## § 10 SUBSTITUTION

(1) *Substitution.* The Issuer may, without the consent of the Holders, if no payment of principal of or interest on any of the Notes is in default, at any time substitute for the Issuer the Guarantor or any other company more than 90 percent of the voting share or other equity interests of which are directly or indirectly owned by the Guarantor as principal debtor in respect of all obligations arising from or in connection with the Notes (the "**Substitute Debtor**") provided that:

- (a) the Substitute Debtor assumes all obligations of the Issuer in respect of the Notes;
- (b) the Issuer and the Substitute Debtor have obtained all necessary authorisations and may transfer to the Paying Agent in the currency required hereunder and without being obligated to deduct or withhold any taxes or other duties of whatever nature levied by the country in which the Substitute Debtor or the Issuer has its domicile or tax residence, all amounts required for the fulfilment of the payment obligations arising under the Notes;

(c) die Nachfolgeschuldnerin sich verpflichtet hat, jeden Gläubiger hinsichtlich solcher Quellensteuern, Abgaben oder behördlichen Lasten freizustellen, die einem Gläubiger bezüglich der Ersetzung auferlegt werden;

(d) die Garantin unwiderruflich und unbedingt gegenüber den Gläubigern die Zahlung aller von der Nachfolgeschuldnerin auf die Schuldverschreibungen zahlbaren Beträge zu Bedingungen garantiert, die den Bedingungen der Garantie entsprechen; und

(e) der Zahlstelle jeweils ein Rechtsgutachten bezüglich der betroffenen Rechtsordnungen von anerkannten Rechtsanwälten vorgelegt werden, die bestätigen, dass die Bestimmungen in den vorstehenden Unterabsätzen (a), (b), (c) und (d) erfüllt wurden.

(2) *Bekanntmachung.* Jede Ersetzung ist gemäß § 13 bekanntzumachen.

(3) *Änderung von Bezugnahmen.* Im Fall einer Ersetzung gilt jede Bezugnahme in diesen Anleihebedingungen auf die Emittentin ab dem Zeitpunkt der Ersetzung als Bezugnahme auf die Nachfolgeschuldnerin und jede Bezugnahme auf das Land, in dem die Emittentin ihren Sitz oder Steuersitz hat, gilt ab diesem Zeitpunkt als Bezugnahme auf das Land, in dem die Nachfolgeschuldnerin ihren Sitz oder Steuersitz hat.

Außerdem gilt im Falle der Ersetzung folgendes:

In § 7 und § 5 Absatz 2 gilt eine alternative Bezugnahme auf die Niederlande als aufgenommen (zusätzlich zu der Bezugnahme nach Maßgabe des vorstehenden Satzes auf das Land, in dem die Nachfolgeschuldnerin ihren Sitz oder Steuersitz hat).

Die Emittentin ist berechtigt, die Globalurkunde und die Anleihebedingungen ohne Zustimmung der Gläubiger anzupassen, soweit dies erforderlich ist, um die Wirkungen der Ersetzung nachzuvollziehen. Entsprechend angepasste Globalurkunden oder Anleihebedingungen werden bei dem oder für das Clearing System hinterlegt.

## § 11

### ÄNDERUNG DER ANLEIHEBEDINGUNGEN, GEMEINSAMER VERTRETER, ÄNDERUNG DER GARANTIE

(1) *Änderung der Anleihebedingungen.* Die Emittentin kann mit Zustimmung der Gläubiger entsprechend den Bestimmungen des Gesetzes über Schuldverschreibungen aus Gesamtemissionen (Schuldverschreibungsgesetz – "SchVG") die

(c) the Substitute Debtor has agreed to indemnify and hold harmless each Holder against any withholding tax, duty, assessment or governmental charge imposed on such Holder in respect of such substitution;

(d) the Guarantor irrevocably and unconditionally guarantees in favour of each Holder the payment of all sums payable by the Substitute Debtor in respect of the Notes on terms equivalent to the terms of the Guarantee; and

(e) there shall have been delivered to the Paying Agent an opinion or opinions of lawyers of recognised standing to the effect that subparagraphs (a), (b), (c) and (d) above have been satisfied.

(2) *Notice.* Notice of any such substitution shall be published in accordance with § 13.

(3) *Change of References.* In the event of any such substitution, any reference in these Terms and Conditions to the Issuer shall from then on be deemed to refer to the Substitute Debtor and any reference to the country in which the Issuer is domiciled or resident for taxation purposes shall from then on be deemed to refer to the country of domicile or residence for taxation purposes of the Substitute Debtor.

Furthermore, in the event of such substitution the following shall apply:

In § 7 and § 5(2) an alternative reference to The Netherlands shall be deemed to have been included in addition to the reference according to the preceding sentence to the country of domicile or residence for taxation purposes of the Substitute Debtor.

The Issuer is authorized to adapt the Global Note and the Terms and Conditions without the consent of the Holders to the extent necessary to reflect the changes resulting from the substitution. Appropriately adjusted Global Notes or Terms and Conditions will be deposited with or on behalf of the Clearing System.

## § 11

### AMENDMENT OF THE TERMS AND CONDITIONS, HOLDERS' REPRESENTATIVE, AMENDMENT OF THE GUARANTEE

(1) *Amendment of the Terms and Conditions.* In accordance with the German Act on Issues of Debt Securities (*Gesetz über Schuldverschreibungen aus Gesamtemissionen (Schuldverschreibungsgesetz – "SchVG")*) the Issuer may, with the consent of the

Anleihebedingungen hinsichtlich eines nach dem SchVG zugelassenen Gegenstands ändern. Die Gläubiger entscheiden über ihre Zustimmung durch einen Beschluss mit der in Absatz 2 bestimmten Mehrheit. Die Mehrheitsbeschlüsse der Gläubiger sind für alle Gläubiger gleichermaßen verbindlich. Ein Mehrheitsbeschluss der Gläubiger, der nicht gleiche Bedingungen für alle Gläubiger vorsieht, ist unwirksam, es sei denn, die benachteiligten Gläubiger stimmen ihrer Benachteiligung ausdrücklich zu.

(2) *Mehrheitserfordernisse.* Die Gläubiger entscheiden mit einer Mehrheit von 75 % der an der Abstimmung teilnehmenden Stimmrechte. Beschlüsse, durch welche der wesentliche Inhalt der Anleihebedingungen nicht geändert wird, und die keinen Gegenstand des § 5 Absatz 3 Nr. 1 bis Nr. 8 und (soweit § 10 dieser Anleihebedingungen keine andere Regelung vorsieht) Nr. 9 des SchVG betreffen, bedürfen zu ihrer Wirksamkeit einer einfachen Mehrheit der an der Abstimmung teilnehmenden Stimmrechte.

(3) *Abstimmung ohne Versammlung.* Alle Abstimmungen werden, vorbehaltlich des nächsten Satzes, ausschließlich im Wege der Abstimmung ohne Versammlung durchgeführt. Eine Gläubigerversammlung und eine Übernahme der Kosten für eine solche Versammlung durch die Emittentin findet ausschließlich im Fall des § 18 Absatz 4 Satz 2 SchVG statt. Die Gegenstände und Vorschläge zur Beschlussfassung sowie nähere Angaben zu den Abstimmungsmodalitäten werden den Gläubigern mit der Aufforderung zur Stimmabgabe bekannt gemacht. Die Ausübung der Stimmrechte ist von einer vorherigen Anmeldung der Gläubiger abhängig. Die Anmeldung muss unter der in der Aufforderung zur Stimmabgabe mitgeteilten Adresse spätestens am dritten Tag vor Beginn des Abstimmungszeitraums zugehen. Mit der Anmeldung müssen die Gläubiger ihre Berechtigung zur Teilnahme an der Abstimmung durch einen in Textform erstellten besonderen Nachweis der Depotbank gemäß § 14 Absatz 4(i)(a) und (b) und durch Vorlage eines Sperrvermerks der Depotbank, aus dem hervorgeht, dass die betreffenden Schuldverschreibungen ab dem Tag der Absendung der Anmeldung (einschließlich) bis zum letzten Tag des Abstimmungszeitraums (einschließlich) nicht übertragbar sind, nachweisen.

(4) *Zweite Versammlung.* Wird für die Abstimmung ohne Versammlung gemäß § 11 Absatz 3 die mangelnde Beschlussfähigkeit festgestellt, kann der Abstimmungsleiter eine zweite Versammlung im Sinne von § 15 Absatz 3 Satz 3 SchVG einberufen. Die Teilnahme an der zweiten Versammlung und die Ausübung der Stimmrechte sind von einer vorherigen Anmeldung der Gläubiger abhängig. Die Anmeldung muss unter der in der Bekanntmachung der Einberufung mitgeteilten Adresse spätestens am dritten Tag vor der

Abstimmung, amend the Terms and Conditions with regard to matters permitted by the SchVG. The Holders' consent to such amendments is given by resolution with the majority specified in paragraph (2). Majority resolutions shall be binding on all Holders. Resolutions which do not provide for identical conditions for all Holders are void, unless Holders who are disadvantaged have expressly consented to their being treated disadvantageously.

(2) *Majority.* Resolutions shall be passed by a majority of not less than 75 percent of the votes cast. Resolutions relating to amendments of the Terms and Conditions which are not material and which do not relate to the matters listed in § 5(3) No. 1 – 8 and (if § 10 of these Terms and Conditions does not provide otherwise) No. 9 of the SchVG require a simple majority of the votes cast.

(3) *Vote without a meeting.* All votes will be taken, subject to the next sentence, exclusively by vote taken without a meeting. A meeting of Holders and the assumption of the fees by the Issuer for such a meeting will only take place in the circumstances of § 18(4) sentence 2 of the SchVG. The subject matter of the vote as well as the proposed resolutions and further information on voting procedures shall be notified to the Holders together with the request for voting. The exercise of voting rights is subject to the Holders' registration. The registration must be received at the address stated in the request for voting no later than the third day preceding the beginning of the voting period. As part of the registration, Holders must demonstrate their eligibility to participate in the vote by means of a special confirmation of the Custodian in accordance with § 14(4)(i)(a) and (b) hereof in text form and by submission of a blocking instruction by the Custodian stating that the relevant Notes are not transferable from and including the day such registration has been sent until and including the day the voting period ends.

(4) *Second Meeting.* If it is ascertained that no quorum exists for the vote without a meeting pursuant to § 11(3), the scrutineer (*Abstimmungsleiter*) may convene a second meeting within the meaning of § 15(3) sentence 3 of the SchVG. Attendance at the second meeting and exercise of voting rights is subject to the Holders' registration. The registration must be received at the address stated in the convening notice no later than the third day preceding the second meeting. As part of the registration, Holders must demonstrate their

zweiten Versammlung zugehen. Mit der Anmeldung müssen die Gläubiger ihre Berechtigung zur Teilnahme an der Abstimmung durch einen in Textform erstellten besonderen Nachweis der Depotbank gemäß § 14 Absatz 4(i)(a) und (b) und durch Vorlage eines Sperrvermerks der Depotbank, aus dem hervorgeht, dass die betreffenden Schuldverschreibungen ab dem Tag der Absendung der Anmeldung (einschließlich) bis zum angegebenen Ende der Versammlung (einschließlich) nicht übertragbar sind, nachweisen.

(5) *Leitung der Abstimmung.* Die Abstimmung wird von einem von der Emittentin beauftragten Notar oder, falls der Gemeinsame Vertreter (wie in § 11 Absatz 7 definiert) zur Abstimmung aufgefordert hat, vom Gemeinsamen Vertreter geleitet.

(6) *Stimmrecht.* An Abstimmungen der Gläubiger nimmt jeder Gläubiger nach Maßgabe des Nennwerts oder des rechnerischen Anteils seiner Berechtigung an den ausstehenden Schuldverschreibungen teil.

(7) *Gemeinsamer Vertreter.*

Die Gläubiger können durch Mehrheitsbeschluss zur Wahrnehmung ihrer Rechte einen gemeinsamen Vertreter für alle Gläubiger bestellen (der "**Gemeinsame Vertreter**").

Der Gemeinsame Vertreter hat die Aufgaben und Befugnisse, welche ihm durch Gesetz oder von den Gläubigern durch Mehrheitsbeschluss eingeräumt wurden. Er hat die Weisungen der Gläubiger zu befolgen. Soweit er zur *Geltendmachung* von Rechten der Gläubiger ermächtigt ist, sind die einzelnen Gläubiger zur selbständigen Geltendmachung dieser Rechte nicht befugt, es sei denn, der Mehrheitsbeschluss sieht dies ausdrücklich vor. Über seine Tätigkeit hat der Gemeinsame Vertreter den Gläubigern zu berichten. Für die Abberufung und die sonstigen Rechte und Pflichten des Gemeinsamen Vertreters gelten die Vorschriften des SchVG.

(8) *Änderung der Garantie.* Die oben aufgeführten auf die Schuldverschreibungen anwendbaren Bestimmungen gelten für die Garantie der Bayer AG *entsprechend*.

## § 12

### BEGEBUNG WEITERER SCHULDVERSCHREIBUNGEN, ANKAUF UND ENTWERTUNG

(1) *Begebung weiterer Schuldverschreibungen.* Die Emittentin ist jederzeit berechtigt, ohne Zustimmung der Gläubiger weitere *Schuldverschreibungen* mit den gleichen Bedingungen (gegebenenfalls mit Ausnahme des Tags der Begebung, des Verzinsungsbeginns und/oder des Ausgabepreises) in der Weise zu begeben, dass sie mit diesen Schuldverschreibungen eine einheitliche Emission bilden und ihren

eligibility to participate in the vote by means of a special confirmation of the Custodian in accordance with § 14(4)(i)(a) and (b) hereof in text form and by submission of a blocking instruction by the Custodian stating that the relevant Notes are not transferable from and including the day such registration has been sent until and including the stated end of the meeting.

(5) *Chair of the vote.* The vote will be chaired by a notary appointed by the Issuer or, if the Holders' Representative (as defined in subparagraph (7) below) has convened the vote, by the Holders' Representative.

(6) *Voting rights.* Each Holder participating in any vote shall cast votes in accordance with the nominal amount or the notional share of its entitlement to the outstanding Notes.

(7) *Holdings' Representative.*

The Holders may by majority resolution appoint a common representative (the "**Holdings' Representative**") to exercise the Holders' rights on behalf of each Holder.

The Holders' Representative shall have the duties and powers provided by law or granted by majority resolution of the Holders. The Holders' Representative shall comply with the instructions of the Holders. To the extent that the Holders' Representative has been authorized to assert certain rights of the Holders, the Holders shall not be entitled to assert such rights themselves, unless explicitly provided for in the relevant majority resolution. The Holders' Representative shall provide reports to the Holders on its activities. The regulations of the SchVG apply with regard to the recall and the other rights and obligations of the Holders' Representative.

(8) *Amendment of the Guarantee.* The provisions set out above applicable to the Notes shall apply *mutatis mutandis* to the Guarantee of Bayer AG.

## § 12

### FURTHER ISSUES, PURCHASES AND CANCELLATION

(1) Further Issues. The Issuer may from time to time, without the consent of the Holders, issue further Notes having the same terms and conditions as the Notes in all respects (or in all respects except for the issue date, interest commencement date and/or issue price) so as to form a single issue with and increase the aggregate principal amount of the Notes.

Gesamtnennbetrag erhöhen.

(2) *Ankauf*. Die Emittentin ist berechtigt, jederzeit Schuldverschreibungen im Markt oder anderweitig zu jedem beliebigen Preis zu kaufen. Die von der Emittentin erworbenen Schuldverschreibungen können nach Wahl der Emittentin von ihr gehalten, weiterverkauft oder bei der Zahlstelle zwecks Entwertung eingereicht werden. Sofern diese Käufe durch öffentliches Rückkaufangebot erfolgen, muss dieses Angebot allen Gläubigern gleichermaßen gemacht werden.

(3) *Entwertung*. Sämtliche vollständig zurückgezahlten Schuldverschreibungen sind unverzüglich zu entwerten und können nicht wiederbegeben oder wiederverkauft werden.

### § 13

#### MITTEILUNGEN

(1) *Bekanntmachung*. Alle die *Schuldverschreibungen* betreffenden Mitteilungen erfolgen durch elektronische Publikation auf der Website der Luxemburger Börse ([www.bourse.lu](http://www.bourse.lu)). Jede Mitteilung gilt am dritten Tag nach dem Tag der Veröffentlichung als wirksam erfolgt.

(2) *Mitteilungen an das Clearing System*. Solange Schuldverschreibungen an der Offiziellen Liste der Luxemburger Börse notiert sind, findet Absatz (1) Anwendung. Soweit die Mitteilung den Zinssatz von variabel verzinslichen Schuldverschreibungen betrifft oder die Regeln der Luxemburger Börse dies sonst zulassen, kann die Emittentin eine Veröffentlichung nach Absatz (1) durch eine Mitteilung an das Clearing System zur Weiterleitung an die Gläubiger ersetzen; jede derartige Mitteilung gilt am siebten Tag nach dem Tag der Mitteilung an das Clearing System als den Gläubigern mitgeteilt.

### § 14

#### ANWENDBARES RECHT, GERICHTSSTAND UND GERICHTLICHE GELTENDMACHUNG

(1) *Anwendbares Recht*. Form und Inhalt der Schuldverschreibungen sowie die Rechte und Pflichten der Gläubiger und der Emittentin bestimmen sich in jeder Hinsicht nach deutschem Recht.

(2) *Gerichtsstand*. Nicht ausschließlich zuständig für sämtliche im Zusammenhang mit den *Schuldverschreibungen* entstehenden Klagen oder sonstige Verfahren ("**Rechtsstreitigkeiten**") ist das Landgericht Frankfurt am Main.

(3) *Ernennung von Zustellungsbevollmächtigten*. Für etwaige Rechtsstreitigkeiten vor deutschen Gerichten bestellt die Emittentin die Bayer AG, FI Corporate Treasury, Kaiser-Wilhelm-Allee 1, 51373 *Leverkusen*, Bundesrepublik Deutschland zu ihrer Zustellungsbevollmächtigten in Deutschland.

(2) *Purchases*. The Issuer may at any time purchase Notes in the open market or otherwise and at any price. Notes purchased by the Issuer may, at the option of the Issuer, be held, resold or surrendered to the Paying Agent for cancellation. If purchases are made by public tender, tenders for such Notes must be made available to all Holders of such Notes alike.

(3) *Cancellation*. All Notes redeemed in full shall be cancelled forthwith and may not be reissued or resold.

### § 13

#### NOTICES

(1) *Publication*. All notices concerning the Notes will be made by means of electronic publication on the internet website of the Luxembourg Stock Exchange ([www.bourse.lu](http://www.bourse.lu)). Any notice so given will be deemed to have been validly given on the third day following the date of such publication.

(2) *Notification to Clearing System*. So long as any Notes are listed on the Official List of the Luxembourg Stock Exchange, subparagraph (1) shall apply. In the case of notices regarding the Rate of Interest of floating rate notes or, if the Rules of the Luxembourg Stock Exchange otherwise so permit, the Issuer may deliver the relevant notice to the Clearing System for communication by the Clearing System to the Holders, in lieu of publication as set forth in subparagraph (1) above; any such notice shall be deemed to have been validly given on the seventh day after the day on which the said notice was given to the Clearing System.

### § 14

#### APPLICABLE LAW, PLACE OF JURISDICTION AND ENFORCEMENT

(1) *Applicable Law*. The Notes, as to form and content, and all rights and obligations of the Holders and the Issuers, shall be governed by German law.

(2) *Submission to Jurisdiction*. The District Court (*Landgericht*) in Frankfurt am Main shall have non-exclusive jurisdiction for any action or other legal proceedings ("**Proceedings**") arising out of or in connection with the Notes.

(3) *Appointment of Authorized Agent*. For any legal disputes or other proceedings before German courts, the Issuer appoints Bayer AG, FI Corporate Treasury, Kaiser-Wilhelm Allee-1, 51373 *Leverkusen*, Federal Republic of Germany as its authorized agent for service of process in Germany.

(4) *Gerichtliche Geltendmachung.* Jeder Gläubiger von Schuldverschreibungen ist berechtigt, in jedem Rechtsstreit gegen die Emittentin oder in jedem *Rechtsstreit*, in dem der Gläubiger und die Emittentin Partei sind, seine Rechte aus diesen Schuldverschreibungen im eigenen Namen auf der folgenden Grundlage wahrzunehmen oder geltend zu machen: (i) er bringt eine Bescheinigung der Depotbank bei, bei der er für die Schuldverschreibungen ein Wertpapierdepot unterhält, welche (a) den vollständigen Namen und die vollständige Adresse des Gläubigers enthält, (b) den Gesamtnennbetrag der Schuldverschreibungen bezeichnet, die unter dem Datum der Bestätigung auf dem Wertpapierdepot verbucht sind und (c) bestätigt, dass die Depotbank gegenüber dem Clearing System eine schriftliche Erklärung abgegeben hat, die die vorstehend unter (a) und (b) bezeichneten Informationen enthält; und (ii) er legt eine Kopie der Globalurkunde vor, deren Übereinstimmung mit dem Original eine vertretungsberechtigte Person des Clearing Systems oder des Verwahrers des Clearing Systems bestätigt hat, ohne dass eine Vorlage der Originalbelege oder der Globalurkunde in einem solchen Verfahren erforderlich wäre. Für die Zwecke des Vorstehenden bezeichnet "**Depotbank**" jede Bank oder ein sonstiges anerkanntes Finanzinstitut, das berechtigt ist, das Wertpapierverwahrungsgeschäft zu betreiben und bei der/dem der Gläubiger ein Wertpapierdepot für die Schuldverschreibungen unterhält, einschließlich des Clearing Systems. Unbeschadet des Vorstehenden kann jeder Gläubiger seine Rechte aus den Schuldverschreibungen auch auf jede andere Weise schützen oder geltend machen, die im Land des Rechtsstreits prozessual zulässig ist.

(4) *Enforcement.* Any Holder of Notes may in any proceeding against the Issuer, or to which such Holder and the Issuer are parties, protect and enforce in its own name its rights arising under such Notes on the basis of (i) a statement issued by the Custodian (as defined below) with whom such Holder maintains a securities account in respect of the Notes (a) stating the full name and address of the Holder, (b) specifying the aggregate principal amount of Notes credited to such securities account on the date of such statement and (c) confirming that the Custodian has given written notice to the Clearing System containing the information pursuant to (a) and (b) and (ii) a copy of the Global Note certified as being a true copy by a duly authorized officer of the Clearing System or a depository of the Clearing System, without the need for production in such proceedings of the actual records or the Global Note. For purposes of the foregoing, "**Custodian**" means any bank or other financial institution of recognised standing authorized to engage in securities custody business with which the Holder maintains a securities account in respect of the Notes and includes the Clearing System. Each Holder may, without prejudice to the foregoing, protect and enforce its rights under these Notes also in any other way which is admitted in the country of the Proceedings.

**§ 15  
SPRACHE**

Diese Anleihebedingungen sind in deutscher Sprache abgefasst. Eine Übersetzung in die englische *Sprache* ist beigelegt. Der deutsche Text ist bindend und maßgeblich. Die Übersetzung in die englische Sprache ist unverbindlich.

**§ 15  
LANGUAGE**

These Terms and Conditions are written in the German language and provided with an English language translation. The German text shall be controlling and binding. The English language translation is provided for convenience only.

**2.1.2 Fixed Rate Notes 2022, Notes 2026 and Notes 2029**

**ANLEIHEBEDINGUNGEN**

(die "Anleihebedingungen")

**§ 1  
WÄHRUNG, STÜCKELUNG, FORM,  
BEGRIFFSBESTIMMUNGEN**

(1) *Währung; Stückelung.* Die Schuldverschreibungen (die "**Schuldverschreibungen**") der Bayer Capital Corporation B.V. (die "**Emittentin**") werden in Euro (die

**TERMS AND CONDITIONS**

(the "Terms and Conditions")

**§ 1  
CURRENCY, DENOMINATION, FORM, CERTAIN  
DEFINITIONS**

(1) *Currency; Denomination.* The notes (the "**Notes**") of Bayer Capital Corporation B.V. (the "**Issuer**") are being issued in Euro (the "**Specified Currency**") in the

"festgelegte Währung") im Gesamtnennbetrag (vorbehaltlich § 1 Absatz 4) von **im Fall der Festverzinslichen Anleihebedingungen 2022:** EUR 1.000.000.000 (in Worten: Euro eine Milliarde), **im Fall der Anleihebedingungen 2026:** EUR 1.750.000.000 (in Worten: Euro eine Milliarde siebenhundertfünfzig Millionen) und **im Fall der Anleihebedingungen 2029:** EUR 1.500.000.000 (in Worten: Euro eine Milliarde fünfhundert Millionen) in Stückelungen von je EUR 100,000 (die "festgelegte Stückelung") begeben.

(2) *Form.* Die Schuldverschreibungen lauten auf den Inhaber.

(3) *Vorläufige Globalurkunde — Austausch.*

(a) Die Schuldverschreibungen sind anfänglich durch eine vorläufige Globalurkunde (die "**vorläufige Globalurkunde**") ohne Zinsscheine verbrieft. Die vorläufige Globalurkunde wird gegen Schuldverschreibungen in den festgelegten Stückelungen, die durch eine Dauerglobalurkunde (die "**Dauerglobalurkunde**") und zusammen mit der vorläufigen Globalurkunde die "**Globalurkunden**" und jede eine "**Globalurkunde**") ohne Zinsscheine verbrieft sind, ausgetauscht. Die vorläufige Globalurkunde und die Dauerglobalurkunde tragen jeweils die Unterschrift eines ordnungsgemäß bevollmächtigten Vertreters der Emittentin und sind jeweils von der Zahlstelle oder in deren Namen mit einer Kontrollunterschrift versehen. Einzelurkunden und Zinsscheine werden nicht ausgegeben.

(b) Die vorläufige Globalurkunde wird frühestens an einem Tag (der "**Austauschtag**") gegen die Dauerglobalurkunde austauschbar, der 40 Tage nach dem Tag der Ausgabe der vorläufigen Globalurkunde liegt. Ein solcher Austausch soll nur nach Vorlage von Bescheinigungen gemäß U.S. Steuerrecht erfolgen, wonach der oder die wirtschaftlichen Eigentümer der durch die vorläufige Globalurkunde verbrieften Schuldverschreibungen keine U.S.-Personen sind (ausgenommen bestimmte Finanzinstitute oder bestimmte Personen, die Schuldverschreibungen über solche Finanzinstitute halten). Zinszahlungen auf durch eine vorläufige Globalurkunde verbrieft Schuldverschreibungen erfolgen erst nach Vorlage solcher Bescheinigungen. Eine gesonderte Bescheinigung ist hinsichtlich einer jeden solchen Zinszahlung erforderlich. Jede Bescheinigung, die am oder nach dem 40. Tag nach dem Tag der Ausgabe der vorläufigen Globalurkunde eingeht, wird als ein Ersuchen behandelt, diese vorläufige Globalurkunde

aggregate principal amount (subject to § 1(4)) of **in case of the Fixed Rate Notes 2022:** EUR 1,000,000,000 (in words: Euro one billion), **in case of the Notes 2026:** EUR 1,750,000,000 (in words: Euro one billion seven hundred fifty million) and **in case of the Notes 2029:** EUR 1,500,000,000 (in words: Euro one billion five hundred million) in denominations of EUR 100,000 each (the "**Specified Denomination**").

(2) *Form.* The Notes are being issued in bearer form.

(3) *Temporary Global Note — Exchange.*

(a) The Notes are initially represented by a temporary global note (the "**Temporary Global Note**") without coupons. The Temporary Global Note will be exchangeable for Notes in Specified Denominations represented by a permanent global note (the "**Permanent Global Note**" and, together with the Temporary Global Note, the "**Global Notes**" and each a "**Global Note**") without coupons. The Temporary Global Note and the Permanent Global Note shall each be signed by one authorized signatory of the Issuer and shall each be authenticated by or on behalf of the Paying Agent. Definitive notes and interest coupons will not be issued.

(b) The Temporary Global Note shall be exchangeable for the Permanent Global Note from a date (the "**Exchange Date**") 40 days after the date of issue of the Temporary Global Note. Such exchange shall only be made upon delivery of certifications to the effect that the beneficial owner or owners of the Notes represented by the Temporary Global Note are not U.S. persons (other than certain financial institutions or certain persons holding Notes through such financial institutions) as required by U.S. tax law. Payment of interest on Notes represented by a Temporary Global Note will be made only after delivery of such certifications. A separate certification shall be required in respect of each such payment of interest. Any such certification received on or after the 40<sup>th</sup> day after the date of issue of the Temporary Global Note will be treated as a request to exchange such Temporary Global Note pursuant to this subparagraph (b) of this § 1(3). Any securities delivered in exchange for the Temporary Global Note shall be delivered only outside of the



gemäß diesem Absatz (b) dieses § 1 Absatz 3 auszutauschen. Wertpapiere, die im Austausch für die vorläufige Globalurkunde geliefert werden, sind nur außerhalb der Vereinigten Staaten (wie in § 4 Absatz 3 definiert) zu liefern.

(4) *Clearing System*. Die Globalurkunden werden jeweils von einem oder im Namen eines Clearing Systems verwahrt, bis sämtliche Verbindlichkeiten der Emittentin aus den Schuldverschreibungen erfüllt sind. "**Clearing System**" bedeutet jeweils folgendes: Clearstream Banking, société anonyme, 42 Avenue JF Kennedy, 1855 Luxemburg, Großherzogtum Luxemburg ("**CBL**") und Euroclear Bank SA/NV, Boulevard du Roi Albert II, 1210 Brussels, Belgium ("**Euroclear**"), (CBL and Euroclear jeweils ein "**ICSD**" und zusammen die "**ICSDs**").

Die Schuldverschreibungen werden in Form einer *new global note* ("**NGN**") ausgegeben und von einem *common safekeeper* im Namen beider ICSDs verwahrt.

Der Gesamtnennbetrag der durch die Globalurkunde verbrieften Schuldverschreibungen entspricht dem jeweils in den Registern beider ICSDs eingetragenen Gesamtnennbetrag. Die Register der ICSDs (unter denen man die Register versteht, die jeder ICSD für seine Kunden über den Betrag ihres Anteils an den Schuldverschreibungen führt) sind maßgeblicher Nachweis über den Gesamtnennbetrag der durch die Globalurkunde verbrieften Schuldverschreibungen, und eine zu diesen Zwecken von einem ICSD jeweils ausgestellte Bescheinigung mit dem Betrag der so verbrieften Schuldverschreibungen ist ein maßgeblicher Nachweis über den Inhalt des Registers des jeweiligen ICSD zu diesem Zeitpunkt.

Bei Rückzahlung oder einer Zinszahlung bezüglich der durch die Globalurkunde verbrieften Schuldverschreibungen bzw. bei Kauf und Entwertung der durch die Globalurkunde verbrieften Schuldverschreibungen stellt die Emittentin sicher, dass die Einzelheiten über Rückzahlung und Zinszahlung bzw. Kauf und Löschung bezüglich der Globalurkunde *pro rata* in die Unterlagen der ICSDs eingetragen werden, und dass, nach jeder Eintragung, vom Gesamtnennbetrag der in die Register der ICSDs aufgenommenen und durch die Globalurkunde verbrieften Schuldverschreibungen der Gesamtbetrag der zurückgezahlten bzw. gekauften und entwerteten Schuldverschreibungen abgezogen wird.

Bei Austausch eines Anteils von ausschließlich durch eine vorläufige Globalurkunde verbrieft Schuldverschreibungen wird die Emittentin sicherstellen, dass die Einzelheiten dieses Austauschs *pro rata* in die Register der ICSDs aufgenommen werden.

United States (as defined in § 4(3)).

(4) *Clearing System*. Each of the Global Notes will be kept in custody by or on behalf of the Clearing System until all obligations of the Issuer under the Notes have been satisfied. "**Clearing System**" means each of the following: Clearstream Banking, société anonyme, 42 Avenue JF Kennedy, 1855 Luxemburg, Großherzogtum Luxemburg ("**CBL**") and Euroclear Bank SA/NV, Boulevard du Roi Albert II, 1210 Brussels, Belgium ("**Euroclear**"), (CBL and Euroclear each an "**ICSD**" and together the "**ICSDs**").

The Notes are issued in new global note ("**NGN**") form and are kept in custody by a common safekeeper on behalf of both ICSDs.

The aggregate principal amount of Notes represented by the Global Note shall be the aggregate amount as entered from time to time in the records of both ICSDs. The records of the ICSDs (which expression means the records that each ICSD holds for its customers and which reflect the amount of such customer's interest in the Notes) shall be conclusive evidence of the aggregate principal amount of Notes represented by the Global Note and, for these purposes, a statement issued by an ICSD stating the amount of Notes so represented at any time shall be conclusive evidence of the records of the relevant ICSD at that time.

Upon any redemption or payment of interest being made in respect of, or purchase and cancellation of, any of the Notes represented by the Global Note the Issuer shall procure that details of any redemption, payment of interest or purchase and cancellation (as the case may be) in respect of the Global Note shall be entered *pro rata* in the records of the ICSDs and, upon any such entry being made, the aggregate principal amount of the Notes recorded in the records of the ICSDs and represented by the Global Note shall be reduced by the aggregate principal amount of the Notes so redeemed or purchased and cancelled.

Upon the exchange of only a portion of the Notes represented by a Temporary Global Note, the Issuer shall procure that details of such exchange shall be entered *pro rata* in the records of the ICSDs.

(5) *Gläubiger von Schuldverschreibungen*. "**Gläubiger**" bedeutet jeder Inhaber eines Miteigentumsanteils oder vergleichbarer Rechte an den Globalurkunden.

(5) *Holder of Notes*. "**Holder**" means any holder of a proportionate co-ownership or similar rights in the Global Notes.

## § 2

### STATUS, NEGATIVVERPFLICHTUNG, GARANTIE

(1) *Status*. Die Schuldverschreibungen begründen nicht besicherte und nicht nachrangige Verbindlichkeiten der Emittentin, die untereinander und mit allen anderen gegenwärtigen und zukünftigen nicht besicherten und nicht nachrangigen Verbindlichkeiten der Emittentin gleichrangig sind, soweit diesen Verbindlichkeiten nicht durch gesetzliche Bestimmungen ein Vorrang eingeräumt wird.

(2) *Negativverpflichtung*. Die Emittentin verpflichtet sich, solange Schuldverschreibungen ausstehen, jedoch nur bis zu dem Zeitpunkt, an dem alle Beträge an Kapital und Zinsen der Zahlstelle zur Verfügung gestellt worden sind, für andere, nachstehend definierte Wertpapieremissionen nach dem Tag der Begebung der Schuldverschreibungen kein Sicherungsrecht ("**Pfandrecht**") am eigenen inländischen Vermögen zu bestellen, ohne die Gläubiger zur gleichen Zeit und im gleichen Rang an einem solchen Pfandrecht teilhaben zu lassen (ein solches Pfandrecht kann auch zugunsten einer Person, die als Treuhänder der Gläubiger tätig ist, bestellt werden), mit der Maßgabe, dass diese Verpflichtung keine Anwendung findet, falls die Emittentin Pfandrechte folgender Art bestellt, übernimmt oder bestehen lässt:

- (a) Pfandrechte, die auf einem Vermögensgegenstand zum Zeitpunkt des Erwerbs durch die Emittentin lasten;
- (b) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor dem Erwerb, zum Zeitpunkt des Erwerbs oder innerhalb von 12 Monaten nach dem Erwerb eines Vermögensgegenstandes durch die Emittentin zum Zwecke der vollständigen oder teilweisen Kaufpreisfinanzierung eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diesen Kaufpreis hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;
- (c) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor, zum Zeitpunkt, oder innerhalb von 12 Monaten nach der Fertigstellung einer Errichtung, Veränderung, Instandsetzung oder Verbesserung eines Vermögensgegenstandes der Emittentin zum Zwecke der vollständigen oder teilweisen Finanzierung der dabei entstehenden Kosten eingegangen worden sind, sowie Pfandrechte,

## § 2

### STATUS, NEGATIVE PLEDGE, GUARANTEE

(1) *Status*. The obligations under the Notes constitute unsecured and unsubordinated obligations of the Issuer ranking *pari passu* among themselves and *pari passu* with all other present or future unsecured and unsubordinated obligations of the Issuer except for any obligations preferred by law.

(2) *Negative Pledge*. The Issuer undertakes, as long as Notes are outstanding but only up to the time all amounts of principal and interest have been provided to the Paying Agent, not to provide after the issue date of the Notes any security interest ("**Lien**") upon its domestic assets for other Security Issues (as defined below) without at the same time letting the Holders share *pari passu* in such Lien (such Lien may also be provided to a person acting as trustee for the Holders); provided, however, that this undertaking shall not be applicable in the event the Issuer shall create, assume or suffer to exist Liens of the following character:

- (a) any Lien existing on property at the time of the acquisition thereof by the Issuer;
- (b) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the acquisition of property by the Issuer for the purpose of financing all or any part of the purchase price thereof and any Lien to the extent that it secures debt which is in excess of such purchase price and for the payment of which recourse may be had only against such property;
- (c) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the completion of the construction, alteration, repair or improvement of property of the Issuer for the purpose of financing all or any part of the cost thereof and any Lien to the extent that it secures debt which is in excess of such cost and for the payment of which recourse may be had only against such property;

die zur Sicherung von über diese Kosten hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;

- |   |  |
|---|--|
| <p>(d) Pfandrechte an gegenwärtigen oder zukünftigen Ansprüchen der Emittentin gegen die Garantin oder eine ihrer Tochtergesellschaften aufgrund der Weiterleitung von Erlösen aus Wertpapieremissionen, soweit diese Pfandrechte zur Sicherung von Verpflichtungen aus der Wertpapieremission dienen;</p>  | <p>(d) any Lien over any existing or future claims of the Issuer against the Guarantor or any of its subsidiaries as a result of passing on proceeds from any Security Issue, provided that such Lien serves as security interest for obligations under the Security Issue;</p>  |
| <p>(e) jedwede vollständige oder teilweise Verlängerung, Erneuerung oder Ersetzung (oder wiederholte Verlängerungen, Erneuerungen oder Ersetzungen) eines der vorstehend in den Klauseln (a) bis (d) aufgeführten Pfandrechte, soweit der Nennbetrag der dadurch besicherten Verbindlichkeit den im Zeitpunkt einer solchen Verlängerung, Erneuerung oder Ersetzung besicherten Nennbetrag nicht übersteigt (mit der Ausnahme, dass zusätzliche Verbindlichkeiten sowie damit verbundene Finanzierungskosten durch das Pfandrecht besichert werden können, wenn diese zusätzlichen Verbindlichkeiten zur Mittelbeschaffung für die Fertigstellung eines bestimmten Vorhabens eingegangen werden), und soweit das Pfandrecht auf denselben Vermögensgegenstand, an welchem das verlängerte, erneuerte oder ersetzte Pfandrecht bestanden hat, beschränkt bleibt (einschließlich Wertverbesserungen des Vermögensgegenstandes);</p> | <p>(e) any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part of any Lien referred to in clauses (a) through (d) above, so long as the principal amount of debt so secured does not exceed the principal amount secured at the time of extension, renewal or replacement (except that, where an additional principal amount of debt is incurred to provide funds for the completion of a specific project, the additional principal amount and any related financial costs, may be secured by the Lien as well) and the Lien is limited to the same property subject to the Lien so extended, renewed or replaced (plus improvements on the property);</p> |
| <p>(f) Pfandrechte, die kraft Gesetzes entstehen;</p>   | <p>(f) any Lien arising by operation of law;</p>   |
| <p>(g) Pfandrechte, die aus oder in Verbindung mit der Veräußerung oder der Vermietung von Vermögensgegenständen an Leasinggesellschaften entstehen, die den Gesamtbetrag von €1.000.000.000 pro Jahr oder den Gegenwert in anderen Währungen nicht übersteigen (seit dem Tag der Begebung der Schuldverschreibungen); und</p>  | <p>(g) any Lien arising from or related to a disposal or lease-out of assets to any person whose core business is the leasing business (<i>Leasinggesellschaften</i>) that does not exceed an aggregate of €1,000,000,000 per year or the equivalent in other currencies (as from the issue date of the Notes); and</p>  |
| <p>(h) Pfandrechte, die Verbindlichkeiten besichern, deren Betrag €250.000.000 (aggregiert mit dem Betrag von anderen Verbindlichkeiten, die ein Pfandrecht besitzen, welches nach den vorstehenden Unterabsätzen nicht erlaubt ist) oder den Gegenwert in anderen Währungen zu jeder Zeit nicht übersteigt.</p>  | <p>(h) any Lien securing indebtedness the amount of which (when aggregated with the amount of any other indebtedness which has the benefit of a Lien not allowed under the preceding subparagraphs) does not exceed €250,000,000 or its equivalent in other currencies at any time.</p>  |

In Bezug auf von der Emittentin begebene asset-backed Emissionen, schließen die im ersten Satz dieses Abschnittes (2) benutzten Worte "Vermögen" und "Wertpapieremission" nicht Vermögensgegenstände und Wertpapieremissionen der Emittentin ein, solange

In respect of asset-backed securitizations originated by the Issuer, the expressions "assets" and "Security Issue" as used in the first sentence of this subparagraph (2) do not include assets and Security Issues of the Issuer if the assets backing such

das Vermögen, das derartige Emissionen deckt, zusammen €2.000.000.000 nicht übersteigt.

**"Wertpapieremission"** bedeutet jede Zahlungsverpflichtung aus der Aufnahme von Geld in der Form von oder verbrieft durch Schuldverschreibungen oder ähnliche(n) Wertpapiere(n) mit einer ursprünglichen Laufzeit von mehr als einem Jahr, die an einer Wertpapierbörse oder in einem over-the-counter Wertpapiermarkt notiert, eingeführt oder gehandelt werden oder die anderweitig öffentlich gehandelt werden oder gehandelt werden sollen.

(3) *Garantie und Negativverpflichtung der Garantin.* Bayer Aktiengesellschaft (die "**Garantin**") hat eine unbedingte und unwiderrufliche Garantie (die "**Garantie**") vom 22. Juni 2018 für die ordnungsgemäße Zahlung von Kapital und Zinsen und sonstiger auf die Schuldverschreibungen zahlbarer Beträge übernommen.

Die Garantie begründet eine unbedingte, unbesicherte und nicht nachrangige Verbindlichkeit der Garantin, die vorbehaltlich solcher Verbindlichkeiten, die aufgrund Gesetz vorrangig sind, mit allen anderen jeweils bestehenden, nicht besicherten und nicht nachrangigen Verbindlichkeiten der Garantin gleichrangig ist.

Die Garantin übernimmt außerdem eine Negativverpflichtung (die "**Negativverpflichtung**"), solange Schuldverschreibungen ausstehen, jedoch nur bis zu dem Zeitpunkt, an dem alle Beträge an Kapital und Zinsen der Zahlstelle zur Verfügung gestellt worden sind, für andere, vorstehend definierte Wertpapieremissionen nach dem Tag der Begebung der Schuldverschreibungen kein Pfandrecht, wie vorstehend definiert, am eigenen inländischen Vermögen zu bestellen, ohne die Gläubiger zur gleichen Zeit und im gleichen Rang an einem solchen Pfandrecht teilhaben zu lassen (ein solches Pfandrecht kann auch zugunsten einer Person, die als Treuhänder der Gläubiger tätig ist, bestellt werden), mit der Maßgabe, dass diese Verpflichtung keine Anwendung findet, falls die Garantin Pfandrechte folgender Art bestellt, übernimmt oder bestehen lässt:

- (a) Pfandrechte, die auf einem Vermögensgegenstand zum Zeitpunkt des Erwerbs durch die Garantin lasten;
- (b) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor dem Erwerb, zum Zeitpunkt des Erwerbs oder innerhalb von 12 Monaten nach dem Erwerb eines Vermögensgegenstandes durch die Garantin zum Zwecke der vollständigen oder teilweisen Kaufpreisfinanzierung eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diesen Kaufpreis hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für

securitizations do not in aggregate exceed €2,000,000,000.

**"Security Issue"** shall mean any obligation for the payment of borrowed money represented by bonds, notes, debentures or any similar securities which are quoted, listed or traded on any stock exchange or over-the-counter securities market or which are otherwise publicly traded or intended to be publicly traded, having an original maturity of more than one year.

(3) *Guarantee and Negative Pledge of the Guarantor.* Bayer Aktiengesellschaft (the "**Guarantor**") has given its unconditional and irrevocable guarantee (the "**Guarantee**") dated June 22, 2018 for the due and punctual payment of principal of, and interest on, and any other amounts payable under any Note.

The Guarantee constitutes an unconditional, unsecured and unsubordinated obligation of the Guarantor and ranks *pari passu* with all other present or future unsecured and unsubordinated obligations of the Guarantor outstanding from time to time, subject to any obligations preferred by law.

The Guarantor has further undertaken in a negative pledge (the "**Negative Pledge**"), as long as Notes are outstanding but only up to the time all amounts of principal and interest have been provided to the Paying Agent, not to provide after the issue date of the Notes any Lien (as defined above) upon its domestic assets for other Security Issues (as defined above) without at the same time letting the Holders share *pari passu* in such Lien (such Lien may also be provided to a person acting as trustee for the Holders); provided, however, that this undertaking shall not be applicable in the event the Guarantor shall create, assume or suffer to exist Liens of the following character:

- (a) any Lien existing on property at the time of the acquisition thereof by the Guarantor;
- (b) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the acquisition of property by the Guarantor for the purpose of financing all or any part of the purchase price thereof and any Lien to the extent that it secures debt which is in excess of such purchase price and for the payment of which recourse may be had only against such property;

deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;

- (c) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor, zum Zeitpunkt, oder innerhalb von 12 Monaten nach der Fertigstellung einer Errichtung, Veränderung, Instandsetzung oder Verbesserung eines Vermögensgegenstandes der Garantin zum Zwecke der vollständigen oder teilweisen Finanzierung der dabei entstehenden Kosten eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diese Kosten hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;
- (d) jedwede vollständige oder teilweise Verlängerung, Erneuerung oder Ersetzung (oder wiederholte Verlängerungen, Erneuerungen oder Ersetzungen) eines der vorstehend in den Klauseln (a) bis (c) aufgeführten Pfandrechte, soweit der Nennbetrag der dadurch besicherten Verbindlichkeit den im Zeitpunkt einer solchen Verlängerung, Erneuerung oder Ersetzung besicherten Nennbetrag nicht übersteigt (mit der Ausnahme, dass zusätzliche Verbindlichkeiten sowie damit verbundene Finanzierungskosten durch das Pfandrecht besichert werden können, wenn diese zusätzlichen Verbindlichkeiten zur Mittelbeschaffung für die Fertigstellung eines bestimmten Vorhabens eingegangen werden), und soweit das Pfandrecht auf denselben Vermögensgegenstand, an welchem das verlängerte, erneuerte oder ersetzte Pfandrecht bestanden hat, beschränkt bleibt (einschließlich Wertverbesserungen des Vermögensgegenstandes);
- (e) Pfandrechte, die kraft Gesetzes entstehen;
- (f) Pfandrechte, die aus oder in Verbindung mit der Veräußerung oder der Vermietung von Vermögensgegenständen an Leasinggesellschaften entstehen, die den Gesamtbetrag von €1.000.000.000 pro Jahr oder den Gegenwert in anderen Währungen nicht übersteigen (seit dem Tag der Begebung der Schuldverschreibungen); und
- (g) Pfandrechte, die Verbindlichkeiten besichern, deren Betrag €250.000.000 (aggregiert mit dem Betrag von anderen Verbindlichkeiten, die ein Pfandrecht besitzen welches nach den vorstehenden Unterabsätzen nicht erlaubt ist) oder den Gegenwert in anderen Währungen zu jeder Zeit nicht übersteigt.
- (c) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the completion of the construction, alteration, repair or improvement of property of the Guarantor for the purpose of financing all or any part of the cost thereof and any Lien to the extent that it secures debt which is in excess of such cost and for the payment of which recourse may be had only against such property;
- (d) any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part of any Lien referred to in clauses (a) through (c) above, so long as the principal amount of debt so secured does not exceed the principal amount secured at the time of extension, renewal or replacement (except that, where an additional principal amount of debt is incurred to provide funds for the completion of a specific project, the additional principal amount and any related financial costs, may be secured by the Lien as well) and the Lien is limited to the same property subject to the Lien so extended, renewed or replaced (plus improvements on the property);
- (e) any Lien arising by operation of law;
- (f) any Lien arising from or related to a disposal or lease-out of assets to any person whose core business is the leasing business (*Leasinggesellschaften*) that does not exceed an aggregate of €1,000,000,000 per year or the equivalent in other currencies (as from the issue date of the Notes); and
- (g) any Lien securing indebtedness the amount of which (when aggregated with the amount of any other indebtedness which has the benefit of a Lien not allowed under the preceding subparagraphs) does not exceed €250,000,000 or its equivalent in other currencies at any time.

In Bezug auf von der Garantin begebene asset-backed Emissionen, schließen die im ersten Satz des zweiten Absatzes dieses Abschnittes (3) benutzten Worte "Vermögen" und "Wertpapieremission" nicht Vermögensgegenstände und Wertpapieremissionen der Garantin ein, solange das Vermögen, das derartige Emissionen deckt, zusammen €2.000.000.000 nicht übersteigt.

Die Garantie und die Negativverpflichtung stellen einen Vertrag zugunsten eines jeden Gläubigers als begünstigtem Dritten gemäß § 328 Absatz 1 BGB dar, welcher das Recht eines jeden Gläubigers begründet, Erfüllung aus der Garantie und der Negativverpflichtung unmittelbar von der Garantin zu verlangen und die Garantie und die Negativverpflichtung unmittelbar gegenüber der Garantin durchzusetzen.

### § 3 ZINSEN

(1) *Zinssatz und Zinszahlungstage.* Die Schuldverschreibungen werden bezogen auf ihren Nennbetrag verzinst, und zwar von einschließlich 26. Juni 2018 (der "**Verzinsungsbeginn**") bis zum Beginn des Fälligkeitstags (wie in § 5 Absatz 1 definiert) (ausschließlich) mit jährlich **im Fall der Festverzinslichen Anleihebedingungen 2022:** 0,625 %, **im Fall der Anleihebedingungen 2026:** 1,500 % und **im Fall der Anleihebedingungen 2029:** 2,125 %. Die Zinsen sind nachträglich am **im Fall der Festverzinslichen Anleihebedingungen 2022** und **der Anleihebedingungen 2029:** 15. Dezember und **im Fall der Anleihebedingungen 2026:** 26. Juni eines jeden Jahres zahlbar (jeweils ein "**Zinszahlungstag**"). Die erste Zinszahlung erfolgt am **im Fall der Festverzinslichen Anleihebedingungen 2022** und **der Anleihebedingungen 2029:** 15. Dezember 2018 (kurze erste Zinsperiode) und **im Fall der Anleihebedingungen 2026:** 26. Juni 2019.

(2) *Auflaufende Zinsen.* Die Verzinsung der Schuldverschreibungen endet mit Beginn des Tages, an dem sie zur Rückzahlung fällig sind. Falls die Emittentin die Schuldverschreibungen bei Fälligkeit nicht einlöst, fallen auf den ausstehenden Nennbetrag der Schuldverschreibungen ab dem Fälligkeitstag (einschließlich) bis zum Tag der tatsächlichen Rückzahlung (ausschließlich) Zinsen zum gesetzlich festgelegten Satz für Verzugszinsen an<sup>1</sup>.

(3) *Berechnung der Zinsen für Teile von Zeiträumen.* Sofern Zinsen für einen Zeitraum von weniger als einem Jahr zu berechnen sind, erfolgt die Berechnung auf der Grundlage des Zinstagequotienten (wie nachstehend definiert).

In respect of asset-backed securitizations originated by the Guarantor, the expressions "assets" and "Security Issue" as used in the first sentence of the second paragraph of this subparagraph (3) do not include assets and Security Issues of the Guarantor if the assets backing such securitizations do not in aggregate exceed €2,000,000,000.

The Guarantee and Negative Pledge constitute a contract for the benefit of the Holders from time to time as third party beneficiaries in accordance with § 328 subparagraph 1 *BGB* (German Civil Code), giving rise to the right of each Holder to require performance of the Guarantee and the Negative Pledge directly from the Guarantor and to enforce the Guarantee and the Negative Pledge directly against the Guarantor.

### § 3 INTEREST

(1) *Rate of Interest and Interest Payment Dates.* The Notes shall bear interest on their principal amount at the rate of **in case of the Fixed Rate Notes 2022:** 0.625 percent, **in case of the Notes 2026:** 1.500 percent and **in case of the Notes 2029:** 2.125 percent *per annum* from (and including) June 26, 2018 (the "**Interest Commencement Date**") to (but excluding) the Maturity Date (as defined in § 5(1)). Interest shall be payable in arrears on **in case of the Fixed Rate Notes 2022** and **the Notes 2029:** December 15 and **in case of the Notes 2026:** June 26 in each year (each such date, an "**Interest Payment Date**"). The first payment of interest shall be made on **in case of the Fixed Rate Notes 2022** and **the Notes 2029:** December 15, 2018 (short first coupon) and **in case of the Notes 2026:** June 26, 2019.

(2) *Accrual of Interest.* The Notes shall cease to bear interest as from the beginning of the day on which they are due for redemption. If the Issuer shall fail to redeem the Notes when due, interest shall continue to accrue on the outstanding principal amount of the Notes beyond the due date (including) until the date of the actual redemption of the Notes (excluding) at the default rate of interest established by law<sup>1</sup>.

(3) *Calculation of Interest for Partial Periods.* If interest is required to be calculated for a period of less than a full year, such interest shall be calculated on the basis of the Day Count Fraction (as defined below).

<sup>1</sup> Der gesetzliche Verzugszinssatz beträgt für das Jahr fünf Prozentpunkte über dem von der Deutsche Bundesbank von Zeit zu Zeit veröffentlichten Basiszinssatz, §§ 288 Absatz 1, 247 BGB.

<sup>1</sup> The default rate of interest established by law is five percentage points above the basic rate of interest published by Deutsche Bundesbank from time to time, §§ 288(1), 247 German Civil Code (*BGB*).

(4) *Zinstagequotient*. "**Zinstagequotient**" bezeichnet im Hinblick auf die Berechnung des Zinsbetrages auf eine Schuldverschreibung für einen beliebigen Zeitraum (der "**Zinsberechnungszeitraum**") die tatsächliche Anzahl von Tagen im Zinsberechnungszeitraum, geteilt durch die tatsächliche Anzahl von Tagen in der jeweiligen Bezugsperiode in die der Zinsberechnungszeitraum fällt.

"**Bezugsperiode**" bezeichnet den Zeitraum ab dem Verzinsungsbeginn (einschließlich) bis zum ersten Zinszahlungstag (ausschließlich) oder von jedem Zinszahlungstag (einschließlich) bis zum nächsten Zinszahlungstag (ausschließlich). **Im Fall der Festverzinslichen Anleihebedingungen 2022 und der Anleihebedingungen 2029 gilt:** Zum Zwecke der Bestimmung der ersten Bezugsperiode gilt der 15. Dezember 2017 als Verzinsungsbeginn.

#### § 4 ZAHLUNGEN

- (1) (a) Zahlungen auf Kapital. Zahlungen auf Kapital in Bezug auf die Schuldverschreibungen erfolgen nach Maßgabe des nachstehenden Absatzes 2 an das Clearing System oder gegebenenfalls dessen Order zur Gutschrift auf den Konten der jeweiligen Kontoinhaber des Clearing Systems gegen Vorlage und, soweit es sich nicht um eine Teilzahlung handelt, Übergabe der Globalurkunde, mit der die Schuldverschreibungen verbrieft werden, zum Zeitpunkt der Zahlung in der bezeichneten Geschäftsstelle der Zahlstelle außerhalb der Vereinigten Staaten.
- (b) *Zahlung von Zinsen*. Die Zahlung von Zinsen auf die Schuldverschreibungen erfolgt nach Maßgabe von Absatz 2 an das Clearing System oder gegebenenfalls dessen Order zur Gutschrift auf den Konten der jeweiligen Kontoinhaber des Clearing Systems.

Die Zahlung von Zinsen auf die Schuldverschreibungen, die durch die vorläufige Globalurkunde verbrieft sind, erfolgt nach Maßgabe von Absatz 2 an das Clearing System oder gegebenenfalls dessen Order zur Gutschrift auf den Konten der jeweiligen Kontoinhaber des Clearing Systems, und zwar nach ordnungsgemäßer Bescheinigung gemäß § 1 Absatz 3(b).

(2) *Zahlungsweise*. Vorbehaltlich geltender steuerlicher und sonstiger gesetzlicher Regelungen und Vorschriften erfolgen zu leistende Zahlungen auf die Schuldverschreibungen in der festgelegten Währung.

(3) *Vereinigte Staaten*. Für die Zwecke des § 1 Absatz 3 und des Absatzes 1 dieses § 4 bezeichnet "**Vereinigte Staaten**" die Vereinigten Staaten von Amerika (einschließlich deren Bundesstaaten und des District of

(4) *Day Count Fraction*. "**Day Count Fraction**" means, in respect of the calculation of an amount of interest on any Note for any period of time (the "**Calculation Period**"), the actual number of days in the Calculation Period divided by the actual number of days in the respective Reference Period in which the Calculation Period falls.

"**Reference Period**" means the period from (and including) the Interest Commencement Date to, but excluding, the first Interest Payment Date or from (and including) each Interest Payment Date to, but excluding the next Interest Payment Date. **In case of the Fixed Rate Notes 2022 and the Notes 2029:** For the purpose of determining the first Reference Period only, December 15, 2017 shall be deemed to be the Interest Commencement Date.

#### § 4 PAYMENTS

- (1) (a) Payment of Principal. Payment of principal in respect of the Notes shall be made, subject to subparagraph (2) below, to the Clearing System or (if applicable) to its order for credit to the accounts of the relevant account holders of the Clearing System upon presentation and (except in the case of partial payment) surrender of the Global Note representing the Notes at the time of payment at the specified office of the Paying Agent outside the United States.
- (b) *Payment of Interest*. Payment of interest on the Notes shall be made, subject to subparagraph (2), to the Clearing System or (if applicable) to its order for credit to the relevant account holders of the Clearing System.

Payment of interest on the Notes represented by the Temporary Global Note shall be made, subject to subparagraph (2), to the Clearing System or (if applicable) to its order for credit to the relevant account holders of the Clearing System, upon due certification as provided in § 1(3)(b).

(2) *Manner of Payment*. Subject to applicable fiscal and other laws and regulations, payments of amounts due in respect of the Notes shall be made in the Specified Currency.

(3) *United States*. For purposes of § 1(3) and subparagraph (1) of this § 4, "**United States**" means the United States of America (including the States thereof and the District of Columbia) and its



Columbia) sowie deren Territorien (einschließlich Puerto Rico, der U.S. Virgin Islands, Guam, American Samoa, Wake Island und Northern Mariana Islands).

(4) *Erfüllung*. Die Emittentin bzw. die Garantin wird durch Leistung der Zahlung an das Clearing System oder dessen Order von ihrer Zahlungspflicht befreit.

(5) *Geschäftstag (nicht angepasst, Following Business Day Convention)*. Fällt der Fälligkeitstag einer Zahlung in Bezug auf eine Schuldverschreibung auf einen Tag, der kein Geschäftstag ist, dann hat der Gläubiger keinen Anspruch auf Zahlung vor dem nächsten Geschäftstag. Der Gläubiger ist nicht berechtigt, weitere Zinsen oder sonstige Zahlungen aufgrund dieser Verspätung zu verlangen.

Für diese Zwecke bezeichnet "**Geschäftstag**" einen Tag, der ein Tag (außer einem Samstag oder Sonntag) ist, an dem Banken in Frankfurt am Main für den allgemeinen Geschäftsverkehr geöffnet sind und an dem alle betroffenen Bereiche des Trans-European Automated Real-time Gross Settlement Express Transfer Systems 2 ("**TARGET**") und das betreffende Clearing System bereit sind, um Zahlungen abzuwickeln.

(6) *Bezugnahmen auf Kapital und Zinsen*. Bezugnahmen in diesen Anleihebedingungen auf einen Kapitalbetrag der Schuldverschreibungen schließen, soweit anwendbar, die folgenden Beträge ein: den Rückzahlungsbetrag der Schuldverschreibungen; den Vorzeitigen Rückzahlungsbetrag der Schuldverschreibungen; sowie jeden Aufschlag sowie sonstige auf oder in Bezug auf die Schuldverschreibungen zahlbaren Beträge. Bezugnahmen in diesen Anleihebedingungen auf Zinsen auf die Schuldverschreibungen sollen, soweit anwendbar, sämtliche gemäß § 7 zahlbaren zusätzlichen Beträge einschließen.

(7) *Hinterlegung von Kapital und Zinsen*. Die Emittentin ist berechtigt, beim Amtsgericht Frankfurt am Main Zins- oder Kapitalbeträge zu hinterlegen, die von den Gläubigern nicht innerhalb von zwölf Monaten nach dem Fälligkeitstag beansprucht worden sind, auch wenn die Gläubiger sich nicht in Annahmeverzug befinden. Soweit eine solche Hinterlegung erfolgt, und auf das Recht der Rücknahme verzichtet wird, erlöschen die Ansprüche der Gläubiger gegen die Emittentin.

## § 5 RÜCKZAHLUNG

(1) *Rückzahlung bei Endfälligkeit*. Soweit nicht zuvor bereits ganz oder teilweise zurückgezahlt oder angekauft und entwertet, werden die Schuldverschreibungen zu ihrem Rückzahlungsbetrag am **im Fall der Festverzinslichen Anleihebedingungen 2022: 15. Dezember 2022, im Fall der Anleihebedingungen 2026: 26. Juni 2026 und**

possessions (including Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and Northern Mariana Islands).

(4) *Discharge*. The Issuer or, as the case may be, the Guarantor shall be discharged by payment to, or to the order of, the Clearing System.

(5) *Business Day (unadjusted, Following Business Day Convention)*. If the date for payment of any amount in respect of any Note is not a Business Day, then the Holder shall not be entitled to payment until the next such day and shall not be entitled to further interest or other payment in respect of such delay.

For these purposes, "**Business Day**" means a day (other than a Saturday or a Sunday) on which banks are open for general business in Frankfurt am Main and on which all relevant parts of the Trans-European Automated Real-time Gross Settlement Express Transfer System 2 ("**TARGET**") and the Clearing System are open to effect payments.

(6) *References to Principal and Interest*. Reference in these Terms and Conditions to principal in respect of the Notes shall be deemed to include, as applicable: the Final Redemption Amount of the Notes; the Early Redemption Amount of the Notes; and any premium and any other amounts which may be payable under or in respect of the Notes. Reference in these Terms and Conditions to interest in respect of the Notes shall be deemed to include, as applicable, any additional amounts which may be payable under § 7.

(7) *Deposit of Principal and Interest*. The Issuer may deposit with the *Amtsgericht* in Frankfurt am Main principal or interest not claimed by Holders within twelve months after the Maturity Date, even though such Holders may not be in default of acceptance of payment. If and to the extent that the deposit is effected and the right of withdrawal is waived, the respective claims of such Holders against the Issuer shall cease.

## § 5 REDEMPTION

(1) *Redemption at Maturity*. Unless previously redeemed in whole or in part or purchased and cancelled, the Notes shall be redeemed at their Final Redemption Amount on **in case of the Fixed Rate Notes 2022: December 15, 2022, in case of the Notes 2026: June 26, 2026 and in case of the Notes 2029: December 15, 2029** (the "**Maturity**

**im Fall der Anleihebedingungen 2029:** 15. Dezember 2029 (der "Fälligkeitstag") zurückgezahlt. Der "Rückzahlungsbetrag" in Bezug auf jede Schuldverschreibung entspricht der festgelegten Stückelung der Schuldverschreibungen.

(2) *Vorzeitige Rückzahlung aus steuerlichen Gründen.* Sollte die Emittentin und/oder die Garantin zur Zahlung von zusätzlichen Beträgen (wie in § 7 dieser Anleihebedingungen definiert) aufgrund einer Änderung des Steuerrechts (wie nachstehend definiert) am nächstfolgenden Zinszahlungstag (wie in § 3 Absatz 1 definiert) verpflichtet sein und kann diese Verpflichtung nicht durch das Ergreifen angemessener, der Emittentin und/oder der Garantin zur Verfügung stehender Maßnahmen vermieden werden, kann die Emittentin die Schuldverschreibungen insgesamt, jedoch nicht teilweise, mit einer Kündigungsfrist von nicht weniger als 30 und nicht mehr als 60 Tagen gegenüber der Zahlstelle und gemäß § 13 gegenüber den Gläubigern vorzeitig kündigen und zum Rückzahlungsbetrag zuzüglich bis zu dem für die Rückzahlung festgesetzten Tag (ausschließlich) aufgelaufener Zinsen zurückzahlen. Eine "Änderung des Steuerrechts" ist (i) eine Änderung oder Ergänzung der Steuer- oder Abgabengesetze und -vorschriften der Bundesrepublik Deutschland oder der Niederlande oder deren politischen Untergliederungen oder Steuerbehörden, die die Besteuerung oder die Verpflichtung steuerliche Gebühren jeglicher Art zu zahlen beeinflussen, (ii) die Folge einer Änderung oder Ergänzung der Anwendung oder der offiziellen Auslegung dieser Gesetze und Vorschriften, (iii) jede von den Steuerbehörden oder der zuständigen Gerichtsbarkeit in der Bundesrepublik Deutschland oder der Niederlande oder deren politischen Untergliederungen oder Steuerbehörden getroffene Maßnahme/Entscheidung, unabhängig davon, ob eine derartige Maßnahme in Zusammenhang mit der Emittentin oder der Garantin steht, oder (iv) jede Änderung, jede Ergänzung, jede Neufassung, Anwendung, Auslegung oder Durchsetzung der Gesetze der Bundesrepublik Deutschland (oder jeder dazu ergangenen Verordnung oder Regelung), der oder die offiziell vorgeschlagen wurde (vorausgesetzt, diese Änderung, diese Ergänzung, diese Neufassung, Anwendung, Auslegung oder Durchsetzung würde am oder nach dem Tag, an dem die Schuldverschreibungen begeben werden, wirksam werden).

Eine solche Kündigung darf allerdings nicht (i) früher als 90 Tage vor dem frühestmöglichen Termin erfolgen, an dem die Emittentin und/oder die Garantin verpflichtet wäre, solche zusätzlichen Beträge zu zahlen, falls eine Zahlung auf die Schuldverschreibungen dann fällig sein würde, oder (ii) erfolgen, wenn zu dem Zeitpunkt, zu dem die Kündigung erfolgt, die Verpflichtung zur Zahlung von zusätzlichen Beträgen nicht mehr wirksam ist.

**Date").** The "Final Redemption Amount" in respect of each Note shall be its Specified Denomination.

(2) *Early Redemption for Reasons of Taxation.* If as a result of any Tax Law Change (as hereinafter defined) the Issuer and/or the Guarantor is required to pay additional amounts (as defined in § 7 herein) on the next succeeding Interest Payment Date (as defined in § 3(1)) and this obligation cannot be avoided by the use of reasonable measures available to the Issuer and/or the Guarantor, the Issuer may redeem the Notes, in whole but not in part, upon not less than 30 days' nor more than 60 days' prior notice of redemption given to the Paying Agent and, in accordance with § 13 to the Holders, at the Final Redemption Amount together with interest (if any) accrued to but excluding the date fixed for redemption. A "Tax Law Change" is (i) any change in, or amendment to, the laws or regulations of Germany or The Netherlands or any political subdivision or taxing authority thereof or therein affecting taxation or the obligation to pay duties of any kind, (ii) any change in, or amendment to, an official interpretation, administrative guidance or application of such laws or regulations, (iii) any action and/or decision which shall have been taken by any taxing authority, or any court of competent jurisdiction of Germany or The Netherlands or any political subdivision or taxing authority thereof or therein, whether or not such action was taken or brought with respect to the Issuer or the Guarantor, or (iv) any change, amendment, application, interpretation or execution of the laws of Germany or The Netherlands (or any regulations or ruling promulgated thereunder), which change, amendment, action, application, interpretation or execution is officially proposed and would have effect on or after the date on which the Notes were issued.

However, no such notice of redemption may be given (i) earlier than 90 days prior to the earliest date on which the Issuer and/or the Guarantor would be obligated to pay such additional amounts where a payment in respect of the Notes then due, or (ii) if at the time such notice is given, such obligation to pay such additional amounts or make such deduction or withholding does not remain in effect.

Eine solche Kündigung hat gemäß § 13 zu erfolgen. Sie ist unwiderruflich, muss den für die Rückzahlung festgelegten Termin nennen und eine zusammenfassende Erklärung enthalten, welche die das Rückzahlungsrecht der Emittentin und/oder der Garantin begründenden Umständen darlegt.

(3) *Vorzeitige Rückzahlung nach Wahl der Emittentin.*

- (a) Die Emittentin kann, nachdem sie gemäß Absatz (b) gekündigt hat, die Schuldverschreibungen jederzeit (jeweils ein "**Wahl-Rückzahlungstag (Call)**") insgesamt oder teilweise zum Vorzeitigen Rückzahlungsbetrag zuzüglich bis zum jeweiligen Wahl-Rückzahlungstag (Call) (ausschließlich) aufgelaufener Zinsen zurückzahlen.
- (b) Die Kündigung ist den Gläubigern der Schuldverschreibungen durch die Emittentin gemäß § 13 bekanntzugeben. Sie beinhaltet die folgenden Angaben:
  - (i) eine Erklärung, ob diese Schuldverschreibungen ganz oder teilweise zurückgezahlt werden und im letzteren Fall den Gesamtnennbetrag der zurückzuzahlenden Schuldverschreibungen;
  - (ii) den Rückzahlungstag, der nicht weniger als 30 und nicht mehr als 60 Tage nach dem Tag der Kündigung durch die Emittentin gegenüber den Gläubigern liegen darf; und
  - (iii) den Vorzeitigen Rückzahlungsbetrag, zu dem die Schuldverschreibungen zurückgezahlt werden.
- (c) Wenn die Schuldverschreibungen nur teilweise zurückgezahlt werden, werden die zurückzuzahlenden Schuldverschreibungen in Übereinstimmung mit den Regeln des betreffenden Clearing Systems ausgewählt. Die teilweise Rückzahlung wird in den Registern von CBL und Euroclear nach deren Ermessen entweder als Pool-Faktor oder als Reduzierung des Nennbetrags wiedergegeben.
- (d) Für die Zwecke des Absatzes (3) dieses § 5 entspricht der "**Vorzeitige Rückzahlungsbetrag**" einer Schuldverschreibung (i) dem Rückzahlungsbetrag oder (ii), falls höher, dem abgezinsten Marktwert einer Schuldverschreibung. Der "**abgezinsten Marktwert**" einer Schuldverschreibung wird von der Berechnungsstelle errechnet und entspricht dem abgezinsten Wert der Summe der festgelegten Stückelung der Schuldverschreibung und der verbleibenden Zinszahlungen bis zum

Any such notice shall be given in accordance with § 13. It shall be irrevocable, must specify the date fixed for redemption and must set forth a statement in summary form of the facts constituting the basis for the right of the Issuer and/or the Guarantor so to redeem.

(3) *Early Redemption at the Option of the Issuer.*

- (a) The Issuer may, upon notice given in accordance with clause (b), at any time (each a "**Call Redemption Date**") redeem all or some only of the Notes at the Early Redemption Amount together with interest (if any) accrued to but excluding the Call Redemption Date.
- (b) Notice of redemption shall be given by the Issuer to the Holders of the Notes in accordance with § 13. Such notice shall specify:
  - (i) whether the Notes are to be redeemed in whole or in part only and, if in part only, the aggregate principal amount of the Notes which are to be redeemed;
  - (ii) the Call Redemption Date, which shall be not less than 30 nor more than 60 days after the date on which notice is given by the Issuer to the Holders; and
  - (iii) the Early Redemption Amount at which the Notes are to be redeemed.
- (c) In the case of a partial redemption of Notes, Notes to be redeemed shall be selected in accordance with the rules of the relevant Clearing System. Such partial redemption shall be reflected in the records of CBL and Euroclear as either a pool factor or a reduction in principal amount, at the discretion of CBL and Euroclear.
- (d) For purposes of subparagraph (3) of this § 5, the "**Early Redemption Amount**" of a Note shall be the higher of (i) its Final Redemption Amount and (ii) the Present Value. The "**Present Value**" will be calculated by the Calculation Agent by discounting the sum of the Specified Denomination of a Note and the remaining interest payments to the Maturity Date on an annual basis, assuming a 365-day year or a 366-day year, as the case may be, and the actual number of days elapsed in such year and using

Fälligkeitstag. Der abgezinsten Wert wird von der Berechnungsstelle errechnet, indem der Nennbetrag der Schuldverschreibung und die verbleibenden Zinszahlungen bis zum Fälligkeitstag auf einer jährlichen Basis, bei Annahme eines 365-Tage Jahres bzw. eines 366-Tages Jahres und der tatsächlichen Anzahl von Tagen, die einem solchen Jahr abgelaufen sind, unter Anwendung der Vergleichbaren Benchmark Rendite zuzüglich **im Fall der Festverzinslichen Anleihebedingungen 2022: 0,20%, im Fall der Anleihebedingungen 2026: 0,25% und im Fall der Anleihebedingungen 2029: 0,30%** abgezinst werden. Die "**Vergleichbare Benchmark Rendite**" bezeichnet die am Rückzahlungs-Berechnungstag bestehende Rendite der entsprechenden Euro-Referenz-Anleihe der Bundesrepublik Deutschland mit einer Laufzeit, die mit der verbleibenden Laufzeit der Schuldverschreibung bis zum Fälligkeitstag vergleichbar ist, und die im Zeitpunkt der Auswahlentscheidung und entsprechend der üblichen Finanzmarktpraxis zur Preisbestimmung bei Neuemissionen von Unternehmensanleihen mit einer bis zum Fälligkeitstag der Schuldverschreibung vergleichbaren Laufzeit verwendet werden würde. "**Rückzahlungs-Berechnungstag**" ist der dritte Zahltag vor dem jeweiligen Wahl-Rückzahlungstag (Call).

the Comparable Benchmark Yield plus **in case of the Fixed Rate Notes 2022: 0.20 percent, in case of the Notes 2026: 0.25 percent and in case of the Notes 2029: 0.30 percent.** "**Comparable Benchmark Yield**" means the yield at the Redemption Calculation Date on the corresponding Euro-denominated benchmark debt security of the Federal Republic of Germany, as having a maturity comparable to the remaining term of the Note to the Maturity Date, that would be used at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the Maturity Date. "**Redemption Calculation Date**" means the third Business Day prior to the Call Redemption Date.

(4) Vorzeitige Rückzahlung nach Wahl der Emittentin nach dem **im Fall der Festverzinslichen Anleihebedingungen 2022: 15. September 2022, im Fall der Anleihebedingungen 2026: 26. März 2026 und im Fall der Anleihebedingungen 2029: 15. September 2029.**

(4) Early Redemption at the Option of the Issuer after **in case of the Fixed Rate Notes 2022: September 15, 2022, in case of the Notes 2026: March 26, 2026 and in case of the Notes 2029: September 15, 2029.**

(a) Die Emittentin kann, nachdem sie gemäß Absatz (b) gekündigt hat, die Schuldverschreibungen insgesamt oder teilweise innerhalb des Zeitraums vom **im Fall der Festverzinslichen Anleihebedingungen 2022: 15. September 2022, im Fall der Anleihebedingungen 2026: 26. März 2026 und im Fall der Anleihebedingungen 2029: 15. September 2029** bis zum Fälligkeitstag zum Rückzahlungsbetrag zuzüglich bis zum für die Rückzahlung festgesetzten Tag (ausschließlich) aufgelaufener Zinsen zurückzahlen.

(a) The Issuer may, upon notice given in accordance with clause (b), redeem all or some only of the Notes within the period from **in case of the Fixed Rate Notes 2022: September 15, 2022, in case of the Notes 2026: March 26, 2026 and in case of the Notes 2029: September 15, 2029** to the Maturity Date at the Final Redemption Amount together with interest (if any) accrued to but excluding the date fixed for redemption.

(b) Die Kündigung ist den Gläubigern der Schuldverschreibungen durch die Emittentin gemäß § 13 bekanntzugeben. Sie beinhaltet die folgenden Angaben:

(b) Notice of redemption shall be given by the Issuer to the Holders of the Notes in accordance with § 13. Such notice shall specify:

(i) eine Erklärung, ob diese Schuldverschreibungen ganz oder teilweise zurückgezahlt werden und im letzteren Fall den Gesamtnennbetrag der

(i) whether the Notes are to be redeemed in whole or in part only and, if in part only, the aggregate principal amount of the Notes which are to be redeemed; and

zurückzuzahlenden  
Schuldverschreibungen; und

- (ii) den Rückzahlungstag, der nicht weniger als 30 und nicht mehr als 60 Tage nach dem Tag der Kündigung durch die Emittentin gegenüber den Gläubigern liegen darf.

(c) § 5 Absatz (3)(c) gilt entsprechend.

(5) *Rückkauf; Vorzeitige Rückzahlung nach Wahl der Emittentin bei geringem ausstehendem Nennbetrag.* Die Emittentin, oder die Garantin oder eine Tochtergesellschaft der Garantin können jederzeit Schuldverschreibungen im Markt oder anderweitig zu jedem beliebigen Preis kaufen. Derartig erworbene Schuldverschreibungen können entwertet, gehalten oder wieder veräußert werden. Falls die Emittentin, oder die Garantin oder eine Tochtergesellschaft der Garantin Schuldverschreibungen in einem Gesamtnennbetrag von 75 % oder mehr des ursprünglich begebenen Gesamtnennbetrages der Schuldverschreibungen erworben hat, und der Gesamtnennbetrag der Schuldverschreibungen in der Globalurkunde um diesen Prozentsatz reduziert wurde, kann die Emittentin die verbleibenden Schuldverschreibungen (insgesamt, jedoch nicht teilweise) kündigen und zum Rückzahlungsbetrag nebst etwaiger bis zum Rückzahlungstag (ausschließlich) aufgelaufener Zinsen zurückzahlen.

(6) *Kontrollwechsel.* Tritt ein Kontrollwechsel ein und kommt es innerhalb des Kontrollwechselzeitraums zu einer Absenkung des Ratings auf Grund des eingetretenen Kontrollwechsels (zusammen, ein "**Rückzahlungseignis**"), hat jeder Gläubiger das Recht (sofern nicht die Emittentin, bevor die nachstehend beschriebene Rückzahlungsmittelung gemacht wird, die Rückzahlung der Schuldverschreibungen nach § 5 Absatz 2, Absatz 3 oder Absatz 4 angezeigt hat), die Rückzahlung seiner Schuldverschreibungen durch die Emittentin zum Rückzahlungsbetrag, zuzüglich bis zum Wahl-Rückzahlungstag (Put) (ausschließlich) aufgelaufener Zinsen, zum Wahl-Rückzahlungstag (Put) zu verlangen.

Für Zwecke dieses Wahlrechts:

"**Rating Agentur**" ist jede Ratingagentur von S&P Global Ratings ("**S&P**") und Moody's Investors Service ("**Moody's**") oder eine ihrer jeweiligen Nachfolgegesellschaften oder jede andere Rating Agentur vergleichbaren internationalen Ansehens, wie von Zeit zu Zeit durch die Garantin bestimmt.

Eine "**Absenkung des Ratings**" gilt in Bezug auf einen Kontrollwechsel als eingetreten, wenn (a) innerhalb des Kontrollwechselzeitraums ein vorher für die Garantin oder die Schuldverschreibungen vergebenes Rating einer Rating Agentur (i) zurückgezogen oder (ii) von

- (ii) the redemption date, which shall be not less than 30 nor more than 60 days after the date on which notice is given by the Issuer to the Holders.

(c) § 5(3)(c) applies *mutatis mutandis*.

(5) *Purchase; Early Redemption for Reason of Minimal Outstanding Amount.* The Issuer, or the Guarantor or any subsidiary of the Guarantor may at any time purchase Notes in the open market or otherwise and at any price. Such acquired Notes may be cancelled, held or resold. In the event that the Issuer, or the Guarantor or any subsidiary of the Guarantor has purchased Notes equal to or in excess of 75 percent of the aggregate principal amount of the Notes initially issued and the aggregate principal amount of the Notes is reduced by this percentage in the Global Note accordingly, the Issuer may call and redeem the remaining Notes (in whole but not in part) at the Final Redemption Amount plus accrued interest until the date of redemption (exclusive).

(6) *Change of Control.* If there occurs a Change of Control and within the Change of Control Period a Rating Downgrade in respect of that Change of Control occurs (together called a "**Put Event**"), each Holder will have the option (unless, prior to the giving of the Put Event Notice referred to below, the Issuer gives notice to redeem the Notes in accordance with § 5(2), (3) or (4)) to require the Issuer to redeem that Note on the Optional Redemption Date at its Final Redemption Amount together with interest accrued to but excluding the Optional Redemption Date.

For the purposes of such option:

"**Rating Agency**" means each of the rating agencies of S&P Global Ratings ("**S&P**") and Moody's Investors Service ("**Moody's**") or any of their respective successors or any other rating agency of equivalent international standing specified from time to time by the Guarantor.

A "**Rating Downgrade**" shall be deemed to have occurred in respect of a Change of Control (a) if within the Change of Control Period any rating previously assigned to the Guarantor or the Notes by any Rating Agency is (i) withdrawn or (ii) changed from an

einem Investment Grade Rating (BBB- von S&P/Baa3 von Moody's oder jeweils gleichwertig, oder besser) in ein non-Investment Grade Rating (BB+ von S&P/Ba1 von Moody's oder jeweils gleichwertig, oder schlechter) geändert oder (iii) (falls das für die Schuldverschreibungen vergebene Rating einer Rating Agentur unterhalb des Investment Grade Ratings liegt) um einen ganzen Punkt (von BB+ nach BB von S&P oder Ba1 nach Ba2 von Moody's oder eine ähnliche Absenkung eines gleichwertigen Ratings) abgesenkt wird oder (b) zur Zeit des Kontrollwechsels kein Rating für die Schuldverschreibungen oder die Garantin vergeben ist und keine Rating Agentur während des Kontrollwechselzeitraums ein Investment Grade Rating für die Schuldverschreibungen vergibt (es sei denn, die Garantin ist trotz zumutbarer Anstrengungen innerhalb dieses Zeitraums nicht in der Lage, ein solches Rating zu erhalten, ohne dass dies seine Ursache im Kontrollwechsel hat).

Ein "**Kontrollwechsel**" gilt jedes Mal als eingetreten, wenn eine Person oder mehrere Personen (die "**relevante(n) Person(en)**"), die abgestimmt handeln, oder einer oder mehrere Dritte, die im Auftrag der relevanten Person(en) handeln, zu irgendeiner Zeit mittelbar oder unmittelbar (unabhängig davon, ob der Vorstand oder der Aufsichtsrat der Garantin seine Zustimmung erteilt hat) (i) mehr als 50 % des ausstehenden Grundkapitals der Garantin oder (ii) eine solche Anzahl von Aktien der Garantin hält bzw. halten oder erworben hat bzw. haben, auf die mehr als 50 % der Stimmrechte entfallen.

Der "**Kontrollwechselzeitraum**" ist der Zeitraum, der 120 Tage nach dem Eintritt eines Kontrollwechsels endet.

Der "**Wahl-Rückzahlungstag (Put)**" ist der siebte Tag nach dem letzten Tag des Rückzahlungszeitraums.

Sofort nachdem die Emittentin von einem Rückzahlungsereignis Kenntnis erlangt, wird die Emittentin den Gläubigern gemäß § 13 Mitteilung vom Rückzahlungsereignis machen (eine "**Rückzahlungsmitteilung**"), in der die Umstände des Rückzahlungsereignisses sowie das Verfahren für die Ausübung des in diesem § 5 Absatz 6 genannten Wahlrechts angegeben sind.

Zur Ausübung dieses Wahlrechts muss der Gläubiger während der normalen Geschäftsstunden innerhalb eines Zeitraums (der "**Rückzahlungszeitraum**") von 45 Tagen, nachdem die Rückzahlungsmitteilung veröffentlicht ist, eine ordnungsgemäß ausgefüllte und unterzeichnete Ausübungserklärung bei der angegebenen Niederlassung der Zahlstelle einreichen (die "**Ausübungserklärung**"), die in ihrer jeweils maßgeblichen Form bei der angegebenen Niederlassung der Zahlstelle erhältlich ist. Ein so ausgeübtes Wahlrecht kann nicht ohne vorherige

investment grade rating (BBB- by S&P/Baa3 by Moody's, or its equivalent for the time being, or better) to a non-investment grade rating (BB+ by S&P/Ba1 by Moody's, or its equivalent for the time being, or worse) or (iii) (if the rating assigned to the Notes by any Rating Agency shall be below an investment grade rating) lowered one full rating notch (from BB+ to BB by S&P or Ba1 to Ba2 by Moody's or such similar lower of equivalent rating) or (b) if at the time of the Change of Control, there is no rating assigned to the Notes or the Guarantor and no Rating Agency assigns during the Change of Control Period an investment grade credit rating to the Notes (unless the Guarantor is unable to obtain such a rating within such period having used all reasonable endeavours to do so and such failure is unconnected with the occurrence of the Change of Control).

A "**Change of Control**" shall be deemed to have occurred at each time (whether or not approved by the Management Board or Supervisory Board of the Guarantor) that any person or persons ("**Relevant Person(s)**") acting in concert or any person or persons acting on behalf of any such Relevant Person(s), at any time directly or indirectly acquire(s) or come(s) to own (i) more than 50 percent of the issued ordinary share capital of the Guarantor or (ii) such number of the shares in the capital of the Guarantor carrying more than 50 percent of the voting rights.

"**Change of Control Period**" means the period ending 120 days after the occurrence of the Change of Control.

The "**Optional Redemption Date**" is the seventh day after the last day of the Put Period.

Promptly upon the Issuer becoming aware that a Put Event has occurred, the Issuer shall give notice (a "**Put Event Notice**") to the Holders in accordance with § 13 specifying the nature of the Put Event and the circumstances giving rise to it and the procedure for exercising the option set out in this § 5(6).

In order to exercise such option, the Holder must submit during normal business hours at the specified office of the Paying Agent a duly completed option exercise notice ("**Exercise Notice**") in the form available from the specified office of the Paying Agent within the period (the "**Put Period**") of 45 days after a Put Event Notice is given. No option so exercised may be revoked or withdrawn without the prior consent of the Issuer.

Zustimmung der Emittentin widerrufen oder zurückgezogen werden.

**§ 6  
VERWALTUNGSSTELLEN**

(1) *Bestellung; bezeichnete Geschäftsstelle.* Die anfänglich bestellte "**Zahlstelle**" und ihre Geschäftsstelle lauten wie folgt:

Deutsche Bank Aktiengesellschaft  
Taanusanlage 12  
60262 Frankfurt am Main  
Bundesrepublik Deutschland

Die "**Berechnungsstelle**" soll eine unabhängige international anerkannte Bank oder ein unabhängiger Finanzberater mit einschlägiger Expertise sein, von der Emittentin ausgewählt und als Berechnungsstelle für diese Zwecke bestellt.

Die Zahlstelle und die Berechnungsstelle behalten sich jeweils das Recht vor, jederzeit ihre bezeichnete Geschäftsstelle durch eine andere bezeichnete Geschäftsstelle in der Bundesrepublik Deutschland zu ersetzen.

(2) *Änderung der Bestellung oder Abberufung.* Die Emittentin behält sich das Recht vor, jederzeit die Bestellung einer Zahlstelle zu ändern oder zu beenden und eine zusätzliche oder andere Zahlstelle zu bestellen und die Bestellung einer Berechnungsstelle zu ändern oder zu beenden und eine andere Berechnungsstelle zu bestellen. Die Emittentin wird zu jedem Zeitpunkt (i) eine Zahlstelle und eine Berechnungsstelle unterhalten. Eine Änderung, Abberufung, Bestellung oder ein sonstiger Wechsel wird nur wirksam (außer im Insolvenzfall, in dem eine solche Änderung sofort wirksam wird), sofern die Gläubiger hierüber gemäß § 13 vorab unter Einhaltung einer Frist von mindestens 30 und nicht mehr als 45 Tagen informiert wurden.

(3) *Bestimmungen, Berechnungen und Anpassungen.* Alle Bestimmungen, Berechnungen und Anpassungen durch die Berechnungsstelle erfolgen in Abstimmung mit der Emittentin und sind, soweit nicht ein offenkundiger Fehler vorliegt, in jeder Hinsicht endgültig und für die Emittentin und alle Gläubiger bindend. Die kann den Rat eines oder mehrerer Rechtsanwälte oder anderer Sachverständiger einholen, deren Beratung oder Dienste sie für notwendig hält, und sich auf eine solche Beratung verlassen. Die Berechnungsstelle übernimmt keine Haftung gegenüber der Emittentin bzw. den Gläubigern im Zusammenhang mit Handlungen, die in gutem Glauben im Einklang mit einer solchen Beratung getätigt, unterlassen oder geduldet wurden oder deren Unterlassung in gutem Glauben im Einklang mit einer solchen Beratung geduldet wurde.

**§ 6  
AGENTS**

(1) *Appointment; Specified Offices.* The initial "**Paying Agent**" and its initial specified office is:

Deutsche Bank Aktiengesellschaft  
Taanusanlage 12  
60262 Frankfurt am Main  
Germany

The "**Calculation Agent**" shall be an independent bank of international standing or an independent financial adviser with relevant expertise, selected by the Issuer and appointed as calculation agent for the purposes of such.

Each of the Paying Agent and the Calculation Agent reserves the right at any time to change its specified office to some other specified office in Germany.

(2) *Variation or Termination of Appointment.* The Issuer reserves the right at any time to vary or terminate the appointment of any Paying Agent and to appoint additional or other Paying Agent or to vary or terminate the appointment of the Calculation Agent and to appoint another Calculation Agent. The Issuer shall at all times maintain a Paying Agent and a Calculation Agent. Any variation, termination, appointment or change shall only take effect (other than in the case of insolvency, when it shall be of immediate effect) after not less than 30 nor more than 45 days' prior notice thereof shall have been given to the Holders in accordance with § 13.

(3) *Determinations, Calculations and Adjustments.* All determinations, calculations and adjustments made by the Calculation Agent will be made in conjunction with the Issuer and will, in the absence of manifest error, be conclusive in all respects and binding upon the Issuer and all Holders. The Calculation Agent may engage the advice or services of any lawyers or other experts whose advice or services it deems necessary and may rely upon any advice so obtained. The Calculation Agent will not incur any liability as against the Issuer or the Holders in respect of any action taken, or not taken, or suffered to be taken, or not taken, in accordance with such advice in good faith.



(4) *Beauftragte der Emittentin.* Die Zahlstelle und die Berechnungsstelle handeln ausschließlich als Beauftragte der Emittentin und übernehmen keinerlei Verpflichtungen gegenüber den Gläubigern, und es wird kein Auftrags- oder Treuhandverhältnis zwischen ihnen und den Gläubigern begründet.

(4) *Agents of the Issuer.* The Paying Agent and the Calculation Agent act solely as agents of the Issuer and do not have any obligations towards or relationship of agency or trust to any Holder.

## § 7 STEUERN

Sämtliche auf die Schuldverschreibungen zu zahlenden Beträge sind an der Quelle ohne Einbehalt oder Abzug von oder aufgrund von gegenwärtig oder zukünftig bestehenden Steuern oder sonstigen Abgaben gleich welcher Art zu leisten, die von oder in der Bundesrepublik Deutschland oder der Niederlande oder für deren Rechnung oder von oder für Rechnung einer mit dem Recht zur Steuererhebung versehenen politischen Untergliederung oder Behörde der Vorgenannten auferlegt oder erhoben werden (zusammen "**Quellensteuer**"), es sei denn, dieser Einbehalt oder Abzug ist gesetzlich vorgeschrieben. In diesem Fall wird die Emittentin diejenigen zusätzlichen Beträge (die "**zusätzlichen Beträge**") zahlen, die erforderlich sind, damit die den Gläubigern zufließenden Nettobeträge nach diesem Einbehalt oder Abzug jeweils den Beträgen an Kapital und Zinsen entsprechen, die ohne einen solchen Abzug oder Einbehalt von den Gläubigern empfangen worden wären. Die Verpflichtung zur Zahlung solcher zusätzlicher Beträge besteht jedoch nicht im Hinblick auf Steuern und Abgaben, die:

- (a) anders als durch Einbehalt oder Abzug von Zahlungen zu entrichten sind, die die Emittentin an den Gläubiger leistet; oder
- (b) von einer als Depotbank oder Inkassobeauftragter des Gläubigers handelnden Person abgezogen oder einbehalten werden oder sonst auf andere Weise zu entrichten sind als dadurch, dass die Emittentin aus den von ihr zu leistenden Zahlungen von Kapital oder Zinsen einen Abzug oder Einbehalt vornimmt; oder
- (c) von einer Zahlstelle abgezogen oder einbehalten werden, wenn eine andere Zahlstelle die Zahlung ohne einen solchen Abzug oder Einbehalt hätte leisten können; oder
- (d) aufgrund (i) einer Richtlinie oder Verordnung der Europäischen Union betreffend die Besteuerung von Zinserträgen oder (ii) einer zwischenstaatlichen Vereinbarung über deren Besteuerung, an der die Bundesrepublik Deutschland oder die Niederlande oder die Europäische Union beteiligt ist/sind, oder (iii) einer gesetzlichen Vorschrift, die diese Richtlinie, Verordnung oder Vereinbarung umsetzt oder befolgt, abzuziehen oder einzubehalten sind; oder

## § 7 TAXATION

All amounts payable in respect of the Notes shall be payable without deduction or withholding for or on account of any present or future taxes, duties or governmental charges of any nature whatsoever imposed, levied or collected by or on behalf of Germany or The Netherlands or by or on behalf of any political subdivision or authority thereof having power to tax (together "**Withholding Taxes**"), unless such deduction or withholding is required by law. In such event, the Issuer shall pay such additional amounts (the "**additional amounts**") of principal and interest as may be necessary in order that the net amounts received by the Holders after such deduction or withholding shall equal the respective amounts of principal and interest which would have been receivable had no such deduction or withholding been required. No such additional amounts shall, however, be payable on account of any taxes, duties or governmental charges which:

- (a) are payable otherwise than by withholding or deduction from payments made by the Issuer to the Holder, or
- (b) are deducted or withheld by any person acting as custodian bank or collecting agent on behalf of a Holder, or otherwise payable in any manner which does not constitute a deduction or withholding by the Issuer from payments of principal or interest made by it; or
- (c) are deducted or withheld by a Paying Agent from a payment if the payment could have been made by another paying agent without such deduction or withholding; or
- (d) are deducted or withheld pursuant to (i) any European Union Directive or Regulation concerning the taxation of savings, or (ii) any international treaty or understanding relating to such taxation and to which Germany or The Netherlands or the European Union is a party/are parties or (iii) any provision of law implementing, or complying with, or introduced to conform with, such Directive, Regulation, treaty or understanding; or

- (e) aufgrund einer Rechtsänderung zu zahlen sind, welche später als 30 Tage nach Fälligkeit der betreffenden Zahlung von Kapital oder Zinsen oder, wenn dies später erfolgt, ordnungsgemäßer Bereitstellung aller fälligen Beträge wirksam wird; oder
- (f) wegen einer gegenwärtigen oder früheren persönlichen oder geschäftlichen Beziehung des Gläubigers zu Deutschland oder den Niederlanden oder weil der Gläubiger in Deutschland oder den Niederlanden wohnhaft ist bzw. für Zwecke der Besteuerung so behandelt wird oder weil der Gläubiger gewünscht hat, so behandelt zu werden, oder weil der Gläubiger einen dauerhaften Wohnsitz in Deutschland oder den Niederlanden oder in einem anderen Mitgliedstaat der Europäischen Union hat (oder so behandelt wird), zu zahlen sind. Dies gilt jedoch nicht allein deshalb, weil Zahlungen auf die Schuldverschreibungen aus Quellen in Deutschland oder den Niederlanden stammen (oder für Zwecke der Besteuerung so behandelt werden) oder dort besichert sind; oder
- (g) die nicht erhoben oder einbehalten oder abgezogen worden wären, wenn es der Gläubiger oder der wirtschaftliche Eigentümer der Schuldverschreibungen (für die vorliegenden Zwecke einschließlich Finanzinstitute, über die der Gläubiger oder wirtschaftliche Eigentümer die Schuldverschreibungen hält oder über die Zahlungen auf die Schuldverschreibungen erfolgen) nicht unterlassen hätte, nach einer an den Gläubiger oder wirtschaftlichen Eigentümer gerichteten schriftlichen Aufforderung der Emittentin, einer Zahlstelle oder in deren Namen (die so rechtzeitig erfolgt, dass der Gläubiger bzw. der wirtschaftliche Eigentümer dieser Aufforderung mit zumutbaren Anstrengungen nachkommen kann, in jedem Fall aber mindestens 30 Tage, bevor ein Einbehalt oder Abzug erforderlich wäre), einer aufgrund von Gesetzen, Abkommen, Verordnungen oder der Verwaltungspraxis in Deutschland oder den Niederlanden vorgeschriebenen Bescheinigungs-, Identifizierungs-, Informations-, oder sonstigen Nachweispflicht nachzukommen, die Voraussetzung für eine Befreiung von in Deutschland oder den Niederlanden erhobenen Steuern oder für eine Reduzierung der Höhe des Einhalts oder Abzugs solcher Steuern ist (u. a. eine Bescheinigung, dass der Gläubiger bzw. der wirtschaftliche Eigentümer nicht in Deutschland oder den Niederlanden ansässig ist); oder
- (e) are payable by reason of a change in law that becomes effective more than 30 days after the relevant payment becomes due, or is duly provided for, whichever occurs later; or
- (f) are payable by reason of the Holder having, or having had, some personal or business connection with Germany or The Netherlands or being a (deemed) resident of Germany or The Netherlands or is treated for tax purposes as a resident of Germany or The Netherlands or has elected to be taxed as a resident of Germany or The Netherlands or the Holder having a (deemed) permanent establishment in Germany or The Netherlands or another member state of the European Union and not merely by reason of the fact that payments in respect of the Notes are, or for purposes of taxation are deemed to be, derived from sources in, or are secured in, The Netherlands; or
- (g) would not have been imposed, withheld or deducted but for the failure of the Holder or beneficial owner of Notes (including, for these purposes, any financial institution through which the Holder or beneficial owner holds the Notes or through which payment on the Notes is made), following a written request by or on behalf of the Issuer or a Paying Agent addressed to the Holder or beneficial owner (and made at a time that would enable the Holder or beneficial owner acting reasonably to comply with that request, and in all events, at least 30 days before any withholding or deduction would be required), to comply with any certification, identification, information or other reporting requirement whether required by statute, treaty, regulation or administrative practice of Germany or The Netherlands, that is a precondition to exemption from, or reduction in the rate of withholding or deduction of, taxes imposed by Germany or The Netherlands (including, without limitation, a certification that the Holder or beneficial owner is not resident in Germany or The Netherlands); or

(h) die aufgrund jeglicher Kombination der Absätze (a) bis (g) zu entrichten sind.

Jede Bezugnahme in dieser Schuldverschreibung oder der in der Schuldverschreibung genannten Garantie auf den Nennbetrag oder Zinsen versteht sich auch als Bezugnahme auf zusätzliche Beträge, die durch die Emittentin gemäß § 7 dieser Anleihebedingungen zahlbar sein können.

Ungeachtet sonstiger hierin enthaltener Bestimmungen, darf die Emittentin Beträge, die gemäß einer beschriebenen Vereinbarung in Section 1471 (b) des U.S. Revenue Code von 1986 (der "**Code**") erforderlich sind oder die anderweitig aufgrund der Sections 1471 bis 1474 des Codes (oder jeder Änderung oder Nachfolgeregelung), der Regelungen oder Verträge darunter, der offiziellen Auslegungen davon oder jeglicher rechtsausführender und zwischenstaatlicher Zusammenarbeit dazu beruhen, einbehalten oder abziehen ("**FATCA Quellensteuer**"). Die Emittentin ist aufgrund einer durch die Emittentin, eine Zahlstelle oder eine andere Partei abgezogenen oder einbehaltenen FATCA Quellensteuer nicht zur Zahlung zusätzlicher Beträge oder anderweitig zur Entschädigung eines Investors verpflichtet.

#### **§ 8 VORLEGUNGSFRIST**

Die in § 801 Absatz 1 Satz 1 BGB bestimmte Vorlegungsfrist wird für die Schuldverschreibungen auf zehn Jahre verkürzt.

#### **§ 9 KÜNDIGUNG**

(1) *Kündigungsgründe.* Jeder Gläubiger ist berechtigt, seine Schuldverschreibung zu kündigen und deren sofortige Rückzahlung zu ihrem Rückzahlungsbetrag (wie in § 5 definiert), zuzüglich etwaiger bis zum Tage der Rückzahlung (ausschließlich) aufgelaufener Zinsen zu verlangen, falls:

- (a) die Emittentin oder die Garantin Kapital oder Zinsen nicht innerhalb von 30 aufeinanderfolgenden Tagen nach dem betreffenden Fälligkeitstag zahlt; oder
- (b) die Emittentin oder die Garantin die ordnungsgemäße Erfüllung irgendeiner anderen wesentlichen Verpflichtung aus den Schuldverschreibungen für einen ununterbrochenen Zeitraum von 30 Tagen unterlässt, nachdem die Zahlstelle schriftlich mitteilt, dass sie hierüber eine Benachrichtigung von einem Gläubiger erhalten hat, mit der Erfüllung bzw. die Beachtung anderer wesentlicher Verpflichtungen aus diesen Anleihebedingungen verlangt wird; oder

h) are payable for any combination of (a) through (g) above.

Any reference in this Note or the guarantee referred to in the Note to principal or interest shall be deemed also to refer to any additional amount to be paid as above by the Issuer which may be payable under this § 7.

Notwithstanding any other provisions contained herein, the Issuer shall be permitted to withhold or deduct any amounts required pursuant to an agreement described in Section 1471 (b) of the U.S. Internal Revenue Code of 1986 (the "**Code**") or otherwise imposed pursuant to Sections 1471 through 1474 of the Code (or any amended or successor provisions), any regulations or agreements thereunder, official interpretations thereof, or any law implementing and intergovernmental approach thereto ("**FATCA withholding**"). The Issuer will have no obligation to pay additional amounts or otherwise indemnify an investor for any such FATCA withholding deducted or withheld by the Issuer, the paying agent or any other party.

#### **§ 8 PRESENTATION PERIOD**

The presentation period provided in § 801 subparagraph 1, sentence 1 *BGB* (German Civil Code) is reduced to ten years for the Notes.

#### **§ 9 EVENTS OF DEFAULT**

(1) *Events of Default.* Each Holder shall be entitled to declare its Notes due and demand immediate redemption thereof at the Final Redemption Amount (as described in § 5), together with accrued interest (if any) to the date of repayment (exclusive), in the event that

- (a) the Issuer or the Guarantor is in default for a continuous period of 30 days in the payment of principal or interest on the Notes after the same shall become due and payable, or
- (b) the Issuer or the Guarantor is in default for a continuous period of 30 days after written notice from the Paying Agent that the Paying Agent has received notice thereof from a Holder requesting performance or observance of any other material obligation of these Terms and Conditions, or

(c) ein am Sitz der Emittentin zuständiges Gericht in einem zwangsweisen Verfahren gemäß gegenwärtig oder künftig anwendbaren Konkurs-, Insolvenz- oder ähnlichem Recht eine Entscheidung oder Zahlungsaussetzung erlässt oder ein Konkursverwalter, Abwickler, Rechtsnachfolger, Vermögensverwalter, Treuhänder, Zwangsverwalter oder ein ähnlicher Funktionsträger für die Emittentin oder die Garantin oder für einen wesentlichen Teil des Vermögens der Emittentin oder der Garantin bestellt wird oder die Auflösung oder der Liquidation der Geschäfte der Emittentin oder der Garantin angeordnet wird, und eine solche Entscheidung oder Anordnung für einen Zeitraum von 90 aufeinanderfolgenden Tagen nicht ausgesetzt wird und wirksam bleibt; oder

(d) die Emittentin oder die Garantin (i) von sich aus ein Verfahren gemäß gegenwärtig oder künftig anwendbaren Konkurs-, Insolvenz- oder ähnlichem Recht einleitet oder (ii) dem Erlass einer gemäß solchem Recht zwangsweise ergangenen Zahlungsaussetzung zustimmt oder der Bestellung eines, oder Inbesitznahme durch einen, Konkursverwalter(s), Abwickler(s), Rechtsnachfolger(s), Vermögensverwalter(s), Treuhänder(s), Zwangsverwalter(s), oder ähnlichen Funktionsträger(s) für die Emittentin oder die Garantin oder eines wesentlichen Teils des Vermögens der Emittentin oder die Garantin zustimmt oder (iii) allgemein die Bezahlung ihrer Verbindlichkeiten bei Fälligkeit einstellt oder (iv) irgendwelche Maßnahmen zur Förderung einer der vorgenannten Fälle trifft; oder

(e) falls die Garantie nicht länger rechtswirksam und bindend ist oder die Garantin ihre Verpflichtungen aus der Garantie nicht erfüllt.

Das Kündigungsrecht erlischt, falls der Kündigungsgrund vor Ausübung des Rechts geheilt wurde.

(2) *Quorum.* In den Fällen der Absätze 1(a) bis (e) wird eine Kündigung erst wirksam, wenn bei der Zahlstelle Kündigungserklärungen von Gläubigern von Schuldverschreibungen im Nennbetrag von mindestens 25 % der dann ausstehenden Schuldverschreibungen eingegangen sind. Die Wirkung einer solchen Kündigung entfällt, wenn die Gläubiger dies binnen drei Monaten mit Mehrheit beschließen. Für den Beschluss über die Unwirksamkeit der Kündigung genügt die einfache Mehrheit der Stimmrechte, es müssen aber in jedem Fall mehr Gläubiger zustimmen als gekündigt haben.

(3) *Bekanntmachung.* Eine Benachrichtigung, einschließlich einer Kündigung der Schuldverschreibungen gemäß vorstehendem Absatz 1 ist schriftlich in deutscher oder englischer Sprache

(c) a decree or order for relief is entered by a court having jurisdiction in the premises in respect to the Issuer in an involuntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or a receiver, liquidator, assignee, custodian, trustee, sequestrator or other similar official of the Issuer or the Guarantor or for any substantial part of the property of the Issuer or of the Guarantor is ordered, or the winding up or liquidation of the affairs of the Issuer or of the Guarantor is ordered and any such decree or order continues unstayed and in effect for a period of 90 consecutive days, or

(d) the Issuer or the Guarantor (i) commences a voluntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or (ii) consents to the entry of an order for relief in an involuntary case under any such law or consents to the appointment of or taking possession by a receiver, liquidator, assignee, custodian, trustee, sequestrator or other similar official of the Issuer or the Guarantor or for any substantial part of the property of the Issuer or the Guarantor, or (iii) fails generally to pay its debts as they become due, or (iv) takes any corporate action in furtherance of any of the foregoing, or

(e) the Guarantee ceases to be legally valid and binding or the Guarantor fails to fulfil its obligations under the Guarantee.

The right to declare Notes due shall terminate if the situation giving rise to it has been cured before the right is exercised.

(2) *Quorum.* In the events specified in subparagraphs (1)(a) through (e), any notice declaring Notes due shall become effective only when the Paying Agent has received such notices from the Holders of at least 25 percent in principal amount of Notes then outstanding. Any such termination shall become ineffective if within three months the majority of the Holders so resolve. The resolution in relation to the ineffectiveness of a termination may be passed by simple majority of the voting rights, provided, however, that in each case there must be more Holders consenting to such resolution than Holders having terminated the Notes.

(3) *Notice.* Any notice, including any notice declaring Notes due, in accordance with subparagraph (1) shall be made by means of a written declaration in the German or English language delivered by hand or

gegenüber der Zahlstelle zu erklären und persönlich oder per Einschreiben an deren bezeichnete Geschäftsstelle zu übermitteln. Der Benachrichtigung ist ein Nachweis beizufügen, aus dem sich ergibt, dass der betreffende Gläubiger zum Zeitpunkt der Abgabe der Benachrichtigung Inhaber der betreffenden Schuldverschreibung ist. Der Nachweis kann durch eine Bescheinigung der Depotbank (wie in § 14 Absatz 4 definiert) oder auf andere geeignete Weise erbracht werden.

## § 10 ERSETZUNG

(1) *Ersetzung.* Die Emittentin ist jederzeit berechtigt, sofern sie sich nicht mit einer Zahlung von Kapital oder Zinsen auf die Schuldverschreibungen in Verzug befindet, ohne Zustimmung der Gläubiger die Garantin oder jede andere Gesellschaft, deren stimmberechtigte Anteile zu mehr als 90 % direkt oder indirekt von der Garantin gehalten werden, an Stelle der Emittentin als Hauptschuldnerin (die "**Nachfolgeschuldnerin**") für alle Verpflichtungen aus und im Zusammenhang mit dieser Emission einzusetzen, vorausgesetzt, dass:

- (a) die Nachfolgeschuldnerin alle Verpflichtungen der Emittentin in Bezug auf die Schuldverschreibungen übernimmt;
- (b) die Nachfolgeschuldnerin alle erforderlichen Genehmigungen erhalten hat und berechtigt ist, an die Zahlstelle die zur Erfüllung der Zahlungsverpflichtungen aus den Schuldverschreibungen zahlbaren Beträge in der hierin festgelegten Währung zu zahlen, ohne verpflichtet zu sein, jeweils in dem Land, in dem die Nachfolgeschuldnerin oder die Emittentin ihren Sitz oder Steuersitz haben, erhobene Steuern oder andere Abgaben jeder Art abzuziehen oder einzubehalten;
- (c) die Nachfolgeschuldnerin sich verpflichtet hat, jeden Gläubiger hinsichtlich solcher Quellensteuern, Abgaben oder behördlichen Lasten freizustellen, die einem Gläubiger bezüglich der Ersetzung auferlegt werden;
- (d) die Garantin unwiderruflich und unbedingt gegenüber den Gläubigern die Zahlung aller von der Nachfolgeschuldnerin auf die Schuldverschreibungen zahlbaren Beträge zu Bedingungen garantiert, die den Bedingungen der Garantie entsprechen; und
- (e) der Zahlstelle jeweils ein Rechtsgutachten bezüglich der betroffenen Rechtsordnungen von anerkannten Rechtsanwälten vorgelegt werden, die bestätigen, dass die Bestimmungen in den vorstehenden Unterabsätzen (a), (b), (c) und (d) erfüllt wurden.

registered mail to the specified office of the Paying Agent together with proof that such Holder at the time of such notice is a holder of the relevant Notes by means of a certificate of its Custodian (as defined in § 14(4)) or in other appropriate manner.

## § 10 SUBSTITUTION

(1) *Substitution.* The Issuer may, without the consent of the Holders, if no payment of principal of or interest on any of the Notes is in default, at any time substitute for the Issuer the Guarantor or any other company more than 90 percent of the voting share or other equity interests of which are directly or indirectly owned by the Guarantor as principal debtor in respect of all obligations arising from or in connection with the Notes (the "**Substitute Debtor**") provided that:

- (a) the Substitute Debtor assumes all obligations of the Issuer in respect of the Notes;
- (b) the Issuer and the Substitute Debtor have obtained all necessary authorisations and may transfer to the Paying Agent in the currency required hereunder and without being obligated to deduct or withhold any taxes or other duties of whatever nature levied by the country in which the Substitute Debtor or the Issuer has its domicile or tax residence, all amounts required for the fulfilment of the payment obligations arising under the Notes;
- (c) the Substitute Debtor has agreed to indemnify and hold harmless each Holder against any withholding tax, duty, assessment or governmental charge imposed on such Holder in respect of such substitution;
- (d) the Guarantor irrevocably and unconditionally guarantees in favour of each Holder the payment of all sums payable by the Substitute Debtor in respect of the Notes on terms equivalent to the terms of the Guarantee; and
- (e) there shall have been delivered to the Paying Agent an opinion or opinions of lawyers of recognised standing to the effect that subparagraphs (a), (b), (c) and (d) above have been satisfied.

(2) *Bekanntmachung.* Jede Ersetzung ist gemäß § 13 bekanntzumachen.

(3) *Änderung von Bezugnahmen.* Im Fall einer Ersetzung gilt jede Bezugnahme in diesen Anleihebedingungen auf die Emittentin ab dem Zeitpunkt der Ersetzung als Bezugnahme auf die Nachfolgeschuldnerin und jede Bezugnahme auf das Land, in dem die Emittentin ihren Sitz oder Steuersitz hat, gilt ab diesem Zeitpunkt als Bezugnahme auf das Land, in dem die Nachfolgeschuldnerin ihren Sitz oder Steuersitz hat.

Außerdem gilt im Falle der Ersetzung folgendes:

In § 7 und § 5 Absatz 2 gilt eine alternative Bezugnahme auf die Niederlande als aufgenommen (zusätzlich zu der Bezugnahme nach Maßgabe des vorstehenden Satzes auf das Land, in dem die Nachfolgeschuldnerin ihren Sitz oder Steuersitz hat).

Die Emittentin ist berechtigt, die Globalurkunde und die Anleihebedingungen ohne Zustimmung der Gläubiger anzupassen, soweit dies erforderlich ist, um die Wirkungen der Ersetzung nachzuvollziehen. Entsprechend angepasste Globalurkunden oder Anleihebedingungen werden bei dem oder für das Clearing System hinterlegt.

#### § 11

#### **ÄNDERUNG DER ANLEIHEBEDINGUNGEN, GEMEINSAMER VERTRETER, ÄNDERUNG DER GARANTIE**

(1) *Änderung der Anleihebedingungen.* Die Emittentin kann mit Zustimmung der Gläubiger entsprechend den Bestimmungen des Gesetzes über Schuldverschreibungen aus Gesamtemissionen (Schuldverschreibungsgesetz – "**SchVG**") die Anleihebedingungen hinsichtlich eines nach dem SchVG zugelassenen Gegenstands ändern. Die Gläubiger entscheiden über ihre Zustimmung durch einen Beschluss mit der in Absatz 2 bestimmten Mehrheit. Die Mehrheitsbeschlüsse der Gläubiger sind für alle Gläubiger gleichermaßen verbindlich. Ein Mehrheitsbeschluss der Gläubiger, der nicht gleiche Bedingungen für alle Gläubiger vorsieht, ist unwirksam, es sei denn, die benachteiligten Gläubiger stimmen ihrer Benachteiligung ausdrücklich zu.

(2) *Notice.* Notice of any such substitution shall be published in accordance with § 13.

(3) *Change of References.* In the event of any such substitution, any reference in these Terms and Conditions to the Issuer shall from then on be deemed to refer to the Substitute Debtor and any reference to the country in which the Issuer is domiciled or resident for taxation purposes shall from then on be deemed to refer to the country of domicile or residence for taxation purposes of the Substitute Debtor.

Furthermore, in the event of such substitution the following shall apply:

In § 7 and § 5(2) an alternative reference to The Netherlands shall be deemed to have been included in addition to the reference according to the preceding sentence to the country of domicile or residence for taxation purposes of the Substitute Debtor.

The Issuer is authorized to adapt the Global Note and the Terms and Conditions without the consent of the Holders to the extent necessary to reflect the changes resulting from the substitution. Appropriately adjusted Global Notes or Terms and Conditions will be deposited with or on behalf of the Clearing System.

#### § 11

#### **AMENDMENT OF THE TERMS AND CONDITIONS, HOLDERS' REPRESENTATIVE, AMENDMENT OF THE GUARANTEE**

(1) *Amendment of the Terms and Conditions.* In accordance with the German Act on Issues of Debt Securities (*Gesetz über Schuldverschreibungen aus Gesamtemissionen (Schuldverschreibungsgesetz – "SchVG")*), the Issuer may, with the consent of the Holders, amend the Terms and Conditions with regard to matters permitted by the SchVG. The Holders' consent to such amendments is given by resolution with the majority specified in paragraph (2). Majority resolutions shall be binding on all Holders. Resolutions which do not provide for identical conditions for all Holders are void, unless Holders who are disadvantaged have expressly consented to their being treated disadvantageously.

(2) *Mehrheitserfordernisse.* Die Gläubiger entscheiden mit einer Mehrheit von 75 % der an der Abstimmung teilnehmenden Stimmrechte. Beschlüsse, durch welche der wesentliche Inhalt der Anleihebedingungen nicht geändert wird, und die keinen Gegenstand des § 5 Absatz 3 Nr. 1 bis Nr. 8 und (soweit § 10 dieser Anleihebedingungen keine andere Regelung vorsieht) Nr. 9 des SchVG betreffen, bedürfen zu ihrer Wirksamkeit einer einfachen Mehrheit der an der Abstimmung teilnehmenden Stimmrechte.

(3) *Abstimmung ohne Versammlung.* Alle Abstimmungen werden, vorbehaltlich des nächsten Satzes, ausschließlich im Wege der Abstimmung ohne Versammlung durchgeführt. Eine Gläubigerversammlung und eine Übernahme der Kosten für eine solche Versammlung durch die Emittentin findet ausschließlich im Fall des § 18 Absatz 4 Satz 2 SchVG statt. Die Gegenstände und Vorschläge zur Beschlussfassung sowie nähere Angaben zu den Abstimmungsmodalitäten werden den Gläubigern mit der Aufforderung zur Stimmabgabe bekannt gemacht. Die Ausübung der Stimmrechte ist von einer vorherigen Anmeldung der Gläubiger abhängig. Die Anmeldung muss unter der in der Aufforderung zur Stimmabgabe mitgeteilten Adresse spätestens am dritten Tag vor Beginn des Abstimmungszeitraums zugehen. Mit der Anmeldung müssen die Gläubiger ihre Berechtigung zur Teilnahme an der Abstimmung durch einen in Textform erstellten besonderen Nachweis der Depotbank gemäß § 14 Absatz 4(i)(a) und (b) und durch Vorlage eines Sperrvermerks der Depotbank, aus dem hervorgeht, dass die betreffenden Schuldverschreibungen ab dem Tag der Absendung der Anmeldung (einschließlich) bis zum letzten Tag des Abstimmungszeitraums (einschließlich) nicht übertragbar sind, nachweisen.

(4) *Zweite Versammlung.* Wird für die Abstimmung ohne Versammlung gemäß § 11 Absatz 3 die mangelnde Beschlussfähigkeit festgestellt, kann der Abstimmungsleiter eine zweite Versammlung im Sinne von § 15 Absatz 3 Satz 3 SchVG einberufen. Die Teilnahme an der zweiten Versammlung und die Ausübung der Stimmrechte sind von einer vorherigen Anmeldung der Gläubiger abhängig. Die Anmeldung muss unter der in der Bekanntmachung der Einberufung mitgeteilten Adresse spätestens am dritten Tag vor der zweiten Versammlung zugehen. Mit der Anmeldung müssen die Gläubiger ihre Berechtigung zur Teilnahme an der Abstimmung durch einen in Textform erstellten besonderen Nachweis der Depotbank gemäß § 14 Absatz 4(i)(a) und (b) und durch Vorlage eines Sperrvermerks der Depotbank, aus dem hervorgeht, dass die betreffenden Schuldverschreibungen ab dem Tag der Absendung der Anmeldung (einschließlich) bis zum angegebenen Ende der Versammlung (einschließlich) nicht übertragbar sind, nachweisen.

(2) *Majority.* Resolutions shall be passed by a majority of not less than 75 percent of the votes cast. Resolutions relating to amendments of the Terms and Conditions which are not material and which do not relate to the matters listed in § 5(3) No. 1 – 8 and (if § 10 of these Terms and Conditions does not provide otherwise) No. 9 of the SchVG require a simple majority of the votes cast.

(3) *Vote without a meeting.* All votes will be taken, subject to the next sentence, exclusively by vote taken without a meeting. A meeting of Holders and the assumption of the fees by the Issuer for such a meeting will only take place in the circumstances of § 18(4) sentence 2 of the SchVG. The subject matter of the vote as well as the proposed resolutions and further information on voting procedures shall be notified to the Holders together with the request for voting. The exercise of voting rights is subject to the Holders' registration. The registration must be received at the address stated in the request for voting no later than the third day preceding the beginning of the voting period. As part of the registration, Holders must demonstrate their eligibility to participate in the vote by means of a special confirmation of the Custodian in accordance with § 14(4)(i)(a) and (b) hereof in text form and by submission of a blocking instruction by the Custodian stating that the relevant Notes are not transferable from and including the day such registration has been sent until and including the day the voting period ends.

(4) *Second Meeting.* If it is ascertained that no quorum exists for the vote without a meeting pursuant to § 11(3), the scrutineer (*Abstimmungsleiter*) may convene a second meeting within the meaning of § 15(3) sentence 3 of the SchVG. Attendance at the second meeting and exercise of voting rights is subject to the Holders' registration. The registration must be received at the address stated in the convening notice no later than the third day preceding the second meeting. As part of the registration, Holders must demonstrate their eligibility to participate in the vote by means of a special confirmation of the Custodian in accordance with § 14(4)(i)(a) and (b) hereof in text form and by submission of a blocking instruction by the Custodian stating that the relevant Notes are not transferable from and including the day such registration has been sent until and including the stated end of the meeting.

(5) *Leitung der Abstimmung.* Die Abstimmung wird von einem von der Emittentin beauftragten Notar oder, falls der Gemeinsame Vertreter (wie in § 11 Absatz 7 definiert) zur Abstimmung aufgefordert hat, vom Gemeinsamen Vertreter geleitet.

(6) *Stimmrecht.* An Abstimmungen der Gläubiger nimmt jeder Gläubiger nach Maßgabe des Nennwerts oder des rechnerischen Anteils seiner Berechtigung an den ausstehenden Schuldverschreibungen teil.

(7) *Gemeinsamer Vertreter.*

Die Gläubiger können durch Mehrheitsbeschluss zur Wahrnehmung ihrer Rechte einen gemeinsamen Vertreter für alle Gläubiger bestellen (der "**Gemeinsame Vertreter**").

Der Gemeinsame Vertreter hat die Aufgaben und Befugnisse, welche ihm durch Gesetz oder von den Gläubigern durch Mehrheitsbeschluss eingeräumt wurden. Er hat die Weisungen der Gläubiger zu befolgen. Soweit er zur Geltendmachung von Rechten der Gläubiger ermächtigt ist, sind die einzelnen Gläubiger zur selbständigen Geltendmachung dieser Rechte nicht befugt, es sei denn, der Mehrheitsbeschluss sieht dies ausdrücklich vor. Über seine Tätigkeit hat der Gemeinsame Vertreter den Gläubigern zu berichten. Für die Abberufung und die sonstigen Rechte und Pflichten des Gemeinsamen Vertreters gelten die Vorschriften des SchVG.

(8) *Änderung der Garantie.* Die oben aufgeführten auf die Schuldverschreibungen anwendbaren Bestimmungen gelten für die Garantie der Bayer AG entsprechend.

## § 12 BEGEBUNG WEITERER SCHULDVERSCHREIBUNGEN, ANKAUF UND ENTWERTUNG

(1) *Begebung weiterer Schuldverschreibungen.* Die Emittentin ist jederzeit berechtigt, ohne Zustimmung der Gläubiger weitere Schuldverschreibungen mit den gleichen Bedingungen (gegebenenfalls mit Ausnahme des Tags der Begebung, des Verzinsungsbeginns und/oder des Ausgabepreises) in der Weise zu begeben, dass sie mit diesen Schuldverschreibungen eine einheitliche Emission bilden und ihren Gesamtnennbetrag erhöhen.

(2) *Ankauf.* Die Emittentin ist berechtigt, jederzeit Schuldverschreibungen im Markt oder anderweitig zu jedem beliebigen Preis zu kaufen. Die von der Emittentin erworbenen Schuldverschreibungen können nach Wahl der Emittentin von ihr gehalten, weiterverkauft oder bei der Zahlstelle zwecks Entwertung eingereicht werden. Sofern diese Käufe durch öffentliches Rückkaufangebot erfolgen, muss dieses Angebot allen Gläubigern gleichermaßen gemacht werden.

(5) *Chair of the vote.* The vote will be chaired by a notary appointed by the Issuer or, if the Holders' Representative (as defined in subparagraph (7) below) has convened the vote, by the Holders' Representative.

(6) *Voting rights.* Each Holder participating in any vote shall cast votes in accordance with the nominal amount or the notional share of its entitlement to the outstanding Notes.

(7) *Holdings' Representative.*

The Holders may by majority resolution appoint a common representative (the "**Holdings' Representative**") to exercise the Holders' rights on behalf of each Holder.

The Holders' Representative shall have the duties and powers provided by law or granted by majority resolution of the Holders. The Holders' Representative shall comply with the instructions of the Holders. To the extent that the Holders' Representative has been authorized to assert certain rights of the Holders, the Holders shall not be entitled to assert such rights themselves, unless explicitly provided for in the relevant majority resolution. The Holders' Representative shall provide reports to the Holders on its activities. The regulations of the SchVG apply with regard to the recall and the other rights and obligations of the Holders' Representative.

(8) *Amendment of the Guarantee.* The provisions set out above applicable to the Notes shall apply *mutatis mutandis* to the Guarantee of Bayer AG.

## § 12 FURTHER ISSUES, PURCHASES AND CANCELLATION

(1) *Further Issues.* The Issuer may from time to time, without the consent of the Holders, issue further Notes having the same terms and conditions as the Notes in all respects (or in all respects except for the issue date, interest commencement date and/or issue price) so as to form a single issue with and increase the aggregate principal amount of the Notes.

(2) *Purchases.* The Issuer may at any time purchase Notes in the open market or otherwise and at any price. Notes purchased by the Issuer may, at the option of the Issuer, be held, resold or surrendered to the Paying Agent for cancellation. If purchases are made by public tender, tenders for such Notes must be made available to all Holders of such Notes alike.



(3) *Entwertung*. Sämtliche vollständig zurückgezahlten Schuldverschreibungen sind unverzüglich zu entwerten und können nicht wiederbegeben oder wiederverkauft werden.

### § 13 MITTEILUNGEN

(1) *Bekanntmachung*. Alle die Schuldverschreibungen betreffenden Mitteilungen erfolgen durch elektronische Publikation auf der Website der Luxemburger Börse ([www.bourse.lu](http://www.bourse.lu)). Jede Mitteilung gilt am dritten Tag nach dem Tag der Veröffentlichung als wirksam erfolgt.

(2) *Mitteilungen an das Clearing System*. Solange Schuldverschreibungen an der Offiziellen Liste der Luxemburger Börse notiert sind, findet Absatz (1) Anwendung. Soweit die Regeln der Luxemburger Börse dies sonst zulassen, kann die Emittentin eine Veröffentlichung nach Absatz (1) durch eine Mitteilung an das Clearing System zur Weiterleitung an die Gläubiger ersetzen; jede derartige Mitteilung gilt am siebten Tag nach dem Tag der Mitteilung an das Clearing System als den Gläubigern mitgeteilt.

### § 14 ANWENDBARES RECHT, GERICHTSSTAND UND GERICHTLICHE GELTENDMACHUNG

(1) *Anwendbares Recht*. Form und Inhalt der Schuldverschreibungen sowie die Rechte und Pflichten der Gläubiger und der Emittentin bestimmen sich in jeder Hinsicht nach deutschem Recht.

(2) *Gerichtsstand*. Nicht ausschließlich zuständig für sämtliche im Zusammenhang mit den Schuldverschreibungen entstehenden Klagen oder sonstige Verfahren ("**Rechtsstreitigkeiten**") ist das Landgericht Frankfurt am Main.

(3) *Ernennung von Zustellungsbevollmächtigten*. Für etwaige Rechtsstreitigkeiten vor deutschen Gerichten bestellt die Emittentin die Bayer AG, FI Corporate Treasury, Kaiser-Wilhelm-Allee 1, 51373 Leverkusen, Bundesrepublik Deutschland zu ihrer Zustellungsbevollmächtigten in Deutschland.

(4) *Gerichtliche Geltendmachung*. Jeder Gläubiger von Schuldverschreibungen ist berechtigt, in jedem Rechtsstreit gegen die Emittentin oder in jedem Rechtsstreit, in dem der Gläubiger und die Emittentin Partei sind, seine Rechte aus diesen Schuldverschreibungen im eigenen Namen auf der folgenden Grundlage wahrzunehmen oder geltend zu machen: (i) er bringt eine Bescheinigung der Depotbank bei, bei der er für die Schuldverschreibungen ein Wertpapierdepot unterhält, welche (a) den vollständigen Namen und die vollständige Adresse des Gläubigers

(3) *Cancellation*. All Notes redeemed in full shall be cancelled forthwith and may not be reissued or resold.

### § 13 NOTICES

(1) *Publication*. All notices concerning the Notes will be made by means of electronic publication on the internet website of the Luxembourg Stock Exchange ([www.bourse.lu](http://www.bourse.lu)). Any notice so given will be deemed to have been validly given on the third day following the date of such publication.

(2) *Notification to Clearing System*. So long as any Notes are listed on the Official List of the Luxembourg Stock Exchange, subparagraph (1) shall apply. If the Rules of the Luxembourg Stock Exchange otherwise so permit, the Issuer may deliver the relevant notice to the Clearing System for communication by the Clearing System to the Holders, in lieu of publication as set forth in subparagraph (1) above; any such notice shall be deemed to have been validly given on the seventh day after the day on which the said notice was given to the Clearing System.

### § 14 APPLICABLE LAW, PLACE OF JURISDICTION AND ENFORCEMENT

(1) *Applicable Law*. The Notes, as to form and content, and all rights and obligations of the Holders and the Issuers, shall be governed by German law.

(2) *Submission to Jurisdiction*. The District Court (*Landgericht*) in Frankfurt am Main shall have non-exclusive jurisdiction for any action or other legal proceedings ("**Proceedings**") arising out of or in connection with the Notes.

(3) *Appointment of Authorized Agent*. For any legal disputes or other proceedings before German courts, the Issuer appoints Bayer AG, FI Corporate Treasury, Kaiser-Wilhelm-Allee 1, 51373 Leverkusen, Federal Republic of Germany as its authorized agent for service of process in Germany.

(4) *Enforcement*. Any Holder of Notes may in any proceeding against the Issuer, or to which such Holder and the Issuer are parties, protect and enforce in its own name its rights arising under such Notes on the basis of (i) a statement issued by the Custodian (as defined below) with whom such Holder maintains a securities account in respect of the Notes (a) stating the full name and address of the Holder, (b) specifying the aggregate principal amount of Notes credited to such securities account on the date of such statement and (c) confirming that the Custodian has given written

enthält, (b) den Gesamtnennbetrag der Schuldverschreibungen bezeichnet, die unter dem Datum der Bestätigung auf dem Wertpapierdepot verbucht sind und (c) bestätigt, dass die Depotbank gegenüber dem Clearing System eine schriftliche Erklärung abgegeben hat, die die vorstehend unter (a) und (b) bezeichneten Informationen enthält; und (ii) er legt eine Kopie der Globalurkunde vor, deren Übereinstimmung mit dem Original eine vertretungsberechtigte Person des Clearing Systems oder des Verwahrers des Clearing Systems bestätigt hat, ohne dass eine Vorlage der Originalbelege oder der Globalurkunde in einem solchen Verfahren erforderlich wäre. Für die Zwecke des Vorstehenden bezeichnet "**Depotbank**" jede Bank oder ein sonstiges anerkanntes Finanzinstitut, das berechtigt ist, das Wertpapierverwahrungsgeschäft zu betreiben und bei der/dem der Gläubiger ein Wertpapierdepot für die Schuldverschreibungen unterhält, einschließlich des Clearing Systems. Unbeschadet des Vorstehenden kann jeder Gläubiger seine Rechte aus den Schuldverschreibungen auch auf jede andere Weise schützen oder geltend machen, die im Land des Rechtsstreits prozessual zulässig ist.

#### **§ 15 SPRACHE**

Diese Anleihebedingungen sind in deutscher Sprache abgefasst. Eine Übersetzung in die englische Sprache ist beigefügt. Der deutsche Text ist bindend und maßgeblich. Die Übersetzung in die englische Sprache ist unverbindlich.

notice to the Clearing System containing the information pursuant to (a) and (b) and (ii) a copy of the Global Note certified as being a true copy by a duly authorized officer of the Clearing System or a depository of the Clearing System, without the need for production in such proceedings of the actual records or the Global Note. For purposes of the foregoing, "**Custodian**" means any bank or other financial institution of recognised standing authorized to engage in securities custody business with which the Holder maintains a securities account in respect of the Notes and includes the Clearing System. Each Holder may, without prejudice to the foregoing, protect and enforce its rights under these Notes also in any other way which is admitted in the country of the Proceedings.

#### **§ 15 LANGUAGE**

These Terms and Conditions are written in the German language and provided with an English language translation. The German text shall be controlling and binding. The English language translation is provided for convenience only.

## 2.2 Garantie und Negativverpflichtung / Guarantee and Negative Pledge

### Binding German Language Version

#### GARANTIE UND NEGATIVVERPFLICHTUNG

der

Bayer Aktiengesellschaft,  
Leverkusen, Bundesrepublik Deutschland,

zugunsten der Gläubiger von

€750.000.000 Variabel Verzinsliche Schuldverschreibungen fällig am 26. Juni 2022  
ISIN XS1840614736

und

€1.000.000.000 0,625% Schuldverschreibungen fällig am 15. Dezember 2022  
ISIN XS1840614900

und

€1.750.000.000 1,500% Schuldverschreibungen fällig am 26. Juni 2026  
ISIN XS1840618059

und

€1.500.000.000 2,125% Schuldverschreibungen fällig am 15. Dezember 2029  
ISIN XS1840618216

(zusammen die "**Schuldverschreibungen**" und jeweils einzeln eine "**Schuldverschreibung**"),

die von der

Bayer Capital Corporation B.V.

(einer mit beschränkter Haftung nach dem Recht der Niederlande errichteten Gesellschaft)  
("**Bayer Capital Corp**")

begeben worden sind.

IM HINBLICK DARAUF, DASS:

- (A) Bayer Capital Corporation B.V. beabsichtigt, die Schuldverschreibungen zu begeben;
- (B) Bayer AG (die "**Garantin**") die ordnungsgemäße Zahlung von Kapital und Zinsen sowie von allen sonstigen Beträgen, die aufgrund der Schuldverschreibungen zu zahlen sind, garantieren möchte;
- (C) die Garantin zugunsten jeden Gläubigers (wie nachfolgend definiert) der von Bayer Capital Corp begebenen Schuldverschreibungen eine Negativverpflichtung eingehen möchte.

WIRD FOLGENDES VEREINBART:

- (1) (a) Die Garantin übernimmt gegenüber jedem Gläubiger (jeweils ein "**Gläubiger**") der Schuldverschreibungen (wobei dieser Begriff jede vorläufige oder Dauerglobalurkunde, die Schuldverschreibungen verbrieft, einschließt), welche von Bayer Capital Corp begeben werden, die unbedingte und unwiderrufliche Garantie für die ordnungsgemäße und pünktliche Zahlung bei Fälligkeit von Kapital und Zinsen auf die Schuldverschreibungen sowie von allen sonstigen Beträgen, die gemäß den jeweiligen Anleihebedingungen auf Schuldverschreibungen zahlbar sind.
- (b) Diese Garantie begründet eine unbedingte, unbesicherte und nicht nachrangige Verbindlichkeit der Garantin, die vorbehaltlich solcher Verbindlichkeiten, die aufgrund Gesetz vorrangig sind, mit allen anderen jeweils bestehenden, nicht besicherten und nicht nachrangigen Verbindlichkeiten der Garantin gleichrangig ist.
- (c) Sämtliche Zahlungen aufgrund dieser Garantie sind ohne Einbehalt oder Abzug von oder aufgrund von gegenwärtig oder zukünftig bestehenden Steuern oder sonstigen Abgaben gleich welcher Art zu leisten, die von oder in der Bundesrepublik Deutschland oder für deren Rechnung oder von oder für Rechnung einer politischen Untergliederung oder Behörde der Bundesrepublik Deutschland an der Quelle auferlegt oder erhoben werden, es sei denn, dieser Einbehalt oder Abzug ist gesetzlich vorgeschrieben. In diesem Fall hat

die Garantin diejenigen zusätzlichen Beträge zu zahlen, die erforderlich sind, damit die den Gläubigern aufgrund dieser Garantie zufließenden Nettobeträge nach diesem Einbehalt oder Abzug jeweils den Beträgen an Kapital und Zinsen entsprechen, die ohne einen solchen Abzug oder Einbehalt von den Gläubigern empfangen worden wären. Die Verpflichtung zur Zahlung solcher zusätzlichen Beträge besteht jedoch nicht im Hinblick auf Steuern und Abgaben, die:

- (i) anders als durch Einbehalt oder Abzug oder Einbehalt auf Zahlungen zu entrichten sind, die die Emittentin/Garantin an den Gläubiger leistet; oder
- (ii) von einer als Depotbank oder Inkassobeauftragter des Gläubigers handelnden Person abgezogen oder einbehalten werden oder sonst auf andere Weise zu entrichten sind als dadurch, dass die Emittentin aus den von ihr zu leistenden Zahlungen von Kapital oder Zinsen einen Abzug oder Einbehalt vornimmt; oder
- (iii) von einer Zahlstelle abgezogen oder einbehalten werden, wenn eine andere Zahlstelle die Zahlung ohne einen solchen Abzug oder Einbehalt hätte leisten können; oder
- (iv) aufgrund (i) einer Richtlinie oder Verordnung der Europäischen Union betreffend die Besteuerung von Zinserträgen oder (ii) einer zwischenstaatlichen Vereinbarung über deren Besteuerung, an der die Bundesrepublik Deutschland oder die Niederlande oder die Europäische Union beteiligt ist/sind, oder (iii) einer gesetzlichen Vorschrift, die diese Richtlinie, Verordnung oder Vereinbarung umsetzt oder befolgt, abzuziehen oder einzubehalten sind; oder
- (v) aufgrund einer Rechtsänderung zu zahlen sind, welche später als 30 Tage nach Fälligkeit der betreffenden Zahlung von Kapital oder Zinsen oder, wenn dies später erfolgt, ordnungsgemäßer Bereitstellung aller fälligen Beträge wirksam wird; oder
- (vi) wegen einer gegenwärtigen oder früheren persönlichen oder geschäftlichen Beziehung des Gläubigers zu Deutschland oder den Niederlanden oder weil der Gläubiger in Deutschland oder den Niederlanden wohnhaft ist bzw. für Zwecke der Besteuerung so behandelt wird oder weil der Gläubiger gewünscht hat, so behandelt zu werden, oder weil der Gläubiger einen dauerhaften Wohnsitz in Deutschland oder den Niederlanden oder in einem anderen Mitgliedstaat der Europäischen Union hat (oder so behandelt wird), zu zahlen sind. Dies gilt jedoch nicht allein deshalb, weil Zahlungen auf die Schuldverschreibungen aus Quellen in Deutschland oder den Niederlanden stammen (oder für Zwecke der Besteuerung so behandelt werden) oder dort besichert sind; oder
- (vii) die nicht erhoben oder einbehalten oder abgezogen worden wären, wenn es der Gläubiger oder der wirtschaftliche Eigentümer der Schuldverschreibungen (für die vorliegenden Zwecke einschließlich Finanzinstitute, über die der Gläubiger oder wirtschaftliche Eigentümer die Schuldverschreibungen hält oder über die Zahlungen auf die Schuldverschreibungen erfolgen) nicht unterlassen hätte, nach einer an den Gläubiger oder wirtschaftlichen Eigentümer gerichteten schriftlichen Aufforderung der Emittentin, einer Zahlstelle oder in deren Namen (die so rechtzeitig erfolgt, dass der Gläubiger bzw. der wirtschaftliche Eigentümer dieser Aufforderung mit zumutbaren Anstrengungen nachkommen kann, in jedem Fall aber mindestens 30 Tage, bevor ein Einbehalt oder Abzug erforderlich wäre), einer aufgrund von Gesetzen, Abkommen, Verordnungen oder der Verwaltungspraxis in Deutschland oder den Niederlanden vorgeschriebenen Bescheinigungs-, Identifizierungs-, Informations-, oder sonstigen Nachweispflicht nachzukommen, die Voraussetzung für eine Befreiung von in Deutschland oder den Niederlanden erhobenen Steuern oder für eine Reduzierung der Höhe des Einhalts oder Abzugs solcher Steuern ist (u. a. eine Bescheinigung, dass der Gläubiger bzw. der wirtschaftliche Eigentümer nicht in Deutschland oder den Niederlanden ansässig ist); oder
- (viii) die aufgrund jeglicher Kombination der Absätze (i) bis (vii) zu entrichten sind.

Ungeachtet sonstiger Bestimmungen dieser Garantie, darf die Garantin Beträge, die gemäß einer beschriebenen Vereinbarung in Section 1471 (b) des U.S. Revenue Code von 1986 (der "**Code**") erforderlich sind oder die anderweitig aufgrund der Sections 1471 bis 1474 des Codes (oder jeder Änderung oder Nachfolgeregelung), der Regelungen oder Verträge darunter, der offiziellen Auslegungen davon oder jeglicher rechtsausführender und zwischenstaatlicher Zusammenarbeit dazu beruhen, einbehalten oder abziehen ("**FATCA Quellensteuer**"). Die Garantin ist aufgrund einer durch die Emittentin, die Garantin, eine Zahlstelle oder eine andere Partei abgezogenen oder einbehaltenen FATCA Quellensteuer nicht zur Zahlung zusätzlicher Beträge oder anderweitig zur Entschädigung eines Investors verpflichtet.

- (d) Die Verpflichtungen der Garantin aus dieser Garantie (i) sind selbständig und unabhängig von den Verpflichtungen der Emittentin aus den Schuldverschreibungen, (ii) bestehen unabhängig von der Rechtmäßigkeit, Gültigkeit, Verbindlichkeit oder Durchsetzbarkeit der Schuldverschreibungen und (iii) werden nicht durch Ereignisse, Bedingungen oder Umstände tatsächlicher oder rechtlicher Art berührt, außer

durch die vollständige, endgültige und unwiderrufliche Erfüllung sämtlicher in den Schuldverschreibungen eingegangenen Zahlungsverpflichtungen.

- (2) Die Garantin verpflichtet sich gegenüber jedem Gläubiger, solange Schuldverschreibungen ausstehen, jedoch nur bis zu dem Zeitpunkt, an dem alle Beträge an Kapital und Zinsen der Zahlstelle zur Verfügung gestellt worden sind, für andere, nachstehend definierte Wertpapieremissionen nach dem Tag der Begebung der Schuldverschreibungen kein Sicherungsrecht ("**Pfandrecht**") am eigenen inländischen Vermögen zu bestellen, ohne die Gläubiger zur gleichen Zeit und im gleichen Rang an einem solchen Pfandrecht teilhaben zu lassen (ein solches Pfandrecht kann auch zugunsten einer Person, die als Treuhänder der Gläubiger tätig ist, bestellt werden), mit der Maßgabe, dass diese Verpflichtung keine Anwendung findet, falls die Garantin Pfandrechte folgender Art bestellt, übernimmt oder bestehen lässt:
- (a) Pfandrechte, die auf einem Vermögensgegenstand zum Zeitpunkt des Erwerbs durch die Garantin lasten;
  - (b) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor dem Erwerb, zum Zeitpunkt des Erwerbs oder innerhalb von 12 Monaten nach dem Erwerb eines Vermögensgegenstandes durch die Garantin zum Zwecke der vollständigen oder teilweisen Kaufpreisfinanzierung eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diesen Kaufpreis hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;
  - (c) Pfandrechte zur Besicherung von Verbindlichkeiten, die vor, zum Zeitpunkt, oder innerhalb von 12 Monaten nach der Fertigstellung einer Errichtung, Veränderung, Instandsetzung oder Verbesserung eines Vermögensgegenstandes der Garantin zum Zwecke der vollständigen oder teilweisen Finanzierung der dabei entstehenden Kosten eingegangen worden sind, sowie Pfandrechte, die zur Sicherung von über diese Kosten hinausgehenden Verbindlichkeiten dienen, vorausgesetzt, dass für deren Begleichung ausschließlich auf diesen Vermögensgegenstand zurückgegriffen werden kann;
  - (d) jedwede vollständige oder teilweise Verlängerung, Erneuerung oder Ersetzung (oder wiederholte Verlängerungen, Erneuerungen oder Ersetzungen) eines der vorstehend in den Klauseln (a) bis (c) aufgeführten Pfandrechte, soweit der Nennbetrag der dadurch besicherten Verbindlichkeit den im Zeitpunkt einer solchen Verlängerung, Erneuerung oder Ersetzung besicherten Nennbetrag nicht übersteigt (mit der Ausnahme, dass zusätzliche Verbindlichkeiten sowie damit verbundene Finanzierungskosten durch das Pfandrecht besichert werden können, wenn diese zusätzlichen Verbindlichkeiten zur Mittelbeschaffung für die Fertigstellung eines bestimmten Vorhabens eingegangen werden), und soweit das Pfandrecht auf denselben Vermögensgegenstand, an welchem das verlängerte, erneuerte oder ersetzte Pfandrecht bestanden hat, beschränkt bleibt (einschließlich Wertverbesserungen des Vermögensgegenstandes);
  - (e) Pfandrechte, die kraft Gesetzes entstehen;
  - (f) Pfandrechte, die aus oder in Verbindung mit der Veräußerung oder der Vermietung von Vermögensgegenständen an Leasinggesellschaften entstehen, die den Gesamtbetrag von €1.000.000.000 pro Jahr oder den Gegenwert in anderen Währungen nicht übersteigen (seit dem Tag der Begebung der Schuldverschreibungen); und
  - (g) Pfandrechte, die Verbindlichkeiten besichern, deren Betrag €250.000.000 (aggregiert mit dem Betrag von anderen Verbindlichkeiten, die ein Pfandrecht besitzen, welches nach den vorstehenden Unterabsätzen nicht erlaubt ist) oder den Gegenwert in anderen Währungen zu jeder Zeit nicht übersteigt.

In Bezug auf von der Garantin begebene asset-backed Emissionen, schließen die im ersten Satz dieses Abschnittes (2) benutzten Worte "Vermögen" und "**Wertpapieremission**" nicht Vermögensgegenstände und Wertpapieremissionen der Garantin ein, solange das Vermögen, das derartigen Emissionen unterliegt, zusammen €2.000.000.000 nicht übersteigt.

"**Wertpapieremission**" bedeutet jede Zahlungsverpflichtung aus der Aufnahme von Geld in der Form von oder verbrieft durch Schuldverschreibungen oder ähnliche(n) Wertpapiere(n) mit einer ursprünglichen Laufzeit von mehr als einem Jahr, die an einer Wertpapierbörse oder in einem over-the-counter Wertpapiermarkt notiert, eingeführt oder gehandelt werden oder die anderweitig öffentlich gehandelt werden oder gehandelt werden sollen.

- (3) Dieser Vertrag und alle darin enthaltenen Vereinbarungen stellen einen Vertrag zugunsten der Gläubiger als begünstigte Dritte gemäß § 328 Absatz 1 BGB dar. Sie begründen das Recht eines jeden Gläubigers, die Erfüllung der hierin eingegangenen Verpflichtungen unmittelbar von der Garantin zu fordern und diese Verpflichtungen unmittelbar gegenüber der Garantin durchzusetzen.
- (4) Die in diesem Vertrag verwendeten und nicht anders definierten Begriffe haben die ihnen in den diesem Vertrag beigefügten Anleihebedingungen zugewiesene Bedeutung.

- (5) Sofern auf Schuldverschreibungen die Bestimmungen über die Änderung der Anleihebedingungen und den Gemeinsamen Vertreter Anwendung finden, gelten diese Bestimmungen sinngemäß auch für diese Garantie.
- (6) Dieser Vertrag unterliegt deutschem Recht.
- (7) Dieser Vertrag ist in deutscher Sprache abgefasst. Eine unverbindliche Übersetzung in die englische Sprache ist beigefügt.
- (8) Erfüllungsort ist Leverkusen.
- (9) Gerichtsstand für alle Rechtsstreitigkeiten aus oder im Zusammenhang mit diesem Vertrag ist Frankfurt am Main. Jeder Gläubiger kann seine Ansprüche jedoch auch vor jedem anderen zuständigen Gericht geltend machen.
- (10) Jeder Gläubiger kann in jedem Rechtsstreit gegen die Garantin und in jedem Rechtsstreit, in dem er und die Garantin Partei sind, seine Rechte aus diesem Vertrag auf der Grundlage einer von einer vertretungsberechtigten Person der Zahlstelle beglaubigten Kopie dieses Vertrages ohne Vorlage des Originals im eigenen Namen wahrnehmen und durchsetzen.

Leverkusen, \_\_\_\_ . Juni 2018

Bayer Aktiengesellschaft

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Die Garantin und die Deutsche Bank Aktiengesellschaft vereinbaren, dass die Deutsche Bank Aktiengesellschaft nicht als Treuhänder oder in einer ähnlichen Eigenschaft für die Gläubiger handelt. Die Deutsche Bank Aktiengesellschaft verpflichtet sich das Original der Garantie bis zur Erfüllung aller Verbindlichkeiten aus den Schuldverschreibungen und der Garantie zu halten.

Wir nehmen hiermit die vorstehende Erklärung ohne Obligo, Gewährleistung oder Haftung an.

Frankfurt am Main, \_\_\_\_ . Juni 2018

Deutsche Bank Aktiengesellschaft

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Non-binding English language translation of the Guarantee and Negative Pledge:

**GUARANTEE AND NEGATIVE PLEDGE**  
of

Bayer Aktiengesellschaft,  
Leverkusen, Federal Republic of Germany,

for the benefit of the holders of

€750,000,000 floating rate notes due June 26, 2022  
ISIN XS1840614736

and

€1,000,000,000 0.625% notes due December 15, 2022  
ISIN XS1840614900

and

€1,750,000,000 1.500% notes due June 26, 2026  
ISIN XS1840618059

and

€1,500,000,000 2.125% notes due December 15, 2029  
ISIN XS1840618216

(together the "**Notes**" and each a "**Note**")

issued by

Bayer Capital Corporation B.V.  
(incorporated as a private company with limited liability incorporated under the laws of The Netherlands)  
("**Bayer Capital Corp**")

WHEREAS:

- (A) Bayer Capital Corporation B.V. intends to issue the Notes.
- (B) Bayer AG (the "**Guarantor**") wishes to guarantee the due payment of principal and interest and any other amounts payable in respect of any and all Notes.
- (C) The Guarantor wishes to enter into a negative pledge for the benefit of each Holder (as defined below) of a Note that may be issued by Bayer Capital Corp.

IT IS AGREED AS FOLLOWS:

- (1) (a) The Guarantor unconditionally and irrevocably guarantees to the holder of each Note (which expression shall include any Temporary Global Note and Permanent Global Note representing Notes) (each a "**Holder**") issued by Bayer Capital Corp the due and punctual payment of the principal of, and interest on, the Notes and any other amounts which may be expressed to be payable under any Note as and when the same shall become due, in accordance with the respective Terms and Conditions of the Notes.
- (b) This Guarantee constitutes an unconditional, unsecured and unsubordinated obligation of the Guarantor and ranks *pari passu* with all other present or future unsecured and unsubordinated obligations of the Guarantor outstanding from time to time, subject to any obligations preferred by law.
- (c) All payments under this Guarantee shall be made without withholding or deduction for or on account of any present or future taxes or duties of whatever nature imposed or levied at source by or on behalf of the Federal Republic of Germany or any political subdivision thereof or any authority thereof or therein having power to tax, unless such withholding or deduction is required by law. In such event, the Guarantor shall pay such additional amounts as shall be necessary in order that the net amounts received by the Holders pursuant to this Guarantee, after such withholding or deduction, shall equal the respective amounts of principal and interest which would otherwise have been receivable in the absence of such withholding or deduction. No such additional amounts shall be payable on account of any taxes or duties which:

- (i) are payable otherwise than by withholding or deduction from payments made by the Issuer/Guarantor to the Holder; or
- (ii) are deducted or withheld by any person acting as custodian bank or collecting agent on behalf of a Holder, or otherwise payable in any manner which does not constitute a deduction or withholding by the Issuer from payments of principal or interest made by it; or
- (iii) are deducted or withheld by a Paying Agent from a payment if the payment could have been made by another paying agent without such deduction or withholding; or
- (iv) are deducted or withheld pursuant to (i) any European Union Directive or Regulation concerning the taxation of savings, or (ii) any international treaty or understanding relating to such taxation and to which Germany or The Netherlands or the European Union is a party/are parties or (iii) any provision of law implementing, or complying with, or introduced to conform with, such Directive, Regulation, treaty or understanding; or
- (v) are payable by reason of a change in law that becomes effective more than 30 days after the relevant payment becomes due, or is duly provided for, whichever occurs later; or
- (vi) are payable by reason of the Holder having, or having had, some personal or business connection with Germany or The Netherlands or being a (deemed) resident of Germany or The Netherlands or is treated for tax purposes as a resident of Germany or The Netherlands or has elected to be taxed as a resident of Germany or The Netherlands or the Holder having a (deemed) permanent establishment in Germany or The Netherlands or another member state of the European Union and not merely by reason of the fact that payments in respect of the Notes are, or for purposes of taxation are deemed to be, derived from sources in, or are secured in, The Netherlands; or
- (vii) would not have been imposed, withheld or deducted but for the failure of the Holder or beneficial owner of Notes (including, for these purposes, any financial institution through which the Holder or beneficial owner holds the Notes or through which payment on the Notes is made), following a written request by or on behalf of the Issuer or a Paying Agent addressed to the Holder or beneficial owner (and made at a time that would enable the Holder or beneficial owner acting reasonably to comply with that request, and in all events, at least 30 days before any withholding or deduction would be required), to comply with any certification, identification, information or other reporting requirement whether required by statute, treaty, regulation or administrative practice of Germany or The Netherlands, that is a precondition to exemption from, or reduction in the rate of withholding or deduction of, taxes imposed by Germany or The Netherlands (including, without limitation, a certification that the Holder or beneficial owner is not resident in Germany or The Netherlands) or
- (viii) are payable for any combination of (i) through (vii) above.

Notwithstanding any other provisions contained in this Guarantee, the Guarantor shall be permitted to withhold or deduct any amounts required pursuant to an agreement described in Section 1471 (b) of the U.S. Internal Revenue Code of 1986 (the "**Code**") or otherwise imposed pursuant to Sections 1471 through 1474 of the Code (or any amended or successor provisions), any regulations or agreements thereunder, official interpretations thereof, or any law implementing and intergovernmental approach thereto ("**FATCA withholding**"). The Guarantor will have no obligation to pay additional amounts or otherwise indemnify an investor for any such FATCA withholding deducted or withheld by the Issuer, the Guarantor, the paying agent or any other party.

- (d) The obligations of the Guarantor under this guarantee (i) shall be separate and independent from the obligations of the respective Issuer under the Notes, (ii) shall exist irrespective of the legality, validity and binding effect or enforceability of the Notes, and (iii) shall not be affected by any event, condition or circumstance of whatever nature, whether factual or legal, save the full, definitive and irrevocable satisfaction of any and all payment obligations expressed to be assumed under the Notes.
- (2) The Guarantor undertakes towards each Holder, as long as Notes are outstanding but only up to the time all amounts of principal and interest have been provided to the Paying Agent, not to provide after the issue date of the Notes any Lien upon its domestic assets for other Security Issues (as defined below) without at the same time letting the Holders share *pari passu* in such Lien (such Lien may also be provided to a person acting as trustee for the Holders); provided, however, that this Undertaking shall not be applicable in the event the Guarantor shall create, assume or suffer to exist Liens of the following character:
  - (a) any Lien existing on property at the time of the acquisition thereof by the Guarantor;
  - (b) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the acquisition of



property by the Guarantor for the purpose of financing all or any part of the purchase price thereof and any Lien to the extent that it secures debt which is in excess of such purchase price and for the payment of which recourse may be had only against such property;

- (c) any Lien to secure any debt incurred prior to, at the time of, or within 12 months after the completion of the construction, alteration, repair or improvement of property of the Guarantor for the purpose of financing all or any part of the cost thereof and any Lien to the extent that it secures debt which is in excess of such cost and for the payment of which recourse may be had only against such property;
- (d) any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part of any Lien referred to in clauses (a) through (c) above, so long as the principal amount of debt so secured does not exceed the principal amount secured at the time of extension, renewal or replacement (except that, where an additional principal amount of debt is incurred to provide funds for the completion of a specific project, the additional principal amount and any related financial costs may be secured by the Lien as well) and the Lien is limited to the same property subject to the Lien so extended, renewed or replaced (plus improvements on the property);
- (e) any Lien arising by operation of law;
- (f) any Lien arising from or related to a disposal or lease-out of assets to any person whose core business is the leasing business (*Leasinggesellschaften*) that does not exceed an aggregate of €1,000,000,000 per year or the equivalent in other currencies (as from the issue date of the Notes); and
- (g) any Lien securing indebtedness the amount of which (when aggregated with the amount of any other indebtedness which has the benefit of a Lien not allowed under the preceding sub-paragraphs) does not exceed €250,000,000 or its equivalent in other currencies at any time.

In respect of asset-backed securitizations originated by the Guarantor, the expressions "assets" and "Security Issue" as used in the first sentence of this subparagraph (2) do not include assets and Security Issues of the Guarantor if the assets backing such securitizations do not in aggregate exceed €2,000,000,000.

"**Security Issue**" shall mean any obligation for the payment of borrowed money represented by bonds, notes, debentures or any similar securities which are quoted, listed or traded on any stock exchange or over-the-counter securities market or which are otherwise publicly traded or intended to be publicly traded, having an original maturity of more than one year.

- (3) This Agreement and all undertakings contained herein constitute a contract for the benefit of the Holders as third party beneficiaries pursuant to § 328(1) *BGB* (German Civil Code)<sup>1</sup>. They entitle each such Holder to directly require the Guarantor to perform the obligations undertaken herein and to directly enforce such obligations against the Guarantor.
- (4) Terms used in this Agreement and not otherwise defined herein shall have the meaning attributed to them in the Terms and Conditions of the Notes, a copy of which is attached hereto.
- (5) If Notes provide that the provisions regarding the Amendment of the Terms and Conditions and the Holders' Representative apply to such Notes, such provisions shall also apply *mutatis mutandis* to this Guarantee.
- (6) This Agreement shall be governed by, and construed in accordance with, German law.
- (7) This Agreement is written in the German language. A non-binding English translation is attached hereto.
- (8) The place of performance shall be Leverkusen.
- (9) The place of jurisdiction for all legal proceedings arising out of or in connection with this Agreement shall be Frankfurt am Main. Each Holder may, however, also pursue its claims before any other court of competent jurisdiction.
- (10) On the basis of a copy of this Agreement certified as being a true copy by a duly authorized officer of the Paying Agent, each Holder may protect and enforce in its own name its rights arising under this Agreement in any legal proceedings against the Guarantor or to which such Holder and the Guarantor are parties, without the need for production of this Agreement in such proceedings.

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<sup>1</sup> The English translation of § 328(1) *BGB* (German Civil Code) reads as follows: "A contract may stipulate performance for the benefit of a third party and give such third party the right to directly demand performance."

Leverkusen, June \_\_\_\_, 2018

Bayer Aktiengesellschaft

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The Guarantor and Deutsche Bank Aktiengesellschaft agree that Deutsche Bank Aktiengesellschaft is not acting as trustee or in a similar capacity for the Holders. Deutsche Bank Aktiengesellschaft undertakes to hold the original copy of the Guarantee until all obligations under the Notes and Guarantee have been fulfilled.

We hereby accept the above declaration without recourse, warranty or liability on us.

Frankfurt am Main, June \_\_\_\_, 2018

Deutsche Bank Aktiengesellschaft

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### 3. DESCRIPTION OF RULES REGARDING RESOLUTIONS OF HOLDERS

The German Act on Issues of Debt Securities (*Gesetz über Schuldverschreibungen aus Gesamtemissionen (SchVG)*), provides that holders may, with the consent of the issuer (where required), amend the terms and conditions or resolve on other matters concerning debt securities by way of majority resolutions. If provided for in the terms and conditions, this applies *mutatis mutandis* to obligations guaranteeing such debt securities. A majority resolution in accordance with the SchVG is binding for all holders of one series of debt securities. The SchVG applies to debt securities that form an issue of identical debt securities (*Gesamtemission*) which are governed by German law. Consequently, the SchVG applies to the Notes.

The following sections provide an overview of the statutory provisions of the SchVG with respect to the Notes.

#### 3.1 Overview of the SchVG

Under the SchVG and in accordance with the Terms and Conditions, it is possible to extensively change and therefore restructure the Terms and Conditions and to adopt further measures concerning the Notes (where required) with the Issuer's consent. Any such amendments or measures are only binding in respect of the Notes and do not apply to any other issue of debt securities of the Issuer.

The provisions of the SchVG applicable to the Notes shall apply *mutatis mutandis* to the Guarantee of the Guarantor.

The Terms and Conditions also provide for the appointment of the Holders Representative.

#### 3.2 Individual Subjects of Resolutions

As provided for by the SchVG, the Notes do not provide for an exclusive list of admissible amendments to the Terms and Conditions or other measures on which the Holders may resolve. In accordance with Section 5 para. 3 sentence 1 no. 1-10 SchVG, the individual subjects for resolutions may include (but are not limited to):

- (a) amendments to the principal claim (due date, amount, currency, rank, debtors, object of performance) of the Notes;
- (b) amendments to or removal of ancillary conditions of the Notes;
- (c) modification or waiver of a right of termination and removal of the effect of the collective right of termination;
- (d) substitution and release of security;
- (e) amendments to legal transactions with joint obligors; and
- (f) amendments to ancillary claims (due date, amount, exclusion, currency, rank, debtors, object of performance).

In addition, resolutions not affecting the contents of the Terms and Conditions may be passed, including:

- (a) exchange of the Notes for other debt securities or shares; and
- (b) appointment, duties and removal of a Holders' Representative.

#### 3.3 Relevant Majorities for Holder Resolutions

The Terms and Conditions use the applicable majorities provided for by the SchVG. Hence, any resolutions which materially alter the Terms and Conditions or adopt other measures, in particular in the cases listed in Section 5 para. 3 sent. 1 no. 1-9 SchVG, require a majority of at least 75% of the votes participating in the vote (a "Qualified Majority"). All other resolutions may generally be passed with a simple majority of 50% of the participating votes.

### **3.4 Procedures for Holder Resolutions**

#### **3.4.1 General**

Resolutions of the Holders with respect to the Notes will be passed by way of a vote without a meeting pursuant to Section 18 and Sections 9 et seq. SchVG (*Abstimmung ohne Versammlung*).

The Issuer or a Holders' representative may, and Holders who together hold 5% of the outstanding nominal amount of the Notes for specified reasons permitted by the SchVG may demand in writing to hold a vote without a meeting.

The Issuer bears the costs of the vote and/or the meeting and, if a court has convened a meeting, also the costs of such proceedings.

All resolutions adopted must be properly published. Resolutions which amend or supplement the Terms and Conditions have to be implemented by supplementing or amending the Global Notes.

If a resolution constitutes a breach of the SchVG or the Terms and Conditions, Holders who have filed a complaint within 14 days after publication of the resolution may bring an action to set aside such resolution. Such action must be filed with the competent court within one month following the publication of the resolution.

#### **3.4.2 Resolution without a Physical Meeting**

The voting will be conducted by a scrutineer (*Abstimmungsleiter*). Such scrutineer shall be (i) a notary public appointed by the Issuer, (ii) the Holders' Representative, if the vote was solicited by it, or (iii) a person appointed by the competent court.

The vote without a meeting will be convened by way of a notice given to the Holders to solicit their votes (*Aufforderung zur Stimmabgabe*) no later than 14 calendar days prior to the commencement of the vote. The solicitation notice shall set out the period within which votes may be cast (at least 72 hours), the agenda and the subject matter of the vote and the details of the conditions to be met for the votes to be valid. During the applicable voting period, the Holders may cast their votes to the scrutineer. Each Holder may be represented by proxy.

A resolution by way of voting without a meeting can only be passed if a quorum of at least 50% of the outstanding Notes by value participates in the vote during the voting period. The scrutineer shall ascertain each Holder's entitlement to cast a vote based on evidence provided by such Holder and shall prepare a list of the Holders entitled to vote.

#### **3.4.3 Resolution by (second) Physical Meeting**

If the quorum of 50% of the outstanding aggregate principal amount of the Notes is not met, the scrutineer or the chairman, as the case may be, may convene a (second) physical meeting of the Holders at which no quorum will be required, provided that where a resolution may only be adopted by a Qualified Majority, a quorum requires the presence of at least 25%, of the outstanding Notes. The physical meeting will be convened by way of a notice given to the Holders no later than 14 calendar days prior to the meeting. Attendance and exercise of voting rights at the meeting may be made subject to prior registration of Holders. The convening notice will provide what proof will be required for attendance and voting at the meeting. Each Holder may be represented in the meeting by proxy. The chairman shall ascertain each Holder's entitlement to cast a vote based on evidence provided by such Holder and shall prepare a list of the Holders present or represented by proxy in the meeting.

### **3.5 Holders' Representative**

The Holders may by majority resolution appoint a common representative (the "**Holder's Representative**") to exercise the Holders' rights on behalf of each Holder. The Holders' Representative may generally be appointed by way of a majority resolution passed by the Holders. If at the same time rights are assigned to the Holders' Representative, thereby enabling it to consent to material amendments to the Terms and Conditions on behalf of the Holders, the appointment requires a Qualified Majority.

Any individual or competent legal entity may be appointed as Holders' Representative, provided that, for the avoidance of conflicts of interest, certain disclosure requirements are to be met.

The duties and rights of the Holders' Representative are determined by the SchVG and any resolutions of the Holders. To the extent that the exercise of the Holders' rights has been transferred to the Holders'

Representative, the Holders themselves may not assert these rights, unless the majority resolution of the Holders provides otherwise. The Holders' Representative liability may be restricted in accordance with the SchVG.

## 4. SUBSCRIPTION AND SALE

### 4.1 Subscription

The Issuer, the Joint Bookrunners and the Co-Managers will enter into a subscription agreement on or about June 22, 2018 (the “**Subscription Agreement**”). Under the Subscription Agreement, the Issuer will agree to issue and sell to the Joint Bookrunners and the Co-Managers, and the Joint Bookrunners and the Co-Managers will agree, subject to certain customary closing conditions, to subscribe and pay for the Notes on June 26, 2018. The Issuer will agree to pay certain fees to the Joint Bookrunners and the Co-Managers and to reimburse the Joint Bookrunners and the Co-Managers for certain expenses incurred in connection with the issue of the Notes.

Under certain circumstances, the Joint Bookrunners and the Co-Managers may terminate the Subscription Agreement. In such event, no Notes will be delivered to investors. Furthermore, the Issuer will agree to indemnify the Joint Bookrunners and the Co-Managers against certain liabilities it may incur in connection with the offer and sale of the Notes.

From time to time, the Joint Bookrunners, the Co-Managers or their respective affiliates have provided, and expect to provide in the future, investment services to the Issuer and/or its affiliates, for which the Joint Bookrunners, the Co-Managers or their affiliates have received or will receive customary fees and commissions.

### 4.2 Selling Restrictions

#### 4.2.1 General

The Joint Bookrunners and the Co-Managers will acknowledge that no representation will be made by the Issuer, the Guarantor or any of the Joint Bookrunners or the Co-Managers that any action has been or will be taken in any jurisdiction that would permit a public offering of the Notes, or possession or distribution of this Offering Memorandum or other materials relating to the Notes, in any country or jurisdiction where action for that purpose would be required. Each Joint Bookrunner and the Co-Managers will undertake to comply, to the best of its knowledge and belief, in all material respects with all applicable laws and regulations in each jurisdiction in which it will acquire, offer, sell or deliver Notes or will have in its possession or distribute this Offering Memorandum (in preliminary, proof or final form) or any such other materials, in all cases at its own expense.

#### 4.2.2 United States of America

The Notes have not been and will not be registered under the Securities Act and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons, except in accordance with Regulation S or pursuant to an exemption from, or in a transactions not subject to, the registration requirements of the Securities Act.

The Joint Bookrunners and the Co-Managers will represent, warrant and undertake that they have not offered or sold, and will not offer or sell, the Notes constituting part of their respective allotment within the United States, except in accordance with Rule 903 of Regulation S. Accordingly, the Joint Bookrunners and the Co-Managers will further represent, warrant and undertake that neither they, nor their respective affiliates, nor any persons acting on their behalf, have engaged or will engage in any directed selling efforts with respect to the Notes. Terms used in this paragraph shall have the same meanings given to them by Regulation S.

(a) Each Joint Bookrunner and the Co-Managers represents, warrants and agrees that, except to the extent permitted under U.S. Treas. Reg. §1.163-5(c)(2)(i)(D) (the “D Rules”), (i) it has not offered or sold, and during the restricted period will not offer or sell, the Notes to a person who is within the United States or its possessions or to a United States person and (ii) it has not delivered and will not deliver within the United States or its possessions definitive Notes that are sold during the restricted period.

(b) Each Joint Bookrunner and the Co-Managers represents, warrants and agrees that it has and throughout the restricted period will have in effect procedures reasonably designed to ensure that its employees or agents who are directly engaged in selling the Notes are aware that the Notes may not be offered or sold during the restricted period to a person who is within the United States or its possessions or to a United States person, except as permitted by the D Rules.

(c) Each Joint Bookrunner and the Co-Managers which is a United States person represents that it is acquiring Notes for purposes of resale in connection with their original issuance and that if it retains any Notes for its own account, it will only do so in accordance with the requirements of U.S. Treas. Reg. §1.163 5(c)(2)(i)(D)(6).

(d) Each Joint Bookrunner and the Co-Managers agrees that, with respect to each affiliate that acquires from it Notes for the purpose of offering or selling such Notes during the restricted period, it either (i) repeats and confirms the representations and agreements contained in subclauses (a), (b) and (c) above, on its behalf or (ii) will obtain from such affiliate for the benefit of the Issuer the representations and agreements contained in subclauses (a), (b) and (c) above.

(e) Terms used in subclauses (a), (b), (c) and (d) above have the meanings given to them by the U.S. Internal Revenue Code of 1986 and Treasury regulations promulgated thereunder, including the D Rules.

In addition, until 40 days after the commencement of the offering of the Notes, an offer or sale of Notes within the United States by a dealer (whether or not participating in the offering) may violate the registration requirements of the Securities Act.

#### **4.2.3 European Economic Area**

Each Joint Bookrunner and the Co-Managers will represent and agree that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes to any retail investor in the European Economic Area. For the purposes of this provision:

- (a) the expression "retail investor" means a person who is one (or more) of the following:
  - a. a retail client as defined in point (11) of Article 4(1) of MiFID II; or
  - b. a customer within the meaning of the Insurance Mediation Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or
  - c. not a qualified investor as defined in the Prospectus Directive; and
- (b) the expression "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes.

Consequently, no key information document required by the PRIIPs Regulation for offering or selling the Notes or otherwise making them available to retail investors in the European Economic Area has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the European Economic Area may be unlawful under the PRIIPs Regulation.

#### **4.2.4 United Kingdom of Great Britain and Northern Ireland (United Kingdom)**

Each of the Joint Bookrunners and the Co-Managers will represent and agree that:

- (a) it has only communicated or caused to be communicated, and will only communicate or cause to be communicated, an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the Notes in circumstances in which Section 21 para. 1 of the FSMA does not apply to the Issuer; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to such Notes in, from or otherwise involving the United Kingdom.

#### **4.3 Stabilization Measures**

In connection with the issue of the Notes, Credit Suisse Securities (Europe) Limited as stabilization manager may overallocate the Notes or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail. However, there is no assurance that Credit Suisse Securities (Europe) Limited will undertake stabilization action. Any stabilization action may begin on or after the date on which adequate public disclosure of the terms of the offer of the Notes is made and, if begun, may be ended at any time, but it must end no later than the earlier of 30 days after the issue date and 60 days after the date of the allotment of the Notes. Any stabilization action or overallocation must be conducted by Credit Suisse Securities (Europe) Limited in accordance with all applicable laws and regulations.

## 5. GENERAL INFORMATION

Application has been made to the CSSF, which is the Luxembourg competent authority for the purposes of obtaining the approval of this Offering Memorandum, which will be published in electronic form on the website of the Luxembourg Stock Exchange ([www.bourse.lu](http://www.bourse.lu)). By approving this Offering Memorandum, the CSSF assumes no responsibility for the economical and financial soundness of the transactions contemplated by this Offering Memorandum or the quality or solvency of the Issuer or the Guarantor.

### 5.1 Notice to Prospective Investors in the European Economic Area

This Offering Memorandum has been prepared on the basis that all offers of the Notes will be made pursuant to an exemption under the Prospectus Directive from the requirement to produce a prospectus in connection with offers of Notes and is thus, for the purposes of the offering of the Notes, not a prospectus within the meaning of the Prospectus Directive. Accordingly, any person making or intending to make any offer of Notes within the EEA should only do so in circumstances in which no obligation arises for the Issuer, the Guarantor, the Joint Bookrunners or the Co-Managers to produce a prospectus for such offers. Neither the Issuer nor the Guarantor nor the Joint Bookrunners nor the Co-Managers have authorized, nor do they authorize, any offer of Notes through any financial intermediary, other than offers made by the Joint Bookrunners and the Co-Managers, which constitute the final placement of the Notes contemplated in this Offering Memorandum.

### 5.2 Notice to Prospective Investors in the United Kingdom

In the United Kingdom, this Offering Memorandum is for distribution to Relevant Persons only. This Offering Memorandum is directed only at Relevant Persons and must not be acted or relied on by persons who are not Relevant Persons. In the United Kingdom, any investment or investment activity to which this Offering Memorandum relates is available only to Relevant Persons and will only be engaged in with Relevant Persons.

### 5.3 Prohibition of sales to EEA retail investors

The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the EEA. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; or (ii) a customer within the meaning of the Insurance Mediation Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by the PRIIPs Regulation for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

### 5.4 Notice to Distributors

Solely for the purposes of each manufacturer's product approval process, the target market assessment in respect of the Notes has led to the conclusion that: (i) the target market for the Notes is eligible counterparties and professional clients only, each as defined in Directive 2014/65/EU (as amended, "**MiFID II**"); and (ii) all channels for distribution of the Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Notes (a "**distributor**") should take into consideration the manufacturers' target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the manufacturers' target market assessment) and determining appropriate distribution channels.

### 5.5 Interests of Natural and Legal Persons Involved in the Issue

The Joint Bookrunners and the Co-Managers have entered into a contractual relationship with the Company in connection with the offering and admission to trading of the Notes. The Company has engaged Barclays Bank PLC, BNP Paribas, Citigroup Global Markets Limited, Credit Suisse Securities (Europe) Limited, Banca IMI S.p.A., Banco Bilbao Vizcaya Argentaria, S.A., Banco Santander, S.A., Commerzbank Aktiengesellschaft, Crédit Agricole Corporate and Investment Bank, Deutsche Bank AG, London Branch, ING Bank



N.V., SMBC Nikko Capital Markets Limited, Société Générale and UniCredit Bank AG to act as Joint Bookrunners and Bayerische Landesbank, BNY Mellon Capital Markets EMEA Limited, Landesbank Hessen-Thüringen Girozentrale, NatWest Markets Plc, Skandinaviska Enskilda Banken AB (publ) and Standard Chartered Bank as Co-Managers. Upon execution of the transaction, the Joint Bookrunners and the Co-Managers will receive a commission, the amount of which depends on the success of the transaction.

In connection with financing the Transaction (as defined under “6. *The Acquisition of Monsanto*”), affiliates of BofA Merrill Lynch, Credit Suisse, Goldman Sachs International, HSBC and J.P. Morgan entered into the Loan Facilities Agreement (as defined in “6.9 *Financing of the Transaction*.”) with Bayer, see “6.9 *Financing of the Transaction*.” The financing commitments under the Loan Facilities Agreement were syndicated to more than 20 banks, which included affiliates of all the Joint Bookrunners and the Co-Managers. The Company intends to use the net proceeds from the offering of the Notes for the repayment of amounts drawn under the Loan Facilities Agreement concluded in connection with the Transaction, which will reduce the amounts outstanding under the Loan Facilities Agreement for which the affiliates of the Joint Bookrunners and the Co-Managers receive interest payments. For further information see “5.7 *Use of Proceeds*”.

The Joint Bookrunners and the Co-Managers or companies affiliated with them are engaged in securities trading and brokerage activities, as well as providing investment banking, asset management, financing, and financial advisory services and other commercial and investment banking products and services to a wide range of corporations and individuals. They may from time to time enter into business relationships with companies of the Group or perform services on their behalf as part of their normal course of business including such relating to lending and asset-backed securities transactions. In the ordinary course of the Joint Bookrunners’ or the Co-Managers’ trading, brokerage, asset management, and financing activities, the Joint Bookrunners and the Co-Managers may at any time deal as principals or agents for more than one party in, or hold long or short positions, and may trade or otherwise effect transactions, for their own account or the accounts of customers, in debt or equity securities or senior loans of the Company, its affiliates or other entities that may be involved in or connected with the transactions contemplated hereby. Accordingly, the Joint Bookrunners, the Co-Managers and companies affiliated with them may in the future face conflicts of interests with holders of debt instruments of the Company.

## **5.6 Authorization and Issue Date**

The issuance of the Notes was authorized by the Guarantor’s Board of Management on June 1, 2018 and approved by the Guarantor’s Supervisory Board’s presidial committee (*Präsidium*) on June 3, 2018. The board of directors of the Issuer on June 20, 2018. The Issue Date of the Notes is June 26, 2018.

## **5.7 Use of Proceeds**

The net proceeds to the Issuer from the offering of the Notes result from the gross proceeds less the subscription commissions and other expenses described below. The Issuer expects to receive net proceeds of approximately €4.965 billion. The overall commissions to be paid by the Issuer to the Joint Bookrunners and the Co-Managers are expected to amount to approximately €12.4 million. Investors will not be charged with expenses by the Company, the Joint Bookrunners or the Co-Managers.

Bayer intends to use the net proceeds from the offering for the repayment of amounts drawn under the Loan Facilities Agreement (as defined in “6.9 *Financing of the Transaction*.”) concluded in connection with the Transaction (as defined under “6. *The Acquisition of Monsanto*”).

## **5.8 Delivery of Notes**

Delivery and payment of the Notes will be made on the Issue Date (i.e., June 26, 2018). The Notes so purchased will be delivered via book-entry delivery through the Clearing System and their depository banks against payment of the issue price.

## **5.9 Costs and Expenses Relating to the Purchase of Notes**

The Issuer or the Guarantor will not directly charge any costs, expenses or taxes directly to any investor in connection with the Notes. However, investors should inform themselves about any costs, expenses or taxes in connection with the Notes which are generally applicable in their respective country of residence, including any charges their own depository banks charge them for purchasing or holding the Notes.

## 5.10 Listing and Admission to Trading of the Notes

Application will be made to the Luxembourg Stock Exchange (*Bourse de Luxembourg*) for the Notes to be listed on the official list of the Luxembourg Stock Exchange (*Bourse de Luxembourg*) and to be admitted to trading on the regulated market of the Luxembourg Stock Exchange (*Bourse de Luxembourg*). The regulated market of the Luxembourg Stock Exchange (*Bourse de Luxembourg*) is a regulated market for the purposes of Directive 2014/65/EU of the European Parliament and of the Council of April 21, 2014 on markets in financial instruments, as amended.

The admission to trading is expected to be granted on or around June 26, 2018. The expenses in connection with the admission to trading are expected to amount to approximately EUR 6,000.

## 5.11 Notices to Noteholders

All notices regarding the Notes will be published (so long as the Notes are listed on the Luxembourg Stock Exchange) on the website of the Luxembourg Stock Exchange on [www.bourse.lu](http://www.bourse.lu). The Issuer and the Guarantor will be entitled to deliver all notices concerning the Notes to the Clearing System for communication by the Clearing System to the noteholders.

## 5.12 Legend on Global Notes

Each Global Note will bear the following legend:

"Neither this note nor any related guarantee in respect thereof has been or will be registered under the U.S. Securities Act of 1933, as amended (the "**Securities Act**") and may not be offered or sold in the United States of America (including the states and the District of Columbia) or its territories or possessions and other areas subject to its jurisdiction, unless an exemption from the registration requirements of the Securities Act is available.

Any United States person who holds this obligation will be subject to limitations under the United States income tax laws, including the limitations provided in sections 165(j) and 1287(a) of the U.S. Internal Revenue Code of 1986, as amended."

## 5.13 Clearing System and Security Codes

The Notes will be accepted for clearance through:

**Clearstream Banking, S.A.**  
42 Avenue JF Kennedy  
1855 Luxembourg  
The Grand Duchy of Luxembourg

and

**Euroclear Bank SA/NV**  
1 Boulevard du Roi Albert II  
1210 Brussels  
Kingdom of Belgium

The Notes have the following securities codes:

### Floating Rate Notes 2022

International Securities Identification Number (ISIN).....	XS1840614736
Common Code.....	184061473
German Securities Identification Number (WKN).....	A192DN

#### **Fixed Rate Notes 2022**

International Securities Identification Number (ISIN).....	XS1840614900
Common Code.....	184061490
German Securities Identification Number (WKN).....	A192DP

#### **Notes 2026**

International Securities Identification Number (ISIN).....	XS1840618059
Common Code.....	184061805
German Securities Identification Number (WKN).....	A192DQ

#### **Notes 2029**

International Securities Identification Number (ISIN).....	XS1840618216
Common Code.....	184061821
German Securities Identification Number (WKN).....	A192DR

#### **5.14 Ratings of the Guarantor and the Notes**

S&P has assigned the long-term credit rating BBB (stable outlook) to the Guarantor.

Moody's has assigned the long-term credit rating Baa1 (negative outlook) to the Guarantor.

Fitch has assigned a long-term credit rating of A- (stable outlook) to the Guarantor.

The Notes are rated BBB by S&P, Baa1 by Moody's and A- by Fitch.

#### **5.15 Indication of Yield**

The yield in respect of the Fixed Rate Notes 2022 from June 26, 2018 up to (but excluding) the relevant Maturity Date is 0.677 percent *per annum*, the yield in respect of the Notes 2026 from June 26, 2018 up to (but excluding) the relevant Maturity Date is 1.555 percent *per annum* and the yield in respect of the Notes 2029 from June 26, 2018 up to (but excluding) the relevant Maturity Date is 2.211 percent *per annum*, in each case as calculated on the basis of the issue price of the relevant Notes. Such yield of the fixed rate notes is calculated in accordance with the ICMA (*International Capital Markets Association*) Method.

#### **5.16 Documents Available**

So long as Notes are outstanding, copies of the following documents will be available for inspection at the registered office of the Issuer and the Guarantor and at the specified offices of the Paying Agent:

- (a) the Articles of Association;
- (b) a copy of this Offering Memorandum and any supplement thereto;
- (c) the documents incorporated herein by reference; and
- (d) the Guarantee and Negative Pledge.

## 6. THE ACQUISITION OF MONSANTO

On September 14, 2016, Bayer signed an agreement and plan of merger (the “**Merger Agreement**”) with Monsanto Company, which provides for Bayer’s acquisition (through a merger) of all outstanding shares of Monsanto Company against a payment of US\$128.00 per share in cash (the “**Transaction**”), which corresponded to an expected transaction value of approximately US\$66 billion as of May 31, 2016. As of the date of this Offering Memorandum, this corresponds to a transaction value of approximately US\$63 billion taking into account Monsanto’s debt outstanding as of February 28, 2018. The shareholders of Monsanto Company approved the merger with the requisite majority on December 13, 2016. The Transaction, which was subject to customary closing conditions, including the receipt of required antitrust and other regulatory approvals, was completed on June 7, 2018 after all required closing conditions were satisfied or waived.

### 6.1 Reasons for the Acquisition and Strategy

With global net sales of US\$14.6 billion in the fiscal year ended August 31, 2017, Monsanto is a global provider of agricultural products. Monsanto’s seeds, biotechnology traits, herbicides and biologicals platform offerings as well as its management and agronomic decision support tools provide farmers with solutions aimed at improving productivity, reducing the costs of farming and producing safe, affordable and nutritious foods for consumers and higher quality feed for animals. Bayer believes that the Transaction will further strengthen its position as an agricultural innovator. In addition, the Transaction balances Bayer’s life science portfolio with an enlarged Crop Science division, which upon completion of the Transaction became the largest division of the Group in terms of net sales, complementing Bayer’s health care businesses, Pharmaceuticals and Consumer Health.

Monsanto managed its business in two segments: Seeds and Genomics and Agricultural Productivity, with total net sales of US\$10.9 billion and US\$3.7 billion, respectively, in each case as reported for the fiscal year ended August 31, 2017. Monsanto’s Seeds and Genomics segment is a global producer of high-quality seeds for row crops like corn, soybean, cotton and canola as well as seeds for a wide variety of vegetable crops. Monsanto’s row crop seeds are marketed under its major brands DEKALB, Asgrow and Deltapine to farmers globally; its vegetable seeds are predominantly marketed under the brands Seminis and De Ruiter in more than 150 countries. Monsanto’s Seeds and Genomics segment is also a developer and producer of biotechnology traits which are marketed under various brands including Roundup Ready, Bollgard and Xtend. These products offer weed and pest control and ultimately aim to enhance yields for farmers by enabling crops to protect themselves against a variety of agricultural pest species and/or to be tolerant of specific herbicides.

In its Agricultural Productivity segment, Monsanto manufactures glyphosate-based herbicides marketed under the *Roundup* brand, which represents the world’s leading agrochemical<sup>2</sup>, as well as other herbicides for use by farmers. *Roundup* agricultural herbicides combined with Monsanto’s seeds containing *Roundup Ready* technology (glyphosate-tolerance) provide growers with a weed management system designed to deliver enhanced weed control. Monsanto also provides lawn-and-garden herbicide products for the residential market. For more information on Monsanto’s business, see “23. *Monsanto Information*.”

Bayer’s Crop Science division, which generated net sales of €9,577 million in fiscal year 2017, forms an integral part of the Company’s life science portfolio. In line with its strategic priorities to be a world-class life science company, Bayer intends, through the Transaction, to create a global leader committed to transforming agriculture, which offers advanced customized agronomic solutions, seeds and traits, as well as crop protection tailored to farmers’ needs and enhanced by digital agronomic advice.

Bayer believes the agricultural industry offers long-term growth prospects driven by sustainable megatrends, including projected global population growth, higher protein intake, declining total size of farmland per capita and negative effects on yields resulting from climate change. Based on internal estimates as of April 2018, Bayer assesses the total agricultural market in 2017 to amount to €85 billion, with potential to grow to €110 billion in 2025, which translates to a compound annual growth rate (“**CAGR**”) of approximately 3%. Key short term drivers that have in the past and could in the future impact market development include commodity prices, weather fluctuations, pest and disease pressure, economic development, channel inventory levels, energy markets / biofuel, technology adoption (e.g. GM) and agricultural policies.

Bayer is convinced the Transaction will bring together two highly complementary businesses and expects the combined agriculture business of Bayer and Monsanto (the “**Combined Agriculture Business**”) to benefit

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<sup>2</sup> Phillips McDougall – AgriService 2017

from Monsanto's seeds and traits, its digital farming platform and Bayer's broad crop protection product line across a comprehensive range of indications and crops, with the Combined Agriculture Business being well-positioned to benefit from an attractive long-term growth market.

## **6.2 Outline of the Combined Business and Operations of Bayer and Monsanto**

The Combined Agriculture Business is expected to benefit from Bayer's and Monsanto's complementary geographies. While Monsanto has a significant presence in North and South America and generated more than 80% of its total net sales in the fiscal year ended August 31, 2017 in these regions, Bayer's Crop Science business also has a strong footprint in the Europe / Middle East / Africa and the Asia / Pacific regions. The Combined Agriculture Business's agriculture operations will have their global seeds and traits and North American commercial headquarters in St. Louis, Missouri, their global crop protection and divisional crop science headquarters in Monheim, Germany, as well as many other locations throughout the United States and around the world.

For further indications of the effects the Transaction is expected to have on our business, see "7 *Pro Forma Financial Information – Effects of the Covestro Divestments and the Acquisition of Monsanto on the Consolidated Financial Information of Bayer for the Fiscal Year Ended December 31, 2017, and as of and for the Three Months Ended March 31, 2018.*"

## **6.3 Creation of a Global Leader Committed to Transforming Agriculture**

Through the Transaction, Bayer aims to create a global leader committed to transforming agriculture, which offers advanced customized agronomic solutions designed to help farmers achieve the productivity increases needed to feed an ever growing world population. Bayer considers this a highly attractive proposition in light of long-term megatrends which Bayer expects will lead to a significant growth in the market for agriculture inputs. From Bayer's perspective, these relevant trends will include projected global population growth, higher protein intake, declining total size of farmland per capita and negative effects on yields resulting from climate change. Bayer anticipates that, as a result, a significant increase in productivity will be required to meet the future demand for food and feed products.

Bayer believes that its Crop Science division will benefit from better capabilities for innovation with a significantly increased R&D budget as a result of the Transaction. This will enhance the ability of the Combined Agriculture Business to effectively address challenges to innovation in agrochemicals such as longer and more costly development cycles and higher regulatory requirements. Bayer intends to use the strength of the R&D platform of the Combined Agriculture Business, which is expected to provide access to a broad range of scientific approaches and to allow for parallel as opposed to sequential development, to deliver break-through innovation and generate advanced customized agronomic solutions for farmers faster and more efficiently. Bayer expects this development to be supported by a significant number of major R&D sites as well as a large number of breeding stations for seeds and traits in all relevant parts of the world, a strong R&D technology platform, cross-technology capabilities and a strong pipeline across crops, indications and technologies, which has delivered a significant number of pipeline advancements over the past two years. Bayer also intends to utilize the full potential of big data (in terms of field data from digital farming and scientific data) and to pursue a broad open innovation and partnering approach to accelerate research.

Bayer believes the respective product offerings of its Crop Science division and Monsanto to be complementary in terms of geographies and reach across indications and crops. While Bayer possesses an outstanding crop protection portfolio and has a strong focus on plant and soil health combined with excellent chemistry capabilities and a biologics platform, Monsanto benefits from an outstanding seeds & traits portfolio and has a strong focus on yield as well as breeding and trait development. Against this background, according to Bayer's estimates, the Combined Agriculture Business possesses top-tier germplasm and traits, strong genetics and breeding capabilities combined with innovative chemistry for weed, pest and disease control as well as strong biologics. In addition to the expanded product offering, Bayer also expects to create value by growing Monsanto's digital farming platform. The digital farming platform, which was acquired by Monsanto in November 2013, is a leader in data analytics with core capabilities around hyperlocal weather monitoring, weather simulation and agronomic modeling. Bayer anticipates the Combined Agriculture Business to benefit from infrastructure across geographies, a broad and complementary combined offering as well as enhanced customer access.

From a longer term perspective, beyond combining Bayer's and Monsanto's existing technologies, Bayer's goal is to focus the Combined Agriculture Business on developing advanced customized agronomic solutions

through a smart combination and optimized use of products based on digitally-enhanced agronomic advice and, ultimately, to introduce new, innovative products based on technologies optimally designed and tested to work well together. Bayer plans to achieve this goal by combining both companies' innovation capabilities and pipelines, as well as their R&D platforms. In addition, extensive data collection and predictive analytics through digital farming constitute another dimension which Bayer expects will enable the Combined Agriculture Business to offer data-based decision support for its product offerings. Bayer believes the Combined Agriculture Business will benefit farmers by offering enhanced yield, optimized inputs and more sustainable farming.

#### **6.4 Commitment to Sustainability and Social Responsibility**

Sustainability and social responsibility are firmly anchored in Bayer's corporate culture, as Bayer believes these are important business principles to safeguard the Company's long-term success. Sustainability is embedded in all of the Company's business practices and everyday procedures. Responsibility for the Group's sustainable orientation is firmly established at the level of Bayer's Board of Management. Bayer underlines its mission as a company which acts sustainably through its commitment to the U.N. Global Compact and the Responsible Care™ initiatives, and through its active global involvement in initiatives such as the World Business Council for Sustainable Development ("WBCSD"). Bayer is committed to the U.N. Sustainable Development Goals ("SDGs") and firmly believes its innovations, products and services contribute to overcoming some of the biggest global challenges, including the SDGs to achieve zero hunger, improved nutrition and sustainable agriculture as well as good global health care and healthy lives across all ages. The combined business and operations will be managed by applying Bayer's sustainability principles, business practices and procedures. Bayer will apply the same rigor in achieving its sustainability targets as it does to its financial targets.

Bayer strives to live up to its heightened responsibility that a leadership position in agriculture entails and is fully committed to upholding the highest ethical and responsibility standards. Bayer will seek to make a greater contribution to improving health and nutrition, drawing from its core competencies in these areas. Bayer will work to further reduce its environmental footprint, for example by using its product portfolio to make food production more environmentally friendly and further reducing emissions. Bayer's commitment to social responsibility is also demonstrated by the Group's close collaboration with smallholder farmers across the world, which is being continued following the Transaction to ensure fair and reasonable license fees for smallholder farmers and expand food-chain partnership programs, which, among other matters, will provide educational training in sustainable farming practices.

Finally, Bayer will continue to be committed to being an employer of choice with a culture celebrating diversity and inclusion.

#### **6.5 Value Impact of the Transaction**

Despite the larger than expected scope of divestments, the Transaction is expected to create meaningful value for Bayer and its shareholders.

For the Combined Agriculture Business, Bayer aspires to achieve average sales growth (on a currency and portfolio adjusted basis) above market. Bayer expects the integration of Monsanto to result in significant cost- and sales-related synergies and estimates a total annual synergy potential of approximately US\$1.2 billion (net EBITDA impact before special items) as of 2022. The cost synergy target now amounts to approximately US\$ 1.0 billion net EBITDA impact before special items, compared to an initial cost synergy estimate of US\$ 1.2 billion net EBITDA impact before special items announced in September 2016. The reduction of the synergy target reflects the divestments related to remedies required by regulatory authorities. The larger than expected scope of divestments reduces the basis (e.g., through the transfer of the cost base) underlying the initial cost and sales synergy estimate. Bayer expects approximately 70% of the cost synergies to stem from savings in selling, general and administrative expenses. Bayer has validated its cost synergy target through a bottom-up analysis across countries and functions which has identified levers in the areas of information technology, support functions, country integration, commercial, procurement, product supply and research and development overheads, among others, to achieve cost synergies. Examples of such levers are the consolidation of Bayer's and Monsanto's IT platforms into one shared platform and the consolidation of IT networks and sites. In addition, the integration of Monsanto's support functions, such as accounting, controlling and country organizations, into Bayer's existing platforms, the consolidation of group functions, such as finance, taxes and human resources, the optimization of Bayer's real estate footprint, as well as in the area of procurement and product supply, the consolidation of suppliers, more efficient sourcing, the realization of insourcing potential and cost savings in the areas of



warehousing and distribution are expected to contribute to achieving the targeted synergies. The top ten projects are expected to account for approximately 60% of the cost synergies. Bayer expects that the ramp-up of cost synergies will follow a typical, back-end loaded pattern and anticipates related, cumulative one-time costs required to generate these synergies to amount to approximately US\$1.5 billion until the end of 2022. Bayer expects to record the majority of one-time costs incurred to achieve synergies as special items.

With regard to expected sales synergies, Bayer targets to achieve approximately US\$200 million net EBITDA impact before special items as of 2022. Bayer expects that more than 60% of the targeted sales synergies will be generated in four countries (U.S., Brazil, Argentina and Mexico). Bayer anticipates deriving sales synergies mainly from a broader product portfolio of seed and crop protection products and a greater geographic footprint by combining sales forces and infrastructure. The full synergy potential of the combined business and operations of Bayer and Monsanto is expected to be realized in the medium to long term. Bayer expects further sales synergies to be driven by a stronger offering of customized agronomic solutions to farmers as well as joint innovation capabilities and innovative systems and technology applications.

The Combined Agriculture Business is expected to generate industry-leading profitability. In September 2016, Bayer announced a targeted Adjusted EBITDA Margin for the Combined Agriculture Business of greater than 30% after year three following closing of the Transaction. Given that it will only be possible to validate certain assumptions underlying this guidance following closing of the Transaction, Bayer intends to provide updated guidance on the targeted Adjusted EBITDA Margin after year three following closing of the Transaction, i.e., 2022, later in the year. In particular, Bayer will need to assess possible adjustments with respect to foreign-exchange rate effects and accounting effects resulting from US-GAAP to IFRS conversion as well as the reduction of the expected synergies due to the significantly extended divestment scope.

From an earnings perspective, Bayer expects the Transaction to be accretive to core earnings per share in 2019 and expects accretion to increase to double digit percentage figures as of 2021. Overall, the anticipated synergies and earnings impacts described in the foregoing are based on current assumptions with regard to U.S. GAAP to IFRS conversion which could impact the timing of revenue and income recognition, and foreign exchange rate assumptions for key currencies. Accordingly, updates of the anticipated synergies and earnings impacts made in the future, if any, and, ultimately, the actual synergies and earnings impacts achieved may differ from the anticipated synergies and earnings impacts described in the foregoing, including in terms of the timing of their realization. Such differences may be significant.

## **6.6 Integration Planning**

Until the closing of the Transaction-related Divestments described in “6.10 Overview of Transaction-related Divestments,” Bayer and Monsanto will be held separate as required by the U.S. Department of Justice. Bayer currently expects to commence the integration of the two organizations in approximately two months. Bayer has carefully planned the integration process of Monsanto across all business areas in order to complete all integration measures and achieve target state for the combined organization by 2022. From the first day after closing of the Transaction-related Divestments (“**Day 1**”), Bayer intends to pursue its strategic priorities to build a leading innovator in global agriculture.

As of Day 1, Bayer plans to have the cornerstones of its new crop science vision, strategy, priorities, organizational design and key leaders in place to serve as foundation for the integration process. As part of its integration planning and to secure business continuity, Bayer aims to ensure retention of key talent across both companies and to swiftly initiate the on-boarding process for Monsanto employees. The new Crop Science Executive Leadership Team has already been announced. To ensure business continuity on Day 1, Bayer will put a global governance process for product supply in place and focus IT support on business critical systems and applications.

Key priorities for the transition period comprise the roll-out of a new vision, strategy and culture for the combined business and operations of Bayer and Monsanto, validation of planning assumptions and transition into a new operating model, implementation of a new organizational structure, a continuous HR selection process to identify the best talent for each level and function as well as the harmonization of the IT infrastructure. Country integration is planned to happen in tiers. Priority will initially be on the five top countries, which together account for more than 80% of sales of Monsanto – the U.S., Brazil, Argentina, Mexico and Canada. A dedicated monitoring team will be in place to ensure stringent synergy tracking and risk management throughout the integration process.

## 6.7 Transaction Timeline and Regulatory Approval Processes

The Transaction was unanimously approved by Monsanto's board of directors on September 13, 2016, as well as Bayer's Board of Management and Supervisory Board on September 14, 2016. On December 13, 2016, the shareholders of Monsanto Company approved the Transaction. The Transaction, which was subject to customary closing conditions, including the receipt of required antitrust and other regulatory approvals, was completed on June 7, 2018 after all required closing conditions were satisfied or waived.

In this regard, Bayer obtained approvals from approximately 25 relevant regulatory authorities, including antitrust clearance by the European Commission and the U.S. Department of Justice. The U.S. Department of Justice gave its approval on May 29, 2018, with the final judgment expected to be entered by the court in September 2018. For information on the Transaction-related Divestments that Bayer was required to commit to in connection with the regulatory approval processes, see "6.10 Overview of Transaction-related Divestments" and "10.3.2 The Acquisition of Monsanto and Related Divestitures". See also "1.2.1 Certain divestiture actions and other commitments that Bayer was required to undertake in connection with obtaining regulatory approvals to complete the Transaction could negatively impact Bayer's strategic planning and necessitate substantial adjustments to its operational and financial structures, which, in turn, could have a material adverse effect on the current and future business, results of operations, financial condition and prospects of Bayer. In addition, there is a limited residual risk that additional remedies could be required."

On December 1, 2017, Bayer and Monsanto announced that the Committee on Foreign Investment in the United States ("CFIUS") had completed its review of the Transaction. As part of the CFIUS review process, Bayer entered into a National Security Agreement ("NSA") with the United States Government. Among other matters, the NSA requires U.S. governmental approval of certain transfers of asset ownership, which may *inter alia* apply in the event of a change of control of Bayer. The NSA also provides for certain corporate governance requirements to ensure compliance with its terms.

## 6.8 Key Terms of the Merger Agreement

Under and subject to the terms and conditions of the Merger Agreement, entered into on September 14, 2016, Bayer offered an all-cash consideration of US\$128.00 per share of Monsanto Company. This corresponded to an expected transaction value of approximately US\$66 billion as of May 31, 2016, comprising an equity value (purchase price) of approximately US\$56 billion and net debt to be assumed in an amount of US\$10 billion, which included pension obligations as of May 31, 2016, as well as liabilities for payments under stock-based compensation programs. As of the date of this Offering Memorandum, this corresponds to a transaction value of approximately US\$63 billion taking into account Monsanto's debt outstanding as of February 28, 2018. The Merger Agreement was subject to customary closing conditions, including the receipt of required antitrust and other regulatory approvals, and the Transaction was completed on June 7, 2018.

Under the Merger Agreement Bayer had committed to undertake certain divestitures if and to the extent required to obtain antitrust approvals and completion of the CFIUS review process, including (i) agreeing to the sale, divestiture or other conveyance or holding separate of assets of Bayer or Monsanto, (ii) permitting Monsanto to sell, divest or otherwise convey or hold separate its assets, (iii) terminating existing relationships, contractual rights or obligations of Bayer or Monsanto, (iv) terminating any joint venture or other arrangement of Bayer or Monsanto, and (v) creating any relationship, contractual right or obligation of Bayer or Monsanto. However, under the terms of the Merger Agreement, Bayer was not required to take (a) any such divestiture action described in the foregoing clauses (i) or (ii) that, taken together with all other divestiture actions contemplated by clauses (i) through (v) above, would reasonably be likely to result in a loss of annual net sales to Bayer, Monsanto and their subsidiaries in excess of US\$1.6 billion in the aggregate (measured in accordance with the Merger Agreement) or (b) any divestiture action that, taken together with all other such divestiture actions, would reasonably be likely to have a material adverse effect on the business, financial condition or results of operations of the consolidated agricultural businesses of Bayer, Monsanto and their subsidiaries, taken as a whole. Separately, if the Merger Agreement was terminated (a) as the result of an order imposed by a governmental antitrust entity or (b) if the outside date, June 14, 2018, had been reached and, at the time of termination, one or more of the closing conditions relating to the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, European Commission approval, laws and orders, governmental consents and foreign antitrust approvals (in each case per the terms of the Merger Agreement) was not satisfied and all of the other closing conditions had been satisfied or waived or would have been capable of being satisfied, then, Bayer would have been required to pay a US\$2.0 billion reverse break-up fee.



For information on significant divestitures made in connection with the Transaction, see “6.10 Overview of Transaction-related Divestments.”

Following completion of the Transaction, Bayer intends to pursue the delisting of the traded shares of Monsanto Company from the New York Stock Exchange as promptly as practicable and the deregistration of these shares under the Exchange Act.

## 6.9 Financing of the Transaction

On September 14, 2016, Bayer AG, as borrower and guarantor, and Bayer U.S. Finance II LLC, as borrower, entered into the US\$56.9 billion (€48.7 billion) syndicated term loan facilities agreement (the “**Loan Facilities Agreement**”) with Bank of America, N.A., Credit Suisse AG, London Branch, Goldman Sachs Bank U.S.A., Goldman Sachs Lending Partners LLC, HSBC Bank plc, The Hong Kong and Shanghai Banking Corporation Limited and JPMorgan Chase Bank, N.A., London Branch as committed original lenders.

The Loan Facilities Agreement provides for the following facilities:

- a US\$39.9 billion facility (with a base term of twelve months, subject to two six-month extension options),
- a US\$7.0 billion facility (with a base term of 24 months, subject to two six-month extension options),
- a US\$4.0 billion facility (with a term of three years), and
- a US\$6.0 billion facility (with a term of five years).

The term of each facility commences on the earlier of the date of the first utilization of any facility and the date nine months after the date of the Loan Facilities Agreement, except for the five-year facility, the term of which commences on the date of the Loan Facilities Agreement.

The loans under the Loan Facilities Agreement may be used to finance the purchase price for the Transaction and other related payments, including fees and expenses, as well as the refinancing of indebtedness of Monsanto and its subsidiaries.

In connection with the completion of the Transaction, Bayer drew down an aggregate amount of US\$43.4 billion (€37.2 billion) under the Loan Facilities Agreement.

The loans under the Loan Facilities Agreement bear interest at variable rates in the amount of a LIBOR or EURIBOR rate if Bayer draws down any loan facility in euro (for a certain interest period selected by Bayer and, if any such rate is below zero, LIBOR/EURIBOR will be deemed to be zero) plus a margin set forth in the Loan Facilities Agreement. The applicable margins depend on the facility utilized, on the number of months elapsed after the date of the Loan Facilities Agreement (in case of the US\$39.9 billion facility and US\$7.0 billion facility) and on Bayer’s long-term credit rating. In addition, the margin applicable to the US\$4.0 billion facility and the US\$6.0 billion facility depends on the utilization of the two other facilities. On average, the initial margin is expected to amount to 150 basis points for the four facilities.

One-time fees are payable if one or all of the facilities are utilized or if the terms of the US\$39.9 billion facility or the US\$7.0 billion facility are extended. Further, commitment fees apply to undrawn and uncanceled facilities that increase as a percentage of the then applicable margin over time.

Subject to certain exceptions, including for the refinancing of existing debt, the net proceeds of (i) sales of assets of Bayer that, when aggregated with the net proceeds of all other such disposals, exceed €5.0 billion, (ii) sales of shares of Monsanto Company, (iii) sales of assets of Monsanto that, when aggregated with the net proceeds of all other such disposals, exceed €750 million, (iv) capital increases and (v) debt financings must be used to prepay or cancel the US\$39.9 billion facility or the US\$7.0 billion facility. Accordingly, the net proceeds from the Mandatory Convertible Notes, the Exchangeable Bonds (as defined below) and net proceeds from the sale of Covestro Shares in January 2018 and May 2018 have been used to reduce the amount of the Loan Facilities Agreement. In addition, the net proceeds from the Transaction-related Divestments will be used to further reduce the amount of the Loan Facilities Agreement.

The Loan Facilities Agreement contains customary representations, warranties and covenants, including negative pledge undertakings and restrictions on disposals, new financial indebtedness and acquisitions, each

subject to certain exemptions (in particular, depending on an investment grade long-term credit rating), qualifications and baskets, as well as undertakings relating to the Transaction.

The committed original lenders have syndicated portions of their loans to a broader group of banks. The syndication, which was executed on October 12, 2016, comprised more than 20 banks.

On November 22, 2016, Bayer Capital Corporation B.V. placed the Mandatory Convertible Notes in a nominal amount of €4.0 billion (US\$4.2 billion) due 2019 and with a coupon of 5.625% per annum convertible into no par value ordinary registered shares of the Company and on June 14, 2017, Bayer AG issued senior, unsecured exchangeable bonds in a nominal amount of €1.0 billion (US\$1.2 billion) due 2020, with a coupon of 0.05% per annum, which may either be settled in cash or by delivery of Covestro Shares or by a combination thereof (the “**Exchangeable Bonds**”). The net proceeds from the issuance of the Mandatory Convertible Notes amounted to approximately €3.96 billion (US\$4.2 billion) and the net proceeds from the issuance of the Exchangeable Bonds amounted to €1.05 billion (US\$1.2 billion). On April 23, 2018, Bayer AG closed a transaction involving a capital increase out of authorized capital against cash contributions and excluding the subscription rights of existing Bayer shareholders by way of issuing 31 million new shares for total gross proceeds of €3.0 billion (US\$3.7 billion) to a subsidiary of the investment company Temasek Holdings (Private) Limited, which is wholly-owned by the Government of Singapore (the “**Temasek Investment**”).

In accordance with the terms of the Loan Facilities Agreement, these net proceeds, together with net proceeds of €3.7 billion (US\$4.4 billion) from the sale of Covestro Shares in January 2018 and May 2018, were used to reduce the amount of the Loan Facilities Agreement from US\$56.9 billion (€48.7 billion) to US\$43.4 billion (€37.2 billion) prior to the closing of the Transaction. Net proceeds of additional €5.9 billion (US\$6.9 billion) are expected to be raised through the rights offering of new shares (the “**Rights Offering**”), which is expected to close on June 22, 2018, and are intended to be used to repay amounts drawn down under the Loan Facilities Agreement to finance the Transaction from US\$43.4 billion (€37.2 billion) to US\$36.5 billion (€31.3 billion). The US\$ amounts of the Loan Facilities Agreement were translated into € amounts and the € amounts of the proceeds from the Rights Offering were translated into US\$ amounts using the June 1, 2018 closing rate of US\$ 1.1672 = €1.0. As a result, there may be deviations from the € amounts for the Loan Facilities Agreement and the US\$ amounts for the proceeds from the Rights Offering presented in the Pro Forma Financial Information, which were translated at a different exchange rate, see “7. Pro Forma Financial Information – Effects of the Covestro Divestments and the Acquisition of Monsanto on the Consolidated Financial Information of Bayer for the Fiscal Year Ended December 31, 2017, and as of and for the Three Months Ended March 31, 2018”. Since the Loan Facilities Agreement is denominated in US\$ and reductions occurred at different € / US\$ exchange rates, only the US\$-denominated amounts are indicative of the actual reductions.

In order to refinance further amounts drawn down under the Loan Facilities Agreement, Bayer also plans to issue senior unsecured notes in an aggregate nominal amount of US\$15.0 billion through a finance subsidiary on or about June 25, 2018 (the “**US\$ Bond Offering**” and together with the offering of the Notes the “**Bond Offerings**”). In addition, in accordance with the terms of the Loan Facilities Agreement, Bayer expects to repay further amounts drawn down under the Loan Facilities Agreement with the net proceeds from the Transaction-related Divestments.

#### **6.10 Overview of Transaction-related Divestments**

In connection with obtaining required antitrust approvals to complete the Transaction, Bayer, in separate transactions entered into in October 2017 and April 2018, respectively, has agreed to sell selected Crop Science businesses to BASF SE, Ludwigshafen, Germany (“**BASF**”), as described below (the “**Transaction-related Divestments**”). Bayer will continue to own, operate and maintain the businesses covered by the Transaction-related Divestments until closing of the Transaction-related Divestments. In addition, until the closing of the Transaction-related Divestments, Bayer and Monsanto will be held separate as required by the U.S. Department of Justice. Bayer currently expects to be able to commence the integration of the two organizations in approximately two months. Following completion of the Transaction and of the Transaction-related Divestments, Bayer will remain active in the areas covered by the Transaction-related Divestments as a result of the programs, products and offerings it has acquired from Monsanto upon the completion of the Transaction. In accordance with the provisions of the Loan Facilities Agreement, Bayer will use the net proceeds from the Transaction-related Divestments to partially refinance the Transaction, see “6.9 Financing of the Transaction” and “5.7 Use of Proceeds.”

For information on the treatment of the Transaction-related Divestments for purposes of the Pro Forma Financial Information, see “7.3.4.2.4 Assumption: Transaction-related Divestments,” “7.3.4.2.10 Assumption:

*Impact of the Divestments on the Loan Facility Agreement” and “7.3.5.2.8 Transaction-related Divestments.” For risks associated with the Transaction-related Divestments, see “1.2.1 Certain divestiture actions and other commitments that Bayer was required to undertake in connection with obtaining regulatory approvals to complete the Transaction could negatively impact Bayer’s strategic planning and necessitate substantial adjustments to its operational and financial structures, which, in turn, could have a material adverse effect on the current and future business, results of operations, financial condition and prospects of Bayer. In addition, there is a limited residual risk that additional remedies could be required.”*

#### **6.10.1 The First BASF Divestiture Package**

On October 13, 2017, Bayer entered into four asset purchase agreements (the “**Divestiture Agreements**”) with BASF in connection with the Transaction. Under the terms and conditions of the Divestiture Agreements, Bayer has agreed to sell, and BASF has agreed to purchase, certain assets which currently form part of the Crop Science business. These assets relate to (i) canola seeds and related gene events in North America and Europe, (ii) soybean seeds and related gene events globally, (iii) cotton seeds and related gene events globally (excluding India and South Africa), (iv) glufosinate-ammonium herbicide and related formulated products globally, (v) the licensing of intellectual property related to LibertyLink™ technology for herbicide tolerance to third parties for the creation of gene events and (vi) certain other research and development activities related to genes and gene products (the “**First BASF Divestiture Package**”).

The Divestiture Agreements provide for an aggregate base purchase price of approximately €5.9 billion, subject in each case to customary adjustments (including in respect of finance lease liabilities, inventory, advance payment assets and liabilities, employee-related assets and liabilities and/or trade-related liabilities). The aggregate base purchase price is also subject to adjustment at closing of the First BASF Divestiture Package as a result of the Transaction not closing by January 1, 2018. Such adjustment will reduce the aggregate base purchase price by approximately €0.2 billion at closing, reflecting the fact that Bayer continues to get the benefit of the businesses covered by the Divestiture Agreements pending closing of the divestitures.

The Divestiture Agreements contain both customary and divestment-specific representations and warranties, interim operating covenants and indemnities in respect of the assets being sold. The Divestiture Agreements require Bayer and BASF to enter into certain transition services agreements (including for services from BASF to Bayer) at closing, as well as long-term agreements in respect of product supply, tolling services, distribution services, intellectual property, site cooperation, site leasing and other long-term arrangements.

The businesses covered by the First BASF Divestiture Package generated sales of €1.5 billion for the fiscal year ended December 31, 2017 and of €0.7 billion for the three months ended March 31, 2018. For information on the impact of the First BASF Divestiture Package on the consolidated statements of financial position of Bayer as of December 31, 2017, see “10.3.2 The Acquisition of Monsanto and Related Divestitures” and “10.4.7.2 Effects of the Acquisition of Monsanto and Related Divestitures.”

#### **6.10.2 The Second BASF Divestiture Package**

On April 26, 2018, Bayer entered into agreements to sell further Crop Science businesses to BASF for an aggregate base purchase price of up to €1.7 billion, which is subject to customary purchase price adjustment mechanisms and includes a milestone payment of €0.1 billion expected to be paid in 2019 (the “**Second BASF Divestiture Package**”). The businesses to be divested include in particular Bayer’s global vegetable seeds business, certain seed treatment products, Bayer’s research platform for wheat hybrids and certain glyphosate-based herbicides in Europe that are predominantly used in industrial applications. In addition, three research projects in the field of total herbicides and Bayer’s digital farming business will also be transferred. Bayer may license back, on a non-exclusive basis, technology needed for Bayer to sell certain digital agriculture products outside North America. The businesses to be divested as part of the Second BASF Divestiture Package generated total sales of €0.7 million for the fiscal year ended December 31, 2017 and of €0.2 billion for the three months ended March 31, 2018.

#### **6.11 Impact of the Transaction on Bayer’s Credit Rating**

A key factor in maintaining Bayer’s strong financial profile is its credit rating, which is affected by, among other factors, Bayer’s capital structure, profitability, ability to generate cash flow, geographic and product diversification and its competitive market position.

For many years, Bayer has had its creditworthiness assessed by S&P Global Ratings (“**S&P**”) and Moody’s Investors Service, Inc. (“**Moody’s**”). Before Bayer’s intention to acquire Monsanto became public, S&P had assigned Bayer a long-term debt rating of A- and a short-term debt rating of A-2, while Moody’s had assigned a long-term debt rating of A3 and a short-term debt rating of P-2. After Bayer’s intention to acquire Monsanto became public in May 2016, S&P as well as Moody’s placed Bayer’s credit ratings under review for downgrade.

On June 4, 2018, S&P and Moody’s updated their rating assessment taking into account the imminent closing of the Transaction and its envisaged financing. S&P assigned a BBB long-term rating and again confirmed Bayer’s A-2 short term rating, each with a stable outlook. Moody’s assigned a Baa1 long-term rating and a P-2 short-term rating, each with a negative outlook. In addition, on June 5, 2018, Fitch Ratings (“**Fitch**”) assigned an A- long-term rating and a F-2 short-term rating, each with a stable outlook. Despite the current assignment of ratings, Bayer still faces the risk of potential further rating downgrades in the future. See also “*1.2.10 Bayer faces risks from financing the Transaction, including as a result of increased levels of debt and the potential downgrading of credit ratings.*”

Following completion of the Transaction, Bayer intends to deleverage swiftly, supported by expected strong cash flows from the enlarged Bayer Group. Bayer is committed to the single “A” credit rating category in the long term.

Each of S&P, Moody’s and Fitch has a registered seat in the European Union and has been declared to be registered in accordance with Regulation (EC) No. 1060/2009 of the European Parliament and of the Council of September 16, 2009 on rating agencies by the European Securities and Markets Authority.

Investors should consider each rating individually and obtain additional information and a more detailed understanding of the significance of the credit rating information provided by the rating agencies. The ratings do not constitute a recommendation to buy or sell Bayer’s securities. Rating agencies may change their ratings at any time if specific circumstances require such a change in their opinion.

*The pro forma financial information set forth in section 7 of this Offering Memorandum is dated June 5, 2018, and was prepared by Bayer in accordance with European Commission Regulation (EC) No. 809/2004 of April 29, 2004 for the inclusion in the prospectus dated June 5, 2018 relating to the rights offering of 74,604,154 new shares ordinary registered shares of Bayer AG, which is expected to close on June 22, 2018. In the pro forma financial information dated June 5, 2018, certain assumptions and pro forma adjustments were made with respect to the rights offering, the acquisition of Monsanto and the related financing, including the Loan Facilities Agreement, which were factually supportable at the time of such pro forma financial information's preparation. However, the pro forma financial information does not take into account any information or developments after June 5, 2018, including, e.g., the Bond Offerings, which include the offering of the Notes, as defined and described under "1.2.11 Bayer is exposed to risks arising from the necessity to refinance the loans taken out for the Transaction.", the proceeds of which are intended to be used to repay amounts drawn down under the Loan Facilities Agreement, or the Exchange Offer, as defined and described under "20.1 Recent Developments" as they were not factually supportable at the time the pro forma financial information was prepared by Bayer.*

## 7. PRO FORMA FINANCIAL INFORMATION – EFFECTS OF THE COVESTRO DIVESTMENTS AND THE ACQUISITION OF MONSANTO ON THE CONSOLIDATED FINANCIAL INFORMATION OF BAYER FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017, AND AS OF AND FOR THE THREE MONTHS ENDED MARCH 31, 2018

### 7.1 Introduction

At the end of September 2017, Bayer Aktiengesellschaft (“**Bayer AG**”, and together with its subsidiaries prior to completion of the acquisition of Monsanto Company, St. Louis, United States (“**Monsanto**”), which is expected to take place on or about June 7, 2018, referred to herein as “**Bayer**”) lost control of its subsidiary Covestro AG (“**Covestro**”) due to the sale of shares in Covestro (the “**Covestro Shares**”) and the signing of a control termination agreement, as part of which Bayer has undertaken not to exercise certain voting rights at Covestro’s annual stockholders’ meeting (the “**Loss of Control**”). After additional sales of Covestro Shares in January 2018 and in May 2018 (together with the Loss of Control, the “**Covestro Divestments**”) the interest held by Bayer in Covestro has been reduced to 6.8%.

As a result of the Loss of Control, Covestro was no longer required to be fully consolidated in Bayer’s consolidated financial statements. Therefore the assets and liabilities of Covestro, including the carrying amount of the noncontrolling interest in Covestro, were derecognized as of the date of the Loss of Control and the results from the Covestro business until that date are presented as income from discontinued operations after income taxes in the consolidated financial statements of Bayer for the fiscal year ended December 31, 2017. Covestro was accounted for using the equity-method in Bayer’s consolidated financial statements as of December 31, 2017, and as of March 31, 2018, applying the respective direct interest held in Covestro, as of those dates. Following the sale of Covestro Shares in May 2018, Bayer’s remaining interest in Covestro is being accounted for as an other financial asset, measured at fair value through profit or loss. The remaining Covestro interest is held with the intention to repay senior, unsecured exchangeable bonds in a nominal amount of €1.0 billion (US\$1.2 billion) due 2020 with a coupon of 0.05% per annum (the “**Exchangeable Bonds**”) issued by Bayer AG in June 2017. For purposes of this pro forma financial information, Covestro is accounted for as an other financial asset applying Bayer’s current interest of 6.8% in Covestro from January 1, 2017, onwards.

On September 14, 2016, Bayer and Monsanto announced that they had entered into an agreement and plan of merger (the “**Merger Agreement**”) which provides, among other things and subject to the terms and conditions set forth therein, that an indirect wholly owned subsidiary of Bayer will be merged with and into Monsanto and that each share of Monsanto Company will be converted into the right to receive US\$128.00 in cash, without interest (the “**Transaction**”). As of the signing of the Merger Agreement, the consideration corresponded to an expected transaction value of approximately US\$66 billion, comprising an equity value (purchase price) of approximately US\$56 billion and the assumption of approximately US\$10 billion in net debt, including pension liabilities, existing as of May 31, 2016, as well as liabilities for payments under stock-based compensation programs. The stockholders of Monsanto approved the merger with the requisite majority on December 13, 2016. The Transaction, which is subject to customary closing conditions, including the receipt of required antitrust and other regulatory approvals, all of which have been satisfied or waived (other than those conditions that by their nature are to be satisfied at the closing of the Transaction), is expected to be completed on or about June 7, 2018.

Bayer is financing the Transaction with a combination of debt and equity as well as with proceeds from certain divestitures. As a first step, a syndicated loan facilities agreement in the amount of US\$56.9 billion (€46.2 billion) (the “**Loan Facilities Agreement**”) was committed by Bank of America N.A., Credit Suisse AG, London Branch, Goldman Sachs Bank U.S.A., Goldman Sachs Lending Partners LLC, HSBC Bank plc, The Hong Kong and Shanghai Banking Corporation Limited and JP Morgan Chase Bank, N.A., London Branch as original lenders upon the signing of the Merger Agreement. As of March 31, 2018, the funding required to complete the Transaction amounted to a total of US\$56.4 billion (€45.8 billion) based on the undiluted number of shares in Monsanto outstanding as of February 28, 2018. The Loan Facilities Agreement provides, among other matters, that the net proceeds from (i) sales of assets of Bayer that, when aggregated with the net proceeds of all other such disposals, exceed a threshold of €5.0 billion, (ii) capital increases and (iii) debt financings, must be used to prepay or cancel the amounts outstanding under the Loan Facilities Agreement.

For purposes of the pro forma financial information, the US\$ amounts of the Loan Facilities Agreement in the following section were translated into € amounts and the € amounts of the proceeds from the Offering were translated into US\$ amounts using the March 31, 2018 exchange rate. Also, since the Loan Facilities Agreement is denominated in US\$ and cancellations occurred at different times and at different € / US\$ exchange rates, the

reductions of the Loan Facilities Agreement have been calculated based on the US\$ amounts. Subsequently, the residual amount of the Loan Facilities Agreement has been translated to € applying the exchange rate as of March 31, 2018, for purposes of the pro forma financial information. For information on the March 31, 2018 exchange rate, see “7.2.3.6 Principles to Translate Monsanto’s Financial Information Reported in US\$ to Bayer’s Presentation Currency €.”

On November 22, 2016, Bayer Capital Corporation B.V. issued mandatory convertible notes in a nominal amount of €4.0 billion (US\$4.2 billion) due 2019 (the “**Mandatory Convertible Notes**”). On June 14, 2017, Bayer AG issued the Exchangeable Bonds described above. On April 23, 2018, Bayer closed a transaction involving a capital increase out of authorized capital against cash contributions and excluding the subscription rights of existing Bayer shareholders by way of issuing of 31 million new shares for total gross proceeds of €3.0 billion (US\$3.7 billion) to a subsidiary of the investment company Temasek Holdings (Private) Limited, Singapore, a wholly-owned subsidiary of the Government of Singapore (the “**Temasek Investment**”).

In connection with obtaining required antitrust approvals to complete the Transaction, Bayer has entered into certain divestment transactions (the “**Transaction-related Divestments**”) in October 2017 and in April 2018, the aggregate net proceeds of which are expected to amount to €6.1 billion (US\$7.6 billion). For more information on the Transaction-related Divestments, see “7.3.4.2.4 Assumption: Transaction-related Divestments” and “7.3.5.2.8 Transaction-related Divestments.” Taken together with the aggregate net proceeds of €8.7 billion (US\$10.6 billion) from the Covestro Divestments, together with the Transaction-related Divestments (the “**Divestments**”), the expected aggregate net proceeds from the Divestments therefore exceed by €9.8 billion (US\$12.0 billion) the €5.0 billion threshold set forth in the Loan Facilities Agreement.

In accordance with the terms of the Loan Facilities Agreement, net proceeds from the Mandatory Convertible Notes of €3.96 billion (US\$4.2 billion), from the Exchangeable Bonds of €1.05 billion (US\$1.2 billion), together with a portion in an amount of €1.5 billion (US\$1.9 billion) of the net proceeds from the sale of Covestro Shares completed in January 2018, the net proceeds from the Temasek Investment of €3.0 billion (US\$3.7 billion), and the net proceeds from the sale of Covestro Shares completed in May 2018 of €2.1 billion (including the related income tax expense, US\$2.5 billion), were used to reduce the undrawn commitments under the Loan Facilities Agreement to US\$43.4 billion (€35.3 billion) prior to the closing of the Transaction.

Furthermore, Bayer is engaging in a rights offering consisting of 74,604,156 new ordinary registered shares with no par value with indirect subscription rights for shareholders of Bayer, each such share representing a notional value of €2.56 and carrying full dividend rights from January 1, 2018 (the “**New Shares**”), which will be offered to Bayer’s shareholders for subscription at a ratio of 23:2 (i.e., 23 existing shares of Bayer entitle their holder to subscribe for two New Shares) at a subscription price of €81.00 per New Share (the “**Subscription Offer**”). Any New Shares that are not subscribed for in the Subscription Offer will be offered by the underwriters for sale to eligible investors in Germany and other selected jurisdictions at a price at least as high as the subscription price (the “**Rump Placement**” and together with the Subscription Offer, the “**Offering**”).

In accordance with the terms of the Loan Facilities Agreement, Bayer intends to use the net proceeds from the Offering in an amount of €6.0 billion (including the related income tax refund) (US\$7.4 billion) to repay amounts drawn down under the Loan Facilities Agreement, thereby reducing the amounts outstanding under the Loan Facilities Agreement from US\$43.4 billion (€35.3 billion) to US\$36.1 billion (€29.3 billion). In addition, in accordance with the terms of the Loan Facilities Agreement, Bayer expects to refinance amounts drawn down under the Loan Facilities Agreement with expected net proceeds of €6.1 billion (US\$7.6 billion) from the Transaction-related Divestments, thereby reducing the amounts outstanding under the Loan Facilities Agreement from US\$36.1 billion (€29.3 billion) to US\$28.5 billion (€23.1 billion).

For purposes of this pro forma financial information, the Transaction is therefore assumed to be financed by the Loan Facilities Agreement as reduced by the net proceeds of the Mandatory Convertible Notes, the Exchangeable Bonds, the Temasek Investment and the Offering as well as the applicable portion of the net proceeds from the Divestments exceeding the €5.0 billion threshold set forth in the Loan Facilities Agreement (together the “**Related Financing**”). For purposes of this pro forma financial information, an aggregate amount of US\$28.0 billion (€22.7 billion) is therefore assumed to have been drawn down under the Loan Facilities Agreement to finance the purchase price in connection with the closing of the Transaction. The further refinancing of the Loan Facilities Agreement through planned debt capital markets transactions, which, subject to market conditions, may be launched at any time, are fully independent of the Offering, are not conditional upon one another and may be consummated at different times, is currently not factually supportable and is therefore not considered in this pro forma financial information.



The Covestro Divestments, the Transaction and the Related Financing have had a material effect on the net assets, financial position and results of operations of Bayer. Therefore Bayer has prepared the following pro forma financial information, comprising pro forma income statements for the fiscal year ended December 31, 2017, and for the three months ended March 31, 2018, a pro forma statement of financial position as of March 31, 2018, and the pro forma notes (together the “**Pro Forma Financial Information**”).

The purpose of the Pro Forma Financial Information is to present the material effects that the Covestro Divestments as well as the successful completion of the Transaction including the Transaction-related Divestments and the Related Financing would have on a pro forma basis

- on the historical consolidated income statement of Bayer for the fiscal year ended December 31, 2017, as if the Covestro Divestments as well as the Transaction including the Transaction-related Divestments and the Related Financing had occurred on January 1, 2017,
- on the historical consolidated income statement of Bayer for the three months ended March 31, 2018, as if the Covestro Divestments as well as the Transaction including the Transaction-related Divestments and the Related Financing had occurred on January 1, 2017.
- on the historical consolidated statement of financial position of Bayer as of March 31, 2018, as if the Covestro Divestments as well as the Transaction including the Transaction-related Divestments and the Related Financing had occurred on March 31, 2018.

The Pro Forma Financial Information is based on certain pro forma assumptions, outlined below, and is intended for illustrative purposes only. The Pro Forma Financial Information assumes, in particular, that the Covestro Divestments as well as the Transaction including the Transaction-related Divestments and the Related Financing occurred on January 1, 2017, for purposes of the pro forma income statements and that the Covestro Divestments, the Transaction including the Transaction-related Divestments and the Related Financing occurred on March 31, 2018, for purposes of the pro forma statement of financial position. Due to its nature, the Pro Forma Financial Information describes only a hypothetical situation and does not reflect the actual net assets, financial position and results of operations of Bayer after the Covestro Divestments and the completion of the Transaction including the Transaction-related Divestments and the Related Financing nor does it indicate the future development of the net assets, financial position and results of operations of Bayer.

The Pro Forma Financial Information is a combination of certain information derived from the historical consolidated financial statements of Bayer and the historical consolidated financial statements of Monsanto, subject to preliminary estimates and based on various assumptions – all of which are described in the accompanying pro forma notes – which Bayer considers to be reasonable.

The Pro Forma Financial Information has to be read in conjunction with the historical consolidated financial statements of Bayer for the fiscal year ended December 31, 2017, and the historical unaudited interim condensed consolidated financial statements of Bayer for the three months ended March 31, 2018, as well as with the historical consolidated financial statements of Monsanto for the fiscal year ended August 31, 2017, and the historical unaudited interim condensed consolidated financial statements of Monsanto for the quarterly periods ended November 30, 2016, November 30, 2017 and February 28, 2018.

## **7.2 Historical Information Included in the Pro Forma Financial Information**

### **7.2.1 Historical Financial Information Used**

The pro forma income statement for the fiscal year ended December 31, 2017, presents the following two business transactions.

1. The elimination of the income from discontinued operations after income taxes related to Covestro, the elimination of the results of Covestro accounted for according to the equity method since January 1, 2017, as well as the accounting for Covestro as an other financial asset measured at fair value through other comprehensive income (“**OCI**”) for the fiscal year ended December 31, 2017, applying Bayer’s current interest of 6.8% in Covestro, and
2. the combination of Bayer’s audited results for the fiscal year ended December 31, 2017, and Monsanto’s audited results for the fiscal year ended August 31, 2017, adjusted for purposes of the Pro Forma Financial Information to the period from December 1, 2016, to November 30, 2017, by subtracting the unaudited interim results for the first quarter ended November 30, 2016, of



Monsanto's fiscal year ended August 31, 2017, and adding the unaudited interim results for the first quarter ended November 30, 2017, of Monsanto's fiscal year ended August 31, 2018.

The pro forma income statement for the fiscal year ended December 31, 2017, is based on the following information:

- The audited consolidated financial statements of Bayer for the fiscal year ended December 31, 2017, prepared according to International Financial Reporting Standards ("IFRS") and the interpretations of the IFRS Interpretations Committee ("IFRS IC"), both as endorsed by the European Union ("EU") and the additional requirements of Section 315e para. 1 of the German Commercial Code (*Handelsgesetzbuch*, "HGB") included in the Bayer AG Annual Report 2017;
- The audited consolidated financial statements of Monsanto for the fiscal year ended August 31, 2017, prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") included in Monsanto's Annual Report on Form 10-K for the fiscal year ended August 31, 2017, and filed with the U.S. Securities and Exchange Commission ("SEC") on October 27, 2017;
- The unaudited interim condensed consolidated financial statements of Monsanto for the first quarter ended November 30, 2016, prepared in accordance with U.S. GAAP, included in Monsanto's Quarterly Report on Form 10-Q for the quarterly period ended November 30, 2016, and filed with the SEC on January 6, 2017; and
- The unaudited interim condensed consolidated financial statements of Monsanto for the first quarter ended November 30, 2017, prepared in accordance with U.S. GAAP, included in Monsanto's Quarterly Report on Form 10-Q for the quarterly period ended November 30, 2017, and filed with the SEC on January 5, 2018.

The pro forma income statement for the three months ended March 31, 2018, presents the following two business transactions:

1. The elimination of the gain resulting from the additional sale of Covestro Shares in January 2018, the elimination of the results of Covestro accounted for according to the equity-method as well as the accounting for Covestro as an other financial asset measured at fair value through profit or loss applying Bayer's current interest of 6.8% in Covestro, and
2. The combination of Bayer's unaudited interim results for the three months ended March 31, 2018, and Monsanto's unaudited interim results for the second quarter ended February 28, 2018.

The pro forma income statement for the three months ended March 31, 2018, is based on the following information:

- The consolidated interim financial statements of Bayer as of March 31, 2018, prepared in condensed form in compliance with IAS 34 according to the IFRS of the International Accounting Standards Board ("IASB"), London, which are endorsed by the EU, and the Interpretations of the IFRS IC in effect at the closing date.
- The unaudited interim condensed consolidated financial statements of Monsanto for the second quarter ended February 28, 2018, prepared in accordance with U.S. GAAP, included in Monsanto's Quarterly Report on Form 10-Q for the quarterly period ended February 28, 2018, and filed with the SEC on April 5, 2018.

The pro forma statement of financial position as of March 31, 2018, presents the following two business transactions:

1. The elimination of the Investments accounted for using the equity-method related to Covestro as well as the accounting for Covestro as an other financial asset applying Bayer's current interest of 6.8% in Covestro, and
2. The combination of Bayer's unaudited consolidated statement of financial position as of March 31, 2018, and Monsanto's unaudited consolidated statement of financial position as of February 28, 2018.

The pro forma statement of financial position as of March 31, 2018, is based on the following information:

- The unaudited interim condensed consolidated financial statements of Bayer for the three months ended March 31, 2018, prepared in condensed form in compliance with IAS 34 according

to IFRS and the interpretations of IFRS IC, both as endorsed by the EU included in the Bayer AG Interim Report as of March 31, 2018; and

- The unaudited interim condensed consolidated financial statements of Monsanto for the second quarter ended February 28, 2018, prepared in accordance with U.S. GAAP, included in Monsanto's Quarterly Report on Form 10-Q for the quarterly period ended February 28, 2018, and filed with the SEC on April 5, 2018.

The Pro Forma Financial Information has been prepared based on the principles of presentation, recognition and measurement in accordance with IFRS, as endorsed by the EU, and the accounting policies consistently applied by Bayer as described in the notes to its consolidated financial statements as of and for the fiscal year ended December 31, 2017, and its unaudited interim condensed consolidated financial statements as of and for the three months ended March 31, 2018, respectively.

## 7.2.2 Adjustments to Align Monsanto's Reporting Periods

Monsanto's fiscal year ends on August 31, while Bayer's fiscal year ends on December 31. As a result, certain adjustments have been made to align the period for the Pro Forma Financial Information for the twelve-month period ended December 31, 2017.

The consolidated financial statement of Monsanto included in the pro forma income statement for the twelve-months ended December 31, 2017, covers the period from December 1, 2016, to November 30, 2017, and is derived from the audited consolidated financial statement of Monsanto for the fiscal year ended August 31, 2017, by subtracting the information from the unaudited interim condensed consolidated financial statement for the first quarter ended November 30, 2016, of Monsanto's fiscal year ended August 31, 2017, and adding the information from the unaudited interim condensed consolidated financial statement for the first quarter ended November 30, 2017, of Monsanto's fiscal year ending August 31, 2018.

	Monsanto 10K (audited) September 1, 2016	Monsanto Less (unaudited) September 1, 2016	Monsanto Plus (unaudited) September 1, 2017	Monsanto Aggregated December 1, 2016
	-	-	-	-
	August 31, 2017	November 30, 2016	November 30, 2017	November 30, 2017
U.S. GAAP	US\$ million	US\$ million	US\$ million	US\$ million
<b>Net Sales</b>	<b>14,640</b>	<b>2,650</b>	<b>2,658</b>	<b>14,648</b>
Cost of goods sold	(6,703)	(1,391)	(1,346)	(6,658)
<b>Gross Profit</b>	<b>7,937</b>	<b>1,259</b>	<b>1,312</b>	<b>7,990</b>
<b>Operating Expenses:</b>				
Selling, general and administrative expenses	(2,969)	(585)	(664)	(3,048)
Research and development expenses	(1,607)	(370)	(382)	(1,619)
Restructuring charges	36	36	(4)	(4)
Pending Bayer transaction related costs	(185)	(93)	(20)	(112)
Total Operating Expenses	(4,725)	(1,012)	(1,070)	(4,783)
<b>Income from Operations</b>	<b>3,212</b>	<b>247</b>	<b>242</b>	<b>3,207</b>
Interest expense	(452)	(136)	(124)	(440)
Interest income	76	18	15	73
Other income (expense), net	50	(43)	97	190
<b>Income from Continuing Operations Before Income Taxes</b>	<b>2,886</b>	<b>86</b>	<b>230</b>	<b>3,030</b>
Income tax provision	(626)	(61)	(60)	(625)
<b>Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest</b>	<b>2,260</b>	<b>25</b>	<b>170</b>	<b>2,405</b>
<b>Discontinued Operations:</b>				
Income from operations of discontinued business	21	16	2	7
Income tax provision	(8)	(6)	(1)	(3)
<b>Income from Discontinued Operations</b>	<b>13</b>	<b>10</b>	<b>1</b>	<b>4</b>
<b>Net Income</b>	<b>2,273</b>	<b>35</b>	<b>171</b>	<b>2,409</b>

The consolidated income statement of Monsanto included in the pro forma income statement for the three months ended March 31, 2018, covers the period from December 1, 2017, to February 28, 2018, and is derived from the unaudited interim condensed consolidated financial statements for the second quarter ended February 28, 2018, of Monsanto's fiscal year ended August 31, 2018. The period end dates of the financial information used

for Bayer and Monsanto in the pro forma statement of financial position as of March 31, 2018, (Bayer: March 31, 2018; Monsanto: February 28, 2018) and the respective pro forma income statement periods (Bayer: twelve-month period from January 1, 2017, until December 31, 2017, and the three-month period from January 1, 2018, until March 31, 2018; and Monsanto: twelve-month period from December 1, 2016, until November 30, 2017, and three-month period from December 1, 2017, until February 28, 2018) differ by one month and therefore this financial information is only comparable to a limited extent.

### **7.2.3 Adjustments to Monsanto's Historical Financial Information to Align Presentation and Accounting Policies**

#### **7.2.3.1 Overview**

Bayer's historical financial information presented was derived from its historical consolidated financial statements prepared in compliance with IFRS as issued by the IASB, London, and the Interpretations of the IFRS IC, as endorsed by the EU, whereas Monsanto's historical financial information presented was derived from its historical consolidated financial statements prepared in accordance with U.S. GAAP.

In order to ensure uniform presentation and accounting principles in the historical financial information of the Pro Forma Financial Information, the historical financial information of Monsanto, prepared in accordance with U.S. GAAP, was converted to the presentation and accounting principles as applied by Bayer in its consolidated financial statements for the fiscal year ended December 31, 2017, and its unaudited interim condensed consolidated financial statements for the three months ended March 31, 2018. The adjustments have been made based on the information available at the time of the preparation of the Pro Forma Financial Information.

The following adjustments have been made:

- Alignment of the presentation principles used by Monsanto in its historical financial information to the presentation principles used by Bayer in its historical financial information. The line items in Monsanto's historical financial information have been reclassified to the closest line items as presented in Bayer's historical financial information. Subsequently, certain presentation adjustments were made for line items not directly assignable to the line items in the historical financial information of Bayer.
- Monsanto's historical financial information, which is prepared in accordance with U.S. GAAP, was converted to Bayer's IFRS accounting principles.
- On December 22, 2017, the U.S. government enacted H.R. 1, originally known as the Tax Cuts and Jobs Act (the "**U.S. Tax Reform**"). The U.S. Tax Reform has a significant impact on the accounting for and reporting of income taxes in financial statements. The U.S. Tax Reform is effective from January 1, 2018, onwards. Due to the complexity and currently non-existent interpretations from the respective tax authorities, certain assumptions have to be made to estimate the impact of the U.S. Tax Reform on financial statements for the fiscal year ended December 31, 2017, and the period ending March 31, 2018. In addition, the U.S. Tax Reform may trigger re-organizations and as a result its actual impact on future financial statements may differ from what is currently expected. In light of these challenges, for purposes of the Pro Forma Financial Information, only effects arising from transition tax and the U.S. federal tax rate (reflecting a 14 percentage point decrease in the nominal tax rate) have been adjusted. Due to unavailability of data at this point in time, no adjustments for potential effects arising from base erosion and anti-abuse tax, provisions regarding global intangible low-taxed income, taxation of foreign-derived intangible income and potential other changes to the U.S. tax base have been taken into account for the Pro Forma Financial Information.

In accordance with IFRS, companies have to recognize the effects of the tax law changes in the period, in which they are enacted or substantively enacted. Consequently, the effects of the U.S. Tax Reform were already required to be recognized in Bayer's consolidated financial statements as of and for the fiscal year ended December 31, 2017. For purposes of the Pro Forma Financial Information, Monsanto's historical financial information for the twelve-month period ended November 30, 2017, and three-month period ended February 28, 2018, has been used. For the twelve-month period ended November 30, 2017, the U.S. Tax Reform had not yet been enacted

and as a result its effects are not reflected in Monsanto's historical financial information for the twelve-month period ended November 30, 2017.

In order to reflect the effects of the U.S. Tax Reform for the twelve-month period ended November 30, 2017, Bayer has made assumption-based adjustments to Monsanto's historical financial information. Specifically, Bayer used publicly and other available information of Monsanto (Monsanto's Annual Report on Form 10-K for the fiscal year ended August 31, 2017 Monsanto's Quarterly Report on Form 10-Q for the quarterly period ended November 30, 2017, as well as Monsanto's Quarterly Report on Form 10-Q for the quarterly period ended February 28, 2018). In its Form 10-Q for the quarterly period ended February 28, 2018 Monsanto described the tax impact of the transition tax with US\$168 million (discrete tax expense) and the impact of the U.S. tax rate change with a discrete tax benefit of US\$165 million. For pro forma purposes these effects are already shown in the twelve-month period ended November 30, 2017. The tax effect related to the rate change had to be adjusted since tax rate changes under U.S. GAAP are recognized only in profit or loss whereas under IFRS the tax impacts are recognized inside and outside profit or loss depending on the underlying item. The discrete tax benefit in the income statement for the twelve-month period ended November 30, 2017, was calculated at US\$220 million, the OCI impact was calculated with US\$73 million.

Consequently, the U.S. Tax Reform related tax journal entries for the three-month period ended February 28, 2018, which were already recorded in Monsanto's historical consolidated income statement, were reversed in total.

Since the known impacts of the U.S. Tax Reform are already reflected in the historical statement of financial position of Monsanto as of February 28, 2018 no adjustments of these historical figures are necessary.

After taking into account the drop in the federal tax rate described above, deferred taxes for the affected U.S. entities were calculated using tax rates ranging from 23.77% to 24.95% for the pro forma income statement for the twelve-month period ended November 30, 2017, and for the three-month period ended February 28, 2018.

- The adjusted financial information of Monsanto, which is prepared in US\$, was translated to €, the presentation currency of Bayer (refer to "7.2.3.6 Principles to Translate Monsanto's Financial Information Reported in US\$ to Bayer's Presentation Currency €").

#### 7.2.3.2 Presentation Adjustments to Monsanto's Consolidated Income Statement for the Twelve-Month Period Ended November 30, 2017

The following presentation adjustments have been made to Monsanto's income statement for the twelve-month period ended November 30, 2017, to align the presentation of Monsanto to Bayer's presentation principles:

	for the twelve-month period ended Nov. 30, 2017						
	Monsanto historical presentation	Reclassifications		Adjust- ments	Note	Monsanto adjusted to Bayer presentation	
U.S. GAAP	US\$ million	US\$ million	US\$ million	US\$ million		US\$ million	
<b>Net Sales</b>	<b>14,648</b>	<b>(14,648)</b>	<b>14,648</b>	<b>(224)</b>	a	<b>14,424</b>	<b>Net sales</b>
Cost of goods sold	(6,658)	6,658	(6,658)	514	b,d	(6,144)	Cost of goods sold
<b>Gross Profit</b>	<b>7,990</b>	<b>(7,990)</b>	<b>7,990</b>	<b>290</b>		<b>8,280</b>	<b>Gross profit</b>
<b>Operating Expenses:</b>	<b>-</b>						
Selling, general and administrative expenses	(3,048)	3,048	(3,048)	961	b,c,e	(2,087)	Selling expenses
Research and development expenses	(1,619)	1,619	(1,619)	47	b,c,d	(1,572)	Research and development expenses

for the twelve-month period ended  
Nov. 30, 2017

U.S. GAAP	Monsanto historical presentation	Reclassifications		Adjust- ments	Note	Monsanto adjusted to Bayer presentation	
	US\$ million	US\$ million	US\$ million	US\$ million		US\$ million	
Restructuring charges	(4)	4		(1,397)	b,c,e,i	(1,397)	General administration expenses
Pending Bayer transaction related costs	(112)	112					
<b>Total Operating Expenses</b>	<b>(4,783)</b>	<b>4,783</b>		<b>834</b>	a,b,c,f	<b>834</b>	Other operating income
<b>Income from Operations</b>	<b>3,207</b>	<b>(3,207)</b>	(116)	(505)	a,b,c,e,i	(621)	Other operating expenses
Interest expense	(440)	440	<b>3,207</b>	<b>230</b>		<b>3,437</b>	<b>EBIT</b>
Interest income	73	(73)					
Other income (expense), net	190	(190)		(17)	g	(17)	Equity-method income (loss)
Income from Continuing Operations Before Income Taxes	<b>3,030</b>	<b>(3,030)</b>	73	982	h	1,055	Financial income
Income tax provision	(625)	625	(250)	(1,195)	f,g,h	(1,445)	Financial expenses
<b>Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest</b>	<b>2,405</b>	<b>(2,405)</b>	<b>(177)</b>	<b>(230)</b>		<b>(407)</b>	<b>Financial result</b>
<b>Discontinued Operations:</b>	–						
Income from operations of discontinued business	7	(7)	<b>3,030</b>	–		<b>3,030</b>	<b>Income before income taxes</b>
Income tax provision	(3)	3					
<b>Income from Discontinued Operations</b>	<b>4</b>	<b>(4)</b>	(625)	–		(625)	Income taxes
<b>Net Income</b>	<b>2,409</b>	<b>(2,409)</b>					
			<b>2,405</b>	–		<b>2,405</b>	<b>Income from continuing operations after income taxes</b>
			<b>4</b>	–		<b>4</b>	<b>Income from discontinued operations after income taxes</b>
			<b>2,409</b>	–		<b>2,409</b>	<b>Income after income taxes</b>

In a first step, the line items as presented in Monsanto's consolidated income statement have been allocated to the closest line items as presented in Bayer's consolidated income statement (column

“Reclassifications”), considering the different presentation structures in U.S. GAAP and IFRS. The following reclassifications for line items not directly assignable have been made:

- 1) Selling, general and administrative expenses (US\$3,048 million) have been allocated to Selling expenses.
- 2) Restructuring charges (US\$4 million) have been allocated to Other operating expenses.
- 3) Pending Bayer transaction related costs (US\$112 million) have been allocated to Other operating expenses.
- 4) Interest expense (US\$440 million) has been allocated to Financial expenses.
- 5) Interest income (US\$73 million) has been allocated to Financial income.
- 6) Other income (expense), net (US\$190 million) has been allocated to Financial expenses.
- 7) Income tax provision (US\$625 million) has been allocated to Income taxes.
- 8) Income from operations of discontinued business (US\$7 million) and Income tax provision (related to Discontinued Operations) (US\$3 million) have been allocated to Income from discontinued operations after income taxes.

In a second step, the following reclassification adjustments (column “Adjustments”) have been made to align to a uniform presentation in accordance with IFRS as applied by Bayer:

- a) Reclassification from Net sales to Other operating income (income of US\$356 million results in a decrease of Net sales) as well as Net sales to Other operating expenses (expenses of US\$356 million result in an increase of Net sales) as a result of grossing up barter transactions. Furthermore, reclassification of certain hedging losses from Net sales to Other operating expenses (expenses of US\$3 million result in an increase of Net sales). Furthermore, reclassification of certain licensing income from Net sales (US\$227 million) to Other operating income.
- b) Reclassification of shipping, freight and other miscellaneous costs from Cost of goods sold (US\$557 million) to Selling expenses. Reclassification of certain hedging losses, and net losses resulting from the disposal of tangible assets from Cost of goods sold (US\$22 million) to Other operating expenses. Reclassification of certain hedging results from Cost of goods sold (US\$18 million) to Other operating income. Certain amortization expenses classified as Research and development expenses (US\$44 million) have been reclassified to Cost of goods sold. Reclassification of expenses related to other provisions from General administration expenses (US\$8 million) to Cost of goods sold.
- c) Components of Selling expenses (US\$1,430 million) have been reclassified as Bayer presents General administration expenses as a separate line item. Reclassification of provisions for doubtful accounts from Selling expenses (US\$92 million) to Other operating expenses. Components of Selling expenses (US\$13 million) have been reclassified as certain amortization expenses are presented at Bayer as Research and development expenses. Certain amortization expenses and other miscellaneous costs classified as Research and development expenses (US\$21 million) have been reclassified to Selling expenses. Reclassification of net gains resulting from the disposal of tangible assets from Selling expenses (US\$3 million) to Other operating income.
- d) Restructuring expenses have been reclassified from Cost of goods sold (US\$5 million) to Research and development expenses.
- e) An amount of US\$11 million relating to restructuring expenses has been reclassified from Other operating expenses (US\$4 million) and Selling expenses (US\$7 million) to General administration expenses.
- f) Reclassification of disposal gains and other miscellaneous income from Financial expenses (US\$230 million) to Other operating income.
- g) Separate presentation of results from equity-method investments within Equity-method income (loss) (US\$17 million) from Financial expenses.
- h) Reclassification of certain hedging and currency gains from Financial expenses (US\$982 million) to Financial income.
- i) An amount of US\$36 million relating to donations has been reclassified from General administrative expenses to Other operating expenses.

7.2.3.3 Presentation Adjustments to Monsanto's Income Statement for the Three-Month Period Ended February 28, 2018

The following presentation adjustments have been made in the income statement for the three-month period ended February 28, 2018, to align the presentation of Monsanto to Bayer's presentation:

	for the three-month period ended February 28, 2018					Monsanto adjusted to Bayer presentation	
	Monsanto historical presentation	Reclassifications		Adjustments	Note		
U.S. GAAP	US\$ million	US\$ million	US\$ million	US\$ million		US\$ million	
<b>Net Sales</b>	<b>5,019</b>	<b>(5,019)</b>	<b>5,019</b>	<b>(1)</b>	a	<b>5,018</b>	<b>Net sales</b>
Cost of goods sold	(2,053)	2,053	(2,053)	165	b,e	(1,888)	Cost of goods sold
<b>Gross Profit</b>	<b>2,966</b>	<b>(2,966)</b>	<b>2,966</b>	<b>164</b>		<b>3,130</b>	<b>Gross profit</b>
<b>Operating Expenses:</b>	–						
Selling, general and administrative expenses	(651)	651	(651)	140	b,c,d,e	(511)	Selling expenses
Research and development expenses	(395)	395	(395)	9	b,c	(386)	Research and development expenses
Restructuring charges	1	(1)		(312)	c,e,i	(312)	General administration expenses
Pending Bayer transaction related costs	(25)	25					
<b>Total Operating Expenses</b>	<b>(1,070)</b>	<b>1,070</b>		<b>120</b>	a,b,f	<b>120</b>	Other operating income
<b>Income from Operations</b>	<b>1,896</b>	<b>(1,896)</b>	<b>(24)</b>	<b>(53)</b>	a,b,c,d,i	<b>(77)</b>	Other operating expenses
Interest expense	(105)	105	<b>1,896</b>	<b>68</b>		<b>1,964</b>	<b>EBIT</b>
Interest income	24	(24)					
Other income (expense), net	24	(24)		(5)	g	(5)	Equity-method income (loss)
Income from Continuing Operations Before Income Taxes	<b>1,839</b>	<b>(1,839)</b>	24	231	h	255	Financial income
Income tax provision	(381)	381	(81)	(294)	f,g,h	(375)	Financial expenses
<b>Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest</b>	<b>1,458</b>	<b>(1,458)</b>	<b>(57)</b>	<b>(68)</b>		<b>(125)</b>	<b>Financial result</b>
<b>Discontinued Operations:</b>	–						
Income from operations of discontinued business	2	(2)	<b>1,839</b>	–		<b>1,839</b>	<b>Income before income taxes</b>
Income tax provision	–	–					

for the three-month period ended February 28, 2018							
U.S. GAAP	Monsanto historical presentation	Reclassifications		Adjustments	Note	Monsanto adjusted to Bayer presentation	
	US\$ million	US\$ million	US\$ million	US\$ million		US\$ million	
<b>Income from Discontinued Operations</b>	<b>2</b>	<b>(2)</b>	(381)	–		(381)	Income taxes
<b>Net Income</b>	<b>1,460</b>	<b>(1,460)</b>					
			<b>1,458</b>	–		<b>1,458</b>	<b>Income from continuing operations after income taxes</b>
			<b>2</b>	–		<b>2</b>	<b>Income from discontinued operations after income taxes</b>
			<b>1,460</b>	–		<b>1,460</b>	<b>Income after income taxes</b>

In a first step, the line items as presented in Monsanto's consolidated income statement have been allocated to the closest line items as presented in Bayer's consolidated income statement (column "Reclassifications"), considering the different presentation structures in U.S. GAAP and IFRS. The following reclassifications for line items not directly assignable have been made:

- 1) Selling, general and administrative expenses (US\$651 million) have been allocated to Selling expenses.
- 2) Restructuring charges (US\$1 million) have been allocated to Other operating expenses.
- 3) Pending Bayer transaction related costs (US\$25 million) have been allocated to Other operating expenses.
- 4) Interest expense (US\$105 million) has been allocated to Financial expenses.
- 5) Interest income (US\$24 million) has been allocated to Financial income.
- 6) Other income (expense), net (US\$24 million) has been allocated to Financial expenses.
- 7) Income tax provision (US\$381 million) has been allocated to Income taxes.
- 8) Income from operations of discontinued business (US\$2 million) has been allocated to Income from discontinued operations after income taxes.

In a second step, the following reclassification adjustments (column "Adjustments") have been made to align to a uniform presentation in accordance with IFRS as applied by Bayer:

- a) Reclassification from Net sales to Other operating income (income of US\$49 million results in a decrease of Net sales) as well as Net sales to Other operating expenses (expenses of US\$48 million result in an increase of Net sales) as a result of grossing up barter transactions. Furthermore, reclassification of certain hedging losses from Net sales to Other operating expenses (expenses of US\$1 million result in an increase of Net sales).
- b) Reclassification of shipping, freight and other miscellaneous costs from Cost of goods sold (US\$169 million) to Selling expenses. Reclassification of certain hedging losses, and net losses resulting from the disposal of tangible assets from Cost of goods sold (US\$4 million) to Other operating expenses. Reclassification of certain hedging results from Cost of goods sold (US\$1 million) to Other operating income. Certain amortization expenses classified as Research and development expenses (US\$9 million) have been reclassified to Cost of goods sold.
- c) Components of Selling expenses (US\$314 million) have been reclassified as Bayer presents General administration expenses as a separate line item. Reclassification of a gain from provisions for doubtful accounts from Selling expenses (US\$7 million) to Other operating expenses. Components of Selling expenses (US\$4 million) have been reclassified as certain amortization expenses are presented at



Bayer as Research and development expenses. Certain amortization expenses and other miscellaneous costs classified as Research and development expenses (US\$4 million) have been reclassified to Selling expenses.

- d) Restructuring expenses have been reclassified from Selling Expenses (US\$2 million) to Other operating expenses.
- e) An amount of US\$4 million relating to restructuring expenses has been reclassified from Cost of goods sold (\$3 million) and Selling expenses (US\$1 million) to General administration expenses.
- f) Reclassification of disposal gains and other miscellaneous income from Financial expenses (US\$69 million) to Other operating income.
- g) Separate presentation of results from equity-method investments within Equity-method income (loss) (US\$5 million) from Financial expenses.
- h) Reclassification of certain hedging and currency gains from Financial expenses (US\$231 million) to Financial income.
- i) An amount of US\$6 million relating to donations has been reclassified from General administrative expenses to Other operating expenses.

7.2.3.4 Presentation Adjustments to Monsanto's Consolidated Statement of Financial Position as of February 28, 2018

The following presentation adjustments have been made in the statement of financial position as of February 28, 2018, to align the presentation of Monsanto to Bayer's presentation:

U.S. GAAP	Monsanto historical presentation February 28, 2018	Reclassifications		Adjustments	Note	Monsanto adjusted to Bayer presentation February 28, 2018	
	US\$ million	US\$ million	US\$ million	US\$ million		US\$ million	
<b>Current assets</b>	<b>10,056</b>	<b>(10,056)</b>	<b>12,573</b>	<b>44</b>		<b>12,616</b>	<b>Noncurrent assets</b>
Cash and cash equivalents	2,409	(2,409)	4,100	–		4,100	Goodwill
Trade receivables, net	2,520	(2,520)	977	387	a,m	1,364	Other intangible assets
Miscellaneous receivables	772	(772)	6,109	(277)	a,b	5,832	Property, plant and equipment
Inventory, net	4,015	(4,015)	–	163	c	163	Investments accounted for using the equity method
Assets held for sale	30	(30)	–	96	d,m	96	Other financial assets
Other current assets	310	(310)	892	(369)	b,c,d	523	Other receivables
			495	44	j	538	Deferred taxes
<b>Noncurrent assets</b>	<b>12,630</b>	<b>(12,630)</b>	<b>10,114</b>	<b>1,159</b>		<b>11,273</b>	<b>Current assets</b>
Property, Plant and Equipment, Net	6,109	(6,109)	4,015	–		4,015	Inventories
Goodwill	4,100	(4,100)	2,577	1,207	e,n	3,784	Trade accounts receivable
Other Intangible Assets, Net	977	(977)	310	(261)	f,j	49	Other financial assets
Deferred Tax Assets	495	(495)	772	41	f,g,n	814	Other receivables
Long-Term Receivables, Net	58	(58)	–	172	g	172	Claims for income tax refunds
Other Assets	892	(892)	2,409	–		2,409	Cash and cash equivalents
			30	–		30	Assets held for sale
<b>Total assets</b>	<b>22,687</b>	<b>(22,687)</b>	<b>22,687</b>	<b>1,202</b>		<b>23,889</b>	<b>Total assets</b>
<b>Current liabilities</b>	<b>7,149</b>	<b>(7,149)</b>	<b>7,766</b>	<b>–</b>		<b>7,766</b>	<b>Equity</b>
Short-term debt, including current portion of long-term debt	1,212	(1,212)	(15,047)	–		(15,047)	Capital stock of Bayer AG
Accounts payable	875	(875)	11,956	–		11,956	Capital reserves of Bayer AG
Income taxes payable	200	(200)	10,845	–		10,845	Other reserves
Accrued compensation and benefits	261	(261)					

U.S. GAAP	Monsanto historical presentation February 28, 2018	Reclassifications		Adjustments	Note	Monsanto adjusted to Bayer presentation February 28, 2018	
	US\$ million	US\$ million	US\$ million	US\$ million		US\$ million	
Accrued marketing programs	1,754	(1,754)	7,754	–		7,754	<b>Equity attributable to Bayer AG stockholders</b>
Deferred revenues	1,686	(1,686)	12	–		12	Equity attributable to noncontrolling interest
Grower production accruals	189	(189)				–	
Dividends payable	239	(239)	7,772	37		7,810	<b>Noncurrent liabilities</b>
Customer payable	13	(13)	303	121	h	424	Provisions for pensions and other post-employment benefits
Restructuring reserves	18	(18)	213	121	i	334	Other provisions
Miscellaneous short-term accruals	702	(702)	–			–	Refund liabilities
			114			114	Contract liabilities
<b>Noncurrent liabilities</b>	<b>7,772</b>	<b>(7,772)</b>	6,635	–		6,635	Financial liabilities
Long-Term Debt	6,635	(6,635)		65	j	65	Income tax liabilities
Postretirement Liabilities	303	(303)	368	(270)	h,i,j	98	Other liabilities
Long-Term Deferred Revenue	114	(114)	139	–		139	Deferred taxes
Noncurrent Deferred Tax Liabilities	139	(139)				–	
Long-Term Portion of Environmental and Litigation Liabilities	213	(213)	7,149	1,165		8,314	<b>Current liabilities</b>
Other Liabilities	368	(368)	1,961	(1,478)	k,o	483	Other provisions
			–	2,785	e,o	2,785	Refund liabilities
			1,686	29	e	1,715	Contract liabilities
			1,212	–		1,212	Financial liabilities
			888	103	l	991	Trade accounts payable
			200	3	j	203	Income tax liabilities
			1,201	(277)	h,j,k,l	924	Other liabilities
				–		–	Liabilities directly related to assets held for sale
<b>Shareowners Equity</b>							
Common stock	6	(6)					

U.S. GAAP	Monsanto historical presentation February 28, 2018	Reclassifications		Adjust- ments	Note	Monsanto adjusted to Bayer presentation February 28, 2018
	US\$ million	US\$ million	US\$ million	US\$ million		US\$ million
Treasury stock	(15,053)	15,053				
Additional contributed capital	11,956	(11,956)				
Retained earnings	13,290	(13,290)		-		-
Accumulated other comprehensive loss	(2,445)	2,445		-		-
<b>Total Monsanto Company Shareowners Equity</b>	<b>7,754</b>	<b>(7,754)</b>		<b>-</b>		<b>-</b>
Noncontrolling Interest	12	(12)		-		-
<b>Total Shareowners Equity</b>	<b>7,766</b>	<b>(7,766)</b>		<b>-</b>		<b>-</b>
<b>Total Liabilities and Shareowners Equity</b>	<b>22,687</b>	<b>(22,687)</b>	<b>22,687</b>	<b>1,202</b>		<b>23,889</b>
						<b>Total equity and liabilities</b>

In a first step, the line items as presented in Monsanto's consolidated statement of financial position have been allocated to the closest line items as presented in Bayer's consolidated statement of financial position (column "Reclassifications"), considering the different presentation structures in U.S. GAAP and IFRS. The following reclassifications for line items not directly assignable have been made:

- 1) Other current assets (US\$310 million) have been allocated to Other financial assets current.
- 2) Accrued marketing programs (US\$1,754 million), Grower production accruals (US\$189 million) and Restructuring reserves (US\$18 million) have been allocated to Other provisions current.
- 3) The line items Accounts payable (US\$875 million) and Customer payable (US\$13 million) have been allocated to Trade accounts payable.
- 4) Accrued compensation and benefits (US\$261 million), Dividends payable (US\$239 million) and Miscellaneous short-term accruals (US\$702 million) have been allocated to Other liabilities current.
- 5) Deferred Revenues (US\$1,686 million) have been allocated to Contract liabilities current.
- 6) The Long-term Portion of Environmental and Litigation Liabilities (US\$213 million) have been allocated to Other provisions noncurrent.
- 7) Other Liabilities (US\$368 million) have been allocated to Other liabilities noncurrent.
- 8) Long-term Deferred Revenue (US\$114 million) have been allocated to Contract liabilities noncurrent.
- 9) The Long-term Receivables, Net (US\$58 million) have been allocated to Trade account receivables.
- 10) The Other Assets (US\$892 million) have been allocated to Other receivables noncurrent.
- 11) Common stock (US\$6 million) and Treasury stock (minus US\$15,053 million) have been allocated to Capital stock of Bayer AG.
- 12) Retained earnings (US\$13,290 million) and Accumulated other comprehensive loss (US\$2,445 million) have been allocated to Other reserves.

In a second step, the following reclassification adjustments (column "Adjustments") have been made to ensure a uniform presentation in accordance with IFRS as applied by Bayer:

- a) Reclassification of personal computer related software (US\$336 million) and capitalized permit fees from mining activities (US\$17 million) from Property, plant and equipment to Other intangible assets (US\$353 million).
- b) Reclassification of tangible assets (US\$76 million) from Other receivables noncurrent to Property, plant and equipment.
- c) Reclassification of Investments accounted for using the equity method in the amount of US\$163 million from Other receivables noncurrent to Investments accounted for using the equity method.
- d) Reclassification of Other miscellaneous investments and long term marketable equity securities in the amount of US\$130 million from Other receivables noncurrent to Other financial assets noncurrent.
- e) Reclassification of anticipated rebates and bonuses granted to customers as well as other customer related refunds from Trade accounts receivable to Refund liabilities current of US\$1,173 million as well as to Contract liabilities current of US\$29 million.
- f) Reclassification of prepaid expenses from Other financial assets current to Other receivables current of US\$218 million.
- g) Reclassification of tax related items from Other receivables current to Claims for income tax refunds of US\$172 million.
- h) Reclassification of pension and post-employment related liabilities from Other liabilities current of US\$37 million to Provisions for pensions and other post-employment benefits as well as reclassification from Other liabilities noncurrent of US\$84 million to Provisions for pensions and other post-employment benefits.
- i) Reclassification of liabilities for e.g., incentives, environmental and legal obligations from Other liabilities noncurrent of US\$121 million to Other provisions noncurrent.
- j) Reclassification of the noncurrent portion of income tax liabilities (US\$65 million) from Other liabilities noncurrent to Income tax liabilities noncurrent as well as reclassification of the current portion of income tax liabilities (US\$3 million) from Other liabilities current to Income tax liabilities current. Furthermore, deferred taxes have been reclassified from Other financial assets current to Deferred taxes (US\$44 million).
- k) Reclassifications of liabilities for e.g., incentives, environmental and legal obligations from Other liabilities current of US\$133 million to Other provisions current.
- l) Reclassification of other miscellaneous accruals from Other liabilities current to Trade accounts payable of US\$103 million.
- m) Reclassification of options to acquire intellectual property from Other financial assets noncurrent to Other intangible assets of US\$34 million.
- n) Reclassification of Miscellaneous Receivables presented as Other receivables current to Trade accounts receivables of US\$5 million.
- o) Reclassification of customer incentive discounts from Other provisions current to Refund liabilities current of US\$1,611 million.

**7.2.3.5 Adjustments to Monsanto's Consolidated Income Statements for the Twelve-Month Period Ended November 30, 2017, and for the Three-Month Period Ended February 28, 2018, as well as for the Consolidated Statement of Financial Position as of February 28, 2018, to Convert the Consolidated Income Statements and the Consolidated Statement of Financial Position to IFRS and Translate it to Bayer's Presentation Currency €<sup>3</sup>**

The following U.S. GAAP to IFRS adjustments have been made in the income statement for the twelve-month period ended November 30, 2017, to present Monsanto's figures in accordance with IFRS as applied by Bayer:

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<sup>3</sup> For the foreign currency translation principles applied refer to "7.2.3.6 Principles to Translate Monsanto's Financial Information Reported in US\$ to Bayer's Presentation Currency €."

	for the twelve-month period ended November 30, 2017				
	Monsanto adjusted to Bayer presentation	IFRS Adjustments	Note	Monsanto converted to IFRS	Monsanto converted to IFRS
U.S. GAAP (after reclassification)	US\$ million	US\$ million		US\$ million	€ million
<b>Net sales</b>	<b>14,424</b>	<b>(185)</b>	b,h	<b>14,239</b>	<b>12,641</b>
Cost of goods sold	(6,144)	(16)	a,c,d,k	(6,160)	(5,469)
<b>Gross profit</b>	<b>8,280</b>	<b>(201)</b>		<b>8,079</b>	<b>7,172</b>
Selling expenses	(2,087)	(7)	c	(2,094)	(1,859)
Research and development expenses	(1,572)	(15)	c,d,f	(1,587)	(1,409)
General administration expenses	(1,397)	117	c,d,e	(1,280)	(1,136)
Other operating income	834	33	p	867	770
Other operating expenses	(621)	(125)	e	(746)	(662)
<b>EBIT</b>	<b>3,437</b>	<b>(198)</b>		<b>3,239</b>	<b>2,875</b>
Equity-method income (loss)	(17)	–		(17)	(15)
Financial income	1,055	48	b,i,p	1,103	979
Financial expenses	(1,445)	11	c,f,j	(1,434)	(1,273)
<b>Financial result</b>	<b>(407)</b>	<b>59</b>		<b>(348)</b>	<b>(309)</b>
<b>Income before income taxes</b>	<b>3,030</b>	<b>(139)</b>		<b>2,891</b>	<b>2,567</b>
Income taxes	(625)	17	a,b,c,d,f,h,i,k, n,p,q	(608)	(540)
<b>Income from continuing operations after income taxes</b>	<b>2,405</b>	<b>(122)</b>		<b>2,283</b>	<b>2,027</b>
<b>Income from discontinued operations after income taxes</b>	<b>4</b>	<b>(4)</b>	h	<b>–</b>	<b>–</b>
<b>Income after income taxes</b>	<b>2,409</b>	<b>(126)</b>		<b>2,283</b>	<b>2,027</b>
of which attributable to noncontrolling interest	9	5	d	14	12
<b>of which attributable to Bayer AG stockholders (net income)</b>	<b>2,400</b>	<b>(131)</b>		<b>2,269</b>	<b>2,014</b>

The adjustments made to reconcile Monsanto's financial information from U.S. GAAP to IFRS (column "IFRS Adjustments") are described below the consolidated statement of financial position as of February 28, 2018.

The following U.S. GAAP to IFRS adjustments have been made in the income statement for the three-month period ended February 28, 2018, to present Monsanto's figures in accordance with IFRS as applied by Bayer:

for the three-month period ended February 28, 2018					
U.S. GAAP (after reclassification)	Monsanto adjusted to Bayer presentation	IFRS Adjustments	Note	Monsanto converted to IFRS	Monsanto converted to IFRS
	US\$ million	US\$ million		US\$ million	€ million
<b>Net sales</b>	<b>5,018</b>	<b>(235)</b>	b,h,r	<b>4,783</b>	<b>3,895</b>
Cost of goods sold	(1,888)	11	a,c,d,r	(1,877)	(1,528)
<b>Gross profit</b>	<b>3,130</b>	<b>(224)</b>		<b>2,906</b>	<b>2,366</b>
Selling expenses	(511)	(2)	c	(513)	(418)
Research and development expenses	(386)	(6)	c, d, f	(392)	(319)
General administration expenses	(312)	29	c, d, e	(283)	(230)
Other operating income	120	–		120	98
Other operating expenses	(77)	(32)	e	(109)	(89)
<b>EBIT</b>	<b>1,964</b>	<b>(235)</b>		<b>1,729</b>	<b>1,408</b>
Equity-method income (loss)	(5)	(1)	d	(6)	(5)
Financial income	255	10	b, g, p	265	216
Financial expenses	(375)	(6)	c, g	(381)	(310)
<b>Financial result</b>	<b>(125)</b>	<b>3</b>		<b>(122)</b>	<b>(99)</b>
<b>Income before income taxes</b>	<b>1,839</b>	<b>(232)</b>		<b>1,607</b>	<b>1,309</b>
Income taxes	(381)	69	a,b,c,g,n,q,r	(312)	(254)
<b>Income from continuing operations after income taxes</b>	<b>1,458</b>	<b>(163)</b>		<b>1,295</b>	<b>1,054</b>
<b>Income from discontinued operations after income taxes</b>	<b>2</b>	<b>(2)</b>	h	–	–
<b>Income after income taxes</b>	<b>1,460</b>	<b>(165)</b>		<b>1,295</b>	<b>1,054</b>
of which attributable to noncontrolling interest	1	3	d	4	3
<b>of which attributable to Bayer AG stockholders (net income)</b>	<b>1,459</b>	<b>(168)</b>		<b>1,291</b>	<b>1,051</b>

The adjustments made to reconcile Monsanto's financial information from U.S. GAAP to IFRS (column "IFRS Adjustments") are described below the statement of financial position as of February 28, 2018.

The following U.S. GAAP to IFRS adjustments have been made in the consolidated statement of financial position as of February 28, 2018, to present Monsanto's figures in accordance with IFRS as applied by Bayer:

U.S. GAAP (after reclassification)	Monsanto adjusted to Bayer presentation February 28, 2018	IFRS Adjustments	Note	Monsanto converted to IFRS February 28, 2018	Monsanto converted to IFRS February 28, 2018
	US\$ million	US\$ million		US\$ million	€ million
<b>Noncurrent assets</b>					
Goodwill	4,100	–		4,100	3,329
Other intangible assets	1,364	121	o	1,485	1,205
Property, plant and equipment	5,832	64	d,f,l	5,896	4,786
Investments accounted for using the equity method	163	(61)	d	102	83
Other financial assets	96	775	b,g,i,p	871	707
Other receivables	523	(146)	c,n,o	377	306
Deferred taxes	538	123	c,d,e,f,k,l,m,r	661	537
	<b>12,616</b>	<b>876</b>		<b>13,492</b>	<b>10,953</b>
<b>Current assets</b>					
Inventories	4,015	160	a,d	4,175	3,389
Trade accounts receivable	3,784	364	b,m,r	4,148	3,368
Other financial assets	49	–		49	40
Other receivables	814	(38)	n,o,r	776	630
Claims for income tax refunds	172	–		172	139
Cash and cash equivalents	2,409	2	d	2,411	1,957
Assets held for sale	30	–		30	25
	<b>11,273</b>	<b>488</b>		<b>11,761</b>	<b>9,547</b>
<b>Total assets</b>	<b>23,889</b>	<b>1,364</b>		<b>25,253</b>	<b>20,500</b>
<b>Equity</b>					
Capital stock of Bayer AG	(15,047)	–		(15,047)	(12,215)
Capital reserves of Bayer AG	11,956	–		11,956	9,706
Other reserves	10,845	825	a,b,c,d,e,f,g,i,k,n,p,r	11,670	9,473
<b>Equity attributable to Bayer AG stockholders</b>	<b>7,754</b>	<b>825</b>		<b>8,579</b>	<b>6,964</b>
Equity attributable to noncontrolling interest	12	9	d	21	17
	<b>7,766</b>	<b>834</b>		<b>8,600</b>	<b>6,982</b>
<b>Noncurrent liabilities</b>					
Provisions for pensions and other post-employment benefits	424	(40)	c	384	312
Other provisions	334	26	k,l	360	292
Refund liabilities	–	–		–	–
Contract liabilities	114	(33)	r	81	66



U.S. GAAP (after reclassification)	Monsanto adjusted to Bayer presentation February 28, 2018	IFRS Adjustments	Note	Monsanto converted to IFRS February 28, 2018	Monsanto converted to IFRS February 28, 2018
	US\$ million	US\$ million		US\$ million	€ million
Financial liabilities	6,635	33	f	6,668	5,413
Income tax liabilities	65	–		65	53
Other liabilities	98	–		98	79
Deferred taxes (liabilities)	139	394	a,b,c,d,f,g,i,l,m,p,r	533	433
	<b>7,810</b>	<b>380</b>		<b>8,190</b>	<b>6,648</b>
<b>Current liabilities</b>					
Other provisions	483	125	e	608	494
Refund liabilities	2,785	–		2,785	2,261
Contract liabilities	1,715	(73)	b,r	1,642	1,333
Financial liabilities	1,212	107	f,m	1,319	1,071
Trade accounts payable	991	(13)	d	978	794
Income tax liabilities	203	–		203	165
Other liabilities	924	4	d	928	753
Liabilities directly related to assets held for sale	–	–		–	–
	<b>8,314</b>	<b>150</b>		<b>8,464</b>	<b>6,871</b>
<b>Total equity and liabilities</b>	<b>23,889</b>	<b>1,364</b>		<b>25,253</b>	<b>20,500</b>

The adjustments made to reconcile Monsanto's financial information from U.S. GAAP to IFRS (column "IFRS Adjustments") for the twelve-month period ended November 30, 2017, and the three-month period ended February 28, 2018, as well as for the consolidated statement of financial position as of February 28, 2018, are described below. Bayer adopted IFRS 9 and IFRS 15 effective from January 1, 2018. Therefore, adjustments have also been made to Monsanto's financial information from December 1, 2017, onwards to account for the new standards consistently with the application by Bayer using the modified retrospective approach. Unless stated otherwise, the tax rates applied for the calculation of the deferred taxes of the adjustments described below are the tax rates as described in "7.2.3.1 Overview".

- a) Monsanto has measured certain inventories using the last in, first out ("LIFO") cost methodology. The LIFO method is not permitted under IFRS and therefore an increase in Cost of goods sold of US\$5 million in the income statement for the twelve-month period ended November 30, 2017, and a decrease in Cost of goods sold of US\$6 million in the income statement for the three-month period ended February 28, 2018, have been recognized, respectively. The related deferred tax impact has been calculated by applying a tax rate of 24.95%. The deferred tax income amounted to US\$1 million for the twelve-month period ended November 30, 2017, and deferred tax expenses amounted to US\$1 million for the three-month period ended February 28, 2018. The adjustment in the statement of financial position as of February 28, 2018, results in an increase of Inventories and Other reserves in the amount of US\$158 million. The related deferred tax impact resulted in an increase of deferred tax liabilities and consequently in a decrease of Other reserves in the amount of US\$39 million.
- b) Monsanto has recognized revenues for certain licensing arrangements over time, whereas in accordance with IFRS revenues for those licenses would have been recognized at a point in time. Accordingly, Net sales recognized in Monsanto's income statement in the amount of US\$217 million for the twelve-month period ended November 30, 2017, and of US\$153 million for the three-month period ended February 28, 2018, have been eliminated as they would have already been recognized in a prior period under IFRS. Furthermore, under IFRS Monsanto would have had to recognize certain royalty revenues from a licensing arrangement earlier than under U.S. GAAP. This results in an increase of Monsanto's Net sales in the amount of US\$25 million for the twelve-month period ended

November 30, 2017, and a decrease of US\$27 million for the three-month period ended February 28, 2018. At the point in time when revenues under IFRS are recognized, a financial receivable in the amount of the discounted contractually agreed future payments has been recognized. The interest income resulting from compounding the related Financial receivables noncurrent by applying the effective interest rate method has increased Financial income by US\$34 million in the twelve-month period ended November 30, 2017, and by US\$8 million in the three-month period ended February 28, 2018. These alignments resulted in deferred tax income in the amount of US\$39 million for the twelve-month period ended November 30, 2017, and of US\$42 million for the three-month period ended February 28, 2018. Tax rates of 24.95% and 34.0% for the affected entities have been applied to calculate the respective tax effects. Due to the point in time revenue recognition in accordance with IFRS, a financial receivable of US\$947 million has been recognized in the statement of financial position as of February 28, 2018. Thereof US\$695 million has been classified as Other financial assets noncurrent and US\$252 million has been classified as Trade accounts receivables. Furthermore, Contract liabilities current decreased by US\$35 million. These adjustments recognized resulted in an increase of Other reserves in the amount of US\$982 million. These adjustments resulted in an increase of the deferred tax liabilities by US\$260 million and in a decrease of Other reserves in the amount of US\$260 million.

- c) In order to align the different measurement and presentation principles for postretirement benefits, the obligations for significant plans in the U.S., and outside the U.S. have been remeasured using actuarial assumptions (e.g., interest rates and mortality tables) applied by Bayer in these countries for comparable obligations as of the respective dates and accounted for in accordance with IFRS. As a result the expenses for the twelve-month period ended November 30, 2017, have increased by US\$51 million (Cost of goods sold: increase by US\$16 million; Selling expenses: increase by US\$7 million; Research and development expenses: increase by US\$14 million; General administration expenses: increase by US\$6 million; Financial expenses: increase by US\$8 million) and the expenses for the three-month period ended February 28, 2018, increased by US\$15 million (Cost of goods sold: increase by US\$5 million; Selling expenses: increase by US\$2 million; Research and development expenses: increase by US\$4 million; General administration expenses: increase by US\$2 million; Financial expenses: increase by US\$2 million). The deferred taxes on these adjustments have been calculated using the tax rates of each affected legal entity for fiscal year 2017. The tax rates used are between 9.2% and 34.0% (outside the U.S.) and 24.95% (in the U.S.). The related deferred tax income amounted to US\$13 million for the twelve-month period ended November 30, 2017, and to US\$4 million for the three-month period ended February 28, 2018. In the statement of financial position as of February 28, 2018, Provisions for pensions and other postemployment benefits decreased by US\$40 million and Other receivables noncurrent decreased by US\$8 million (thereof US\$7 million asset ceiling), while the Other reserves increased by US\$32 million. Deferred tax assets of US\$14 million as well as deferred tax liabilities of US\$9 million have decreased. As a result of the tax related adjustments, Other reserves decreased by US\$5 million as of February 28, 2018.
- d) Effective June 15, 2016, Monsanto signed agreements to contribute to a newly-formed joint venture certain intellectual property rights related to Monsanto's sorghum business. These agreements created a global joint venture in sorghum breeding. Monsanto has a 40% membership interest in this joint venture, which has been accounted for as an equity-method investment. According to IFRS, this newly formed entity does not meet the definition of a joint venture but is controlled by Monsanto and accordingly accounted for as a consolidated subsidiary. As a consequence, the Equity method income (loss) has been eliminated and consolidation adjustments for inter-company transactions have been made. This resulted in an increase of Income after income taxes by US\$8 million (Cost of goods sold decrease by US\$16 million; Research development expenses: increase by US\$5 million; General administration expenses: increase by US\$2 million; Income tax expenses: increase by US\$1 million) for the twelve-month period ended November 30, 2017. For the three-month period ended February 28, 2018, the Income after income taxes increased by US\$3 million (Cost of goods sold: decrease by US\$8 million; Research development expenses: increase by US\$3 million; General administration expenses: increase by US\$1 million; Equity method income: decreased by US\$1 million). An income after income taxes of US\$5 million of the joint venture for the twelve-month period ended November 30, 2017, and an income after income taxes of US\$3 million for the three-month period ended February 28, 2018, are attributable to noncontrolling interest. In the statement of

financial position as of February 28, 2018, the carrying amount related to the joint venture presented in Investments accounted for using the equity method in the amount of US\$61 million has been eliminated. Furthermore, Property, plant and equipment increased by US\$2 million, Inventories increased by US\$2 million, Cash and cash equivalents increased by US\$2 million, Trade accounts payable decreased by US\$13 million and Other liabilities current increased by US\$4 million. As a result, Other reserves decreased by US\$55 million and US\$9 million has been presented as Equity attributable to noncontrolling interest. The related deferred tax adjustments resulted in an increase of deferred tax assets in the amount of US\$20 million and in a decrease of deferred tax liabilities in the amount of US\$15 million. Consequently, Other reserves have been increased by US\$35 million.

- e) For litigations, U.S. GAAP provides an accounting policy choice to accrue or expense as incurred legal counsel costs related to litigation proceedings, while IFRS requires the recognition of unavoidable counsel costs as a provision. Monsanto elected not to recognize the legal counsel costs as part of the litigation provision. As a result, General administration expenses decreased by US\$125 million for the twelve-month period ended November 30, 2017, because these expenses had to be accrued according to IFRS in previous periods and by US\$32 million for the three-month period ended February 28, 2018. Furthermore, expected legal costs for the following period had been recognized for the twelve-month period ended November 30, 2017 and for the three-month period ended February 28, 2018, because these expenses were not recognized under U.S. GAAP. As a result, Other operating expenses increased by US\$125 million and by US\$32 million, respectively. In the statement of financial position as of February 28, 2018, additional provisions in the amount of US\$125 million have been recognized in Other provisions current. As a result, Other reserves have been decreased by US\$125 million. For this effect a tax rate of 24.95% has been applied. The respective deferred tax assets amounted to US\$31 million and have consequently increased Other reserves by US\$31 million.
- f) Certain leasing transactions classified as operating leases in Monsanto's financial statements have been reclassified as financial leases in accordance with IFRS. The reclassification resulted in an increase of the Income before income taxes of US\$2 million (Research and development expenses: decrease by US\$4 million; Financial expenses: increase by US\$2 million) for the twelve-month period ended November 30, 2017 and an increase of the Income before income taxes of US\$1 million (Research and development expenses: decrease by US\$1 million) for the three-month period ended February 28, 2018. The related deferred tax expenses amounted to US\$1 million for the twelve-month period ended November 30, 2017, applying a tax rate of 24.95%. In the statement of financial position as of February 28, 2018, Property, plant and equipment (increased by US\$47 million), Financial liabilities current (increased by US\$7 million) and Financial liabilities noncurrent (increased by US\$33 million) have been recognized. The deferred tax assets amounted to US\$10 million and the deferred tax liabilities amounted to US\$12 million. As a result, Other reserves increased by US\$5 million.
- g) Certain investments are accounted for under the cost method under U.S. GAAP, whereas they have to be measured at fair value through OCI or at fair value through profit or loss under IFRS. This resulted in an increase in Financial expenses by US\$4 million, Financial income by US\$1 million and a gain in income taxes by US\$1 million for the three-month period ended February 28, 2018. In the statement of financial position as of February 28, 2018, a fair value step up of US\$24 million within Other financial assets noncurrent has been considered, which resulted in an increase of US\$24 million in Other reserves. The increase in deferred tax liabilities decreased Other reserves by US\$7 million.
- h) Monsanto has been presenting the financial data of the divestments of the animal agricultural products business as discontinued operations. This transaction was consummated on October 1, 2008, and included a ten-year earn-out with potential annual payments being earned by Monsanto, if certain revenue levels are exceeded. Under IFRS, the criteria for a presentation as discontinued operations have not been met. As a result US\$4 million income for the twelve-month period ended November 30, 2017, and US\$2 million for the three-month period ended February 28, 2018, have been reclassified from Income from discontinued operations after income taxes to Net sales (US\$7 million) and tax expenses (US\$3 million) for the twelve-month period ended November 30, 2017, and to Net sales (US\$2 million) for the three-month period ended February 28, 2018.

- i) Monsanto held call options to acquire further shares of a research and development (“R&D”) company from the other shareholder. Unlike U.S. GAAP under IFRS these call options have to be recognized separately and are presented as Other financial assets. The change in the fair value of the call options resulted in a financial income of US\$11 million for the twelve-month period ended November 30, 2017. The related deferred tax expense amounted to US\$3 million for the twelve-month period ended November 30, 2017, applying a tax rate of 24.95%. The Other financial assets noncurrent in the amount of US\$19 million have been recognized in the statement of financial position as of February 28, 2018. As a result, Other reserves increased by US\$19 million. The respective increase in deferred tax liabilities decreased Other reserves by US\$5 million.
- j) In the twelve-month period ended November 30, 2017, Monsanto changed the exchange rate used to translate the financial statements of a hyperinflated legal entity from local currency into group currency by using a devaluated official exchange rate for the foreign currency translation. Bayer had already switched its currency translation to a comparable devaluated exchange rate in a prior period. Therefore expenses of US\$21 million for the twelve-month period ended November 30, 2017, have been eliminated, resulting in an increase in Income before income taxes (Financial expense: decrease by US\$21 million).
- k) Under IFRS, if there is a continuous range of equally possible outcomes for a single event, then the obligation is measured at the mid-point in the range, whereas under U.S. GAAP the obligation is measured at the low end of the range. Therefore, an addition to the existing provisions resulted in Cost of goods sold of US\$11 million for the twelve-month period ended November 30, 2017. The related deferred tax income amounted to US\$3 million for the twelve-month period ended November 30, 2017, applying a tax rate of 24.95%. Other provisions noncurrent in the amount of US\$11 million have been recognized in the statement of financial position as of February 28, 2018. As a result, Other reserves decreased by US\$11 million. The respective increase in deferred tax assets increased Other reserves by US\$3 million.
- l) Monsanto has not recognized certain asset retirement obligations resulting in an increase in Property, plant and equipment by US\$15 million and other provisions noncurrent by US\$15 million in the statement of financial position as of February 28, 2018. Consequently, deferred tax assets and deferred tax liabilities increased by US\$4 million, applying a tax rate of 24.95%.
- m) Monsanto entered into various customer financing agreements related to trade accounts receivable as of February 28, 2018. Due to the different derecognition criteria of financial assets between U.S. GAAP and IFRS, certain financial assets that have been derecognized under U.S. GAAP do not qualify for derecognition under IFRS. As a result, additional Trade accounts receivable in the amount of US\$100 million and additional current financial liabilities of US\$100 million have been recognized in the statement of financial position as of February 28, 2018. Consequently, deferred tax assets and deferred tax liabilities increased by US\$30 million, applying tax rates from 25.0% to 34.0%.
- n) Under US GAAP Monsanto has recognized prepaid tax assets on certain inter-company asset transfers. These prepaid tax assets are amortized over the life of the transferred assets. Under IFRS, the amount of income taxes would have been charged as an expense in the year of the inter-company asset transfer and deferred tax assets recognized in the statement of financial position of the transferee legal entity. This resulted in a tax expense of US\$80 million for the twelve-month period ended November 30, 2017, and a tax income of US\$1 million for the three-month period ended February 28, 2018. The adjustments in the statement of financial position as of February 28, 2018, resulted in a decrease in Other receivables noncurrent (US\$33 million) and Other receivables current (US\$4 million). Accordingly, Other reserves decreased by US\$37 million.
- o) Monsanto presented certain rights on intellectual property within Other receivables noncurrent (US\$105 million) and Other receivables current (US\$16 million). Due to different presentation requirements under IFRS, the rights will be presented as Other intangible assets in the amount of US\$121 million in the statement of financial position as of February 28, 2018.
- p) Monsanto has divested its European-based silthiofam seed-treatment chemical business with a part of the consideration received being contingent on the silthiofam re-registration with certain authorities in the EU. Under IFRS, this contingent payment has to be accounted for as a financial asset resulting in an increase in Financial income of US\$3 million and Other operating income of US\$33 million for the twelve-month period ended November 30, 2017, and in an increase in Financial income of US\$1

million for the three-month period ended February 28, 2018. The related deferred tax expense amounted to US\$3 million for the twelve-month period ended November 30, 2017, applying a tax rate of 9.0%. Other financial assets noncurrent in the amount of US\$37 million have been recognized in the statement of financial position as of February 28, 2018. As a result, Other reserves increased by US\$37 million. The respective increase in deferred tax liabilities has decreased Other reserves by US\$3 million.

- q) Deferred taxes for the affected U.S. entities were calculated using tax rates ranging from 23.95% to 38.95% for the pro forma income statement for the twelve-month period ended November 30, 2017, and tax rates ranging from 23.95% to 29.77% for the pro forma income statement for the three-month period ended February 28, 2018, as well as for the pro forma statement of financial position as of February 28, 2018. The estimated deferred tax income amounted to US\$52 million for the twelve-month period ended November 30, 2017, and US\$3 million for the three-month period ended February 28, 2018.
- r) With the initial application of IFRS 15, the timing of the revenue recognition has changed for certain contracts with customers. Accordingly, Net sales recognized in Monsanto's income statement in the amount of US\$57 million for the three-month period ended February 28, 2018, have been eliminated as they would have already been recognized in a prior period under IFRS. This resulted also in a decrease in Cost of goods sold of US\$2 million in the pro forma income statement for the three-month period ended February 28, 2018. The deferred tax income amounted to US\$19 million for the three-month period ended February 28, 2018. In the pro forma statement of financial position as of February 28, 2018, Other receivables current decreased by US\$18 million; Trade accounts receivable increased by US\$12 million; Contract liabilities noncurrent decreased by US\$33 million and Contract liabilities current decreased by US\$38 million. The adjustments in the statement of financial position as of February 28, 2018, resulted in an increase in Other reserves of US\$65 million. Deferred tax assets increased by US\$39 million and deferred tax liabilities increased by US\$58 million, applying a tax rate of 24.95% for the U.S. and tax rates between 30.0% and 34.0% for outside the U.S. The tax related adjustments resulted in a decrease of Other reserves by US\$19 million as of February 28, 2018.

#### 7.2.3.6 Principles to Translate Monsanto's Financial Information Reported in US\$ to Bayer's Presentation Currency €

The adjusted financial information of Monsanto, which is prepared in US\$, was translated to €, the presentation currency of Bayer. Monsanto's assets and liabilities are translated at the exchange rate as of March 31, 2018, while income and expenses are translated at the average exchange rate for Bayer's fiscal year ended December 31, 2017, or Bayer's three months ended March 31, 2018, respectively. The following exchange rates have been used as applicable:

€1/ US\$		Closing rate March 31, 2018	Average rate 12 months 2017	Average rate 3 months 2018
	United States	1.2319	1.1264	1.2281

### 7.3 Basis of Preparation

#### 7.3.1 Preparation Principles

The Pro Forma Financial Information was prepared on the basis of the IDW Accounting Practice Statement: Preparation of Pro Forma Financial Information (IDW AcPS AAB 1.004) (*IDW Rechnungslegungshinweis: Erstellung von Pro-Forma-Finanzinformationen* (IDW RH HFA 1.004)), as promulgated by the Institute of Public Auditors in Germany (IDW, *Institut der Wirtschaftsprüfer in Deutschland e. V.*).

The pro forma adjustments made for purposes of the Pro Forma Financial Information are based on the information available at the time of the preparation of the Pro Forma Financial Information and on preliminary estimates as well as certain pro forma assumptions, which are described in the accompanying pro forma notes and Bayer considers to be reasonable. The Pro Forma Financial Information does not reflect the costs of any integration activities or cost savings that may result from synergies that may be derived from any future integration activities. The pro forma adjustments are directly attributable to the Covestro Divestments as well as to the Transaction

including the Transaction-related Divestments and the Related Financing, determinable, factually supportable and described in the accompanying pro forma notes presented below. Furthermore, except for the adjustments related to the Transaction-related Divestments, the Pro Forma Financial Information does not include any potential or future effects resulting from the remedies imposed on Bayer.

The pro forma adjustments presented in respect of the Covestro Divestments include the recognition of Covestro as an Other financial asset applying Bayer's direct interest of 6.8% in Covestro since January 1, 2017. The pro forma adjustments presented in respect of the Transaction including the Transaction-related Divestments and the Related Financing include (i) the elimination of business transactions between Bayer and Monsanto, (ii) the presentation of the Transaction using the acquisition method of accounting for the business combination in accordance with IFRS 3 ("Business Combinations"), (iii) the elimination of the income and expenses as well as the assets and liabilities relating to the Transaction-related Divestments and (iv) the financing of the Transaction by the Loan Facilities Agreement reduced by the net proceeds of the Mandatory Convertible Notes, the Exchangeable Bonds, the Temasek Investment and the Offering as well as the applicable portion of the net proceeds from the Divestments.

The Pro Forma Financial Information is presented in euros (€). Amounts are stated in millions of euros except where otherwise indicated, which may lead to rounding discrepancies. The amounts presented in the tables of the Pro Forma Financial Information were rounded according to established commercial principles. Therefore additions of the amounts may lead to amounts that deviate from those shown in the tables.

### **7.3.2 Overview of Covestro Divestments**

At the end of September 2017, Bayer lost control of its subsidiary Covestro, due to the sale of Covestro Shares and the signing of a control termination agreement. As a result of the Loss of Control, Covestro was no longer required to be fully consolidated in Bayer's consolidated financial statements. Therefore, the assets and liabilities of Covestro, including the carrying amount of the noncontrolling interest, were derecognized as of the date of the Loss of Control. The direct interest of 24.6% in Covestro at that time was measured at fair value and accounted for using the equity method. Following a further sale of Covestro Shares in January 2018, Bayer held a direct interest of 14.2% in Covestro as of March 31, 2018. In May 2018, Bayer acquired a 6.8% interest in Covestro from Bayer Pension Trust e.V. (the "**Bayer Pension Trust**") and sold 14.2% of Covestro Shares. Following these transactions Bayer's current interest in Covestro of 6.8% is accounted for as an other financial asset. The remaining interest in Covestro is held with the intention to repay the Exchangeable Bonds.

### **7.3.3 Overview of Transaction and Related Financing**

On September 14, 2016, Bayer and Monsanto signed a Merger Agreement. As of the closing of the transaction, KWA Investment Co., a wholly owned subsidiary of Bayer, will be merged with and into Monsanto and each share of common stock of Monsanto Company will be converted into the right to receive US\$128.00 in cash, without interest. As of September 14, 2016, the purchase price amounted to US\$56 billion.

Bayer intends to finance the Transaction with a combination of debt and equity as well as with proceeds from the Covestro Divestments and Transaction-related Divestments. As a first step, the Loan Facilities Agreement in the amount of US\$56.9 billion (€46.2 billion) was committed upon the signing of the Merger Agreement. As of March 31, 2018, the funding required to complete the Transaction amounted to a total of US\$56.4 billion (€45.8 billion) based on the number of shares in Monsanto outstanding as of February 28, 2018. Net proceeds of approximately US\$13.5 billion (€11.7 billion) have already been raised through the issuance of the Mandatory Convertible Notes (US\$4.2 billion (€3.96 billion)), the issuance of the Exchangeable Bonds (US\$1.2 billion (€1.05 billion)), the sale of Covestro Shares completed in January 2018 (US\$1.9 billion (€1.5 billion)), the Temasek Investment (US\$3.7 billion (€3.0 billion)) and the sale of Covestro Shares completed in May 2018 (US\$2.5 billion (€2.1 billion, including the related income tax expense)), and were used to reduce the undrawn commitments under the Loan Facilities Agreement to US\$43.4 billion (€35.3 billion) prior to completion of the Transaction. For purposes of the Pro Forma Financial Information, the above-mentioned net proceeds reduced the amount which needs to be financed under the Loan Facilities Agreement to US\$42.9 billion (€34.9 billion). Bayer intends to use the net proceeds from the Offering in the amount of US\$7.4 billion (€6.0 billion) (including the related income tax refund) to repay amounts drawn down under Loan Facilities Agreement. Furthermore, in connection with the Transaction, Bayer entered into the Transaction-related Divestments and under the Loan Facilities Agreement is required to use the aggregate net proceeds US\$7.6 billion (€6.1 billion) from the Transaction-related Divestments to reduce the amount outstanding under the Loan Facilities Agreement. As a result the Loan Facilities Agreement would be

reduced to US\$28.5 billion (€23.1 billion), of which US\$28.0 billion (€22.7 billion) remain drawn to finance the Transaction.

For purposes of the Pro Forma Financial Information, the Transaction is therefore assumed to be financed by the Loan Facilities Agreement reduced by the net proceeds of the Mandatory Convertible Notes, the Exchangeable Bonds, the Temasek Investment and the Offering as well as the applicable portion of the net proceeds from the Divestments, all of which are therefore presented as pro forma adjustments. The further refinancing of the Loan Facilities Agreement through planned debt capital markets transactions, which, subject to market conditions, may be launched at any time, are fully independent of the Offering, are not conditional upon one another and may be consummated at different times, is currently not factually supportable and is therefore not considered in this pro forma financial information.

#### **7.3.4 Pro Forma Assumptions**

##### **7.3.4.1 Assumptions Related to the Covestro Divestments**

###### **7.3.4.1.1 Assumption: Other Financial Asset**

For purposes of the pro forma income statement for the fiscal year ended December 31, 2017, Covestro has been accounted for as an other financial asset measured at fair value through OCI applying Bayer's interest of 6.8% in Covestro in accordance with IAS 39. For purposes of the pro forma income statement for the three months ended March 31, 2018, Covestro has been accounted for as an other financial asset measured at fair value through profit or loss applying IFRS 9. For purposes of the pro forma statement of financial position as of March 31, 2018, Covestro has been accounted for as an other financial asset applying Bayer's current interest of 6.8% in Covestro, whereby the fair value of the Covestro Shares as of March 31, 2018, has been assumed as acquisition costs. Bayer's remaining interest in Covestro is held with the intention to repay the Exchangeable Bonds and therefore linked to the Related Financing.

###### **7.3.4.1.2 Assumption: Elimination of the Income from discontinued operations related to Covestro**

For purposes of the pro forma income statement for the fiscal year ended December 31, 2017, the historical results of Covestro until Loss of Control presented as discontinued operations after income taxes are eliminated as it is assumed that the Loss of Control occurred on January 1, 2017. In addition, the gain from the derecognition of the assets and liabilities of Covestro, including the carrying amount of the noncontrolling interest, the gain from the performance of the shares sold on September 29, 2017, and the gain from the remeasurement of the remaining interest in Covestro recorded in Bayer's consolidated financial statements for the fiscal year ended December 31, 2017, were eliminated.

###### **7.3.4.1.3 Assumption: Elimination of the Impact of Equity-Method Accounting**

For purposes of the pro forma income statements, the historical results of Covestro presented as equity-method income have been eliminated. The gains from the additional sales of Covestro Shares in January 2018 and May 2018 are assumed to have occurred before closing of the Transaction and are therefore not included in the pro forma income statements. Furthermore, the gain from a purchase price adjustment mechanism linked to the performance of the Covestro Shares sold on September 29, 2017, recorded in Bayer's unaudited interim condensed consolidated financial statements for the three months ended March 31, 2018, was also eliminated.

##### **7.3.4.2 Assumptions Related to the Acquisition of Monsanto**

###### **7.3.4.2.1 Assumption: Date of Acquisition**

For purposes of the pro forma income statements, closing of the Transaction is assumed to have occurred as of January 1, 2017, and for purposes of the pro forma statement of financial position, it is assumed that closing of the Transaction occurred as of March 31, 2018.

###### **7.3.4.2.2 Assumption: Acquisition-Related Costs**

The non-recurring acquisition related costs of the Transaction of €304 million and the related tax effect of €95 million recorded in Bayer's consolidated financial statement for the fiscal year ended December 31, 2017, and



of €58 million and the related tax effect of €18 million recorded in Bayer's unaudited interim condensed consolidated financial statement for the three months ended March 31, 2018, are assumed to have been incurred before closing of the Transaction and are therefore eliminated from the pro forma income statements. The additional non-recurring acquisition related costs that were not recorded as of March 31, 2018, but will occur until completion of the Transaction have been recognized as an additional liability (€15 million) with the corresponding entry to Other reserves in the pro forma statement of financial position as of March 31, 2018. The non-recurring acquisition related costs of Monsanto in respect to the Transaction recognized for the twelve-month period ended November 30, 2017, amounted to €99 million with the related tax effect of €38 million, and to €20 million with the related tax effect of €6 million for the three-month period ended February 28, 2018, and have also been eliminated. The expenses described above are assumed to be tax-deductible.

#### 7.3.4.2.3 *Assumption: Transaction-Related Liabilities*

Due to the Transaction, Monsanto's existing share based payments programs will be mainly accelerated and cash settled. For purposes of the pro forma income statements, it is assumed that the accelerated vesting has occurred before closing of the Transaction and therefore the expenses related to the accelerated vesting are not included in the pro forma income statements. For purposes of the pro forma statement of financial position, it is assumed that the vesting period of these agreements will end on March 31, 2018. The liability resulting from this settlement including the payroll taxes (US\$680 million) and the deferred tax assets (US\$63 million) are recognized as additional pro forma adjustments as of March 31, 2018, with the corresponding entry to Other reserves.

Monsanto is party to change of control employment security agreements which provide severance benefits upon a qualifying termination of employment within two years following a change in control. For purposes of the pro forma income statements, it is assumed that the severance payments have occurred before closing of the Transaction and therefore the expenses related to the severance payments are not included in the pro forma income statements. A liability of US\$40 million and deferred tax assets of US\$10 million are recognized as additional pro forma adjustments as of March 31, 2018, with the corresponding entry to Other reserves.

Monsanto is party to a licensing agreement which includes a change of control clause. For purposes of the pro forma income statements, it is assumed that this business transaction occurred before closing. A liability of US\$100 million and deferred tax assets of US\$25 million are recognized as additional pro forma adjustments in the statement of financial position as of March 31, 2018, with the corresponding entry to Other reserves.

#### 7.3.4.2.4 *Assumption: Transaction-related Divestments*

The businesses related to the Transaction-related Divestments generated sales of €2.2 billion for the fiscal year ended December 31, 2017, and of €0.9 billion for the three months ended March 31, 2018. The assets and liabilities related to the Transaction-related Divestments are presented as assets and liabilities held for sale in Bayer's consolidated statement of financial position as of March 31, 2018, and have been eliminated for pro forma purposes. The aggregate base purchase price for the Transaction-related Divestments amounted to €7.6 billion as of January 1, 2018. Due to the later than expected closing of the Transaction the base purchase price for the Transaction-related Divestments agreed in October 2017 will be reduced by €0.2 billion in accordance with the relevant divestiture agreements, because the results of the businesses to be divested for the period between January 1, 2018, and closing of the Transaction-related Divestments are for Bayer's benefit. The base purchase price for the Transaction-related Divestments agreed in April 2018 includes a milestone payment of €0.1 billion, which is expected to be paid in 2019. The assumed gross proceeds of €7.3 billion have been reduced by the related income taxes of €1.1 billion, which are assumed to be paid. As a result, net proceeds of €6.1 billion are assumed to be cash effective in 2018 and to have reduced the Loan Facilities Agreement for purposes of the Pro Forma Financial Information. For purposes of the pro forma income statements, it is assumed that the gain from the Transaction-related Divestments has occurred before closing of the Transaction. Therefore, the gain related to the Transaction-related Divestments is not included in the pro forma income statements, but is reflected as an increase in Other reserves in the pro forma statement of financial position.

#### 7.3.4.2.5 *Assumption: Noncontrolling interest*

Fair value adjustments related to the assets and liabilities acquired as well as the respective earnings impacts of these adjustments are not allocated to noncontrolling interest in the pro forma statement of financial position and in the pro forma income statements, respectively.



#### 7.3.4.2.6 Assumption: Loan Facilities Agreement

In connection with the Transaction, Bayer as borrower and guarantor and Bayer U.S. Finance II LLC as borrower entered into the US\$56.9 billion (€46.2 billion) Loan Facilities Agreement. The Loan Facilities Agreement is denominated in US\$ and consists of four facilities with different terms and conditions. As a result, the Loan Facilities Agreement has been considered as a pro forma adjustment.

The Loan Facilities Agreement will bear interest at variable rates in the amount of a US\$-LIBOR rate or EURIBOR rate if Bayer requests to draw any loan facility in euro (for a certain interest period selected by Bayer and, if any such rate is below zero, US\$-LIBOR/EURIBOR will be deemed to be zero) plus a margin set forth in the Loan Facilities Agreement. The applicable margins depend on the facilities utilized, on the number of months elapsed after the date of the Loan Facilities Agreement, and on Bayer's long-term credit rating. The Loan Facilities Agreement may be used to finance the purchase price for the Transaction and other related payments, including fees and expenses, as well as to refinance indebtedness of the Monsanto group.

The pro forma adjustments in respect of the Loan Facilities Agreement are based on the following assumptions:

- For purposes of the pro forma income statements, it is assumed that the Loan Facilities Agreement was drawn on January 1, 2017. For purposes of the pro forma statement of financial position, the Loan Facilities Agreement is assumed to have been drawn on March 31, 2018.
- The Loan Facilities Agreement will only be drawn in the amount necessary, i.e., deducting the net proceeds of the Mandatory Convertible Notes, the net proceeds of the Exchangeable Bonds, the net proceeds of the Temasek Investment, the applicable portion of the net proceeds from Divestments exceeding the €5 billion threshold and the net proceeds of the Offering, plus the related transaction costs of the Loan Facilities Agreement. The amount of €22.7 billion will be recognized as noncurrent financial liabilities in the pro forma statement of financial position as of March 31, 2018.
- The interest expenses due to the Loan Facilities Agreement are presented in the pro forma income statements for the fiscal year ended December 31, 2017, and for the three months ended March 31, 2018, i.e., for a total period of fifteen months. Based on this duration and certain other assumptions, which Bayer considers to be reasonable, Bayer has calculated an average nominal interest rate of approximately 2.8% p.a. for fiscal year 2017, and an average nominal interest rate of approximately 2.8% p.a. for the three months ended March 31, 2018, for the Loan Facilities Agreement. Applying the effective interest method, these nominal interest rates including the debt issuance costs, resulted in an effective interest rate of 3.7% p.a. The respective financial expenses, which are included in the pro forma income statements, have been calculated based on this interest rate.
- One-time fees and commitments fees relating to the Loan Facilities Agreement in the amount of €214 million for the fiscal year ended December 31, 2017, and of €65 million for the three months ended March 31, 2018, are recognized in Bayer's historical financial information. The one-time fees are reflected in the pro forma adjustment for interest expenses as amortized debt issuance costs, and are therefore eliminated from the historical financial information. Similarly, as there would have been no obligation to pay commitment fees, if the Loan Facilities Agreement had been drawn on January 1, 2017, these fees are also eliminated.
- In addition, Bayer presumed full tax deductibility of financing costs and applied a tax rate of 25%, which represents the blended tax rate of the companies to which the financing will be allocated when the Transaction is closed.

#### 7.3.4.2.7 Assumption: Mandatory Convertible Notes

On November 22, 2016, Bayer issued the Mandatory Convertible Notes. The Mandatory Convertible Notes are unconditionally and irrevocably guaranteed by Bayer and must be mandatorily converted into shares of Bayer. The net proceeds from the issuance of the Mandatory Convertible Notes were required to be used for the early replacement of a portion of the undrawn syndicated Loan Facilities Agreement. An amount of €3,300 million of the Mandatory Convertible Notes is accounted for as equity and an amount of €528 million as liabilities, €305

million thereof as noncurrent liabilities, in the consolidated statement of financial position as of March 31, 2018. Furthermore, deferred tax assets in the amount of €151 million are recognized as of March 31, 2018.

#### 7.3.4.2.8 *Assumption: Exchangeable Bonds*

On June 14, 2017, Bayer AG issued the Exchangeable Bonds. The principal amount of the Exchangeable Bonds may either be settled in cash or by delivery of Covestro Shares or by a combination thereof. The issue price was fixed at 105.25% of the principal amount and the initial exchange price at €80.93. The net proceeds from the issuance of the Exchangeable Bonds were required to be used for the early replacement of a portion of the undrawn syndicated Loan Facilities Agreement. Assuming the Exchangeable Bonds had been issued as of January 1, 2017, the impact of the fair value adjustment necessary to the pro forma income statement for the twelve-months ended December 31, 2017, would approximately equal the expenses recognized in Bayer's consolidated income statement for the year ended December 31, 2017. Therefore, no adjustment has been made in the pro forma income statements. The Exchangeable Bonds are presented as noncurrent liabilities in the consolidated statement of financial position as of March 31, 2018. The impact of the fair value adjustment for the three months ended March 31, 2018, is already recognized in Bayer's historical financial information. Bayer's remaining interest in Covestro is held with the intention to repay the Exchangeable Bonds due in 2020.

#### 7.3.4.2.9 *Assumption: Temasek Investment*

On April 23, 2018, Bayer AG closed a transaction involving a capital increase out of authorized capital against cash contributions and excluding the subscription rights of existing Bayer shareholders by way of issuing 31 million new shares for total gross proceeds of €3.0 billion (US\$3.7 billion) to a subsidiary of Temasek Holdings (Private) Limited, which is wholly-owned by the Government of Singapore. The net proceeds from the Temasek Investment were required to be used for the early replacement of a portion of the undrawn syndicated Loan Facilities Agreement and are therefore related to the financing of the Transaction. As a result these net proceeds have been considered as pro forma adjustment. For purposes of the pro forma income statements, it is assumed that the Temasek Investment took place on January 1, 2017. For purposes of the pro forma statement of financial position, it is assumed that the Temasek Investment occurred on March 31, 2018. The transaction costs for the Temasek Investment in the amount of €0.3 million were recognized directly in equity in accordance with IFRS. Following the Temasek Investment, Bayer's common stock increased by 31,000,000 shares to a total of 903,467,808 shares.

#### 7.3.4.2.10 *Assumption: Impact of the Divestments on the Loan Facility Agreement*

The Loan Facilities Agreement provides that the commitments thereunder must be reduced by the net proceeds of certain divestments to the extent the aggregate proceeds of such divestments exceed €5.0 billion for the period from signing the Loan Facilities Agreement until the amounts are drawn. As of the date of this Pro Forma Financial Information, the aggregate net proceeds after income taxes to be considered for these purposes amounted to €14.8 billion (US\$18.1 billion) and resulted from the Divestments. The net proceeds from the Divestments are considered cash effective as of closing of the Transaction. As a result, the Loan Facilities Agreement drawn is presented as having been reduced by €9.8 billion (US\$12.0 billion) and the corresponding cash and cash equivalents of €9.8 billion (US\$12.0 billion) are used to finance the Transaction. It is further assumed, that the amount of aggregate net proceeds from the Divestments not exceeding the described €5.0 billion threshold will not be used to finance the Transaction.

#### 7.3.4.2.11 *Assumption: Offering*

Bayer intends to use the net proceeds of the Offering to repay amounts drawn down under the Loan Facilities Agreement in connection with the Transaction.

The pro forma adjustments in respect of the Offering are based on the following significant assumptions:

- For purposes of the pro forma income statements, it is assumed that the Offering took place on January 1, 2017. For purposes of the pro forma statement of financial position, it is assumed that the Offering occurred on March 31, 2018.
- Bayer will issue 74,604,156 New Shares. The subscription price will amount to €81.00 per share. Following the implementation of the Offering, based on the assumption that all shares are subscribed for and the implementation of the capital increase through the issuance of 74,604,156 shares against contribution in cash was registered with the commercial register, Bayer's common

stock will increase by 74,604,156 shares to a total theoretical weighted average number of shares of 978,071,964 as of March 31, 2018. The net proceeds of the Offering will amount to €5,974 million, assuming a tax refund of €31 million in respect of the transaction costs, and will be used to repay amounts drawn down under the Loan Facilities Agreement in connection with the Transaction.

The transaction costs for the Offering in the amount of €69 million, net of taxes, were recognized directly in equity in accordance with IFRS. The assumed tax refund in respect of the transaction costs (€31 million) are assumed to have increased Cash and cash equivalents.

### **7.3.5 Pro Forma Presentation**

#### **7.3.5.1 Pro Forma Presentation of the Covestro Divestments**

At the end of September 2017, Bayer lost control of its subsidiary Covestro due to the sale of shares and the signing of a control termination agreement. Therefore in accordance with IFRS 10 (“Consolidated Financial Statements”) the assets and liabilities of Covestro, including the carrying amount of the noncontrolling interest, were derecognized at the date control was lost. The Covestro business meets the requirement for being reported as discontinued operation in accordance with IFRS 5 (“Non-current assets held for sale and Discontinued Operations”). Therefore, the results from the Covestro business until the date of Loss of Control are presented as income from discontinued operations after income taxes in the consolidated financial statements of Bayer for the fiscal year ended December 31, 2017. The Loss of Control of Covestro resulted in a pre-tax gain on disposal in the amount of €519 million.

As Bayer still exercised significant influence over Covestro after the Loss of Control, the remaining interest of 24.6% in Covestro was classified as an associated company and accounted for using the equity method. The interest at that point in time was recognized at fair value assuming a share price of €72.75. The resulting pre-tax gain of €2,382 million, the resulting pre-tax gain on disposal and the related income taxes were presented as income from discontinued operations after income taxes in the consolidated income statement of Bayer for the fiscal year ended December 31, 2017.

In accordance with IAS 28 and IFRS 3 Bayer performed a purchase price allocation in respect of the remaining interest in Covestro as of September 30, 2017. The purchase price allocation and the subsequent accounting for the implicit goodwill are performed in accordance with the requirements of IFRS 3 “Business Combinations”, IAS 36 “Impairment of Assets”, and IAS 38 “Intangible Assets”. IFRS generally requires all assets, liabilities and contingent liabilities to be measured at fair value at the time of acquisition (“purchase price allocation”). This includes in particular intangible assets, property, plant and equipment and inventories. The results from the purchase price allocation and the related tax impacts are presented in Bayer’s equity-method result.

Following a further sale of Covestro Shares in January 2018, Bayer’s direct interest in Covestro was reduced to 14.2%. Bayer still exercised significant influence over Covestro and therefore accounted for the direct interest in Covestro as an equity-method investment in the three months ended March 31, 2018.

In May 2018, Bayer acquired 6.8% of Covestro Shares from the Bayer Pension Trust and sold 14.2% of Covestro Shares. Following these transactions Bayer’s interest in Covestro has been reduced to 6.8%, which is accounted for as an other financial asset measured at fair value through profit or loss.

For purposes of the Pro Forma Financial Information, Covestro is accounted for as an other financial asset applying Bayer’s current interest of 6.8% in Covestro since January 1, 2017. As a result the income from discontinued operations related to Covestro was eliminated in the pro forma income statement for the fiscal year ended December 31, 2017. The Equity-method result of Covestro recorded in Bayer’s consolidated income statement for the fiscal year ended December 31, 2017, and for the three months ended March 31, 2018, was also eliminated.

### 7.3.5.2 Pro Forma Presentation of the Acquisition of Monsanto

#### 7.3.5.2.1 *Accounting for the Acquisition*

The Transaction is accounted for as a business combination in accordance with IFRS 3. According to IFRS 3, the actual initial consolidation of a business combination takes place at the time of acquisition, i.e., the time at which the acquiring company takes control of the acquired company or acquired business operation.

For purposes of the pro forma income statements, the pro forma initial consolidation of Monsanto was performed as of January 1, 2017, and for purposes of the pro forma statement of financial position, the pro forma initial consolidation of Monsanto was performed as of March 31, 2018.

#### 7.3.5.2.2 *Preliminary Purchase Price Allocation*

The Transaction is accounted for as a business combination in accordance with IFRS 3. IFRS generally requires all assets, liabilities and contingent liabilities to be measured at fair value at the time of acquisition. This includes in particular intangible assets that were not recognized in Monsanto's consolidated financial statements to date (e.g., existing technologies (such as germplasm, traits, product- and process- related technologies), in process R&D ("IPR&D"), trademarks and customer relationships).

For purposes of the Pro Forma Financial Information, the purchase price allocation of Monsanto was performed on the basis of a preliminary valuation of the acquired net assets at fair value as of March 31, 2018. The income statement effects from the development of the preliminary purchase price allocation were taken into account in the pro forma income statements for the fiscal year ended December 31, 2017 and for the three months ended March 31, 2018. For the period between March 31, 2018, and the closing of the Transaction, it is assumed that the fair value of the net assets acquired remains unchanged.

This preliminary purchase price allocation is based on the most current available information using certain estimates and assumptions in order to assess the fair value of the assets acquired and liabilities assumed. The final purchase price allocation will be carried out based on the actual total consideration transferred and the fair values of the acquired net assets as of the actual future acquisition date (closing). Therefore, the final purchase price allocation may differ significantly from the preliminary purchase price allocation performed for purposes of the Pro Forma Financial Information.

#### 7.3.5.2.3 *Acquisition-Related Costs*

In accordance with IFRS 3.53, the acquisition related costs in connection with the Transaction were accounted for as expenses.

#### 7.3.5.2.4 *Preliminary Total Consideration Transferred*

As announced by Bayer on September 14, 2016, an indirect wholly owned subsidiary of Bayer will be merged with and into Monsanto and each share of Monsanto Company will be converted into the right to receive US\$128.00 in cash, without interest. For the purposes of the Pro Forma Financial Information the preliminary total consideration transferred by Bayer in connection with this acquisition was determined as follows:

Monsanto's shares issued as of February 28, 2018 (in million)	615
Monsanto's Treasury shares as of February 28, 2018 (in million)	174
<b>Monsanto's shares outstanding as of February 28, 2018 (in million)</b>	<b>441</b>
Offering price per share outstanding (US\$)	128
Preliminary cash consideration transferred (in US\$ million) <sup>4</sup>	56,474
Exchange rate (€1/US\$) as of March 31, 2018	1.2319
<b>Preliminary cash consideration transferred (in € million)<sup>4</sup></b>	<b>45,845</b>
Basis adjustment for FX-hedging result (in € million)	312
<b>Preliminary total consideration transferred (in € million)<sup>4</sup></b>	<b>46,157</b>

<sup>4</sup> Including interests in Monsanto previously held by Bayer (measured at US\$128.00 per share was US\$83 million (€68 million)).

### 7.3.5.2.5 Preliminary Goodwill

Considering the pro forma assumptions described in this section, the preliminary total consideration for Monsanto (excluding interests in Monsanto previously held by Bayer) amounted to €46,089 million. Compared with the net fair value amount of identifiable assets acquired and liabilities assumed amounting to €23,971 million, the total consideration transferred resulted in pro forma goodwill of €22,185 million. This goodwill is recognized in the pro forma statement of financial position as of March 31, 2018, and derived as follows:

	<b>March 31, 2018</b>
	<u>€ million</u>
Historical assets of Monsanto February 28, 2018	20,500
Elimination of noncontrolling interest	(17)
Elimination of historical goodwill of Monsanto	(3,329)
Fair value adjustments to intangible assets	24,528
<i>from existing technologies</i>	15,963
<i>from IPR&amp;D</i>	3,845
<i>from marketing- and customer-related intangible assets</i>	4,501
<i>from other intangible assets</i>	219
Fair value adjustments to property, plant and equipment	1,080
Fair value adjustment to inventories	1,940
Adjustment of deferred tax assets	103
<b>Total identifiable assets acquired at fair value</b>	<b>44,807</b>
Historical liabilities of Monsanto	13,519
Fair value adjustments to deferred revenue	(50)
Fair value adjustment to financial liabilities	93
Transaction-related liabilities	666
Adjustment of deferred tax liabilities	6,607
<b>Total liabilities assumed at fair value</b>	<b>20,835</b>
Fair value of previously held interest by Bayer in Monsanto	68
Preliminary total consideration for Monsanto (excluding previously held interest by Bayer in Monsanto)	46,089
Net fair value amount of acquired equity	23,971
<b>Goodwill from the acquisition of Monsanto</b>	<b>22,185</b>

The final goodwill resulting from the Transaction will be determined by the actual purchase price allocation that will be carried out as of the actual future acquisition date.

### 7.3.5.2.6 Overview of Significant Assumptions used for the Preliminary Purchase Price Allocation and Resulting Impacts on the Pro Forma Income Statements

	Fair Value Adjustments as of		Amortization and depreciation for the twelve-month period	Amortization and depreciation for the three-month period
	March 31, 2018	Useful life		
	€ million	years	€ million	€ million
Intangible assets				-
<i>from existing technologies</i>	15,963	9 to 30 years	1,253	288
<i>from IPR&amp;D</i>	3,845	n/a	-	-
<i>from marketing- and customer-related intangible assets</i>	4,501	10 to 30 years	178	44

	Fair Value Adjustments as of		Amortization and depreciation for the twelve-month period	Amortization and depreciation for the three-month period
	March 31, 2018	Useful life		
	€ million	years	€ million	€ million
<i>from other intangible assets</i>	219	1 to 15 years	122	28
Property, plant and equipment	1,080	4 to 25 years	77	18

#### 7.3.5.2.7 Income Taxes

The U.S. Tax Reform is expected to have a significant impact on future effective tax rates for U.S. entities. Certain assumptions have been made to estimate the effective tax rates for the future as there are neither reliable interpretations nor basis available currently. All adjustments identified have been allocated to legal entities and deferred taxes have been calculated using the respective legal entity's actual tax rate for fiscal year 2018, which ranged from 0% to 35% with the exception of U.S. legal entities. The tax rates applied for the U.S. legal entities reflect those future rates after US tax reform between 23.77% and 24.95%. The actual tax rate in the future may differ from those applied here.

#### 7.3.5.2.8 Transaction-related Divestments

The businesses related to the Transaction-related Divestments generated sales of €2.2 billion for the fiscal year ended December 31, 2017, and of €0.9 billion for the three months ended March 31, 2018. The assets and liabilities related to the Transaction-related Divestments are presented as assets and liabilities held for sale in Bayer's consolidated statement of financial position as of March 31, 2018, and have been eliminated for pro forma purposes. The aggregate base purchase price of €7.6 billion for the Transaction-related Divestments will be reduced as a result of the Transaction not closing by January 1, 2018. Specifically, due to the later than expected closing of the Transaction, the base purchase price for the Transaction-related Divestments agreed in October 2017 will be reduced by €0.2 billion in accordance with the relevant divestiture agreements, because the results of the businesses to be divested for the period between January 1, 2018, and closing of the Transaction-related Divestments are for Bayer's benefit. In addition, the base purchase price for the Transaction-related Divestments agreed in April 2018 includes a milestone payment of €0.1 billion, which is expected to be paid in 2019, and is therefore not taken into account in calculating the assumed gross proceeds. The assumed gross proceeds of €7.3 billion have been reduced by the related income taxes of €1.1 billion, which are assumed to be paid. As a result, net proceeds of €6.1 billion are assumed to be cash effective in 2018 and to have reduced the Loan Facilities Agreement for purposes of the Pro Forma Financial Information. For purposes of the pro forma income statements, it is assumed that the gain from the Transaction-related Divestments has occurred before closing of the Transaction. Therefore, the gain related to the Transaction-related Divestments is not included in the pro forma income statements, but is reflected as an increase in Other reserves in the pro forma statement of financial position. The total net proceeds of the Transaction-related Divestments of €6.1 billion are required to be used to reduce the amount of the Loan Facilities Agreement.

The Transaction-related Divestments are factually supportable and directly attributable to the Transaction. As a result, the Transaction-related Divestments are reflected as pro forma adjustments in the pro forma statement of financial position and in the pro forma income statements. The pro forma adjustments do not necessarily reflect the financial position or results of operations of the Transaction-related Divestments as if these businesses were stand-alone businesses. Certain allocations, which are considered reasonable by Bayer management, were made to determine these pro forma adjustments.

For purposes of the pro forma income statements, it is assumed that the Transaction-related Divestments had taken place on January 1, 2017. For purposes of the pro forma statement of financial position, it is assumed that the Transaction-related Divestments had taken place on March 31, 2018.

### 7.3.5.3 Pro Forma Presentation of the Financing Related to the Transaction

Since the Loan Facilities Agreement, the Mandatory Convertible Notes, the Exchangeable Bonds, the Temasek Investment, the Divestments and the Offering are directly attributable to the financing necessary for the completion of the Transaction, these financing transactions were included in the Pro Forma Financial Information.



## 7.4 Explanation of Pro Forma Financial Information

### Bayer AG Pro Forma Income Statement for the fiscal year ended December 31, 2017

	Historical Financials				Pro forma	Pro forma	Pro forma	Pro forma	
	Bayer	Less Covestro <sup>5</sup>	Plus Monsanto	Aggregated	Adjustments Covestro	Note	Adjustments Monsanto	Note	
	€ million	€ million	€ million	€ million	€ million		€ million		
<b>Net sales</b>	<b>35,015</b>	–	<b>12,641</b>	<b>47,656</b>	–		<b>(2,507)</b>	b,d,h	<b>45,149</b>
Cost of goods sold	(11,382)	–	(5,469)	(16,851)	–		(2,285)	a,b,d,g,i	(19,136)
<b>Gross profit</b>	<b>23,633</b>	–	<b>7,172</b>	<b>30,805</b>	–		<b>(4,792)</b>		<b>26,013</b>
Selling expenses	(11,116)	–	(1,859)	(12,975)	–		205	a,b,i	(12,770)
Research and development expenses	(4,504)	–	(1,409)	(5,913)	–		169	a,b,i	(5,744)
General administration expenses	(2,026)	–	(1,136)	(3,162)	–		384	b,i	(2,778)
Other operating income	864	–	770	1,634	–		(5)	b	1,629
Other operating expenses	(948)	–	(662)	(1,610)	–		99	i	(1,511)
<b>EBIT</b>	<b>5,903</b>	–	<b>2,875</b>	<b>8,778</b>	–		<b>(3,940)</b>		<b>4,838</b>
Equity-method income (loss)	20	51	(15)	(46)	–		–		(46)
Financial income	289	–	979	1,268	19	a	–		1,287
Financial expenses	(1,635)	–	(1,273)	(2,908)	–		(577)	c, e, j, k	(3,485)
<b>Financial result</b>	<b>(1,326)</b>	51	<b>(309)</b>	<b>(1,686)</b>	<b>19</b>		<b>(577)</b>		<b>(2,244)</b>
<b>Income before income taxes</b>	<b>4,577</b>	51	<b>2,567</b>	<b>7,093</b>	<b>19</b>		<b>(4,517)</b>		<b>2,595</b>
Income taxes	(1,329)	(1)	(540)	(1,868)	–		1,120	b, f, g, h, i, j, k	(748)
<b>Income from continuing operations after income taxes</b>	<b>3,248</b>	50	<b>2,027</b>	<b>5,225</b>	<b>19</b>		<b>(3,397)</b>		<b>1,847</b>
of which attributable to noncontrolling interest	(1)	–	12	11	–				11

<sup>5</sup> Represents the elimination of the Covestro related Equity-method income (€51 million) and the related tax expense (€1 million) already recorded in Bayer's historical financial information and the elimination of the net income of Covestro of €1,459 million, the gain of €519 million resulting from the derecognition of the assets and liabilities of Covestro, the gain of €2,382 million on the initial recognition of the remaining interest in Covestro as an Equity-method investment and a gain of €187 million from the performance of the shares sold on September 29, 2017, as well as the related tax expense of €79 million presented in Income from discontinued operations after income taxes.



	Historical Financials				Pro forma		Pro forma		Pro forma
	Bayer	Less Covestro <sup>5</sup>	Plus Monsanto	Aggregated	Adjustments Covestro	Note	Adjustments Monsanto	Note	Financials
	€ million	€ million	€ million	€ million	€ million		€ million		€ million
<b>of which attributable to Bayer AG stockholders (net income)</b>	<b>3,249</b>	50	<b>2,014</b>	<b>5,213</b>	<b>19</b>		<b>(3,397)</b>		<b>1,835</b>
<b>Income from discontinued operations after income taxes</b>	<b>4,846</b>	<b>4,468</b>	–	<b>378</b>	–		–		<b>378</b>
of which attributable to noncontrolling interest	759	759	–	0	–		–		–
<b>of which attributable to Bayer AG stockholders (net income)</b>	<b>4,087</b>	<b>3,709</b>	–	<b>378</b>	–		–		<b>378</b>
<b>Income after income taxes</b>	<b>8,094</b>	<b>4,518</b>	<b>2,027</b>	<b>5,603</b>	<b>19</b>		<b>(3,397)</b>		<b>2,225</b>
of which attributable to noncontrolling interest	758	759	12	11	–		–		11
<b>of which attributable to Bayer AG stockholders (net income)</b>	<b>7,336</b>	<b>3,759</b>	<b>2,014</b>	<b>5,591</b>	<b>19</b>		<b>(3,397)</b>		<b>2,213</b>
	€		€		€		€		€
<b>Earnings per share</b>	€		€		€		€		€
From continuing operations									
Basic	3.73							I	1.88
Diluted	3.73							I	1.88
From discontinued operations									
Basic	4.68								0.38
Diluted	4.68								0.38
From continuing and discontinued operations									
Basic	8.41							I	2.26
Diluted	8.41							I	2.26

The following pro forma adjustment with a recurring effect has been made for the Covestro Divestments:

- a) For purposes of the Pro Forma Financial Information, Covestro is accounted for as an other financial asset measured at fair value through OCI applying Bayer's current interest of 6.8% in Covestro since January 1, 2017. Therefore, the change in fair value has no impact on the pro forma income statement

for the fiscal year ended December 31, 2017. Dividends received from Covestro of €19 million have been recognized in Financial Income.

The following pro forma adjustments with a recurring effect have been made for the Transaction:

- a) Recognition of the impact of the recurring effects of the preliminary purchase price allocation performed. The adjustments made relate to the amortization of intangible assets in the amount of €1,553 million which result from the fair value step ups. Furthermore, depreciation expenses of €77 million associated with the fair value step up of Property, plant and equipment have been considered. These additional amortization and depreciation expenses recognized in connection with the preliminary purchase price allocation are allocated to Cost of goods sold (€1,296 million), Selling expenses (€178 million) and Research and development expenses (€156 million).
- b) Represents the elimination of the income and expenses related to the businesses subject to the Transaction-related Divestments. The adjustments consist of the elimination of Net sales (€2,232 million), Cost of goods sold (€905 million), Selling expenses (€369 million), Research and development expenses (€319 million), General administration expenses (€110 million), Other operating income (€5 million) and Income tax expenses (€161 million).
- c) Represents the reduction of Financial expenses by €4 million as a result of the amortization of the fair value step up of financial liabilities related to the preliminary purchase price allocation performed.
- d) Represents the elimination of inter-company transactions between Bayer and Monsanto (Net sales and Cost of goods sold each €221 million (results in a decrease of Net sales and Cost of goods sold) as well as inter-company profit elimination in the amount of €4 million (results in an increase of Cost of goods sold)).
- e) Reflects the interest expenses (including the amortization of debt issuance costs) in respect of the Loan Facilities Agreement in the amount of €919 million as if the Loan Facilities Agreement had been drawn as of January 1, 2017.
- f) Recognition of tax effects on the adjustments a) tax income of €416 million and c) tax expense of €1 million as well as e) tax income of €230 million, described above using the tax rates of the affected entities, which range from 23.77% to 29.4% for the deferred tax impacts relating to the purchase price allocation adjustments performed and Bayer's blended tax rate of 25% for the calculation of the income and deferred taxes associated with the financing.

The following pro forma adjustments with a non-recurring effect have been made for the Transaction:

- g) The adjustment reflects the increase of Cost of goods sold of €2,121 million related to the subsequent measurement of the fair value step up of the inventories in connection with the preliminary purchase price allocation. It is assumed that the inventory step up will be fully recognized within one year (based on expected inventory turnover). The related tax income in the amount of €537 million has also been considered. The tax effect has been calculated using an average tax rate of 25.3% for the deferred tax impacts relating to this purchase price allocation adjustment.
- h) The adjustment reflects the decrease in Net sales of €54 million related to the subsequent measurement of the fair value step down of deferred revenues. It is assumed that the step down will be fully recognized within one year. The related increase in tax income in the amount of €15 million has also been considered. The tax effect has been calculated using a blended tax rate of 27% for the deferred tax impacts relating to this purchase price allocation adjustment.
- i) Represents the elimination of the previously recorded non-recurring acquisition related costs of Bayer of €304 million (thereof €10 million recognized in Cost of goods sold, €6 million recognized in Research and development expenses, €14 million recognized in Selling expenses and €274 million recognized in General administration expenses) and of Monsanto of €99 million (recognized in Other operating expenses) of the Transaction, which would not have been incurred, if the Transaction had already been completed as of January 1, 2017. These acquisition-related costs are assumed to be tax deductible. Applying a tax rate of 31.2% for Bayer's acquisition related costs and a tax rate of 38.25% for Monsanto's acquisition related costs, the respective tax adjustment amounts to an expense of €133 million.

- j) Represents the elimination of one time and commitments fees relating to the Loan Facilities Agreement in the amount of €214 million, which are recognized in Bayer's historical financial information as Financial expenses. Applying an average tax rate of 30.8% the respective tax adjustment amounts to an expense of €66 million.
- k) Represents the elimination of the expense of €124 million in respect of the foreign exchange hedges entered into against the EURO / USD exchange rate fluctuations associated with the Monsanto purchase price, which are recognized as Financial expenses. The respective tax adjustment amounts to an expense of €39 million, applying a tax rate of 31.2%.

Earnings per share ("**EPS**") in the Pro forma Financials:

- l) The EPS for the Pro Forma Financials have been calculated assuming a theoretical weighted average number of shares of 977,711,964. The Pro Forma Financial Information assumes that the Temasek Investment and the Offering were implemented as of January 1, 2017, and as a result the weighted average number of shares of Bayer AG of 872,107,808 as reported in the consolidated financial statements of Bayer for the fiscal year ended December 31, 2017, has been increased by 31,000,000 shares related to the Temasek Investment and 74,604,156 shares related to the Offering.

**Bayer AG**  
**Pro Forma Income Statement**  
for the Three Months ended March 31, 2018

	Historical Financials			Aggregated	Pro forma Adjustments		Note	Pro forma Adjustments		Pro forma Financials
	Bayer	Less Covestro <sup>6</sup>	Plus Monsanto		Covestro	Monsanto		Note		
	€ million	€ million	€ million	€ million	€ million		€ million		€ million	
<b>Net sales</b>	<b>9,138</b>	–	<b>3,895</b>	<b>13,033</b>	–		<b>(960)</b>	b, d	<b>12,073</b>	
Cost of goods sold	(2,909)	–	(1,528)	(4,437)	–		59	a, b, d, g	(4,378)	
<b>Gross profit</b>	<b>6,229</b>	–	<b>2,366</b>	<b>8,595</b>	–		<b>(901)</b>		<b>7,694</b>	
Selling expenses	(2,509)	–	(418)	(2,927)	–		50	a, b, g	(2,877)	
Research and development expenses	(1,040)	–	(319)	(1,359)	–		55	a, b, g	(1,304)	
General administration expenses	(427)	–	(230)	(657)	–		59	b, g	(598)	
Other operating income	152	–	98	250	–		(5)	b	245	
Other operating expenses	(95)	–	(89)	(184)	–		20	g	(164)	
<b>EBIT</b>	<b>2,310</b>	–	<b>1,408</b>	<b>3,718</b>	–		<b>(722)</b>		<b>2,996</b>	
Equity-method income (loss)	71	80	(5)	(14)	–		–		(14)	
Financial income	370	275	216	311	–		–		311	
Financial expenses	(311)	–	(310)	(621)	(85)	a	(143)	c, e, h	(849)	
<b>Financial result</b>	<b>130</b>	<b>355</b>	<b>(99)</b>	<b>(324)</b>	<b>(85)</b>		<b>(143)</b>		<b>(552)</b>	
<b>Income before income taxes</b>	<b>2,440</b>	<b>355</b>	<b>1,309</b>	<b>3,394</b>	<b>(85)</b>		<b>(865)</b>		<b>2,444</b>	
Income taxes	(494)	(5)	(254)	(743)	–		206	b, f, g, h	(537)	
<b>Income from continuing operations after income taxes</b>	<b>1,946</b>	<b>350</b>	<b>1,054</b>	<b>2,650</b>	<b>(85)</b>		<b>(659)</b>		<b>1,906</b>	
of which attributable to noncontrolling interest	–	–	3	3					3	
<b>of which attributable to Bayer AG stockholders (net income)</b>	<b>1,946</b>	<b>350</b>	<b>1,051</b>	<b>2,647</b>	<b>(85)</b>		<b>(659)</b>		<b>1,903</b>	
<b>Income from discontinued operations after income taxes</b>	<b>8</b>	<b>8</b>	–	–	–		–		–	

<sup>6</sup> Represents the elimination of the Covestro related Equity-method income (€80 million) and the related tax expense (€1 million) already recorded in Bayer's historical financial information, the elimination of the gain of €10 million from the performance of the shares sold on September 29, 2017, as well as the related tax expense of €2 million presented in Income from discontinued operations after income taxes and the elimination of the gain of €275 million and the related tax expense of €4 million from the sale of Covestro Shares in January 2018.

	Historical Financials			Aggregated	Pro forma	Pro forma	Pro forma	
	Bayer	Less Covestro <sup>6</sup>	Plus Monsanto		Adjustments Covestro	Note	Adjustments Monsanto	Note
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
of which attributable to noncontrolling interest	-	-	-	-	-	-	-	-
<b>of which attributable to Bayer AG stockholders (net income)</b>	<b>8</b>	<b>8</b>	-	-	-	-	-	-
<b>Income after income taxes</b>	<b>1,954</b>	<b>358</b>	<b>1,054</b>	<b>2,650</b>	<b>(85)</b>	<b>(659)</b>		<b>1,906</b>
of which attributable to noncontrolling interest	-	-	3	3	-	-		3
<b>of which attributable to Bayer AG stockholders (net income)</b>	<b>1,954</b>	<b>358</b>	<b>1,051</b>	<b>2,647</b>	<b>(85)</b>	<b>(659)</b>		<b>1,903</b>
	€		€		€	€		€
<b>Earnings per share</b>	€		€		€	€		€
From continuing operations								
Basic	2.23		-	-	-	-	i	1.95
Diluted	2.23		-	-	-	-	i	1.95
From discontinued operations								
Basic	0.01		-	-	-	-		-
Diluted	0.01		-	-	-	-		-
From continuing and discontinued operations								
Basic	2.24		-	-	-	-	i	1.95
Diluted	2.24		-	-	-	-	i	1.95

The following pro forma adjustment with a recurring effect has been made for the Covestro Divestments:

- For purposes of the Pro Forma Financial Information, Covestro is accounted for as an other financial asset measured at fair value through profit or loss applying Bayer's current interest of 6.8% in Covestro since January 1, 2018. Therefore, the change in the fair value of the other financial asset of €85 million has been recognized in Financial expenses.

The following pro forma adjustments with a recurring effect have been made for the Transaction:

- Recognition of the impact of the recurring effects of the preliminary purchase price allocation performed. The adjustments made relate to the amortization of intangible assets in the amount of €360 million which result from the fair value step ups. Furthermore, depreciation expenses of €18 million associated with the fair value step up of property plant and equipment are considered. These amortization/depreciation adjustments related to purchase price allocation are allocated to Cost of goods sold (€299 million), Selling expenses (€44 million) and Research and development expenses (€35 million).
- Represents the elimination of the income and expenses related to the businesses subject to the Transaction-related Divestments. The adjustments consist of the elimination of Net sales

(€904 million), Cost of goods sold (€301 million), Selling expenses (€90 million), Research and development expenses (€87 million), General administration expenses (€9 million), Other operating income (€5 million) and Income tax expenses (€113 million).

- c) Represents the reduction of Financial expenses by €1 million as a result of the amortization of the fair value step up of financial liabilities related to the preliminary purchase price allocation performed.
- d) Represents the elimination of inter-company transactions between Bayer and Monsanto (Net sales and Cost of goods sold each €56 million (results in a decrease of Net sales and Cost of goods sold) as well as inter-company profit elimination in the amount of €2 million (results in an increase of Cost of goods sold)).
- e) Reflects the interest expenses (including the amortization of debt issuance costs) in respect of the Loan Facilities Agreement in the amount of €209 million as if the Loan Facilities Agreement had been drawn as of January 1, 2017.
- f) Recognition of tax effects on the adjustments a) tax income of €85 million and c) tax expense of €0 million as well as e) tax income of €52 million, described above using the tax rates of the affected entities, which range from 23.77% to 29.4% for the deferred tax impacts relating to the purchase price allocation adjustments performed and Bayer's blended tax rate of 25% for the calculation of the income and deferred taxes associated with the financing.

The following pro forma adjustments with a non-recurring effect have been made for the Transaction:

- g) Represents the elimination of the previously recorded non-recurring acquisition related costs of Bayer of €58 million (thereof €2 million recognized in Cost of goods sold, €3 million recognized in Research and development expenses, €3 million recognized in Selling expenses and €50 million recognized in General administration expenses) and Monsanto of €20 million (recognized in Other operating expenses) of the Transaction which would not have been incurred, if the Transaction had already been completed as of January 1, 2017. These acquisition-related costs are assumed to be tax deductible. Applying a tax rate of 31.2% for Bayer's acquisition related costs and a tax rate of 29.4% for Monsanto's acquisition related costs, the respective tax adjustment amounts to an expense of €24 million.
- h) Represents the elimination of one time and commitments fees relating to the Loan Facilities Agreement in the amount of €65 million which are recognized in Bayer's historical financial information. Applying a tax rate of 31.2% the respective tax adjustment amounts to an expense of €20 million.

EPS in the Pro forma Financials:

- i) The EPS for the Pro Forma Financials have been calculated assuming a theoretical weighted average number of shares of 978,071,964. The Pro Forma Financial Information assumes that the Temasek Investment and the Offering were implemented as of January 1, 2017, and as a result the weighted average number of shares of Bayer AG of 872,467,808 calculated consistently with the principles described in Note 16 of the consolidated financial statements of Bayer for the fiscal year ended December 31, 2017, has been increased by 31,000,000 shares related to the Temasek Investment and 74,604,156 shares related to the Offering.

**Bayer AG**  
**Pro Forma Statement of Financial Position**  
**as of March 31, 2018**

	Historical Financials			Aggregated	Pro forma		Note	Pro forma
	Bayer	Less Covestro <sup>7</sup>	Monsanto		Adjustments Covestro	Adjustments Monsanto		
	€ million	€ million	€ million	€ million	€ million	€ million		€ million
<b>Noncurrent assets</b>								
Goodwill	14,480		3,329	17,809	–	18,857	a	36,665
Other intangible assets	11,185		1,205	12,390	–	24,528	a	36,919
Property, plant and equipment	7,330		4,786	12,116	–	1,080	a	13,197
Investments accounted for using the equity method	2,574	2,169	83	488	–	–		488
Other financial assets	1,737		707	2,444	1,100	(62)	g	3,483
Other receivables	535		306	841	-	-		841
Deferred taxes	4,384		537	4,921	-	108	a,f,h	5,029
	<b>42,225</b>	<b>2,169</b>	<b>10,953</b>	<b>51,009</b>	<b>1,100</b>	<b>44,512</b>		<b>96,621</b>
<b>Current assets</b>								
Inventories	6,402		3,389	9,791	-	1,938	a,b	11,729
Trade accounts receivable	9,498		3,368	12,866	-	(40)	b	12,826
Other financial assets	7,315		40	7,355	-	-		7,355
Other receivables	1,029		630	1,659	-	130	c	1,789
Claims for income tax refunds	461		139	600	-	-		600
Cash and cash equivalents	5,332		1,957	7,289	1,042	(7,919)	a,c,d,e	412
Assets held for sale	3,132		25	3,157	-	(3,108)	c	49
	<b>33,169</b>	<b>-</b>	<b>9,547</b>	<b>42,716</b>	<b>1,042</b>	<b>(8,999)</b>		<b>34,760</b>
<b>Total assets</b>	<b>75,394</b>	<b>2,169</b>	<b>20,500</b>	<b>93,725</b>	<b>2,142</b>	<b>35,513</b>		<b>131,381</b>
<b>Equity</b>								
Capital stock of Bayer AG	2,117		(12,215)	(10,098)	-	12,485	a,d,e	2,387
Capital reserves of Bayer AG	9,658		9,706	19,364	-	(995)	a,d,e	18,369
Other reserves	26,553	(20)	9,473	36,046	(27)	(5,786)	a,b,c,e,f,g,h	30,234

<sup>7</sup> Represents the elimination of the Investments accounted for using the equity method of Covestro in the amount of €2,169 million as well as the related deferred tax liabilities of €20 million for outside basis differences on Covestro with the corresponding decrease in Other reserves.

	Historical Financials			Aggregated	Pro forma	Pro forma	Note	Pro forma
	Bayer	Less Covestro <sup>7</sup>	Monsanto		Adjustments Covestro	Adjustments Monsanto		Financials
	€ million	€ million	€ million		€ million	€ million		€ million
<b>Equity attributable to Bayer AG stockholders</b>	<b>38,328</b>	<b>(20)</b>	<b>6,964</b>	<b>45,312</b>	<b>(27)</b>	<b>5,704</b>		<b>50,990</b>
Equity attributable to noncontrolling interest	56		17	73	-	-		73
	<b>38,384</b>	<b>(20)</b>	<b>6,982</b>	<b>45,386</b>	<b>(27)</b>	<b>5,704</b>		<b>51,063</b>
<b>Noncurrent liabilities</b>								
Provisions for pensions and other post-employment benefits	8,096		312	8,408	-	-		8,408
Other provisions	1,302		292	1,594	-	257	c	1,851
Refund liabilities	146		-	146	-	-		146
Contract liabilities	799		66	865	-	-		865
Financial liabilities	12,273		5,413	17,686	-	22,832	a,e	40,518
Income tax liabilities	482		53	535	-	-		535
Other liabilities	228		79	307	-	-		307
Deferred taxes	586	20	433	999	-	6,641	a,e	7,640
	<b>23,912</b>	<b>20</b>	<b>6,648</b>	<b>30,540</b>	<b>-</b>	<b>29,731</b>		<b>60,271</b>
<b>Current liabilities</b>								
Other provisions	2,194		494	2,688	-	681	f,h	3,368
Refund liabilities	2,519		2,261	4,780	-	-		4,780
Contract liabilities	197		1,333	1,530	-	(50)	a	1,481
Financial liabilities	1,761		1,071	2,832	-	-		2,832
Trade accounts payable	3,943		794	4,737	-	(40)	b	4,697
Income tax liabilities	646		165	811	-	-		811
Other liabilities	1,318		753	2,071	-	-		2,071
Liabilities directly related to assets held for sale	520		-	520	-	(513)	c	7
	<b>13,098</b>	<b>-</b>	<b>6,871</b>	<b>19,969</b>	<b>-</b>	<b>78</b>		<b>20,047</b>
<b>Total equity and liabilities</b>	<b>75,394</b>	<b>-</b>	<b>20,500</b>	<b>95,894</b>	<b>(27)</b>	<b>35,513</b>		<b>131,381</b>

The following pro forma adjustment has been made for the Covestro Divestments:

- a) Represents the recognition of the other financial asset of €1,100 million and the corresponding decrease in Cash and cash equivalents. The increase in Cash and cash equivalents in the amount



of €2,142 million is related to the net proceeds from the sale of Covestro Shares in May 2018 and used to finance the Transaction. The related income taxes (€20 million) are assumed to have reduced Cash and cash equivalents. The loss from the sale in the amount of €7 million and the related tax expense of €20 million have been considered in Other reserves.

The following pro forma adjustments have been made for the Transaction:

- a) Recognition of the impact of the preliminary purchase price allocation performed. Bayer has estimated the potential fair value step ups and the related charges for selected assets and liabilities. These adjustments relate to the fair value step ups estimated for the intangible assets of €24,528 million (existing technologies of €15,963 million, IPR&D of €3,845 million, marketing- and customer-related intangible assets of €4,501 million and Other intangible assets of €219 million), Property, plant and equipment (€1,080 million), Inventories (€1,940 million), Financial liabilities noncurrent (€93 million), deferred revenues (recognized as a reduction in Contract liabilities current (€50 million)) as well as to the deferred tax assets of €24 million and deferred tax liabilities of €6,607 million related to the adjustments described above. The goodwill to be recorded amounts to €22,185 million. In addition, the elimination of Monsanto's equity (€6,964 million, thereof minus €12,215 million recognized in Capital stock of Bayer AG, €9,706 million recognized in Capital reserves of Bayer AG and €9,473 million recognized in Other reserves) as well as Monsanto's goodwill (€3,329 million) is presented in this adjustment. Furthermore, the retained earnings will be increased for the corresponding foreign exchange rate hedging of the purchase price recognized in OCI in Bayer's historical consolidated statement of financial position in the amount of €312 million, the respective amount was considered in the preliminary total consideration for Monsanto (€46,089 million). An amount of €45,777 million reduced Cash and cash equivalents.
- b) Represents the elimination of inter-company transactions between Bayer and Monsanto. Inter-company profits on inventories in the amount of €2 million (Other reserves decreased accordingly) and inter-company trade accounts receivable of €40 million and inter-company trade accounts payable of €40 million have been eliminated.
- c) Reflects the elimination of the assets and liabilities related to the Transaction-related Divestments. The assets and liabilities relating to the businesses subject to the Transaction-related Divestments were presented as Assets held for sale of €3,108 million and Liabilities directly related to assets held for sale of €513 million. The assumed net proceeds of €6,138 million have been presented as Cash and cash equivalents (the corresponding Income tax liabilities current assumed to be paid amounted to €1,135 million). The difference between the net proceeds and the assets and liabilities held for sale of €3,543 million resulting from the Transaction-related Divestments was recognized in Other reserves. Furthermore, the milestone payment of €130 million presented as Other receivables current and a contingent consideration presented as Other provisions noncurrent of €257 million have been recognized with the corresponding decrease in Other reserves of €127 million.
- d) Reflects the Temasek Investment. The net proceeds received from the Temasek Investment amount to €3,007 million (thereof €79 million recognized in Capital stock of Bayer AG and €2,928 million recognized in Capital reserves of Bayer AG) with the corresponding increase in Cash and cash equivalents. The transaction costs (€0.3 million) of the Temasek Investment have been recognized in Capital reserves of Bayer AG as a reduction.
- e) Reflects the Loan Facilities Agreement financing the Transaction in the amount of €22,739 million, presented as Financial liabilities noncurrent as well as the corresponding increase in Cash and cash equivalents. The Loan Facilities Agreement will only be drawn in the amount necessary, i.e., deducting the proceeds of the Divestments, the Temasek Investment, the Offering less the related transaction costs as well as Mandatory Convertible Notes (€3,956 million) and Exchangeable Bonds (€1,048 million) which were already recognized in Bayer's historical statement of financial position. The deferred tax liabilities for the Loan Facilities Agreement financing amounted to €34 million, which relate to the different treatment of one-time and commitment fees. As a result, Other reserves decreased by €34 million. The gross proceeds from the Offering in the amount of €6,043 million have been reduced by the transaction costs, net of tax, in the amount of €69 million, which were recognized directly in equity in accordance with IFRS and have therefore reduced the Capital reserves of Bayer AG. The assumed tax refund in respect of the transaction costs (€31 million) is assumed to have increased Cash and cash equivalents, applying Bayer's tax rate of 31.2%. Accordingly, the net

proceeds received from the Offering amount to €5,974 million (thereof €191 million recognized in Capital stock of Bayer AG and €5,783 million recognized in Capital reserves of Bayer AG) with the corresponding increase in Cash and cash equivalents.

- f) Represents the adjustment of Other provisions current relating to the cash settlement of Monsanto's equity awards as well as payroll taxes (totaling €552 million) and the related deferred tax assets (€51 million). As a result, Other reserves decreased by €501 million. This decrease in Other reserves reduced the net assets acquired and as a result Goodwill (€501 million) as well as Other reserves (€501 million) increased. Recognition of the change of control liabilities related to severance payments and a license agreement in Other provisions current (€114 million) and the related deferred tax assets of €28 million. The above described adjustments were considered in the calculation of the Goodwill (refer to a)).
- g) Reflects the step up of shares already held in Monsanto in the amount of €6 million recognized in Other financial assets noncurrent, using a share price of US\$128.00. As a result, Other reserves increased by €6 million. Subsequently these shares held in Monsanto presented as Other financial assets noncurrent in the amount of €68 million were derecognized as a result of the consolidation of Monsanto. This adjustment was considered in the calculation of the Goodwill (refer to a)).
- h) Recognition of non-recurring acquisition related costs not recorded as of March 31, 2018, of €15 million in Other provisions current (resulting in a decrease of Other reserves by €15 million) and the related increase in deferred tax assets in the amount €5 million and Other reserves in the amount of €5 million, applying Bayer's tax rate of 31.2%.

The report on the examination of the pro forma financial information set forth below is dated June 5, 2018, and was included in the prospectus dated June 5, 2018 relating to the rights offering of 74,604,154 new shares ordinary registered shares of Bayer AG, which is expected to close on June 22, 2018. In the pro forma financial information dated June 5, 2018, certain assumptions and pro forma adjustments were made with respect to the rights offering, the acquisition of Monsanto and the related financing, including the Loan Facilities Agreement, which were factually supportable at the time of such pro forma financial information's preparation. However, the pro forma financial information and the report on the examination of the pro forma financial information do not take into account any information or developments after June 5, 2018, including, e.g., the Bond Offerings, which include the offering of the Notes, the proceeds of which are intended to be used to repay amounts drawn down under the Loan Facilities Agreement, or the Exchange Offer and the US\$ Bond Offering described elsewhere in this Offering Memorandum, as they were not factually supportable at the time the pro forma financial information was prepared by Bayer and the report on the examination of the pro forma financial information was issued.

#### **7.5 Report on the Examination of the Pro Forma Financial Information – Effects of the Covestro Divestments and the Acquisition of Monsanto on the Consolidated Financial Information of Bayer for the Fiscal Year ended December 31, 2017 and as of and for the Three Months Ended March 31, 2018**

To Bayer Aktiengesellschaft, Leverkusen

We have examined whether the pro forma financial information as of March 31, 2018, of Bayer Aktiengesellschaft, Leverkusen, (the "Company") has been properly compiled on the basis stated in the pro forma notes and whether this basis is consistent with the accounting policies of the Company as well as the presentation, recognition and measurement principles of the Company. The pro forma financial information comprises pro forma income statements for the periods from January 1, 2017, to December 31, 2017 and from January 1, 2018, to March 31, 2018, a pro forma statement of financial position as of March 31, 2018, as well as pro forma notes.

The purpose of the pro forma financial information is to present the material effects the transactions described in the pro forma notes would have had on the historical consolidated financial statements if the group had existed in the structure created by the transactions throughout the entire reporting periods (pro forma income statements) or at March 31, 2018 (pro forma statement of financial position). As pro forma financial information reflects a hypothetical situation, it is not entirely consistent with the presentation that would have resulted had the relevant transactions actually occurred at the beginning of the reporting periods (pro forma income statements) or at March 31, 2018 (pro forma statement of financial position). Accordingly, we do not provide any assurance about the actual effects of the transactions described in the pro forma notes.

The compilation of the pro forma financial information in accordance with the *IDW Accounting Practice Statement: Preparation of Pro Forma Financial Information (IDW AcPS AAB 1.004) (IDW Rechnungslegungshinweis: Erstellung von Pro-Forma-Finanzinformationen (IDW RH HFA 1.004))* promulgated by the Institut der Wirtschaftsprüfer in Deutschland e. V. (IDW) is the responsibility of the Company's management.

Our responsibility is, based on our examination, to express an opinion whether the pro forma financial information has been properly compiled on the basis stated in the pro forma notes and whether this basis is consistent with the accounting policies as well as the presentation, recognition and measurement principles of the Company. This also includes the evaluation of the overall presentation of the pro forma financial information. The subject matter of this engagement does neither include an audit of the basic figures including their adjustments to the accounting policies of the Company, nor of the pro forma assumptions stated in the pro forma notes.

We have planned and performed our examination in accordance with the *IDW Auditing Practice Statement: Audit of Pro Forma Financial Information (IDW AuPS 9.960.1) (IDW Prüfungshinweis: Prüfung von Pro-Forma-Finanzinformationen (IDW PH 9.960.1))* promulgated by the Institut der Wirtschaftsprüfer in Deutschland e. V. (IDW) in such a way that material errors in the compilation of the pro forma financial information on the basis stated in the pro forma notes and in the compilation of this basis consistent with the accounting policies as well as the presentation, recognition and measurement principles of the Company are detected with reasonable assurance.

In our opinion, the pro forma financial information has been properly compiled on the basis stated in the pro forma notes. This basis is consistent with the accounting policies as well as the presentation, recognition and measurement principles of the Company.

Munich, Germany, June 5, 2018

Deloitte GmbH  
Wirtschaftsprüfungsgesellschaft

Prof. Dr. Frank Beine  
Wirtschaftsprüfer  
(German Public Auditor)

Michael Mehren  
Wirtschaftsprüfer  
(German Public Auditor)

## 8. SELECTED CONSOLIDATED FINANCIAL INFORMATION OF THE BAYER GROUP

The financial information contained in the following sections is extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal years ended December 31, 2016 and December 31, 2017, from the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018 and from the Group's internal and external accounting records, or has been calculated on the basis of figures from the above-mentioned sources, unless otherwise indicated.

At the end of September 2017, Bayer lost control of its subsidiary Covestro AG ("Covestro AG" and together with its subsidiaries "Covestro"), its former Material Science business, due to the sale of shares and the signing of a control termination agreement, as part of which Bayer has undertaken not to exercise certain voting rights at Covestro's annual stockholders' meeting (the "Loss of Control"). As a result of the Loss of Control at the end of September 2017, Covestro ceased to be a reportable segment and fulfilled the conditions for presentation as discontinued operations for the first nine months of 2017. As of October 1, 2017 Covestro was classified as an associate due to Bayer's remaining significant influence and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss. The comparative information for fiscal year ended December 31, 2016 (with the exception of the consolidated statement of financial position as of December 31, 2016) as presented in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017 and for the three months ended March 31, 2017 as presented in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018, which are presented and discussed in the Offering Memorandum, was restated accordingly to present Covestro as discontinued operations for the full fiscal year ended December 31, 2016 and for the three months ended March 31, 2017. However, the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, including the comparative information for fiscal year ended December 31, 2015, which are presented and discussed in this Offering Memorandum, as well as the audited consolidated financial statements as of and for fiscal year ended December 31, 2015, which are incorporated by reference in this Offering Memorandum, were not restated to present Covestro as discontinued operations. For further information regarding the comparability of the financial information presented in the following sections, see "10.5 Comparability of the Financial Information Contained in the Audited Consolidated Financial Statements." In order to increase transparency in the following sections, we present the 2016 figures relating to the results of operations of the Bayer Group and the cash flows of the Bayer Group in two columns: one column showing the 2016 figures as presented in the audited consolidated income statement or the audited consolidated statement of cash flows of Bayer, as the case may be, as of and for fiscal year ended December 31, 2016 (with Covestro included in continuing operations) and a second column showing the 2016 figures as presented as comparative figures in the audited consolidated income statement or the audited consolidated statement of cash flows of Bayer for fiscal year ended December 31, 2017 (with Covestro presented as discontinued operations).

The audited consolidated financial statements of Bayer as of and for fiscal years ended December 31, 2015, December 31, 2016 and December 31, 2017, incorporated by reference in this Offering Memorandum, were prepared in accordance with IFRS and the additional requirements of Section 315e para. 1 of the HGB (formerly Section 315a para. 1 of the HGB). The unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018 were prepared in accordance with IFRS for interim financial reporting (IAS 34).

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (formerly PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft) has audited and issued unqualified auditor's reports with respect to the consolidated financial statements of Bayer as of and for fiscal years ended December 31, 2015 and December 31, 2016. These financial statements and the auditor's reports thereon are incorporated by reference in this Offering Memorandum.

Deloitte GmbH Wirtschaftsprüfungsgesellschaft, Munich, Germany ("**Deloitte Germany**"), was appointed as the statutory auditor for the consolidated financial statements of Bayer. Deloitte Germany has audited and issued an unqualified auditor's report with respect to the consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017. In addition, Deloitte Germany was appointed to review the unaudited condensed consolidated interim financial statements of Bayer. Deloitte Germany has reviewed and issued a review report with respect to the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018. These financial statements as well as the auditor's reports and review report thereon are incorporated by reference in this Offering Memorandum.

Where financial information in the following tables is labelled “audited,” this means that it has been extracted from the audited financial statements mentioned above. The label “unaudited” is used in the following tables to indicate financial information that either has been derived from the unaudited condensed consolidated interim financial statements mentioned above or the Group’s internal and external accounting records, or has been calculated on the basis of figures extracted from the above-mentioned sources. All financial information presented in the following tables and sections are stated in millions of euro (in € million), except as otherwise stated. Certain financial information in the following tables and sections (including percentages) has been rounded according to established commercial standards. As a result, the aggregate amounts (sum totals or sub-totals or differences or if numbers are put in relation) may not correspond in all cases to the corresponding rounded amounts contained in the following tables and sections. Furthermore, in the following tables, these rounded figures may not add up exactly to the totals contained in the respective tables. The percentage changes that are stated in the following tables and sections have been commercially rounded to one decimal place, unless stated otherwise. Financial information presented in parentheses in the following tables denotes that the presented number is a negative number, unless stated otherwise. In respect of financial information set out in the main body of the Offering Memorandum (i.e., other than in the section referenced to in “19. Documents Incorporated by Reference”), a zero (“0”) signifies that the relevant figure is available but has been rounded to zero, a dash (“–”) signifies that an amount truly is zero and/or that the relevant figure is not available.

This Offering Memorandum contains the following Alternative Performance Measures: EBIT, EBITDA, EBIT before special items, EBITDA before special items, Core EBIT, Core EPS, core net income from continuing operations, net financial debt, NOPAT, ROCE and currency-adjusted or currency- and portfolio-adjusted change in sales. The Alternative Performance Measures are not recognized as measures under IFRS and should not be considered as substitutes for figures determined in accordance with IFRS, such as income before income taxes, income after income taxes, net cash provided by (used in) operating activities or other income statement or cash flow data, or as measures of profitability or liquidity. The Alternative Performance Measures do not necessarily indicate whether cash flow will be sufficient or available for Bayer’s cash requirements, nor whether any such measure is indicative of Bayer’s historical operating results. The Alternative Performance Measures are not meant to be indicative of future results. Because not all companies calculate these measures and figures in the same way, Bayer’s presentation of the Alternative Performance Measures is not necessarily comparable with similarly titled measures used by other companies.

The following selected financial information should be read together with the section “1 Risk Factors” which describes certain effects the materialization of the risks described therein may have on the business, financial condition and results of operations of the Bayer Group; the section “11. Business” which contains information on our business operations, and the section “10. Management’s Discussion and Analysis of Financial Condition and Results of Operations” as well as the audited consolidated financial statements of Bayer as of and for fiscal years ended December 31, 2015, 2016 and 2017 and the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018, incorporated by reference (see “19.1 Bayer Information”) which contain further discussions of our financial information as well as financial data in addition to the data presented in this section.

## 8.1 Bayer Group Consolidated Income Statements

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited)		(audited)		(unaudited)	
	(in € million, unless otherwise indicated)		(in € million, unless otherwise indicated)		(in € million, unless otherwise indicated)	
<b>Net sales</b> .....	<b>46,085</b>	<b>46,769</b>	<b>34,943</b>	<b>35,015</b>	<b>9,680</b>	<b>9,138</b>
Cost of goods sold .....	(21,040)	(20,295)	(11,756)	(11,382)	(2,987)	(2,909)
<b>Gross profit</b> .....	<b>25,045</b>	<b>26,474</b>	<b>23,187</b>	<b>23,633</b>	<b>6,693</b>	<b>6,229</b>
Selling expenses .....	(12,272)	(12,474)	(11,148)	(11,116)	(2,667)	(2,509)
Research and development expenses...	(4,274)	(4,666)	(4,405)	(4,504)	(1,094)	(1,040)
General administration expenses .....	(2,092)	(2,256)	(1,804)	(2,026)	(460)	(427)
Other operating income .....	1,109	898	787	864	159	152
Other operating expenses .....	(1,275)	(934)	(879)	(948)	(204)	(95)
<b>EBIT<sup>(4)</sup></b> .....	<b>6,241</b>	<b>7,042</b>	<b>5,738</b>	<b>5,903</b>	<b>2,427</b>	<b>2,310</b>
Equity-method income (loss) .....	(9)	(26)	(6)	20	(7)	71
Financial income .....	371	151	149	289	32	370
Financial expenses .....	(1,367)	(1,280)	(1,108)	(1,635)	(321)	(311)
<b>Financial result</b> .....	<b>(1,005)</b>	<b>(1,155)</b>	<b>(965)</b>	<b>(1,326)</b>	<b>(296)</b>	<b>130</b>
<b>Income before income taxes</b> .....	<b>5,236</b>	<b>5,887</b>	<b>4,773</b>	<b>4,577</b>	<b>2,131</b>	<b>2,440</b>
Income taxes .....	(1,223)	(1,329)	(1,017)	(1,329)	(424)	(494)
<b>Income from continuing operations after income taxes</b> .....	<b>4,013</b>	<b>4,558</b>	<b>3,756</b>	<b>3,248</b>	<b>1,707</b>	<b>1,946</b>
<b>Income from discontinued operations after income taxes</b> .....	<b>85</b>	<b>268</b>	<b>1,070</b>	<b>4,846</b>	<b>564</b>	<b>8</b>
<b>Income after income taxes</b> .....	<b>4,098</b>	<b>4,826</b>	<b>4,826</b>	<b>8,094</b>	<b>2,271</b>	<b>1,954</b>
<i>of which attributable to noncontrolling interest</i> .....	(12)	295	295	758	188	–
<i>of which attributable to Bayer AG stockholders (net income)</i> .....	4,110	4,531	4,531	7,336	2,083	1,954
<b>Earnings per share in €</b>						
<b>From continuing operations</b>						
Basic .....	4.87	5.12	4.50	3.73	1.96	2.23
Diluted .....	4.87	5.12	4.50	3.73	1.96	2.23
<b>From discontinued operations</b>						
Basic .....	0.10	0.32	0.94	4.68	0.43	0.01
Diluted .....	0.10	0.32	0.94	4.68	0.43	0.01
<b>From continuing and discontinued operations</b>						
Basic .....	4.97	5.44	5.44	8.41	2.39	2.24
Diluted .....	4.97	5.44	5.44	8.41	2.39	2.24

(1) Figures extracted from the audited consolidated income statement of Bayer for fiscal year ended December 31, 2016, which presents Covestro in continuing operations.

(2) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated income statement of Bayer for fiscal year ended December 31, 2017, which presents Covestro as discontinued operations.

(3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which presents Covestro as discontinued operations, as included in the unaudited condensed consolidated interim income statement of Bayer for the three months ended March 31, 2018.

(4) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

## 8.2 Bayer Group Consolidated Statements of Financial Position

	As of December 31,			As of March 31,
	2015 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017 <sup>(3)</sup>	2018
	(audited) (in € million)			(unaudited) (in € million)
<b>Assets</b>				
<b>Noncurrent assets</b>	<b>50,096</b>	<b>51,791</b>	<b>45,014</b>	<b>42,225</b>
Goodwill	16,096	16,312	14,751	14,480
Other intangible assets	15,178	13,567	11,674	11,185
Property, plant and equipment	12,375	13,114	7,633	7,330
Investments accounted for using the equity method	246	584	4,007	2,574
Other financial assets	1,092	1,281	1,634	1,737
Other receivables	430	583	400	535
Deferred taxes	4,679	6,350	4,915	4,384
<b>Current assets</b>	<b>23,821</b>	<b>30,447</b>	<b>30,073</b>	<b>33,169</b>
Inventories	8,550	8,408	6,550	6,402
Trade accounts receivable	9,933	10,969	8,582	9,498
Other financial assets	756	6,275	3,529	7,315
Other receivables	2,017	2,210	1,276	1,029
Claims for income tax refunds	509	676	474	461
Cash and cash equivalents	1,859	1,899	7,581	5,332
Assets held for sale	197	10	2,081	3,132
<b>Total assets</b>	<b>73,917</b>	<b>82,238</b>	<b>75,087</b>	<b>75,394</b>
<b>Equity</b>	<b>25,445</b>	<b>31,897</b>	<b>36,861</b>	<b>38,384</b>
Capital stock	2,117	2,117	2,117	2,117
Capital reserves	6,167	9,658	9,658	9,658
Other reserves	15,981	18,558	25,026	26,553
<b>Equity attributable to Bayer AG stockholders</b>	<b>24,265</b>	<b>30,333</b>	<b>36,801</b>	<b>38,328</b>
Equity attributable to noncontrolling interest	1,180	1,564	60	56
<b>Noncurrent liabilities</b>	<b>31,492</b>	<b>31,804</b>	<b>24,633</b>	<b>23,912</b>
Provisions for pensions and other post-employment benefits	10,873	11,134	8,020	8,096
Other provisions	1,740	1,780	1,366	1,302
Refund liabilities <sup>(4)</sup>	–	–	–	146
Contract liabilities <sup>(4)</sup>	–	–	–	799
Financial liabilities	16,513	16,180	12,483	12,273
Income tax liabilities	475	423	495	482
Other liabilities	1,065	957	1,116	228
Deferred taxes	826	1,330	1,153	586
<b>Current liabilities</b>	<b>16,980</b>	<b>18,537</b>	<b>13,593</b>	<b>13,098</b>
Other provisions	5,045	5,421	4,344	2,194
Refund liabilities <sup>(4)</sup>	–	–	–	2,519
Contract liabilities <sup>(4)</sup>	–	–	–	197
Financial liabilities	3,421	3,401	1,935	1,761
Trade accounts payable	5,945	6,410	5,129	3,943
Income tax liabilities	923	884	422	646
Other liabilities	1,534	2,421	1,652	1,318
Liabilities directly related to assets held for sale	112	–	111	520
<b>Total equity and liabilities</b>	<b>73,917</b>	<b>82,238</b>	<b>75,087</b>	<b>75,394</b>

- (1) Figures extracted from the audited consolidated statement of financial position of Bayer as of December 31, 2016, in which the assets and liabilities related to Covestro are still recognized within the financial position of the Group. In alignment with IFRS, the information on Bayer's financial position as of December 31, 2015 was not adjusted to reflect the sale of the consumer business of Crop Science's Environmental Science unit (the "Environmental Science Consumer Business").
- (2) Figures extracted from the audited consolidated statement of financial position of Bayer as of December 31, 2016 in which the assets and liabilities related to Covestro are still recognized within the statement of financial position of the Group. The assets and liabilities related to the Environmental Science Consumer Business are derecognized in the audited consolidated statements of financial position of Bayer as of December 31, 2016. In alignment with IFRS, the information on Bayer's financial position as of December 31, 2016 was not adjusted to reflect the deconsolidation of Covestro.
- (3) Figures extracted from the audited consolidated statement of financial position of Bayer as of December 31, 2017 in which the assets and liabilities related to Covestro, including the noncontrolling interest in Covestro, are derecognized. As of October 1, 2017, the remaining interest in Covestro was classified as an associate and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss.



- (4) The line items Refund liabilities and Contract liabilities were introduced as of January 1, 2018 and reflect accounting changes due to the first-time application of IFRS 15.

### 8.3 Selected Information from Bayer Group's Consolidated Statements of Cash Flows

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited) (in € million)		(audited) (in € million)		(unaudited) (in € million)	
<b>Net cash provided by (used in) operating activities from continuing operations</b> .....	<b>6,836</b>	<b>8,259</b>	<b>6,435</b>	<b>6,611</b>	<b>551</b>	<b>658</b>
Net cash provided by (used in) operating activities from discontinued operations .....	54	830	2,654	1,523	290	–
<b>Net cash provided by (used in) operating activities (total)</b> .....	<b>6,890</b>	<b>9,089</b>	<b>9,089</b>	<b>8,134</b>	<b>841</b>	<b>658</b>
<b>Net cash provided by (used in) investing activities</b> .....	<b>(2,762)</b>	<b>(8,729)</b>	<b>(8,729)</b>	<b>(432)</b>	<b>(1,136)</b>	<b>(2,058)</b>
<b>Net cash provided by (used in) financing activities</b> .....	<b>(3,974)</b>	<b>(350)</b>	<b>(350)</b>	<b>(1,881)</b>	<b>611</b>	<b>(581)</b>
<b>Change in cash and cash equivalents due to business activities</b> .....	<b>154</b>	<b>10</b>	<b>10</b>	<b>5,821</b>	<b>316</b>	<b>(1,981)</b>
<b>Cash and cash equivalents at beginning of year</b> .....	<b>1,853</b>	<b>1,859</b>	<b>1,859</b>	<b>1,899</b>	<b>1,899</b>	<b>7,436</b>
Change in cash and cash equivalents due to changes in scope of consolidation .....	5	3	3	–	–	1
Change in cash and cash equivalents due to exchange rate movements .....	(153)	27	27	(139)	9	(118)
<b>Cash and cash equivalents at end of the year</b> .....	<b>1,859</b>	<b>1,899</b>	<b>1,899</b>	<b>7,581</b>	<b>2,224</b>	<b>5,338</b>

- (1) Figures extracted from the audited consolidated statement of cash flows of Bayer for fiscal year ended December 31, 2016, which present the cash flow from operating activities related to Covestro as cash provided by (used in) operating activities from continuing operations.
- (2) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated statement of cash flows of Bayer for fiscal year ended December 31, 2017, which present the cash flow from operating activities related to Covestro as cash provided by (used in) operating activities from discontinued operations separately.
- (3) Figures derived from the restated comparative figures for the three months ended March 31, 2017 as included in the unaudited condensed consolidated interim statement of cash flows of Bayer for the three months ended March 31, 2018, which presents the cash flow from operating activities related to Covestro as cash provided by (used in) operating activities from discontinued operations separately.

### 8.4 Additional Key Figures for the Bayer Group

In Bayer's view, the Alternative Performance Measures described in this section constitute the most important indicators for measuring the operating and financial performance of the Bayer Group's business and, as such, are of use for potential investors. However, the Alternative Performance Measures are not recognized as measures under IFRS and should not be considered as substitutes for figures determined in accordance with IFRS, such as income before income taxes, income after income taxes, net cash provided by (used in) operating activities or other income statement or cash flow data, or as measures of profitability or liquidity. The Alternative Performance Measures do not necessarily indicate whether cash flows will be available and/or sufficient for Bayer's cash requirements, nor whether any such measure is indicative of Bayer's historical operating results. Also, the Alternative Performance Measures are not meant to be indicative of future results. Because not all companies calculate these measures and figures in the same way, Bayer's presentation of the Alternative Performance Measures is not necessarily comparable with similarly titled measures used by other companies. Bayer determines, in particular, the following Alternative Performance Measures:

- Earnings before interest and taxes, which is defined as income before income taxes less financial result ("EBIT").

- Earnings before interest, taxes, depreciation and amortization, which is defined as the sum of EBIT plus amortization of intangible assets and the depreciation of property, plant and equipment, plus impairment losses and minus impairment loss reversals, recognized in profit or loss during the reporting period (“**EBITDA**”).
- EBIT before special items is defined as the sum of EBIT plus/minus special items, i.e., special charges or special gains, which may include, litigations, restructuring, integration costs, impairment losses and impairment loss reversals (“**EBIT before special items**”).
- EBITDA before special items is defined as the sum of EBITDA plus/minus special items, i.e., special charges or special gains, which may include, litigations, restructuring and integration costs (“**EBITDA before special items**”).
- Core earnings per share (“**Core EPS**”) is based on the earnings per share (“**EPS**”) for the Group as defined in IAS 33. Core EPS is defined as EBIT plus/minus amortization and impairment losses/impairment loss reversals on intangible assets, impairment losses/impairment loss reversals on property, plant and equipment and accelerated depreciation included in special items as well as special items (other than accelerated depreciation, amortization and impairment losses / loss reversals) (this sum is referred to as “**Core EBIT**”), plus/minus financial result, special items in the financial result, income taxes, special items in income taxes, tax effects relating to amortization/impairment losses/impairment loss reversals and special items, income after income taxes attributable to noncontrolling interest and portion of the above-mentioned adjustments attributable to noncontrolling interest (this sum is referred to as “**Core net income from continuing operations**”); divided by the weighted average number of shares.
- Net financial debt is defined as the sum of financial liabilities (bonds and notes/promissory notes, liabilities to banks, liabilities under finance leases, liabilities from derivatives, other financial liabilities and receivables from derivatives) minus cash and cash equivalents and current financial assets.
- ROCE is defined as NOPAT to the average capital employed (“**Capital Employed**”). NOPAT represents the operating result after taxes and is calculated by subtracting income taxes (which are based on a historical average tax of 24%) from EBIT. The Capital Employed by the Group is the total carrying amount of operational assets, minus liabilities that are largely non-interest-bearing in character or would distort the capital base. For the components of capital employed, see “8.4.5 Return on Capital Employed (ROCE).” An average value, calculated from the values at the end of the prior year and of the reporting year, is used to depict the change in Capital Employed during the year.
- Currency-adjusted change in sales is defined as the percentage change in sales excluding the impact of exchange rate effects and currency- and portfolio-adjusted change in sales is defined as the percentage change in sales excluding the impact of exchange rate effects and disregarding the acquisitions and divestitures material to each business entity. Exchange rate effects are generally calculated on the basis of the functional currency valid in the respective country. Exceptions exist in Brazil and Argentina, primarily for Crop Protection, where the respective functional currencies are restated in U.S. dollars for business reasons.

Bayer believes that the Alternative Performance Measures are useful to enable the comparison of performance indicators over time and against those of other companies in its industry. Also, individual Alternative Performance Measures may assist in evaluating Bayer’s operating performance, measuring its periodic capital return, or generally assessing its liquidity, capital structure and financial flexibility. Specifically, Bayer uses the Alternative Performance Measures for the following:

- EBIT is used by the Group as an indicator for evaluating the operational performance of the Group. EBIT eliminates the effects differences in local taxation systems and different financing activities have on Bayer’s operating result.
- EBITDA is used by the Group as an indicator for evaluating the operational performance of the Group. EBITDA neutralizes the effects of the financial result along with distortions of operational performance that result from divergent depreciation and amortization methods and the exercise of measurement discretion.

- EBIT before special items is used by the Group as an indicator for evaluating the operational performance of the Group. EBIT before special items shows the development of the operational business of the Group irrespective of the effects of special items, i.e. special effects for the Group with regard to their nature and magnitude.
- EBITDA before special items is used by the Group as an indicator for evaluating the operational performance of the Group. EBITDA before special items shows the development of the operational business irrespective of the effects of special items, i.e. special effects for the Group with regard to their nature and magnitude.
- Core EPS is used as an indicator for evaluating the operational performance of the Group as it neutralizes the effects of special items to enable a comparison of performance over time.
- Net financial debt is an important financial management indicator for the Group and is used both internally and externally in assessing its liquidity, capital structure and financial flexibility.
- ROCE measures the Group's economic success in relation to Capital Employed and supplements the operational management indicators. As a strategic indicator, ROCE measures periodic capital return. This can then be compared with the weighted average cost of capital. Monitoring ROCE over time supports the analysis of long-term business development, while the portfolio analysis process includes comparing ROCE between business areas.
- Currency-adjusted change in sales is used as an indicator for evaluating the operational performance of the Group as it shows the Group's net sales performance eliminating the impact exchange rate effects have on our net sales. Currency- and portfolio-adjusted change in sales is also used as an indicator for evaluating the operational performance of the Group as it shows the Group's net sales performance eliminating the impact exchange rate effects and net sales from acquisitions and divestitures have on our net sales. Also see "8.4.6 Net Sales Adjusted for Foreign Currency Translation Effects and Portfolio Effects."

The following table provides an overview of certain Alternative Performance Measures for the Group for the periods presented:

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)		(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)		(unaudited) (in € million, unless otherwise indicated)	
EBIT <sup>(4)</sup> .....	6,241	7,042	5,738	5,903	2,427	2,310
EBITDA .....	9,573	10,785	8,801	8,563	2,999	2,818
EBIT before special items <sup>(4)</sup> .....	7,060	8,130	6,826	7,130	2,529	2,388
EBITDA before special items <sup>(4)</sup> .....	10,256	11,302	9,318	9,288	3,054	2,896
Core earnings per share from continuing operations (in €) .....	6.82	7.32	6.67	6.74	2.31	2.28
Net financial debt .....	17,449	11,778	11,778	3,595	10,400	1,650
Return on Capital Employed (ROCE) (in %) <sup>(4)</sup> .....	9.9	11.0	10.3	10.8	–	–

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

(2) Figures extracted or derived from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.

(3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(4) Audited for the fiscal years ended December 31, 2015, 2016 and 2017.

#### 8.4.1 Reconciliation of EBIT and EBITDA

The following table provides a reconciliation of the Group's Alternative Performance Measures EBIT and EBITDA for the periods presented:

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited, unless otherwise indicated) (in € million)		(audited, unless otherwise indicated) (in € million)		(unaudited) (in € million)	
Income before income taxes.....	5,236	5,887	4,773	4,577	2,131	2,440
Financial result.....	1,005	1,155	965	1,326	296	(130)
Equity-method (income) loss.....	9	26	6	(20)	7	(71)
Financial income.....	(371)	(151)	(149)	(289)	(32)	(370)
Financial expenses.....	1,367	1,280	1,108	1,635	321	311
<b>EBIT.....</b>	<b>6,241</b>	<b>7,042</b>	<b>5,738</b>	<b>5,903</b>	<b>2,427</b>	<b>2,310</b>
Depreciation, amortization and impairments.....	3,332	3,743	3,063	2,660	572	508
of which amortization and impairments on intangible assets <sup>(4)</sup> .....	1,802	2,235	2,192	1,679	341	297
of which depreciation and impairments on property, plant and equipment <sup>(4)</sup> .....	1,530	1,508	871	981	231	211
<b>EBITDA<sup>(4)</sup>.....</b>	<b>9,573</b>	<b>10,785</b>	<b>8,801</b>	<b>8,563</b>	<b>2,999</b>	<b>2,818</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

(2) Figures extracted or derived from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.

(3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(4) Unaudited.

#### 8.4.2 Reconciliation of EBIT before Special Items and EBITDA before Special Items

The following table provides a reconciliation of the Group's Alternative Performance Measures EBIT before special items and EBITDA before special items for the periods presented:

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited) (in € million)		(audited) (in € million)		(unaudited) (in € million)	
<b>EBIT.....</b>	<b>6,241</b>	<b>7,042</b>	<b>5,738</b>	<b>5,903</b>	<b>2,427</b>	<b>2,310</b>
of which EBIT of segments.....	6,740	7,406	6,102	6,389	2,567	2,417
of which EBIT of Corporate Functions and Consolidation.....	(499)	(364)	(364)	(486)	(140)	(107)
<b>Special items.....</b>	<b>819</b>	<b>1,088</b>	<b>1,088</b>	<b>1,227</b>	<b>102</b>	<b>78</b>
of which special items of segments....	792	1,068	1,068	1,190	100	75
of which special items of Corporate Functions and Consolidation.....	27	20	20	37	2	3
<b>EBIT before special items.....</b>	<b>7,060</b>	<b>8,130</b>	<b>6,826</b>	<b>7,130</b>	<b>2,529</b>	<b>2,388</b>
of which EBIT before special items of segments.....	7,532	8,474	7,170	7,579	2,667	2,492
of which EBIT before special items of Corporate Functions and Consolidation.....	(472)	(344)	(344)	(449)	(138)	(104)
<b>Depreciation, amortization and impairment losses / loss reversals before special items.....</b>	<b>3,196</b>	<b>3,172</b>	<b>2,492</b>	<b>2,158</b>	<b>525</b>	<b>508</b>
of which depreciation, amortization and impairment losses / loss reversals before special items of segments.....	3,190	3,166	2,486	2,145	522	504

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup> (audited) (in € million)	2016 <sup>(1)</sup>	2016 <sup>(2)</sup> (audited) (in € million)	2017	2017 <sup>(3)</sup> (unaudited) (in € million)	2018
<i>of which depreciation, amortization and impairment losses / loss reversals before special items of Corporate Functions and Consolidation</i> .....	6	6	6	13	3	4
<b>EBITDA before special items</b> .....	<b>10,256</b>	<b>11,302</b>	<b>9,318</b>	<b>9,288</b>	<b>3,054</b>	<b>2,896</b>
<i>of which EBITDA before special items of segments</i> .....	10,722	11,640	9,656	9,724	3,189	2,996
<i>of which EBITDA before special items of Corporate Functions and Consolidation</i> .....	(466)	(338)	(338)	(436)	(135)	(100)

- (1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.
- (2) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.
- (3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

#### 8.4.3 Core Earnings per Share

The following table shows the calculation of the Alternative Performance Measure Core EPS:

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup> (unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	2016 <sup>(1)</sup>	2016 <sup>(2)</sup> (unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	2017	2017 <sup>(3)</sup> (unaudited) (in € million, unless otherwise indicated)	2018
<b>EBIT<sup>(4)</sup></b> .....	<b>6,241</b>	<b>7,042</b>	<b>5,738</b>	<b>5,903</b>	<b>2,427</b>	<b>2,310</b>
Amortization and impairment losses / impairment loss reversal on intangible assets ..	1,802	2,235	2,192	1,679	342	297
Impairment losses / impairment loss reversals on property, plant and equipment, and accelerated depreciation included in special items .....	115	35	29	84	13	7
Special items (other than accelerated depreciation, amortization and impairment losses / loss reversals) <sup>(5)</sup> .....	683	517	517	725	55	78
<b>Core EBIT</b> .....	<b>8,841</b>	<b>9,829</b>	<b>8,477</b>	<b>8,391</b>	<b>2,837</b>	<b>2,692</b>
Financial result <sup>(4)</sup> .....	(1,005)	(1,155)	(965)	(1,326)	(296)	130
Special items in the financial result <sup>(6)</sup> .....	(150)	(105)	(105)	611	35	(236)
Income taxes <sup>(4)</sup> .....	(1,223)	(1,329)	(1,017)	(1,329)	(424)	(494)
Special items in income taxes	(39)	–	–	455	–	–
Tax effects relating to amortization, impairment losses / loss reversals and special items .....	(755)	(838)	(826)	(922)	(138)	(107)
Income after income taxes attributable to noncontrolling interest <sup>(4)</sup> .....	12	(295)	(13)	1	2	–
Above-mentioned adjustments attributable to noncontrolling interest .....	(39)	(13)	(1)	–	–	–
<b>Core net income from continuing operations</b> .....	<b>5,642</b>	<b>6,094</b>	<b>5,550</b>	<b>5,881</b>	<b>2,016</b>	<b>1,985</b>

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)		(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)		(unaudited) (in € million, unless otherwise indicated)	
Weighted average number of shares (no. of shares) <sup>(4)</sup> .....	826,947,808	832,502,808	832,502,808	872,107,808	871,387,808	872,467,808
<b>Core earnings per share from continuing operations (Core EPS) (in €) .....</b>	<b>6.82</b>	<b>7.32</b>	<b>6.67</b>	<b>6.74</b>	<b>2.31</b>	<b>2.28</b>

- (1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.
- (2) Figures extracted or derived from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.
- (3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.
- (4) Audited for the fiscal years ended December 31, 2015, 2016 and 2017.
- (5) These comprised litigation, restructuring, integration costs, divestments, revaluation of other receivables and others.
- (6) These comprised mainly interest income related to the Dow AgroSciences LLC litigation, financing costs related to the acquisition of Monsanto and others.

#### 8.4.4 Net Financial Debt

The following table shows the calculation of the Alternative Performance Measure net financial debt:

	As of December 31			As of March 31,
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2017	2018
	(audited, unless otherwise indicated) (in € million)			(unaudited) (in € million)
Bonds and notes / promissory notes .....	15,547	15,991	12,436	12,290
of which hybrid bonds <sup>(2)(3)</sup> .....	4,525	4,529	4,533	4,534
Liabilities to banks .....	2,779	1,837	534	611
Liabilities under finance leases .....	474	436	238	248
Liabilities from derivatives <sup>(4)</sup> .....	753 <sup>(3)</sup>	587	240	199
Other financial liabilities .....	369	730	970	686
Receivables from derivatives <sup>(2)(4)</sup> .....	(350)	(313)	(244)	(223)
<b>Financial liabilities<sup>(2)(5)</sup> .....</b>	<b>19,572</b>	<b>19,268</b>	<b>14,174</b>	<b>13,811</b>
Cash and cash equivalents .....	(1,859)	(1,899)	(7,581)	(5,332)
Current financial assets <sup>(2)(6)</sup> .....	(264)	(5,591)	(2,998)	(6,829)
<b>Net financial debt<sup>(2)</sup> .....</b>	<b>17,449</b>	<b>11,778</b>	<b>3,595</b>	<b>1,650</b>

- (1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.
- (2) Unaudited.
- (3) Classified as debt according to IFRS.
- (4) These include the market values of interest-rate and currency hedges of recorded transactions.
- (5) Referred to as "Financial liabilities" as of December 31, 2015, 2016 and 2017.
- (6) These include short-term loans and receivables with maturities between three and twelve months outstanding from banks and other companies as well as available-for-sale financial assets that were recorded as current on first-time recognition.

### 8.4.5 Return on Capital Employed (ROCE)

The following table shows the calculation of the Alternative Performance Measure ROCE:

	For fiscal year ended December 31,			
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)		(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
EBIT <sup>(3)</sup> .....	6,241	7,042	5,738	5,903
Taxes <sup>(4)</sup> .....	(1,498)	(1,690)	(1,377)	(1,417)
NOPAT.....	4,743	5,352	4,361	4,486
Average capital employed.....	47,797	48,777	42,318	41,600
ROCE (in %) <sup>(3)(5)</sup> .....	9.9	11.0	10.3	10.8

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

(2) Figures extracted or derived from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.

(3) Audited.

(4) 24% on EBIT, based on historical average of tax rates.

(5) ROCE is the ratio of NOPAT to Average capital employed.

The following table shows the components of the Alternative Performance Measure Capital Employed:

	As of December 31,			
	2015 <sup>(1)</sup>	2016	2016 <sup>(2)</sup>	2017
	(unaudited)	(audited, unless otherwise indicated)	(unaudited)	(audited, unless otherwise indicated)
	(in € million)		(in € million)	
Goodwill.....	16,054	16,312	16,048	14,751
Other intangible assets.....	15,171	13,567	13,470	11,674
Property, plant and equipment.....	12,369	13,114	8,475	7,633
Other financial assets <sup>(3) (4)</sup> .....	67	58	49	47
Inventories.....	8,493	8,408	6,687	6,550
Trade accounts receivable.....	9,888	10,969	9,319	8,582
Other receivables <sup>(3) (4)</sup> .....	2,042	1,701	1,367	1,293
Deferred tax assets <sup>(3) (4)</sup> .....	1,295	2,596	2,591	2,371
Claims for income tax refunds.....	509	676	676	474
Assets held for sale <sup>(5)</sup> .....	–	–	10	2,081
<b>Gross capital employed<sup>(4)</sup>.....</b>	<b>65,888</b>	<b>67,401</b>	<b>58,692</b>	<b>55,456</b>
Other provisions <sup>(3) (4)</sup> .....	(6,713)	(7,039)	(6,154)	(5,601)
Trade accounts payable.....	(5,909)	(6,410)	(4,991)	(5,129)
Other liabilities <sup>(3) (4)</sup> .....	(2,272)	(2,695)	(2,488)	(2,093)
Financial liabilities <sup>(3) (4)</sup> .....	(13)	–	–	(4)
Deferred tax liabilities <sup>(3) (4)</sup> .....	(804)	(1,252)	(1,242)	(910)
Income tax liabilities <sup>(4) (6)</sup> .....	(1,320)	(1,307)	(1,307)	(917)
Liabilities directly related to assets held for sale <sup>(5)</sup> .....	–	–	–	(111)
<b>Capital employed<sup>(4) (7)</sup>.....</b>	<b>48,857</b>	<b>48,698</b>	<b>42,510</b>	<b>40,690</b>
Average capital employed <sup>(4) (7)</sup> .....	47,797	48,777	42,318	41,600

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016. The 2015 figures presented here have been adjusted to reflect the sale of the Environmental Science Consumer Business in order to render ROCE for fiscal year 2015 and 2016 directly comparable. Bayer's consolidated statements of financial position as of December 31, 2015, under IFRS were not required to be adjusted retrospectively to reflect such sale.

(2) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017. The 2016 figures presented here have been adjusted to reflect the sale of Covestro in order to render ROCE for fiscal year 2016 and 2017 directly comparable. Bayer's consolidated statement of financial position as of December 31, 2016, under IFRS was not required to be adjusted retrospectively to reflect such sale.

(3) For the purpose of calculating "capital employed," nonoperative or non-interest-bearing items have been eliminated from selected items of this component.

(4) Unaudited.



- (5) "Assets held for sale" and "Liabilities" directly related to assets held for sale" contributed to EBIT in fiscal year 2017 and are therefore included in capital employed for fiscal year 2017.
- (6) Sum of current and noncurrent income tax liabilities as presented in Bayer's consolidated statements of financial position.
- (7) Capital employed is the total carrying amount of operational assets, minus liabilities that are largely non-interest-bearing in character or would distort the capital base. An average value, calculated from the values at the end of the prior year and of the reporting year, is used to depict the change in capital employed during the year.

#### 8.4.6 Net Sales Adjusted for Foreign Currency Translation Effects and Portfolio Effects

The Group's reporting currency is the Euro. However, a significant proportion of net sales is generated in other functional currencies and is therefore subject to foreign currency translation effects. Converting financial figures denominated in other functional currencies into Euro affects the comparability of the Group's results of operations between reporting periods when the exchange rates for Bayer's main currencies fluctuate. Accordingly, Bayer presents the impact of foreign currency translation, in absolute amounts and as a percentage of total net sales, on a consolidated basis for the Bayer Group and for Bayer's reportable segments. The foreign currency translation effects in net sales are calculated as follows: (1) (a) net sales for the current period, based on the currency exchange rate of the current period minus (b) net sales for the current period, based on the currency exchange rate of the previous period, divided by (2) net sales for the previous period, based on the currency exchange rate of the previous period. Currency translation effects are shown for all sales except for portfolio sales.

Exchange rate effects are generally calculated on the basis of the functional currency valid in the respective country. Exceptions exist in Brazil and Argentina, primarily for Crop Protection, where the respective functional currencies are restated in U.S. dollars for business reasons.

Portfolio effects in connection with the acquisition and divestiture of businesses also impact the comparability of Bayer's results of operations between the reporting periods. Accordingly, Bayer presents the impact of acquisitions or divestitures on net sales, in absolute amounts and as a percentage of total net sales, on a consolidated basis for the Bayer Group and for Bayer's reportable segments. In case of acquisitions the portfolio effects are calculated as follows: (1) net sales of the acquired business in the reporting period divided by (2) net sales of Bayer for the previous period; or, in case of divestitures, (1) net sales of the divested business for the previous period divided by (2) net sales of Bayer for the previous period. Portfolio (sales) effects are shown on a nominal (not currency-adjusted) basis.

Bayer believes that the presentation of net sales adjusted for foreign currency translation and portfolio effects provides useful information to investors because a meaningful analysis of the net sales development from one period to the next requires comparable data and therefore an understanding of the business development net of the impact of foreign currency translation and portfolio effects.

#### 8.5 Selected Key Data by Segment

The following table provides an overview of selected key data by segment for the periods presented. Following the deconsolidation of Covestro, the continuing operations of the Bayer Group consist of the businesses of the Pharmaceuticals, Consumer Health, Crop Science and Animal Health segments as well as Reconciliation. Prior to the deconsolidation of Covestro, these were together referred to as "Life Sciences" and the subtotal of Life Sciences was reported separately.

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited, unless otherwise indicated)		(audited, unless otherwise indicated)		(unaudited)	
	(in € million)		(in € million)		(in € million)	
<b>Net sales (external)</b>						
Pharmaceuticals .....	15,308	16,420	16,420	16,847	4,263	4,075
Consumer Health .....	6,076	6,037	6,037	5,862	1,601	1,409
Crop Science .....	10,128	9,915	9,915	9,577	3,120	2,861
Animal Health .....	1,490	1,523	1,523	1,571	440	414
Reconciliation <sup>(4)</sup> .....	1,101	1,048	1,048	1,158	256	379
<b>Life Sciences</b> .....	<b>34,103</b>	<b>34,943</b>	–	–	–	–
Covestro .....	11,982	11,826	–	–	–	–
<b>Group</b> .....	<b>46,085</b>	<b>46,769</b>	<b>34,943</b>	<b>35,015</b>	<b>9,680</b>	<b>9,138</b>



	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited, unless otherwise indicated)		(audited, unless otherwise indicated)		(unaudited)	
	(in € million)		(in € million)		(in € million)	
<b>EBIT<sup>(5)</sup></b>						
Pharmaceuticals .....	3,028	3,389	3,389	4,325	1,219	1,163
Consumer Health .....	768	695	695	518	278	211
Crop Science .....	2,094	1,755	1,755	1,235	970	892
Animal Health .....	254	313	313	307	126	129
Reconciliation <sup>(4)</sup> .....	(538)	(414)	(414)	(482)	(166)	(85)
<b>Life Sciences</b> .....	<b>5,606</b>	<b>5,738</b>	–	–	–	–
Covestro .....	635	1,304	–	–	–	–
<b>Group</b> .....	<b>6,241</b>	<b>7,042</b>	<b>5,738</b>	<b>5,903</b>	<b>2,427</b>	<b>2,310</b>
<b>EBITDA before special items<sup>(5)</sup></b>						
Pharmaceuticals .....	4,616	5,251	5,251	5,711	1,502	1,415
Consumer Health .....	1,456	1,411	1,411	1,231	392	313
Crop Science .....	2,406	2,421	2,421	2,043	1,115	1,042
Animal Health .....	347	349	349	381	135	139
Reconciliation <sup>(4)</sup> .....	(228)	(114)	(114)	(78)	(90)	(13)
<b>Life Sciences</b> .....	<b>8,597</b>	<b>9,318</b>	–	–	–	–
Covestro .....	1,659	1,984	–	–	–	–
<b>Group</b> .....	<b>10,256</b>	<b>11,302</b>	<b>9,318</b>	<b>9,288</b>	<b>3,054</b>	<b>2,896</b>

- (1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.
- (2) Figures extracted or derived from the restated comparative figures for fiscal year ended December 31, 2016 included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.
- (3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.
- (4) Unaudited. Reconciliation includes business activities that cannot be allocated to any other segment reported under "All Other Segments," including primarily the services provided by Business Services, Technology Services and Currenta. It also includes items reported under "Corporate Functions and Consolidation," which mainly comprises Bayer holding companies and Leaps by Bayer (formerly: Bayer Lifescience Center) as well as the increase or decrease in expenses for Group-wide long-term stock-based compensation arising from fluctuations in the performance of Bayer stock, and the consolidation of intersegment sales.
- (5) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

## 8.6 Net Sales by Region

The following table provides an overview of our net sales (external) by region for the periods presented:

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited) (in € million)		(audited) (in € million)		(unaudited) (in € million)	
<b>Net sales (external) – by market</b>						
Europe / Middle East / Africa .....	17,707	17,823	13,062	13,388	4,000	3,907
North America .....	12,621	12,806	10,066	10,143	2,994	2,654
Asia / Pacific .....	10,263	11,032	7,413	7,637	1,974	1,927
Latin America .....	5,494	5,108	4,402	3,847	712	650
Reconciliation <sup>(4)</sup> .....	–	–	–	–	–	–
<b>Group</b> .....	<b>46,085</b>	<b>46,769</b>	<b>34,943</b>	<b>35,015</b>	<b>9,680</b>	<b>9,138</b>

- (1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

- (2) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.
- (3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.
- (4) Reconciliation eliminates interregional sales and transactions and reflects income and expenses not allocable to geographical areas.

## 9. SELECTED CONSOLIDATED FINANCIAL INFORMATION OF MONSANTO

Investors should read the following selected consolidated financial information of Monsanto together with the subsections entitled “Item 1. Business,” “Item 1.A. Risk Factors,” “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Item 8. Financial Statements and Supplementary Information” included in Monsanto Company’s Annual Report on Form 10-K For the Fiscal Year Ended August 31, 2017 and with the subsections entitled “Item 1. Financial Statements,” “Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations Information” and “Item 1A. Risk Factors” included in Monsanto Company’s Quarterly Report on Form 10-Q for the Quarterly Period Ended February 28, 2018, incorporated by reference in section “19.2 Monsanto Information.”

The financial information contained in the following sections is extracted from the audited consolidated financial statements of Monsanto as of and for the fiscal years ended August 31, 2015, August 31, 2016 and August 31, 2017 and from the unaudited consolidated interim financial statements of Monsanto as of and for the six months ended February 28, 2018. The consolidated financial statements of Monsanto were prepared in accordance with U.S. GAAP and are reported in U.S. dollars, which is the currency of Monsanto’s country of incorporation, the United States of America. The audited consolidated financial statements of Monsanto as of and for the fiscal years ended August 31, 2015, August 31, 2016 and August 31, 2017, the auditor’s report thereon and the unaudited consolidated interim financial statements of Monsanto as of and for the six months ended February 28, 2018 are incorporate by reference in this Offering Memorandum.

### 9.1 Monsanto Company’s Statements of Consolidated Operations

	For the fiscal year ended August 31,			For the six months ended February 28,	
	2015	2016	2017	2017	2018
	(audited)			(unaudited)	
	(in \$ million, except per share amount)				
<b>Net Sales</b> .....	<b>15,001</b>	<b>13,502</b>	<b>14,640</b>	<b>7,724</b>	<b>7,677</b>
Cost of goods sold .....	6,819	6,485	6,703	3,513	3,399
<b>Gross profit</b> .....	<b>8,182</b>	<b>7,017</b>	<b>7,937</b>	<b>4,211</b>	<b>4,278</b>
<b>Operating Expenses:</b>					
Selling, general and administrative expenses .....	2,686	2,833	2,969	1,242	1,316
Research and development expenses .....	1,580	1,512	1,607	751	776
Restructuring charges .....	393	297	(36)	(13)	3
Pending Bayer transaction related costs .....	–	–	185	120	45
<b>Total Operating Expenses</b> .....	<b>4,659</b>	<b>4,642</b>	<b>4,725</b>	<b>2,100</b>	<b>2,140</b>
<b>Income from Operations</b> .....	<b>3,523</b>	<b>2,375</b>	3,212	2,111	2,138
Interest expense.....	433	436	452	238	229
Interest income.....	(105)	(74)	(76)	(36)	(39)
Other expense, net.....	34	22	(50)	(45)	(121)
Income from Continuing Operations Before Income Taxes	3,161	1,991	2,886	1,954	2,069
Income tax provision .....	864	695	626	566	441
<b>Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest</b> .....	<b>2,297</b>	<b>1,296</b>	<b>2,260</b>	<b>1,388</b>	<b>1,628</b>
<b>Discontinued Operations:</b>					
Income from operations of discontinued businesses.....	45	27	21	21	4
Income tax provision .....	17	10	8	8	1
<b>Income on Discontinued Operations</b> .....	<b>28</b>	<b>17</b>	<b>13</b>	<b>13</b>	<b>3</b>
<b>Net Income</b> .....	<b>2,325</b>	<b>1,313</b>	<b>2,273</b>	<b>1,401</b>	<b>1,631</b>
Less: Net (loss) income attributable to noncontrolling interest .....	11	(23)	13	4	3
<b>Net Income Attributable to Monsanto Company</b> .....	<b>2,314</b>	<b>1,336</b>	<b>2,260</b>	<b>1,397</b>	<b>1,628</b>
<b>Amounts Attributable to Monsanto Company:</b>					
Income from continuing operations .....	2,286	1,319	2,247	1,384	1,625
Income on discontinued operations.....	28	17	13	13	3
<b>Net Income Attributable to Monsanto Company</b> .....	<b>2,314</b>	<b>1,336</b>	<b>2,260</b>	<b>1,397</b>	<b>1,628</b>
<b>Basic Earnings per Share Attributable to Monsanto Company:</b>					
Income from continuing operations .....	4.79	2.98	5.12	3.16	3.69

	For the fiscal year ended			For the six months ended	
	August 31,			February 28,	
	2015	2016	2017	2017	2018
	(audited)			(unaudited)	
	(in \$ million, except per share amount)				
Income on discontinued operations.....	0.06	0.04	0.03	0.03	0.01
Net Income Attributable to Monsanto Company .....	4.85	3.02	5.15	3.19	3.70
<b>Diluted Earnings per Share Attributable to Monsanto Company:</b>					
Income from continuing operations .....	4.75	2.95	5.06	3.13	3.64
Income on discontinued operations.....	0.06	0.04	0.03	0.03	0.01
Net Income Attributable to Monsanto Company .....	4.81	2.99	5.09	3.16	3.65
<b>Weighted Average Shares Outstanding:</b>					
Basic .....	476.9	442.7	438.8	438.4	440.6
Diluted .....	481.4	447.1	443.8	442.3	445.9

## 9.2 Monsanto Company's Statements of Consolidated Financial Position

	As of		As of
	August 31,		February 28,
	2016	2017	2018
	(audited)		(unaudited)
	(in \$ million, except share amounts)		
<b>Assets</b>			
<b>Current Assets:</b>			
Cash and cash equivalents (variable interest entity restricted – 2018: \$19, 2017: \$94 and 2016: \$122) .....	1,676	1,856	2,409
Short-term investments .....	60	8	–
Trade receivables, net (variable interest entity restricted – 2018: \$124, 2017: \$74 and 2016: \$7) .....	1,926	2,161	2,520
Miscellaneous receivables (variable interest entity restricted – 2018: \$8, 2017: \$5 and 2016: \$0) .....	755	827	772
Inventory, net .....	3,241	3,340	4,015
Assets held for sale .....	272	199	30
Other current assets (variable interest entity restricted – 2018: \$0, 2017: \$1 and 2016: \$0) .....	227	260	310
<b>Total Current Assets</b> .....	<b>8,157</b>	<b>8,651</b>	<b>10,056</b>
Total property, plant and equipment.....	11,116	12,231	12,705
Less accumulated depreciation .....	5,885	6,301	6,596
Property, Plant and Equipment, net .....	5,231	5,930	6,109
Goodwill .....	4,020	4,088	4,100
Other Intangible Assets, Net .....	1,125	1,024	977
Deferred Tax Assets (variable interest entity restricted – 2018: \$11, 2017: \$11 and 2016: \$0).....	613	564	495
Long-Term Receivables, Net .....	101	121	58
Other Assets (variable interest entity restricted – 2018: \$4, 2017: \$4 and 2016: \$0).....	489	955	892
<b>Total Assets</b> .....	<b>19,736</b>	<b>21,333</b>	<b>22,687</b>
<b>Liabilities and Shareowners' Equity</b>			
<b>Current Liabilities:</b>			
Short-term debt, including current portion of long-term debt (variable interest entity restricted – 2018: \$2, 2017: \$0 and 2016: \$113) .....	1,587	870	1,212
Accounts payable (variable interest entity restricted – 2018: \$1, 2017: \$9 and 2016: \$0) .....	1,006	1,068	875
Income taxes payable .....	41	58	200
Accrued compensation and benefits .....	239	578	261
Accrued marketing programs .....	1,650	1,918	1,754
Deferred revenues (variable interest entity restricted – 2018: \$1 and 2017: \$0).....	568	727	1,686
Grower production accruals .....	47	59	189
Dividends payable.....	237	237	239
Customer payable .....	123	106	13
Restructuring reserves .....	227	37	18

	As of August 31,		As of
	2016	2017	February 28,
	(audited)		(unaudited)
	(in \$ million, except share amounts)		
Miscellaneous short-term accruals (variable interest entity restricted – 2018: \$2, 2017: \$2 and 2016: \$0) .....	1,004	740	702
<b>Total Current Liabilities</b> .....	<b>6,729</b>	<b>6,398</b>	<b>7,149</b>
Long-Term Debt (variable interest entity restricted – 2018: \$97, 2017: \$104 and 2016: \$0) .....	7,453	7,254	6,635
Postretirement Liabilities .....	371	313	303
Long-Term Deferred Revenue .....	35	114	114
Noncurrent Deferred Tax Liabilities .....	68	192	139
Long-Term Portion of Environment and Litigation Liabilities .....	200	218	213
Long-Term Restructuring Reserve .....	17	9	
Other Liabilities .....	318	377	368
Shareowners' Equity:			
Common stock (authorized: 1,500,000,000 shares, par value \$0.01 per share) Issued 614,841,751, 613,219,246 and 611,435,047 shares, respectively Outstanding 441,200,613, 439,578,276 and 437,795,024 shares, respectively, at cost .....	6	6	6
Treasury stock 173,641,138, 173,640,970 and 173,640,023 shares, respectively, at cost .....	(15,053)	(15,053)	(15,053)
Additional contributed capital .....	11,626	11,840	11,956
Retained earnings .....	10,763	12,072	13,290
Accumulated other comprehensive loss .....	(2,808)	(2,427)	(2,445)
<b>Total Monsanto Company Shareowners' Equity</b> .....	<b>4,534</b>	<b>6,438</b>	<b>7,754</b>
Noncontrolling interest .....	11	20	12
<b>Total Shareowners' Equity</b> .....	<b>4,545</b>	<b>6,458</b>	<b>7,766</b>
<b>Total Liabilities and Shareowners' Equity</b> .....	<b>19,736</b>	<b>21,333</b>	<b>22,687</b>

### 9.3 Monsanto Company's Statements of Consolidated Cash Flows

	For the fiscal year ended August 31,			For the six months ended February 28,	
	2015	2016	2017	2017	2018
	(audited)			(unaudited)	
	(in \$ millions)				
Net Cash Provided by Operating Activities .....	3,108	2,588	3,226	1,537	1,630
Net Cash Required by Investing Activities .....	(1,019)	(864)	(1,107)	(438)	(366)
Net Cash Required by Financing Activities .....	(430)	(3,742)	(1,966)	(494)	(714)
Effect of Exchange Rate Changes on Cash and Cash Equivalents .....	(325)	(7)	27	—	3
Net (Decrease) Increase in Cash and Cash Equivalents .....	1,334	(2,025)	180	605	553
Cash and Cash Equivalents at Beginning of Period ..	2,367	3,701	1,676	1,676	1,856
Cash and Cash Equivalents at End of Period .....	3,701	1,676	1,856	2,281	2,409

## 10. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read together with the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016 and December 31, 2017 and the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018, including the related notes thereto, all incorporated by reference in this Offering Memorandum. The discussion of the financial information as of and for the three months ended March 31, 2017 and 2018 is based on financial information derived from the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018 and the discussion of the financial information as of and for fiscal years ended December 31, 2016 and 2017 is based on financial information derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, each of which presents Covestro as discontinued operations and reflect the segment structure in effect from September 30, 2017 following the deconsolidation of Covestro. As of October 1, 2017 Covestro was classified as an associate due to Bayer's remaining significant influence and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss. The discussion of the financial information as of and for fiscal years ended December 31, 2015 and 2016 is based on financial information derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations and reflect the segment structure in effect from January 1, 2016 up to and excluding September 30, 2017. For more information on the comparability of Bayer's financial information incorporated by reference in this Offering Memorandum, see "10.5 Comparability of the Financial Information Contained in the Audited Consolidated Financial Statements."

### 10.1 Overview

Bayer is a globally operating life science company with a more than 150-year history and core competencies in the areas of health care and agriculture. With our innovative products, we believe we are helping to find solutions to some of the major challenges of our time. With life expectancy continuing to rise, we are striving to improve quality of life for a growing population by focusing our research and development activities on preventing, alleviating and treating diseases. We are also aiming to make an important contribution to providing a reliable supply of high-quality food, feed and plant-based raw materials.

Our operations are currently divided into the following four reportable segments:

- **Pharmaceuticals:** Pharmaceuticals focuses on prescription products, especially for cardiology and women's health care, and on specialty therapeutics in the areas of oncology, hematology and ophthalmology. Pharmaceuticals' key growth products are Xarelto™, EYLEA™, Stivarga™, Xofigo™ and Adempas™. The division also comprises the radiology business, which markets diagnostic imaging equipment together with the necessary contrast agents.
- **Consumer Health:** Consumer Health markets nonprescription (over-the-counter ("OTC")) medicines, medical products and cosmetics in the dermatology, nutritional supplement, analgesic, digestive health, allergy, cold, foot care and sun protection categories. The top five best-selling products of Consumer Health in fiscal year 2017 Claritin™, Aspirin™, Bepanthen™ / Bepanthol™, Aleve™ and Canesten™.
- **Crop Science:** Crop Science is an agriculture enterprise with businesses in crop protection, seeds and nonagricultural pest control. It markets a broad portfolio of high-value seeds and innovative pest management solutions, while at the same time providing extensive customer service for sustainable agriculture. In addition, it provides products and services for professional nonagricultural applications, such as vector and pest control and forestry.
- **Animal Health:** Animal Health develops and markets products and solutions for the prevention and treatment of diseases in farm and companion animals. Best-selling products of Animal Health in fiscal year 2017 included the Advantage™ product family, Seresto™, the Drontal™ product family and Baytril™.

In addition, business activities that cannot be allocated to any other segment, which primarily include the services provided by the service areas Business Services, Technology Services and Currenta are reported under “All Other Segments” and items reported under “Corporate Functions and Consolidation,” which mainly comprise the Bayer holding companies and Leaps by Bayer (formerly: Bayer Lifescience Center), are reported under the item “Reconciliation.”

Prior to its deconsolidation at the end of September 2017, Covestro, a provider of high-tech polymer materials and associated application solutions, was our fifth reportable segment. For more information, see “10.3.1 Previous Transactions.”

In 2017, Bayer recognized external net sales of €35,015 million (2016: €34,943 million) and EBIT of €5,903 million (2016: €5,738 million). The individual segments contributed to the total external net sales and EBIT in 2017 as follows: Pharmaceuticals: €16,847 million in external net sales (48.1%), €4,325 million in EBIT (73.3%); Consumer Health: €5,862 million in external net sales (16.7%), €518 million in EBIT (8.8%); Crop Science: €9,577 million in external net sales (27.4%), €1,235 million in EBIT (20.9%), and Animal Health: €1,571 million in external net sales (4.5%), €307 million in EBIT (5.2%).

For the three months ended March 31, 2018, Bayer recognized external net sales of €9,138 million (three months ended March 31, 2017: €9,680 million) and EBIT of €2,310 million (three months ended March 31, 2017: €2,427 million). The individual segments contributed to the total external net sales and EBIT in the three months ended March 31, 2018 as follows: Pharmaceuticals: €4,075 million in external net sales (44.6%), €1,163 million in EBIT (50.3%); Consumer Health: €1,409 million in external net sales (15.4%), €211 million in EBIT (9.1%); Crop Science: €2,861 million in external net sales (31.3%), €892 million in EBIT (38.6%) and Animal Health: €414 million in external net sales (4.5%), €129 million in EBIT (5.6%).

In geographical terms and in terms of external net sales by destination, the individual regions contributed to the total external net sales in 2017 as follows: Europe / Middle East / Africa: €13,388 million or 38.2% (2016: €13,062 million or 37.4%); North America: €10,143 million or 29.0% (2016: €10,066 million or 28.8%); Asia / Pacific: €7,637 million or 21.8% (2016: €7,413 million or 21.2%) and Latin America: €3,847 million or 11.0% (2016: €4,402 million or 12.6%).

For the three months ended March 31, 2018, the individual regions contributed to the total external net sales (by destination) of €9,138 million as follows: Europe / Middle East / Africa: €3,907 million (42.8%); North America: €2,654 million (29.0%); Asia / Pacific: €1,927 million (21.1%) and Latin America: €650 million (7.1%).

Bayer has engaged in a number of strategic acquisitions and divestitures over the past years, including the acquisition of the consumer care business of the U.S. company Merck & Co., Inc., Whitehouse Station, New Jersey, United States (“**Merck & Co., Inc.**”) in October 2014. On September 14, 2016, Bayer entered into an agreement and plan of merger with Monsanto Company, a global provider of agricultural products, including seeds and trait technologies, herbicides, and digital platforms to give farmers agronomic recommendations. The Merger Agreement provided for Bayer’s acquisition (through a merger) of all outstanding shares of Monsanto Company against a payment of US\$128.00 per share in cash which at the time corresponded to an expected transaction value of approximately US\$66 billion as of May 31, 2016. As of the date of this Offering Memorandum, this corresponds to a transaction value of approximately US\$63 billion taking into account Monsanto’s debt outstanding as of February 28, 2018. The Transaction, which was subject to customary closing conditions, including the receipt of required antitrust and other regulatory approvals, was completed on June 7, 2018 after all required closing conditions were satisfied or waived. Upon completion of the Transaction, Crop Science including Monsanto’s business became Bayer’s largest division in terms of net sales and, upon this basis, Bayer intends to create a global leader committed to transforming agriculture, which offers advanced customized agronomic solutions designed to help farmers achieve the productivity increases needed to feed an ever growing world population. For more information on the Transaction, see “6. *The Acquisition of Monsanto.*”

In connection with obtaining required antitrust approvals to complete the Transaction, Bayer, in separate transactions entered into in October 2017 and April 2018, respectively, has agreed to sell selected Crop Science businesses to BASF. For more information, see “6.10 *Overview of Transaction-related Divestments.*”

## **10.2 Recent Reorganizations of the Group**

The corporate structure of the Group was changed over the past years. In the following, we provide an overview of these reorganizations, including their impact on Bayer’s segment structure.



### **10.2.1 Bayer's Corporate Structure until December 31, 2015**

Until December 31, 2015, Bayer AG served as a strategic management holding company. Under its direction, the three subgroups HealthCare (divided into the segments Pharmaceuticals and Consumer Health), Crop Science and Covestro (formerly Material Science) conducted their business operations on their own responsibility in line with predefined goals, supported by three service companies. The corporate functions and business services operated as group-wide competence centers, in which business support services were bundled. Currenta was the service company responsible for managing and operating the Chempark sites in Leverkusen, Dormagen and Krefeld-Uerdingen.

### **10.2.2 Bayer's Corporate Structure in Effect from January 1, 2016**

On September 1, 2015, the former Material Science subgroup was renamed Covestro and became legally and economically independent. Subsequently, Covestro AG was floated on the stock market on October 6, 2015. After the floatation, Bayer held 69% of the shares in Covestro AG which it since has been gradually divesting. Prior to its deconsolidation, Covestro was fully consolidated in Bayer's financial statements, because Bayer still held the de-facto majority at Covestro AG's stockholders' meeting, and constituted a reportable segment of Bayer. See "10.3.1 Previous Transactions" for more information on Bayer's gradual divestment of Covestro Shares. With the company's focus on the Life Science businesses following the carve-out and stock market floatation of Covestro, a new organizational structure was introduced effective January 1, 2016. Since then Bayer's operations have been managed in three divisions – Pharmaceuticals, Consumer Health and Crop Science – and the Animal Health business unit. The former HealthCare subgroup was dissolved, with the former Radiology and Pharmaceuticals businesses having been merged to form the new Pharmaceuticals division. The Consumer Health division as of January 1, 2016 has consisted entirely of Bayer's consumer care business. Animal Health became a separate reportable segment, whereby the head of Animal Health reports to the board member who is also responsible for Crop Science. The Crop Science subgroup is now the Crop Science division. Effective January 1, 2016, the Board of Management was enlarged to include the heads of the new Pharmaceuticals, Consumer Health and Crop Science divisions. The corporate functions and business services continued to operate as group-wide competence centers, in which business support services were bundled. Currenta remained the service company responsible for managing and operating the sites in Leverkusen, Dormagen and Krefeld-Uerdingen.

From January 1, 2016 to September 30, 2017, Bayer AG reported five segments: Pharmaceuticals, Consumer Health, Animal Health, Crop Science and Covestro.

### **10.2.3 Deconsolidation of Covestro and Current Segment Reporting**

At the end of September 2017, Bayer lost control of its subsidiary Covestro AG due to the sale of shares reducing Bayer's holdings in Covestro AG to 24.6%, at the time, and the signing of a control termination agreement, as part of which Bayer has undertaken not to exercise certain voting rights at Covestro's annual stockholders' meeting. See "10.3.1 Previous Transactions" for more information on Bayer's gradual divestment of Covestro Shares. As a result of the Loss of Control at the end of September 2017, Covestro ceased to be a reportable segment and fulfilled the conditions for presentation as discontinued operations for the first nine months of 2017. As of October 1, 2017 Covestro was classified as an associate due to Bayer's remaining significant influence and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss. The comparative information for fiscal year ended December 31, 2016 (with the exception of the consolidated statement of financial position as of December 31, 2016) was restated accordingly to present Covestro as discontinued operations for the full fiscal year ended December 31, 2016. Accordingly, as of September 30, 2017, Bayer AG has been reporting four segments: Pharmaceuticals, Consumer Health, Animal Health and Crop Science. Business activities that cannot be allocated to any other segment, which primarily include the services provided by the service areas Business Services, Technology Services and Currenta are reported under "All Other Segments," and items reported under "Corporate Functions and Consolidation," which mainly comprise the Bayer holding companies and Leaps by Bayer (formerly: Bayer Lifescience Center), are reported under the item "Reconciliation."

### **10.2.4 Changes to the Structure of the Crop Science Segment**

In connection with the Transaction (see "10.3.2 The Acquisition of Monsanto and Related Divestitures") and in preparation for the Combined Agriculture Business the structure of the Crop Science segment was adjusted as of January 1, 2018. Until January 1, 2018, Crop Science comprised the business units Crop Protection / Seeds (i.e., Herbicides, Fungicides, Insecticides, Seed Growth and Seeds) as well as Environmental Science. In the new



structure, which took effect on January 1, 2018, all the strategic business entities – including the Herbicides, Fungicides, Insecticides and SeedGrowth businesses – are organizationally located directly below the Crop Science segment. The Crop Protection / Seeds unit has ceased to exist, as has the intermediate Crop Protection level below it. In addition, the business entities within Seeds (including Traits) are now regarded individually and not jointly. In line with this, Vegetable Seeds is reported separately. In view of the current size, the other Seeds businesses – comprising Corn Seed & Traits, Soybean Seed & Traits, Cotton Seed & Traits, Oilseeds & Traits and Other Seeds & Traits – are grouped together under Other (Seeds & Traits). Environmental Science continues to be managed as a separate entity, on the same level as the other strategic business entities. Also, the new reporting structure is expected to be reviewed again upon completion of the Transaction and would be modified in line with the framework conditions prevailing at that point in time. As the new structure was not in place for fiscal years 2015, 2016 and 2017, the information presented in this Offering Memorandum with respect to these periods is presented based on the structure in place until December 31, 2017. The information presented in this Offering Memorandum relating to the three months ended March 31, 2018, including the comparative information for the three months ended March 31, 2017, which was restated to reflect the reorganization, are presented based on the Crop Science segment structure as of January 1, 2018.

### 10.3 Acquisition and Divestiture Activities

#### 10.3.1 Previous Transactions

Bayer has carried out a number of strategic acquisitions and divestitures over the past years, including the following, which we consider to be the most significant:

- In October 2014, HealthCare completed the acquisition of the consumer care business of the U.S. company Merck & Co., Inc. The purchase price amounted to €11,236 million, following purchase price allocation and adjustment. The acquired business was primarily comprised of products in the cold, allergy, sinus and flu, dermatology (including sun care), foot care and digestive health categories. The most important brands are Claritin™ (allergy), Coppertone™ (sun care), MiraLax™ (digestive health) and Afrin™ (cold), and – in North America and Latin America – Dr. Scholl's™ (foot care). These products and brands were intended to complement Bayer's existing range of nonprescription medicines offered by Consumer Health.
- In November 2014, Consumer Health acquired all the shares of Dihon Pharmaceuticals Group Co. Ltd., Kunming, Yunnan, China ("**Dihon**"). The purchase price amounted to €358 million, following purchase price allocation and adjustment. Dihon is a pharmaceutical company specializing in the manufacture and marketing of OTC and herbal traditional Chinese medicine products.
- In January 2016, Bayer completed the sale of its Diabetes Care business (the "**Diabetes Care Business**") to Panasonic Healthcare Holdings Co., Ltd., Tokyo, Japan, for €1.0 billion. Following the signing of the sale agreement in June 2015, the Diabetes Care Business was reported as discontinued operation.
- In October 2016, the sale of the Environmental Science Consumer Business to SBM Développement SAS, Lyon, France, was completed. Following the signing of the sale agreement in May 2016, the Environmental Science Consumer Business was reported as discontinued operation.
- As of September 1, 2015, Bayer's former Material Science subgroup was carved-out to become legally and economically independent and was renamed Covestro. On October 6, 2015, Covestro was floated on the stock market, immediately after which, Bayer still held 69% of the Covestro Shares. In a series of transactions that followed, Bayer gradually decreased its direct interest to currently 6.8%. Specifically, in April 2016, Bayer deposited 10 million Covestro Shares into Bayer Pension Trust e. V. ("**Bayer Pension Trust**"), a contractual trust arrangement for pension finance, thereby reducing its stake to 64.2%. In March 2017, Bayer reduced its stake to 53.3% by selling 22 million Covestro Shares to institutional investors at a price of €66.50 per Covestro Share. In June 2017, Bayer further reduced its holding to 44.8% by selling 17.25 million of Covestro Shares at a price of €62.25 per Covestro Share through an accelerated bookbuilding

procedure. In addition, Bayer placed the Exchangeable Bonds in a nominal amount of €1.0 billion. Upon exchange, Bayer will have the flexibility to settle the Exchangeable Bonds in cash, by delivery of Covestro Shares or by a combination thereof. In June 2017, Bayer contributed 8 million additional Covestro Shares to the Bayer Pension Trust. In September 2017, Bayer reduced its direct interest to 31.5%, by selling 19 million of its Covestro Shares to institutional investors at a price of €63.25 per Covestro Share and in late September 2017, Bayer AG sold a further 6.9% of Covestro Shares for €1.0 billion, thereby reducing its direct stake in Covestro to 24.6%. As a result of the reduced stake and the conclusion of a control termination agreement at the end of September 2017, Covestro ceased to be a reportable segment and fulfilled the conditions for presentation as discontinued operations for the first nine months of 2017. As of October 1, 2017 Covestro was classified as an associate due to Bayer's remaining significant influence and accounted for using the equity method. In January 2018, Bayer AG sold a further 10.4% of Covestro Shares for €1.8 billion, thereby reducing its direct stake in Covestro to 14.2%. At the beginning of May 2018 Bayer AG sold 28.81 million Covestro Shares, representing a 14.2% interest in Covestro AG for €2.2 billion. Following the acquisition of Covestro Shares from the Bayer Pension Trust in May 2018, which no longer holds any Covestro Shares, Bayer now holds 6.8% of Covestro Shares, which it intends to use to repay the Exchangeable Bonds that mature in 2020. Following this transaction, Bayer's remaining interest in Covestro is being accounted for at fair value.

For further information on acquisitions and divestiture activities conducted in fiscal years 2015, 2016 and 2017 and during the three months ended March 31, 2018, see the information in Bayer's unaudited condensed consolidated interim financial statements as of and for the three months ended March 31, 2018, notes 6.2 and 6.3 of Bayer's consolidated financial statements for fiscal year 2017 and notes 6.2 and 6.3 of Bayer's consolidated financial statements for fiscal year 2016.

### **10.3.2 The Acquisition of Monsanto and Related Divestitures**

On September 14, 2016, Bayer signed the Merger Agreement with Monsanto Company, a global provider of agricultural products, including seeds and trait technologies, herbicides, and digital platforms to give farmers agronomic recommendations. The Merger Agreement provided for Bayer's acquisition (through a merger) of all outstanding shares of Monsanto Company against a payment of US\$128.00 per share in cash which corresponded to an expected transaction value of approximately US\$66 billion as of May 31, 2016. As of the date of this Offering Memorandum, this corresponds to a transaction value of approximately US\$63 billion taking into account Monsanto's debt outstanding as of February 28, 2018. The Transaction, which was subject to customary closing conditions, including the receipt of required antitrust and other regulatory approvals, was completed on June 7, 2018 after all required closing conditions were satisfied. Upon completion of the Transaction, Crop Science including Monsanto's business became Bayer's largest division in terms of net sales. Bayer believes the agricultural industry offers long-term growth prospects driven by sustainable megatrends, including projected global population growth, higher protein intake, declining total size of farmland per capita and negative effects on yields resulting from climate change. Upon this basis, Bayer intends to create a global leader committed to transforming agriculture, which offers advanced customized agronomic solutions designed to help farmers achieve the productivity increases needed to feed an ever growing world population. Bayer is convinced the Transaction brings together two highly complementary businesses and expects the Combined Agriculture Business to benefit from Monsanto's seeds and traits, its digital farming platform and Bayer's broad crop protection product line across a comprehensive range of indications and crops. For further information on the Transaction and its expected effects on our results of operations, see "6. The Acquisition of Monsanto."

In connection with obtaining required antitrust approvals to complete the Transaction, Bayer has entered into the following Transaction-related Divestments: On October 13, 2017, Bayer reached an agreement with BASF on the First BASF Divestiture Package. The assets to be sold include Bayer's global glufosinate-ammonium herbicide business and the related LibertyLink™ technology for herbicide tolerance as well as respective R&D capabilities. The seed businesses to be divested include the global cotton seed business (excluding India and South Africa) as well as essentially the entire canola and soybean seed business. An aggregate base purchase price of approximately €5.9 billion was agreed. It excludes the value of any net working capital and is subject to customary price adjustment mechanisms. In addition, in accordance with the terms of the Divestiture Agreements, the aggregate base purchase price will be reduced by approximately €0.2 billion at closing as a result of the Transaction not closing by January 1, 2018. Such adjustment reflects the fact that Bayer continues to get the benefit of the businesses covered by the Divestiture Agreements pending closing of the transaction. The businesses covered by the First BASF Divestiture Package generated sales of €1.5 billion for the fiscal year ended December 31, 2017 and of €0.7 billion for the three months ended March 31, 2018. Furthermore, on April 26, 2018, Bayer entered into agreements to sell further Crop Science businesses to BASF for an aggregate base purchase price of up to €1.7 billion, which is subject to customary purchase price adjustment mechanisms and includes a milestone payment of €0.1 billion expected to be paid in 2019. The businesses to be divested include in particular Bayer's global vegetable seeds business, certain seed treatment products, Bayer's research platform for wheat hybrids and certain glyphosate-based herbicides in Europe that are predominantly used in industrial applications. In addition, three research projects in the field of total herbicides and Bayer's digital farming business will also be transferred. Bayer may license back, on a non-exclusive basis, technology needed for Bayer to sell certain digital agriculture products outside North America. The businesses to be divested as part of the Second BASF Divestiture Package generated total sales of €0.7 billion for the fiscal year ended December 31, 2017 and of €0.2 billion for the three months ended March 31, 2018. For more information on the Transaction-related Divestments, see "6.10 Overview of Transaction-related Divestments" and "10.4.7.2 Effects of the Acquisition of Monsanto and Related Divestitures."

#### **10.4 Factors Affecting the Results of Operations of our Group**

In the following we provide an overview of certain factors that typically affect the results of operations of our Group and its segments, with a particular focus on the economically most significant segments Pharmaceuticals, Consumer Health and Crop Science. Up until its deconsolidation at the end of September 2017, Covestro was a fully consolidated segment of the Bayer Group. For information on the effects Covestro has had on our business in the past and the effects we expect the deconsolidation of Covestro to have on our business, see "10.4.7.1 Effects of the Divestment and Deconsolidation of Covestro." For information of the effects we expect the Transaction to have on our business, see "10.4.7.2 Effects of the Acquisition of Monsanto and Related Divestitures."

##### **10.4.1 Our Ability to Sell our Key Products and Launch New and Innovative Products**

Our segments' revenues are primarily driven by product sales, 48.1% of which derived from Pharmaceuticals in fiscal year 2017. The markets for our products are characterized by a high degree of innovation and development. We are only able to maintain our revenue levels, if our products continuously show a high degree of innovation and meet the demands and expectations of our customers. Thus, our results of operations are materially influenced by our ability to launch new and innovative products and to optimize the life cycle management of previously launched products.

###### **10.4.1.1 Pharmaceuticals**

A sustainable pipeline, life cycle management and inorganic growth concept is key for Pharmaceuticals in order to continue to generate profits. Pharmaceutical products must be investigated for effectiveness and safety in pivotal clinical studies to obtain marketing authorization and add value for patients to obtain pricing approval and be made available to patients. See "12.1.1 Development of Drugs." There are defined criteria to assess efficacy and safety and added value which change over time. The development of new, innovative drugs and formulae that meet these criteria is critical. Generally, margins for pharmaceutical products are the highest in the years immediately following marketing authorization for a new product, since this is generally the time during which a product still benefits from patent protection as well as marketing exclusivity, i.e., no generic formulas of the same product may be granted marketing approval and the R&D expenses should be recouped. See also "10.4.3 Pricing of Our Products." In the past years, for example, the increase in net sales of Pharmaceuticals was driven by its key

growth products Xarelto™, EYLEA™, Stivarga™, Xofigo™ and Adempas™ which increased from €4,231 million in fiscal year 2015 to €5,413 million in fiscal year 2016 and to €6,196 million in fiscal year 2017. For fiscal year 2018, we are expecting net sales for Xarelto™, EYLEA™, Stivarga™, Adempas™, the Mirena™ product family and the YAZ™ product family to increase on a currency-adjusted basis compared to fiscal year 2017, while net sales of Xofigo™, Kogenate™/Kovaltry™, Betaferon™/Betaseron™ and Nexavar™ are expected to decline.

Upon patent expiration, drug prices usually decrease due to competition from generics as well as potentially new and better drugs for the same indication. Accordingly, upon patent expiration of our commercially successful products we expect Pharmaceuticals' net sales and profit to decline unless new, commercially viable drugs can be launched. For more information on the patent protection of Pharmaceuticals' key products, see "11.4.1.3.2 Patent Protection for Key Products." Proper life cycle management can help expand the sales for a drug by having the drug approved for additional indications or treatment methods and thus expanding a drug's usability for the benefit of patients. Since Bayer may only, if at all, recoup the significant R&D expenses that go into the development of a new drug after successful completion of registration and pricing procedures (see "12.1.1 Development of Drugs"), it is essential for Bayer to properly manage its pipeline of new drugs. This entails that the development of new drugs and additional drug uses and the launch thereof takes account of when and for how long the drug is estimated to generate relevant profits such that it can cover the R&D expenses already needed for the development of further new drugs. For more information on R&D, see "10.4.5 Research and Development (R&D)."

#### 10.4.1.2 Consumer Health

Consumer Health's ability to sell its products is to a large degree dependent on the recognition of its brands, given that well-established brands are a key driver for the sales of consumer health products. In Consumer Health, the best-selling and most recognized brands currently include Claritin™, Aspirin™, Aleve™, Bepanthen / Bepanthol™, Canesten™, the Alka-Seltzer™ product family, Dr. Scholl's™, One A Day™, Coppertone™ and Elevit™, which, in fiscal years 2015, 2016 and 2017 accounted for slightly more than half of the sales generated by Consumer Health. Bayer focuses on continuously building Consumer Health's brands and market recognition through, for example, large marketing campaigns and customer-centric innovation.

In order for Consumer Health to generate high product sales, it is important that its products continue to provide new benefit areas and that they meet the various desires and needs of its customers. This may involve the development of new formulas, technical applications and medical devices as well as the testing and launch of new packaging designs, delivery forms or retail channels, such as e-commerce. Also, Consumer Health aims to branch out its product lines to create different variations of a product, for example day- versus night-time-formulas, adult and pediatric versions, stronger and weaker formulas or different product forms (pills, liquids, sprays, creams) to drive net sales. Another of Consumer Health's strategies to increase its sales is to switch products from the prescription market to the nonprescription market. Whether this is possible, however, depends on a number of factors, including the regulatory environment in the relevant countries with regard to prescription and nonprescription drugs. In 2017, for example, the reclassification of two of Consumer Health's medicated skin care brands from OTC to prescription by the Chinese authorities had a negative impact on sales and EBIT of Consumer Health in the fourth quarter of 2017.

#### 10.4.1.3 Crop Science

To maintain and drive net sales in Crop Science, it is essential that Crop Science continues developing innovative seeds and effective crop protection products that meet regulatory requirements while at the same time fully addressing farmers' needs. The effective management of Crop Science's product pipeline – just as in Pharmaceuticals – is important to drive net sales, since the active ingredients in crop protection products and most traits in seeds generally need to be registered before they may be placed on the market, which may take several years and is very cost-intensive (see "12.3.2.1 Regulation Specific to Plant Protection Products"). Since regulatory requirements continue to expand, in particular with regard to sustainability and environmental criteria, it is also crucial that Crop Science is able to expand the areas of application for the active ingredients in its products and their performance by new mixtures and through the development of innovative formulas that fulfill such requirements.

Variations of weather conditions and other seasonal factors that affect crop growth and new weed or pest resistances have impacted Crop Science's net sales in the past. Variations of weather conditions, in particular, are expected to further intensify. If Crop Science's products do not perform well under changing environmental

conditions or if weeds or pests show signs of resistance against Crop Science's products, its sales volume would decrease. However, if Crop Science is able to develop and market new formulae or treatments which perform well in the face of variations of weather conditions and other seasonal factors or resistances, this should have a positive impact on product sales. Moreover, new forms of farming such as digital farming and enhanced solutions, which optimally combine the usage of products across different development stages of plant and farming cycles (from seeds to seed treatment, weed management and pest management), are becoming increasingly important. Bayer seeks to address these demands through a combined offering of crop protection products and seeds. As a result of the Transaction, Bayer anticipates that its Crop Science division will benefit from better capabilities for innovation with a significantly increased R&D budget. This will enhance the ability of the Combined Agriculture Business to effectively address challenges to innovation in agrochemicals such as longer and more costly development cycles and higher regulatory requirements. For more information on the strategic rationale and opportunities presented by the Transaction, see "6. *The Acquisition of Monsanto.*"

#### **10.4.2 General Economic and Market Environment**

Since we are a company with global operations, to a certain extent our economic success is influenced by the global economy and world-wide dynamics. Economic prospects have improved steadily throughout the year 2017. Real gross domestic product for the world increased by 3.3%<sup>8</sup>, compared to an increase of 2.5% in 2016.<sup>9</sup> With respect to 2018, the real gross domestic product for the world is forecast to grow by 3.4%.<sup>10</sup> Although the risks for the world economy have increased in view of growing political tensions, the recent tax cuts in the United States should stimulate growth.

In the United States, the country with Bayer's largest external net sales exposure (2017: €8,561 million in external net sales; 2016: €8,706 million in sales, in both cases excluding net sales from Covestro), strong momentum resulted particularly from investment activity. Real gross domestic product increased by 2.3%<sup>11</sup> in 2017 in the United States, compared to an increase of 1.5% in 2016<sup>12</sup> and is forecast to increase by 2.7% in 2018.<sup>13</sup>

In the European Union, real gross domestic product increased by 2.5% in 2017, compared to 1.9% in 2016.<sup>14</sup> The pace of economic growth increased despite uncertainty concerning the form of the United Kingdom's exit from the European Union. In 2018, we anticipate robust growth in Europe. Real gross domestic product is forecast to grow by 2.3%<sup>15</sup> in Europe in 2018.

The growth rate of the emerging markets picked up considerably. For 2017, the economic output in emerging markets increased by 4.8%, compared to 3.9% in 2016.<sup>16</sup> We expect growth in economic output in 2018 to match the pace of the prior year, while for China, we anticipate continuing strong growth at a slightly slower rate.

Demographic trends, such as increasingly ageing populations worldwide associated with age related diseases as well as global population growth, a decline in the amount of agricultural land available per capita worldwide and the increasing demand for food and feed, are also important drivers of our success in the markets we operate in.

All of our markets are affected to different degrees by the global and regional economic and demographic trends described above. In particular, the markets for the products of our economically most significant segments Pharmaceuticals, Consumer Health and Crop Science are characterized by the following trends and developments:

##### **10.4.2.1 Pharmaceuticals**

The pharmaceuticals market is relatively independent of cyclical factors and is generally characterized by a constant demand for new, innovative pharmaceutical products to address unmet medical needs. In creating such innovation, Bayer focuses on key therapeutic areas for which medical need is still very high, such as cardiovascular diseases, oncology, women's health, ophthalmology and hematology. Due to its product portfolio, sales in Pharmaceuticals are driven by an increasingly ageing population worldwide and a rising demand for drugs in emerging markets such as China, Brazil and Russia. The increase in quality of life and life expectancy is leading

<sup>8</sup> IHS Markit – Global Executive Summary

<sup>9</sup> IHS Markit – Global Executive Summary

<sup>10</sup> IHS Markit – Global Executive Summary

<sup>11</sup> IHS Markit – Global Executive Summary

<sup>12</sup> IHS Markit – Global Executive Summary

<sup>13</sup> IHS Markit – Global Executive Summary

<sup>14</sup> IHS Markit – Global Executive Summary

<sup>15</sup> IHS Markit – Global Executive Summary

<sup>16</sup> Global Insight – Comparative World Overview

to a heightened focus on the medical care needs of elderly patients. We believe that Pharmaceuticals' concentration on certain partly age-related diseases such as cancer or chronic cardiovascular disorders provides opportunities for Bayer. Nevertheless, Pharmaceuticals' net sales may, to a certain extent, be affected by general economic conditions in the markets in which it operates. While economic growth tends to positively influence Pharmaceuticals' net sales, in particular as a result of improved health care systems, a downturn in general economic conditions may result in pressure on selling prices and margins achieved or achievable in the future (see "1.1.1 Sales and growth of the Bayer Group are dependent on the conditions of the global economy in general and of the economies where the Bayer Group operates in particular."). For example, an economic downturn could potentially put regulators under pressure to reduce patient and/or public health insurance costs for drugs and might lead regulators to impose mandatory rebates or discounts or other pricing restrictions. See also "10.4.3 Pricing of Our Products" and "1.1.17 Pharmaceuticals is exposed to pricing pressure resulting from regulation and market conditions, which may negatively impact Bayer's business and results of operations."

#### 10.4.2.2 Consumer Health

Net sales growth in Consumer Health is driven to a significant degree by increasing health consciousness as well as demographic macro trends. The growing and aging world population represents an increasing challenge to public health care systems, resulting in self-care gaining importance for people, as well as for governments, health care systems and health care payers, especially for minor health disorders and complaints. This benefits Consumer Health with its mainly nonprescription (OTC) brand products to treat and prevent diseases and to improve well-being, providing consumers with the corresponding self-care solutions. Demand for Consumer Health's products is also impacted by economic conditions in key markets. For instance, the United States is Consumer Health's most important market in terms of single-country sales, exposing us to changes in the general economic environment and trends and seasonal fluctuations impacting the demand for Consumer Health products (including weather conditions or the strength of the allergy, flu or cold season) in the United States. Currently, the market environment for Consumer Health products in the United States continues to be difficult due to high competitive pressure and seasonal effects. In addition, Consumer Health tends to benefit from economic growth in emerging markets, which results in more income being available to spend on consumer health products. Accordingly, we consider emerging markets, such as China, Brazil and Russia, to present important growth opportunities for Consumer Health and are aiming to increase our presence in these markets. However, as we increase our focus on key emerging markets, our results of operations may also become more volatile since the economic development in these markets, be it positive or negative, is often characterized by a greater sensitivity to trends in the global economy. See also "1.1.1 Sales and growth of the Bayer Group are dependent on the conditions of the global economy in general and of the economies where the Bayer Group operates in particular."

#### 10.4.2.3 Crop Science

The agricultural market, including the market for Crop Science products is a cyclical market, which has recently been going through a trough characterized by low prices and profit margins for agricultural products, over-extension of farm operations and reduced investments in agriculture. Overall, the global seed and crop protection market expanded slightly in 2017, growing by around 1% in 2017, compared to zero percent growth in 2016. For 2018, we estimate the global seed and crop protection market to grow by around 3%. While demand for high-quality seed increased, sales of crop protection products stagnated worldwide. Positive growth momentum in 2017 came from the North America and Eastern Europe regions. Market volumes in Latin America declined as a result of high inventories of crop protection products and unfavorable macroeconomic conditions in Brazil. The Western European market also contracted, primarily as a result of relatively low fungal infestation levels.

Sales and earnings of Crop Science are also affected by the levels of pest infestation and variations in weather conditions and other seasonal factors impacting the growth and resistance of plants. The unpredictability of weather conditions, pests and diseases, in particular, can cause significant volatility in the supply and demand for Crop Science's products. In certain cases this can lead to market imbalances. In 2017 in Brazil (the world's second largest agriculture market), for example, Crop Science experienced severe problems on the sell-in side since distributors had built high inventories of crop protection products which, paired with low levels of insect and fungal infestation, led to extreme overstocking of crop protection products. Crop Science initiated measures aimed at normalizing the situation in Brazil (e.g., such as returns of products, selective price adjustments, campaigns to drive demand), requiring it to record significant provisions.



We believe that opportunities for our agricultural businesses arise from long-term trends and demands of the agricultural markets. These trends include the production of sufficient high-quality food, animal feed and renewable raw materials for a growing world population, despite the limited amount of available arable land.

#### **10.4.3 Pricing of Our Products**

The pricing of our products, which is influenced to a significant extent by external factors, has a significant impact on our results of operations. Factors relevant to the pricing of our products vary by segment.

##### **10.4.3.1 Pharmaceuticals**

In many markets, the pricing of pharmaceutical products is influenced by price regulations imposed, and budgeting decisions taken by, governments, health insurance and health care providers. Extensive price controls on the sale of pharmaceuticals may not only reduce earnings from Pharmaceuticals' products but also influence the purchasing patterns of hospitals, doctors and patients as well as how we market pharmaceutical products. Occasionally individual country price decisions may not reflect the value of Pharmaceuticals' products appropriately and may, thus, drive a decision against the market launch of a new product in this very country. The legal frameworks influencing the pricing of pharmaceutical products vary significantly from country to country. Since the prices of pharmaceuticals are generally regulated, there tend to be no unexpected price movements. However, the introduction or existence of reference prices, price controls, rebate systems or health care systems that disincentivize the use of innovative products and promote the use of generic drugs influence Bayer's results of operations. We expect the current extent of regulatory controls and pricing pressure to persist or increase. For further information, see "12.1.3 Consumer Costs and Reimbursement Regulations" and "1.1.17 Pharmaceuticals is exposed to pricing pressure resulting from regulation and market conditions, which may negatively impact Bayer's business and results of operations."

##### **10.4.3.2 Consumer Health**

In Consumer Health the pricing strategy and price-setting is influenced by a number of factors, in particular, the strength of Consumer Health's brand equity which is linked to the effectiveness of its marketing, the individual market structures in which Consumer Health operates, its relationship with key customers as well as its competitors and their pricing activities in the market. Consumer Health is increasingly leveraging its value-added innovation (such as new formulations, delivery forms and packaging) to support more premium pricing. In a number of markets Consumer Health is seeing downward pressure on pricing from large customers, in particular, multiple retail chains. Consumer Health's actual in-market prices are, to a large degree, influenced by its recommended prices and actual trade prices, but also by its customers' pricing strategies and their desired margins.

##### **10.4.3.3 Crop Science**

Pricing for Crop Science's crop protection products is traditionally customer-value-driven by product innovation, which allows for pricing that reflects the measurably superior performance of Crop Science's products compared to its peers over fairly long product life cycles, which may range from 30 to 50 years. Depending on the product offerings of Crop Science's competitors and once the relevant products no longer benefit from patent protection, competitive pricing pressure increases and prices for Crop Science's products typically decline over time. For example, in the coming years, the patent protection of a significant number of leading active ingredients in the crop protection market will expire, including a number of Crop Science's active ingredients, which is expected to lead to highly increased pricing pressure. While Crop Science to some extent has been, and may continue to be, able to resist pricing pressure and delay price erosion over time based on the wide recognition of the Bayer brand, producers of generic forms of the relevant products are often able to offer the products at a significantly lower price because they do not have to recoup R&D expenditures related to the products' development. In addition, factors influencing farmers' purchasing decisions are not limited to evaluating a product's measurable benefits in relation to its price, but increasingly have come to involve additional considerations such as producers' relationships with their trading partners, the emotional ties formed with farmers and other intangible values (such as "peace of mind").

Pricing for Crop Science's seed products is impacted by the shorter life cycles for these products, which are in the range of three to five years, and Crop Science's ability to optimize its products to respond to specific challenges arising, for example, from variations of weather conditions and other seasonal factors or soil pressure.

When introducing new seed products, Crop Science initially often grants rebates to opinion-leading end customers, which are prepared to adopt seed products early. Once they have gained broader market acceptance based on their perceived benefits, Crop Science proceeds to raise the prices for its seed products. However, with respect to seed products, pricing pressure may arise at fairly short notice. For example, adverse weather conditions can lead to sudden significant losses on harvests and impact farmers' disposable income.

The distribution channels used by Crop Science for its products, e.g., mainly large trading partners and distributors as well as local trading partners with direct access to farmers and in some markets, such as Brazil, direct distribution to large farmers, may also impact the pricing of Crop Science's products. Crop Science offers discounts and rebates to its trading partners to compensate for their distribution and potential marketing services. Such discounts and rebates are deducted from gross prices (i.e., list prices), resulting in Crop Science's net prices. The levels and structure of discounts and rebates granted varies by regions and countries.

#### 10.4.4 Competition

Our businesses operate in highly competitive markets. Corporate mergers, along with business practices such as aggressive marketing and pricing strategies – not only in the field of generic competition – may adversely affect our earnings and may force us to increase our expenditures. For example, in Consumer Health increasing competition for consumer attention combined with ongoing industry and distribution channel consolidation require a stronger focus on brand building, key markets and consumer-centric innovation. As a result we have invested and will continue to invest in product innovation and geographical expansion. In Crop Science, the current global consolidation process in the seeds and crop protection industry could greatly alter our future competitive environment. We are responding to this trend with acquisitions, collaborations and the expansion of in-house R&D capacities. See also "1.1.21 There can be no assurance that Bayer will be able to recruit and retain a sufficient number of qualified employees at all sites in the future and difficulties in recruiting, retaining and further developing specialized employees could have significant adverse consequences for Bayer's future development."

#### 10.4.5 Research and Development (R&D)

The economic success and competitiveness of our Group are dependent on our ability to position innovative and high-quality products on the markets in which we operate. We aim to expand our product pipeline organically and by pursuing in-licensing and bolt-on acquisition options, which necessitates substantial investments in R&D. Given the importance of innovation for these segments, we have in particular recorded high R&D expenses in Pharmaceuticals and Crop Science in the past, with the ratio of R&D expenses to sales in these segments continuously growing over the past years and reaching 17.1% and 12.2%, respectively, in fiscal year 2017. For fiscal year 2018, Bayer is targeting R&D investments of around €4.1 billion (excluding Monsanto).

The table below provides an overview of R&D expenses by segment for the periods presented:

	For the fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited, unless otherwise indicated)		(audited, unless otherwise indicated)		(unaudited)	
	(in € million)		(in € million)		(in € million)	
Pharmaceuticals .....	2,450	2,787	2,787	2,888	712	693
Consumer Health .....	250	259	259	240	59	55
Crop Science .....	1,082	1,164	1,164	1,166	283	257
Animal Health .....	134	140	140	155	33	30
Reconciliation <sup>(4)</sup> .....	96	55	55	55	7	5
<b>Life Sciences</b> .....	<b>4,012</b>	<b>4,405</b>	–	–	–	–
Covestro .....	262	261	–	–	–	–
<b>Group</b> .....	<b>4,274</b>	<b>4,666</b>	<b>4,405</b>	<b>4,504</b>	<b>1,094</b>	<b>1,040</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Figures extracted or derived from the restated comparative figures for fiscal year ended December 31, 2016 included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.

(3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(4) Unaudited.



#### **10.4.6 Sales and Marketing**

While our selling expenses have remained relatively stable over the periods under review, especially as a percentage of sales, in Pharmaceuticals and Consumer Health, in particular, the launch of new products and the promotion of brands may result in temporary increases of selling expenses. Expenses may include investments to be made for product launches and brand (re-)launches (e.g., the ramp up of sales forces and of physical distribution and warehousing of finished products for the launch of a new drug, large marketing campaigns to launch or re-launch a brand or extensions thereof) and license fees due under license agreements related to the distribution, marketing and sale of products. For example, in 2015 an increase in marketing spend was recorded at Consumer Health in relation to the consumer care business acquired from Merck & Co., Inc., where investments were made in connection with the re-launch of certain of the products acquired. Also, in 2017 various initiatives were started to promote and restage a number of Consumer Health's brands, such as Dr. Scholl's™, that have been struggling due to, in particular, a difficult market environment and competitive pressure. Bayer plans to continue and expand these initiatives in 2018. At Pharmaceuticals, selling expenses in 2016 were reduced by a program to optimize the marketing and sales network.

#### **10.4.7 Divestments and Acquisitions**

Historically, we have divested and acquired a number of businesses. See also "10.3.1 Previous Transactions." Portfolio effects in connection with the acquisition and divestment of businesses generally influence our results of operations, in particular our net sales, and impact the comparability of our results of operations during reporting periods. See also "8.4.6 Net Sales Adjusted for Foreign Currency Translation Effects and Portfolio Effects." For example, the acquisition of Merck & Co. contributed a net sales increase of €1,770 million in fiscal year 2015 and has had a significant impact on our selling expenses. Acquisitions and divestments also impact our financial position (in particular, goodwill), liabilities and our cash flows. For further information on the effects of acquisition and divestment activities we have conducted historically on our financial statements, see also notes 6.2 and 6.3 of Bayer's consolidated financial statements for fiscal year 2017 and notes 6.2 and 6.3 of Bayer's consolidated financial statements for fiscal year 2016.

In connection with our divestment and acquisition activities, we also regularly record special items, i.e., special effects for Bayer with regard to their nature and magnitude, typically consisting of special charges relating to integration costs (also see "10.4.8.3 Integration Costs"), transaction costs, financing costs and/or legal fees. Divestments and acquisitions may also affect the comparability of our financial information, see "10.5 Comparability of the Financial Information Contained in the Audited Consolidated Financial Statements."

##### **10.4.7.1 Effects of the Divestment and Deconsolidation of Covestro**

At the end of September 2017, Bayer lost control of its subsidiary Covestro AG due to the sale of shares and the signing of a control termination agreement, as part of which Bayer has undertaken not to exercise certain voting rights at Covestro's annual stockholders' meeting. As a result of the Loss of Control at the end of September 2017, Covestro fulfilled the conditions for presentation as discontinued operations for the first nine months of 2017. In January 2018, Bayer sold a further 10.4% of Covestro Shares for €1.8 billion, thereby reducing its direct stake in Covestro to 14.2%. At the beginning of May 2018 Bayer AG sold 28.81 million Covestro Shares, representing a 14.2% interest in Covestro AG for €2.2 billion. Following the acquisition of Covestro Shares from the Bayer Pension Trust in May 2018, Bayer now holds 6.8% of Covestro Shares, which it intends to use to repay the Exchangeable Bonds that mature in 2020. See "10.3.1 Previous Transactions" for more information on Bayer's gradual divestment of Covestro Shares. As of October 1, 2017 Covestro was classified as an associate due to Bayer's remaining significant influence and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss. The comparative information for fiscal year ended December 31, 2016 (with the exception of the consolidated statement of financial position as of December 31, 2016) was restated accordingly to present Covestro as discontinued operations for the full fiscal year ended December 31, 2016. Until its deconsolidation, Covestro constituted a reportable segment of the Bayer Group and contributed net sales of €11,826 million (25.3%) in fiscal year 2016 and €11,982 million (26.0%) in fiscal year 2015 towards Bayer's net sales. In addition, Covestro positively impacted our Group's earnings during the periods presented in this Offering Memorandum, particularly due to a favorable balance between supply and demand which has allowed Covestro to maintain its selling prices and/or delay decreases in its selling prices despite decreases in raw material prices, thus having a positive effect on Covestro's margins. Covestro contributed €1,304 million (18.5%) in fiscal year 2016 and €635 million (10.2%)

in fiscal year 2015 towards Bayer's EBIT. With respect to EBITDA before special items, Covestro contributed €1,984 million (17.6%) in fiscal year 2016 and €1,659 million (16.2%) in fiscal year 2015.

For continuing operations, the Group's net sales, EBITDA before special items, EBIT and core earnings per share were adjusted retrospectively to exclude Covestro's contributions for fiscal years 2016 and 2017. In addition, all assets and liabilities allocated to Covestro were derecognized from Bayer's consolidated statements of financial position as of September 30, 2017. Given Covestro's significant contribution towards the Group's net sales, EBIT and EBITDA before special items in past periods, the deconsolidation of the Covestro business has had a significant impact on Bayer's financial statements for fiscal year 2017. For example, including net sales from Covestro, net sales of our Group amounted to €46,769 million for fiscal year 2016 and EBIT amounted to €7,042 million. In comparison, (after the figures were restated to reflect the deconsolidation of Covestro) net sales for fiscal year 2016 amount to €34,943 million and EBIT amounts to €5,738 million.

In addition, historically we have incurred a number of non-recurring expenses (special items) associated with Covestro. These special charges have included restructuring costs in particular with respect to the carve-out and stock market flotation of Covestro in fiscal year 2015 as well as restructuring costs related to the consolidation of production sites.

#### *10.4.7.2 Effects of the Acquisition of Monsanto and Related Divestitures*

The acquisition of Monsanto has already impacted Bayer's results of operations, financial position and liquidity for the periods under review in this Offering Memorandum in various ways and following completion of the Transaction on June 7, 2018, Bayer anticipates additional significant impacts on its results of operations, financial position and liquidity. For example, Bayer has already incurred and expects to continue to incur a number of non-recurring expenses (special items) associated with the Transaction and the integration of Monsanto's operations. These special charges have included or will include, among others, financial, legal, accounting, consulting and other advisory fees, integration, reorganization and restructuring costs, severance/employee benefit-related expenses and regulatory expenses.

In addition, in order to obtain merger approval for the Transaction, Bayer was required to divest certain assets and businesses to third parties. In this context, in October 2017, Bayer agreed on the First BASF Divestiture Package with BASF for an aggregate base purchase price of approximately €5.9 billion, which is subject to customary purchase price adjustment mechanisms and, in accordance with the terms of the Divestiture Agreements, will be reduced by approximately €0.2 billion at closing as a result of the Transaction not closing by January 1, 2018. In connection with the First BASF Divestiture Package, €2,081 million in assets and €111 million in liabilities was classified as held for sale according to IFRS 5 as of December 31, 2017. This total mainly comprised property, plant and equipment (€1,062 million), goodwill (€479 million), other intangible assets (€288 million) and provisions for pensions and other post-employment benefits (€13 million). The businesses to be divested under the First BASF Divestiture Package generated sales of €1.5 billion for the fiscal year ended December 31, 2017 and of €0.7 billion for the three months ended March 31, 2018. Furthermore, in April 2018, Bayer agreed on the Second BASF Divestment Package with BASF for an aggregate base purchase price of up to €1.7 billion, which is subject to customary purchase price adjustment mechanisms and includes a milestone payment of €0.1 billion expected to be paid in 2019. The businesses to be divested under the Second BASF Divestiture Package generated sales of €0.7 billion for the fiscal year ended December 31, 2017 and of €0.2 billion for the three months ended March 31, 2018. For more information on the Transaction-related Divestments, see "6.10 Overview of Transaction-related Divestments" and "10.4.7.2 Effects of the Acquisition of Monsanto and Related Divestitures."

As of March 31, 2018, Bayer had a contingent financial commitment in an amount of €45,673 million to acquire Monsanto Company's entire outstanding share capital. To finance the purchase price for the Transaction and other related payments Bayer entered into a Loan Facilities Agreement in an amount of US\$56.9 billion (€48.7 billion) in September 2016. To replace commitments under the Loan Facilities Agreement, Bayer has already taken various financing measures that have affected Bayer's financial position and liquidity, including the issuance of Mandatory Convertible Notes with net proceeds of US\$4.2 billion (€3.96 billion) and Exchangeable Bonds with net proceeds of US\$1.2 billion (€1.05 billion) as well as the Temasek Investment. Net proceeds of additional €5.9 billion (approximately US\$6.9 billion) are expected to be raised through the Rights Offering and used to repay amounts drawn down under the Loan Facilities Agreement in connection with the Transaction. In order to refinance further amounts drawn down under the Loan Facilities Agreement (as defined herein), Bayer has engaged in the Bond Offerings (as defined herein), which include the offering of the Notes.

For further indications of the effects the Transaction is expected to have on our business, see “7. Pro Forma Financial Information – Effects of the Covestro Divestments and the Acquisition of Monsanto on the Consolidated Financial Information of Bayer for the Fiscal Year Ended December 31, 2017, and as of and for the Three Months Ended March 31, 2018.”

Bayer expects the integration of Monsanto to result in significant cost- and sales-related synergies and estimates a total annual synergy potential of approximately US\$1.2 billion (net EBITDA impact before special items) as of 2022. Also, as a result of the Transaction, Bayer expects to recognize a substantial portion of the difference between the amount paid for the acquisition and the book value of Monsanto’s equity as intangible assets of Monsanto and goodwill of the Crop Science business. If unexpected difficulties were to arise in the course of the integration of Monsanto’s business into Bayer or if Monsanto’s business were to fail to develop as expected Bayer may, in accordance with IFRS, be forced to recognize an impairment loss on the intangible assets of Monsanto and on the goodwill of the Crop Science business. See also “1.2.9 Bayer could be forced to recognize impairment losses on the intangible assets of Monsanto and goodwill of the Crop Science business.”

Upon completion of the Transaction, Crop Science including Monsanto’s business became Bayer’s largest division in terms of net sales. Given the geographical scope of Monsanto’s operations, which have a strong focus on North and South America, Bayer’s and particularly Crop Science’s results of operations are expected to be affected to a larger extent than previously by fluctuations in the business in these geographical regions. Since some of these regions, in particular Argentina, Mexico and Brazil, are characterized by greater economic and political uncertainty and greater market volatility we expect such fluctuations to also be reflected in Bayer’s future results of operations. In addition, Bayer expects its exposure to foreign exchange rates to increase, in particular as regards the exchange rate of the euro to the U.S. dollar, but also to important Latin American currencies such as the Argentine peso, the Mexican peso and the Brazilian real. See also “1.2.3 As a result of the Transaction, Bayer’s risk profile may shift and it may be exposed to additional risks associated with the Combined Agriculture Business, some of which may still be unidentified or cannot yet be assessed conclusively.” and “1.2.13 Fluctuations in exchange rates could have a significant impact on the amount of debt Bayer incurs and the results of operations of Bayer following completion of the Transaction.”

#### 10.4.8 Special Items

Historically, our Group’s EBIT and EBITDA have been impacted by several categories of special items, including restructuring, litigation, integration costs, impairment losses/impairment loss reversals, divestitures/divestments, acquisition costs and revaluation of other receivables. These special items have influenced our cost of goods sold, our selling expenses, our R&D expenses, our general administration expenses and our other operating income/other operating expenses.

EBIT before special items and EBITDA before special items constitute relevant key data for Bayer and are determined by adding special charges and subtracting special gains. The following table provides an overview of the special items categories which have impacted EBIT in the periods indicated:

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(unaudited, unless otherwise indicated) (in € million)		(unaudited, unless otherwise indicated) (in € million)		(unaudited) (in € million)	
<b>EBIT<sup>(4) (5)</sup></b> .....	<b>6,241</b>	<b>7,042</b>	<b>5,738</b>	<b>5,903</b>	<b>2,427</b>	<b>2,310</b>
<b>Special items<sup>(4)</sup></b> .....	<b>819</b>	<b>1,088</b>	<b>1,088</b>	<b>1,227</b>	<b>102</b>	<b>78</b>
<i>of which restructuring</i> .....	648	242	242	227	43	13
<i>of which litigations / legal risks</i> .	(237)	94	94	188	5	4
<i>of which integration costs</i> .....	227	100	–	–	–	–
<i>of which impairment losses / impairment loss reversals</i> .....	43	561	561	450	33	–
<i>of which divestitures / divestments</i> .....	47	5	5	58	–	–
<i>of which acquisition costs</i> .....	–	86	186	304	21	61
<i>of which revaluation of other receivables</i> .....	91	–	–	–	–	–

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(unaudited, unless otherwise indicated) (in € million)		(unaudited, unless otherwise indicated) (in € million)		(unaudited) (in € million)	
<b>EBIT before special items<sup>(4) (5)</sup>...</b>	<b>7,060</b>	<b>8,130</b>	<b>6,826</b>	<b>7,130</b>	<b>2,529</b>	<b>2,388</b>

- (1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.
- (2) Figures extracted or derived from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, which present Covestro as discontinued operations.
- (3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.
- (4) Audited for the fiscal years ended December 31, 2015, 2016 and 2017.
- (5) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

For information on our reconciliation of EBIT to EBIT before special items and EBITDA to EBITDA before special items, see "8.4 Additional Key Figures for the Bayer Group." In the following we provide additional information on the most important special items impacting our results in the periods under review.

#### 10.4.8.1 Restructuring

Restructuring costs, which constitute special charges, include severance payments and other expenses resulting from the sale or termination of business units, site closures or relocations of business activities or fundamental reorganizations of business units. They may also arise in connection with the integration of acquired businesses.

In the periods under review, at group level, we incurred significant restructuring costs in particular with respect to the reorganization of our segments with effect from January 1, 2016 (see "10.2.2 Bayer's Corporate Structure in Effect from January 1, 2016"). We have also incurred restructuring costs in connection with efficiency enhancement programs and other strategy programs, for example, at Pharmaceuticals with regard to marketing and sales network optimization, and at Crop Science with regard to a strategy program aimed at increasing customer focus, promoting innovation and improving efficiency as well as a restructuring program in the United States involving the closure of production facilities.

#### 10.4.8.2 Litigation

Litigation has had and is expected to continue to have an influence on our results of operations, particularly upon our consolidated other operating income and/or other operating expenses. In the past, we have incurred special charges for litigation but also special gains. At the segment level, litigation has had an impact, in particular, on Pharmaceuticals where we have incurred and/or expect to continue to incur significant product-related litigation costs in connection with disputes concerning our pharmaceutical products Yasmin™ / YAZ™, Essure™, Xarelto™, Cipro™ / Avelox™ and Mirena™. At Crop Science, we recorded special gains in fiscal year 2015 from litigation proceedings against Dow AgroSciences LLC, United States ("Dow AgroSciences"), for damage and license payments in an amount of €314 million in connection with the infringement of Bayer's rights to the Liberty Link™ weed control system.

#### 10.4.8.3 Integration Costs

We have incurred integration costs in the last three fiscal years, in particular at Consumer Health in connection with the integration of the consumer care businesses of Merck & Co., Inc., and Dihon, which were acquired in 2014. In fiscal year 2016 and 2017, we incurred special charges in connection with the Transaction. In preparation for the Transaction, we initiated a project to carefully plan the integration of Monsanto in all business areas so that a smooth integration of Monsanto into the Bayer Group can be achieved. The integration process will start after the Transaction-related Divestments have closed and is expected to lead to further significant special charges.

#### 10.4.8.4 Impairment Losses / Impairment Loss Reversals

As a life science company, a large part of our noncurrent assets consist of goodwill from our previous acquisitions or other intangible assets, such as patents, trademarks, marketing rights or other product rights. The goodwill recognized in connection with an acquisition may be changed within twelve months due to a revised purchase price allocation. Such revisions may be due to, for example, a reassessment of the benefits of an acquisition such as realizable cost synergies or sales synergies. Impairment losses on intangible assets may result, in particular, from changes in the assessment of the market environment and therefore lower or higher revenue expectations from marketable rights. In the life science business, in which the Group operates, it is possible that new research may become available that can either increase or decrease the value of a product's marketable rights. Impairment losses on intangible assets may also be incurred, if the development of a new drug or product is discontinued, the assessment of the market environment changes or revenue expectations are lowered, in which case the expenses that have gone into the development of such product until then are recognized as losses. If we have an indication of a possible impairment, we perform an impairment test. Goodwill, intangible assets with an indefinite useful life and intangible assets not yet available for use are tested for impairment at least once a year.

In the periods under review, we recognized significant impairment losses of €456 million on intangible assets in 2017. At Pharmaceuticals, impairment losses of €207 million were recognized in 2017, in particular on intangible assets in the oncology area, a drug candidate for the treatment of lung infections due to new research findings and in the women's health and ophthalmology areas. At Consumer Health, a weaker market environment led to total impairment losses of €202 million in 2017, in particular for Coppertone™ and a trademark in the allergies area (Aerius™). At Crop Science, an impairment loss of €41 million was recognized in connection with termination of a research project.

For further information, see note 17 on goodwill and other intangible assets of Bayer's audited consolidated financial statements for fiscal year 2017.

#### 10.4.9 **Exchange Rate Fluctuations**

Changes in exchange rates have been a significant driver of our results of operations in recent years. As a substantial portion of our assets, liabilities, sales and earnings are denominated in currencies other than the Euro, we are exposed to fluctuations in the values of these currencies relative to the Euro. Especially the fluctuation of the value of the U.S. dollar relative to the Euro and currently the appreciation of the Euro against the U.S. dollar, has a material impact on our results of operations. In addition, fluctuations in currencies other than the Euro and the U.S. dollar in countries in which we have significant operations and/or sales can have a material impact on our results of operations. We face both transaction risk, where our businesses generate sales in one currency but incur costs relating to that revenue in a different currency, and translation risk, which arises when we translate the income statements of our subsidiaries into Euro for inclusion in our financial statements. We do not quantify the effects on our financial statements of transaction risks. Translation risks, which we do quantify and against which we do not hedge, do not affect our local currency cash flows or results of operations but do affect our consolidated financial statements. Receivables and payables in liquid currencies from operating activities and financial items are generally fully exchange-hedged through forward exchange contracts and cross-currency interest-rate swaps.

#### 10.4.10 **U.S. Tax Reform**

On December 22, 2017, the United States enacted new tax legislation, the "Tax Cuts and Jobs Act of 2017," which provides for substantial changes to the U.S. taxation of individuals and businesses and aims to attract new investments, jobs and growth in the United States. For fiscal year 2017, Bayer's reported tax expense reflects a one-time effect in an aggregate amount of €455 million that results solely from the U.S. tax reform. Among other matters, the U.S. tax reform provides for a reduction in the corporate tax rate from 35% to 21% from January 1, 2018. This led to a remeasurement of all of Bayer's deferred tax assets and tax liabilities associated with U.S. companies and resulted in deferred tax expense of €409 million. Furthermore, additional tax on unrepatriated profits, which previously had not been taxed in the United States, led to tax expenses of €46 million for Bayer in fiscal year 2017.

Although the new law decreases tax rates applicable to corporations in the United States substantially, Bayer is unable to fully or finally assess what all of the consequences of the legislation will be at this point in time. In particular, significant uncertainties remain as to how the U.S. government will implement the new legislation, including with respect to the tax qualification of interest deductions, the concept of a territorial tax regime and the manner in which royalty payments and cost of goods sold will be defined.

Bayer currently does not expect an overall negative impact of the U.S. tax reform on the Bayer Group, including as a result of the Transaction. In particular, Bayer currently does not expect its ability to deduct interest expenses to be negatively affected by the U.S. tax reform. Bayer is currently also acting on the assumption that the minimum tax, referred to as base erosion and anti-abuse tax, which targets U.S. businesses benefitting from deductible payments made to non-U.S. related parties, will not be relevant to the Bayer Group. As regards the minimum tax on so-called 'global intangible low-tax income' earned by non-U.S. affiliates that are partially or wholly owned by U.S. companies, Bayer currently estimates that it could have an impact on the Bayer Group, depending on the ultimate U.S. ownership of non-U.S. affiliates after integration of Monsanto.

Bayer expects additional rules and regulations to be issued in the medium term. This could entail potential risks that cannot be fully assessed at this point in time. In particular, it cannot be excluded that Bayer's positions described above may be affected by such future legislative and regulatory action, which could lead to an increase in its effective tax rate and could adversely affect its financial condition and results of operations.

For information on the risks for Bayer associated with the U.S. tax reform, see "1.1.29 Bayer may be exposed to potential risks in connection with the recent U.S. tax reform, which cannot be fully assessed at this point in time." and "1.2.4 As a result of the Transaction, Bayer has assumed the litigation risk arising in connection with Monsanto's pending and future litigation. Adverse outcomes in legal proceedings, including environmental remediation matters, could subject the Bayer Group to substantial damages and adversely affect the Bayer Group's results of operations."

## **10.5 Comparability of the Financial Information Contained in the Audited Consolidated Financial Statements**

As a result of the Loss of Control at the end of September 2017, Covestro ceased to be a reportable segment and fulfilled the conditions for presentation as discontinued operations for the first nine months of 2017. As of October 1, 2017 Covestro was classified as an associate due to Bayer's remaining significant influence and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss. The comparative information for fiscal year ended December 31, 2016 (with the exception of the consolidated statement of financial position as of December 31, 2016) as presented in the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017 and for the three months ended March 31, 2017 as presented in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018, was restated accordingly to present Covestro as discontinued operations for the full fiscal year ended December 31, 2016 and for the three months ended March 31, 2017. The audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, including the comparative information as of and for fiscal year ended December 31, 2015 were, however, not restated and present Covestro in continuing operations.

In order to increase transparency in the following sections, we present the 2016 figures relating to the results of operations of the Bayer Group and the cash flows of the Bayer Group in two columns: one column showing the 2016 figures as presented in the audited consolidated statement of financial income or the audited consolidated statement of cash flows of Bayer, as the case may be, as of and for fiscal year ended December 31, 2016 (with Covestro included in continuing operations) and a second column showing the 2016 figures as presented in the audited consolidated statement of financial income or the audited consolidated statement of cash flows of Bayer as of and for fiscal year ended December 31, 2017 (with Covestro presented as discontinued operations for the nine months ended September 30, 2017).

Against this background, the results of operations of the Bayer Group presented and discussed under sections "10.9 Comparison of Fiscal Year 2017 with Fiscal Year 2016—10.9.1 Results of Operations of the Bayer Group" and "10.10 Comparison of Fiscal Year 2016 with Fiscal Year 2015—10.10.1 Results of Operations of the Bayer Group," are not directly comparable. Similarly, the discussions of Bayer's cash flows under sections "10.12.3 Comparison of Fiscal Year 2017 with Fiscal Year 2016" and "10.12.4 Comparison of Fiscal Year 2016 with Fiscal Year 2015" are not directly comparable.

As a consequence of Bayer's increased focus on the life sciences business, Bayer started to present certain financial data for its Life Sciences in its audited consolidated financial statements as of and for fiscal year 2016 which allows the comparison of certain financial data for the Group for the years 2017 and 2016 (restated to reflect the deconsolidation of Covestro) with Bayer's Life Science business in fiscal year 2015 (see "8.5 Selected Key Data by Segment," "10.4.5 Research and Development (R&D)," "10.9.1.1 Discussion of Factors Affecting



Net Sales,” “10.9.1.1.2 Discussion of Net Sales by Region,” “10.9.1.5 Research and Development (R&D) Expenses,” “10.13.3 Significant Capital Expenditures in Fiscal Year 2016” and “10.13.4 Significant Capital Expenditures in Fiscal Year 2015”).

Bayer’s statement of financial position as of December 31, 2016 was not restated to reflect the deconsolidation of Covestro such that Covestro’s assets and liabilities are still recognized in the balance sheet of the Group. Therefore, the 2016 figures presented and/or discussed under sections “8.2 Bayer Group Consolidated Statements of Financial Position”, “10.11 Information on Consolidated Statement of Financial Position” and “10.11.2 Comparison of December 31, 2017 with December 31, 2016” are not comparable to the figures presented as of December 31, 2017 and the figures presented as of March 31, 2018 which present Covestro as discontinued operations. Similarly, Bayer’s audited consolidated statements of financial position as of December 31, 2015 was not restated to reflect the sale of the Environmental Science Consumer Business such that its assets and liabilities are still recognized in the balance sheet of the Group. Therefore, the 2015 figures presented and/or discussed under sections “8.2 Bayer Group Consolidated Statements of Financial Position”, “10.11 Information on Consolidated Statement of Financial Position” and “10.11.3 Comparison of December 31, 2016 with December 31, 2015” are not comparable to the figures presented as of December 31, 2016, which present the Environmental Science Consumer Business as discontinued operations.

In addition, following the deconsolidation of Covestro, Covestro ceased to be a reportable segment of the Bayer Group. Accordingly, Covestro is neither discussed nor presented as a segment in the section “10.9 Comparison of Fiscal Year 2017 with Fiscal Year 2016—10.9.2 Selected Segment Information,” but is discussed and presented as a segment in the section “10.10 Comparison of Fiscal Year 2016 with Fiscal Year 2015—10.10.2 Selected Segment Information.”

## 10.6 Recently Adopted Financial Reporting Standards

The audited consolidated financial statements of Bayer as of and for fiscal years ended December 31, 2015, December 31, 2016 and December 31, 2017 include the effects of financial reporting standards applied for the first time in the respective reporting periods as disclosed in the notes to the financial statements. Where required by IFRS, comparative figures have been adjusted to reflect the retrospective application of new financial reporting standards. However, the first-time application had no, or no material impact, on the presentation of Bayer’s financial position or results of operations, or on earnings per share.

The financial reporting standards that were applied for the first time in the respective reporting periods and their effects are described, in each case, in the note 3 to the audited consolidated financial statements of Bayer as of and for fiscal years ended December 31, 2017 and December 31, 2016.

For annual reporting periods beginning on or after January 1, 2018, a new standard for revenue recognition, IFRS 15 (Revenue from Contracts with Customers) has become applicable. Bayer has implemented IFRS 15 on the basis of the modified retrospective method, accounting for the aggregate amount of any transition effects by way of an adjustment to retained earnings as of January 1, 2018, and presenting the comparative period in line with previous rules. In addition, a new standard for accounting for financial instruments, IFRS 9 (Financial Instruments) has become applicable that Bayer applied retrospectively for the first time as of January 1, 2018, without restating the prior-year figures, accounting for the aggregate amount of any transition effects by way of an adjustment to equity and presenting the comparative period in line with previous rules. For additional information on the effects the new financial reporting standards have on Bayer, see note 3 to the audited consolidated financial statements of Bayer as of and for the fiscal year ended December 31, 2017.

## 10.7 Explanation of Key Line Items in Bayer’s Results of Operations

The following table provides an overview of the Bayer Group’s results of operations for the periods indicated:

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited)		(audited)		(unaudited)	
	(in € million, unless otherwise indicated)		(in € million, unless otherwise indicated)		(in € million, unless otherwise indicated)	
<b>Net sales</b> .....	<b>46,085</b>	<b>46,769</b>	<b>34,943</b>	<b>35,015</b>	<b>9,680</b>	<b>9,138</b>
Cost of goods sold .....	(21,040)	(20,295)	(11,756)	(11,382)	(2,987)	(2,909)

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited)		(audited)		(unaudited)	
	(in € million, unless otherwise indicated)		(in € million, unless otherwise indicated)		(in € million, unless otherwise indicated)	
<b>Gross profit</b> .....	<b>25,045</b>	<b>26,474</b>	<b>23,187</b>	<b>23,633</b>	<b>6,693</b>	<b>6,229</b>
Selling expenses.....	(12,272)	(12,474)	(11,148)	(11,116)	(2,667)	(2,509)
Research and development expenses...	(4,274)	(4,666)	(4,405)	(4,504)	(1,094)	(1,040)
General administration expenses .....	(2,092)	(2,256)	(1,804)	(2,026)	(460)	(427)
Other operating income .....	1,109	898	787	864	159	152
Other operating expenses.....	(1,275)	(934)	(879)	(948)	(204)	(95)
<b>EBIT<sup>(4)</sup></b> .....	<b>6,241</b>	<b>7,042</b>	<b>5,738</b>	<b>5,903</b>	<b>2,427</b>	<b>2,310</b>
Equity-method income (loss) .....	(9)	(26)	(6)	20	(7)	71
Financial income.....	371	151	149	289	32	370
Financial expenses .....	(1,367)	(1,280)	(1,108)	(1,635)	(321)	(311)
<b>Financial result</b> .....	<b>(1,005)</b>	<b>(1,155)</b>	<b>(965)</b>	<b>(1,326)</b>	<b>(296)</b>	<b>130</b>
<b>Income before income taxes</b> .....	<b>5,236</b>	<b>5,887</b>	<b>4,773</b>	<b>4,577</b>	<b>2,131</b>	<b>2,440</b>
Income taxes .....	(1,223)	(1,329)	(1,017)	(1,329)	(424)	(494)
<b>Income from continuing operations after income taxes</b> .....	<b>4,013</b>	<b>4,558</b>	<b>3,756</b>	<b>3,248</b>	<b>1,707</b>	<b>1,946</b>
<b>Income from discontinued operations after income taxes</b> .....	<b>85</b>	<b>268</b>	<b>1,070</b>	<b>4,846</b>	<b>564</b>	<b>8</b>
<b>Income after income taxes</b> .....	<b>4,098</b>	<b>4,826</b>	<b>4,826</b>	<b>8,094</b>	<b>2,271</b>	<b>1,954</b>
<i>of which attributable to noncontrolling interest</i> .....	<i>(12)</i>	<i>295</i>	<i>295</i>	<i>758</i>	<i>188</i>	<i>–</i>
<i>of which attributable to Bayer AG stockholders (net income)</i> .....	<i>4,110</i>	<i>4,531</i>	<i>4,531</i>	<i>7,336</i>	<i>2,083</i>	<i>1,954</i>

(1) Figures extracted from the audited consolidated income statement of Bayer for fiscal year ended December 31, 2016 which presents Covestro in continuing operations.

(2) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated income statement of Bayer for fiscal year ended December 31, 2017, which presents Covestro as discontinued operations.

(3) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(4) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

### 10.7.1 Net Sales

Net sales include all external sales, without intersegment sales. All revenues derived from the selling of products or rendering of services or from licensing agreements are recognized as sales. Sales are recognized in profit or loss when the significant risks and rewards of ownership of the goods have been transferred to the customer, the company retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold, the amount of revenue and costs incurred or to be incurred can be measured reliably, and it is sufficiently probable that the economic benefits associated with the transaction will flow to the company. For more information on Bayer's accounting for net sales, see note 4 to the audited consolidated financial statements as of and for the fiscal year ended December 31, 2017 and "10.6 Recently Adopted Financial Reporting Standards."

### 10.7.2 Cost of Goods Sold

Cost of goods sold include the production costs of goods or services sold and the cost for goods purchased and resold in the accounting period as well as other production-related costs.

### 10.7.3 Gross Profit

Gross profit represents net sales after deducting cost of goods sold.

### 10.7.4 Selling Expenses

Selling expenses comprise all expenses incurred in the reporting period for the sale, storage and transportation of saleable products, advertising, the provision of advice to customers, and market research.



#### **10.7.5 R&D Expenses**

Research expenses are defined as costs incurred for current or planned investigations undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Development expenses are defined as costs incurred for the application of research findings or specialist knowledge to plans or designs for the production, provision or development of new or substantially improved products, services or processes, respectively, prior to the commencement of commercial production or use. R&D expenses are incurred in the Bayer Group for in-house R&D activities as well as numerous R&D collaborations and alliances with third parties. R&D expenses mainly comprise the costs for active ingredient discovery, clinical studies, R&D activities in the areas of application technology and engineering, field trials, regulatory approvals and approval extensions. For more information on Bayer's accounting for R&D expenses, see note 4 to the audited consolidated financial statements as of and for the fiscal year ended December 31, 2017.

#### **10.7.6 General Administration Expenses**

General administration expenses include all costs incurred in connection with the administration of the Group's business except for costs incurred in close connection with the production or selling of products. Administration expenses, for example, include personnel expenses, costs incurred for depreciations and other administration-related expenses.

#### **10.7.7 Other Operating Income**

Operational revenues not derived from the selling of products or rendering of services or from licensing agreements are recognized as other operating income. Other operating income includes gains on retirements of noncurrent assets, reversals of impairment losses on receivables, reversals of unutilized provisions, gains from derivatives and miscellaneous operating income.

#### **10.7.8 Other Operating Expenses**

Other operating expenses include losses on retirements of noncurrent assets, impairment losses on receivables, expenses related to significant legal risks, losses from derivatives and miscellaneous operating expenses.

#### **10.7.9 EBIT**

Earnings before interest and taxes, which is defined as total income before income taxes less financial result.

#### **10.7.10 Financial Income and Financial Expenses**

Financial income includes income from investments in affiliated companies, income from interest and similar income, interest income from derivatives (held for trading) and other financial income. Financial expenses include loss from investments in affiliated companies, interest and similar expenses, interest expenses for derivatives (held for trading) and other financial expenses.

#### **10.7.11 Income Taxes**

Income taxes comprise the taxes levied on taxable income in the individual countries along with changes in deferred tax assets and liabilities that are recognized in profit or loss. The income taxes recognized are reflected at the amounts likely to be payable under the statutory regulations in force, or already enacted in relation to future periods, at the end of the reporting period.

## 10.8 Comparison of Three Months Ended March 31, 2018 with Three Months Ended March 31, 2017

### 10.8.1 Results of Operations of the Bayer Group

#### 10.8.1.1 Net Sales

##### 10.8.1.1.1 Discussion of Factors Affecting Sales

Net sales of the Bayer Group decreased by €542 million, or 5.6%, from €9,680 million in the three months ended March 31, 2017 to €9,138 million in the three months ended March 31, 2018. On a currency- and portfolio-adjusted basis, net sales increased by 2.0% in the three months ended March 31, 2018.

The table below provides a breakdown of the factors that affected the Bayer Group's reported net sales in the three months ended March 31, 2018, in absolute amounts and as a period-on-period change:

	For the three months ended March 31, 2018	Change (period-on- period)
	(unaudited) (in € million)	(in %)
Volume.....	308	3.2
Price.....	(115)	(1.2)
Currency .....	(728)	(7.5)
Portfolio.....	(7)	(0.1)
<b>Total</b> .....	<b>(542)</b>	<b>(5.6)</b>

The decrease in the Bayer Group's net sales in the three months ended March 31, 2018 was attributable to unfavorable currency effects, a decline in selling prices and portfolio effects which resulted in a 7.5%, 1.2% and 0.1% decrease in net sales, respectively. These effects were partially offset by an increase in sales volume by 3.2%.

The unfavorable currency effects in the three months ended March 31, 2018 were mainly attributable to the Euro strengthening against the U.S. dollar (USD), the Canadian dollar (CAD), the Chinese renminbi (CNY) and the Japanese yen (JPY).

The decrease in selling prices was mainly attributable to lower selling prices at Pharmaceuticals.

The portfolio effects were attributable to the sale of Pharmaceuticals' MK Generics business in Central America and the Caribbean.

The volume-driven increase in the Group's net sales in the three months ended March 31, 2018 was attributable to higher sales volumes in Pharmaceuticals and Animal Health.

For more information on our segments, including a breakdown of the factors that affected our segments' net sales, see "10.8.2 Selected Segment Information."

##### 10.8.1.1.2 Discussion of Net Sales by Region

The following table presents the Bayer Group's external net sales by region (by market), for the periods indicated, in absolute amounts and as a percentage of the Bayer Group's total net sales, as well as the period-on-period change in external net sales by region (by market) on a reported and on a currency-adjusted basis:

	For the three months ended March 31,		Change (period-on- period)	Currency- adjusted
	2017 <sup>(1)</sup>	2018		
	(unaudited) (in € million, unless otherwise indicated)		(unaudited) (in %)	
Europe / Middle East / Africa .....	4,000	3,907	(2.3)	0.2
% of net sales.....	41.3%	42.8%		
North America.....	2,994	2,654	(11.4)	0.4
% of net sales.....	30.9%	29.0%		
Asia / Pacific .....	1,974	1,927	(2.4)	6.2
% of net sales.....	20.4%	21.1%		
Latin America.....	712	650	(8.7)	5.9
% of net sales.....	7.4%	7.1%		

	For the three months ended March 31,		Change (period-on- period)	Currency- adjusted
	2017 <sup>(1)</sup>	2018		
	(unaudited)		(unaudited)	
	(in € million, unless otherwise indicated)		(in %)	
<b>Total</b> .....	<b>9,680</b>	<b>9,138</b>	<b>(5.6)</b>	<b>1.9</b>

(1) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

The following discussion of the net sales development by region is presented on a currency-adjusted basis:

The net sales of the Bayer Group in the Europe / Middle East / Africa region remained level period-on-period. Net sales of Pharmaceuticals increased, while net sales of Consumer Health, Crop Science and Animal Health declined.

The net sales of the Bayer Group in the North America region remained level period-on-period. Net sales of Crop Science and Animal Health increased, while net sales of Pharmaceuticals and Consumer Health declined.

The increase in net sales of the Bayer Group in the Asia / Pacific region was attributable to increases in net sales of Pharmaceuticals, Consumer Health and Animal Health. The net sales of Crop Science decreased.

The increase in net sales of the Bayer Group in the Latin America region was attributable to increases in net sales in all segments.

#### 10.8.1.2 Cost of Goods Sold

Cost of goods sold of the Bayer Group decreased by €78 million, or 2.6%, from €2,987 million in the three months ended March 31, 2017 to €2,909 million in the three months ended March 31, 2018. The decrease in cost of goods sold in the three months ended March 31, 2018 was mainly due to the lower cost of goods sold in Consumer Health and Crop Science. Special charges impacting cost of goods sold in the three months ended March 31, 2018 amounted to €10 million, compared to €25 million in the three months ended March 31, 2017.

#### 10.8.1.3 Gross Profit

Gross profit of the Bayer Group decreased by €464 million, or 6.9%, from €6,693 million in the three months ended March 31, 2017 to €6,229 million in the three months ended March 31, 2018. The decrease in gross profit in the three months ended March 31, 2018 was mainly attributable to the decrease in net sales.

#### 10.8.1.4 Selling Expenses

Selling expenses of the Bayer Group decreased by €158 million, or 5.9%, from €2,667 million in the three months ended March 31, 2017 to €2,509 million in the three months ended March 31, 2018, mainly due to higher selling expenses at Pharmaceuticals.

#### 10.8.1.5 Research and Development (R&D) Expenses

R&D expenses of the Bayer Group decreased by €54 million, or 4.9%, from €1,094 million in the three months ended March 31, 2017 to €1,040 million in the three months ended March 31, 2018.

The following table provides a breakdown of our R&D expenses by segment for the periods presented:

	For the three months ended March 31,	
	2017 <sup>(1)</sup>	2018
	(unaudited)	
	(in € million)	
Pharmaceuticals .....	712	693
Consumer Health .....	59	55
Crop Science .....	283	257
Animal Health .....	33	30
Reconciliation .....	7	5

	For the three months ended March 31,	
	2017 <sup>(1)</sup>	2018
	(unaudited) (in € million)	
<b>Group</b> .....	<b>1,094</b>	<b>1,040</b>

(1) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

The decrease in R&D expenses in the three months ended March 31, 2018 was attributable to lower R&D investments in all segments. Special charges impacting R&D expenses in the three months ended March 31, 2018 amounted to €3 million, compared to €36 million in the three months ended March 31, 2017.

#### 10.8.1.6 General Administration Expenses

General administration expenses of the Bayer Group decreased by €33 million, or 7.2%, from €460 million in the three months ended March 31, 2017 to €427 million in the three months ended March 31, 2018. The decrease in general administration expenses in the three months ended March 31, 2018 was mainly attributable to Crop Science. Special charges impacting general administration expenses in the three months ended March 31, 2018 amounted to €58 million, compared to €35 million in the three months ended March 31, 2017 and arose primarily in connection with the Transaction.

#### 10.8.1.7 Other Operating Income

Other operating income of the Bayer Group decreased by €7 million, or 4.4%, from €159 million in the three months ended March 31, 2017 to €152 million in the three months ended March 31, 2018.

#### 10.8.1.8 Other Operating Expenses

Other operating expenses of the Bayer Group decreased by €109 million, or 53.4%, from €204 million in the three months ended March 31, 2017 to €95 million in the three months ended March 31, 2018. The decrease was mainly attributable to derivatives including positive currency effects due to a strong Euro.

#### 10.8.1.9 EBIT

EBIT of the Bayer Group decreased by €117 million, or 4.8%, from €2,427 million in the three months ended March 31, 2017 to €2,310 million in the three months ended March 31, 2018. The decrease in Group EBIT in the three months ended March 31, 2018 was attributable to a decrease in EBIT at Consumer Health, Crop Science and Pharmaceuticals. EBIT of the Bayer Group included special charges of €78 million in the three months ended March 31, 2018, compared to €102 million in the three months ended March 31, 2017. The special charges in the three months ended March 31, 2018 primarily consisted of expenses of €61 million in connection with the Transaction and of €13 million in charges relating to efficiency improvement programs.

EBIT before special items decreased by €141 million, or 5.6%, from €2,529 million in the three months ended March 31, 2017 to €2,388 million in the three months ended March 31, 2018.

The following table provides an overview of special items included in EBIT for the periods shown by segment:

	For the three months ended March 31,	
	2017 <sup>(1)</sup>	2018
	(unaudited, unless otherwise indicated) (in € million)	
<b>EBIT before special items</b> <sup>(2)</sup> .....	<b>2,529</b>	<b>2,388</b>
Special items of Pharmaceuticals .....	(36)	(1)
Special items of Consumer Health .....	(9)	(5)
Special items of Crop Science .....	(37)	(61)
Special items of Animal Health .....	–	–
Special items of Reconciliation .....	(20)	(11)

	For the three months ended March 31,	
	2017 <sup>(1)</sup>	2018
	(unaudited, unless otherwise indicated) (in € million)	
<b>Total special items</b> .....	(102)	(78)
<b>EBIT<sup>(2)</sup></b> .....	<b>2,427</b>	<b>2,310</b>

(1) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(2) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

#### 10.8.1.10 Financial Result

The financial result of Bayer was a net income of €130 million in the three months ended March 31, 2018, in comparison to a net expense of €296 million in the three months ended March 31, 2017. The financial result included a gain of €275 million in the three months ended March 31, 2018 from the sale of Covestro Shares in January 2018 and pro-rata income of €80 million from the interest in Covestro accounted for using the equity method. The financial result also included €236 million in special gains in the three months ended March 31, 2018 (compared to €35 million in special charges in the three months ended March 31, 2017), primarily in connection with the aforementioned gain from the sale of Covestro Shares, which was partially offset by special charges of €68 million in connection with the Transaction.

Financial income of the Bayer Group increased by €338 million from €32 million in the three months ended March 31, 2017 to €370 million in the three months ended March 31, 2018. The increase was attributable to a gain of €275 million from the sale of Covestro Shares in January 2018 as well as €41 million positive fair value changes of the Exchangeable Bonds issued in June 2017.

Financial expenses of the Bayer Group decreased by €10 million from €321 million in the three months ended March 31, 2017 to €311 million in the three months ended March 31, 2018.

#### 10.8.1.11 Income before Income Taxes

Income before income taxes increased by €309 million, or 14.5%, from €2,131 million in the three months ended March 31, 2017 to €2,440 million in the three months ended March 31, 2018. Income tax expenses of the Bayer Group increased by €70 million, or 16.5%, from €424 million in the three months ended March 31, 2017 to €494 million in the three months ended March 31, 2018.

#### 10.8.1.12 Income from Continuing Operations after Income Taxes

Income from continuing operations after income taxes increased by €239 million, or 14.0%, from €1,707 million in the three months ended March 31, 2017 to €1,946 million in the three months ended March 31, 2018.

#### 10.8.1.13 Income from Discontinued Operations after Income Taxes

Income from discontinued operations after income taxes decreased by €556 million, from €564 million in the three months ended March 31, 2017 to €8 million in the three months ended March 31, 2018 due to the deconsolidation of Covestro in the third quarter of 2017.

#### 10.8.1.14 Income after Income Taxes

Overall, Income after income taxes decreased by €317 million, or 14.0%, from €2,271 million in the three months ended March 31, 2017 to €1,954 million in the three months ended March 31, 2018 mostly due to a decrease in income from discontinued operations resulting from the deconsolidation of Covestro.

## 10.8.2 Selected Segment Information

### 10.8.2.1 Pharmaceuticals

The following table provides an overview of the key data for Pharmaceuticals for the periods indicated:

	For the three months ended March 31,	
	2017 <sup>(1)</sup>	2018
	(unaudited) (in € million, unless otherwise indicated)	
<b>Net sales</b> .....	<b>4,263</b>	<b>4,075</b>
Change .....		(4.4)%
Currency- and portfolio-adjusted <sup>(2)</sup> .....		2.9%
<b>Sales by region</b> .....	<b>4,263</b>	<b>4,075</b>
Europe / Middle East / Africa .....	1,606	1,611
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		2.6%
North America .....	1,073	923
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		(3.0)%
Asia / Pacific .....	1,312	1,303
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		7.7%
Latin America .....	272	238
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		2.6%
<b>EBITDA before special items</b> <sup>(2)</sup> .....	<b>1,502</b>	<b>1,415</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(247)	(251)
Special items .....	(36)	(1)
of which:		
<i>Restructuring</i> .....	(3)	(1)
<i>Impairment losses / impairment loss reversals</i> .....	(33)	-
<b>EBIT</b> <sup>(2)</sup> .....	<b>1,219</b>	<b>1,163</b>

(1) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(2) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

#### 10.8.2.1.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Pharmaceuticals increased by 2.9% in the three months ended March 31, 2018. Total combined net sales of Xarelto™, EYLEA™, Xofigo™, Stivarga™ and Adempas™ delivered a strong performance overall and their combined sales increased from €1,445 million in the three months ended March 31, 2017 to €1,561 million in the three months ended March 31, 2018. We registered a noticeable decline in sales in our business with Kogenate™ that resulted from the termination of an agreement with a distribution partner at the end of 2017. After adjusting for this effect, sales of Pharmaceuticals increased by 4.6% on a currency- and portfolio-adjusted basis in the three months ended March 31, 2018, compared to the three months ended March 31, 2017.

Reported net sales of Pharmaceuticals decreased by €188 million, or 4.4%, from €4,263 million in the three months ended March 31, 2017 to €4,075 million in the three months ended March 31, 2018.

The table below provides a breakdown of the factors that affected Pharmaceuticals' reported net sales in the three months ended March 31, 2018, in absolute amounts and as a period-on-period change:

	For the three months ended March 31, 2018	Change (period-on-period)
	(in € million)	(in %)
Volume .....	244	5.7
Price .....	(119)	(2.8)
Currency .....	(305)	(7.1)
Portfolio .....	(8)	(0.2)
<b>Total</b> .....	<b>(188)</b>	<b>(4.4)</b>

The decrease in net sales in the three months ended March 31, 2018 was attributable to unfavorable currency effects, a decline in selling prices and portfolio effects which reduced net sales by 7.1%, 2.8% and 0.2%, respectively. These effects on net sales were partially offset by an increase in sales volume by 5.7%.

The unfavorable currency effects in the three months ended March 31, 2018 were mainly attributable to the Euro strengthening against the U.S. dollar (USD), the Chinese renminbi (CNY) and the Japanese yen (JPY).

The decline in selling prices was mainly attributable to Xarelto™ and Nexavar™.

The portfolio effects were mainly attributable to the divestment of Multi Vendor Service (Radiology).

The higher sales volume was mainly driven by Pharmaceuticals' key growth products Xarelto™, EYLEA™, Xofigo™, Stivarga™ and Adempas™.

The following overview provides information on the net sales of Pharmaceuticals' best-selling products for the three months ended March 31, 2018; for a more detailed description of these products, see "11.4.1.3.1 Overview of Key Products":

- Xarelto™: On a currency-adjusted basis, net sales of our oral anticoagulant Xarelto™ increased by 13.0% in the three months ended March 31, 2018. This significant increase was mainly attributable to expanded sales volumes in Europe and Asia / Pacific. Our license revenues – recognized as sales – in the United States, where Xarelto™ is marketed by a subsidiary of Johnson & Johnson were down year-on-year. Reported net sales of Xarelto™ increased by €63 million, or 8.4%, from €751 million in the three months ended March 31, 2017 to €814 million in the three months ended March 31, 2018.
- EYLEA™: On a currency-adjusted basis, net sales of our eye medicine EYLEA™ increased by 19.2% in the three months ended March 31, 2018. This strong increase was primarily due to higher volumes in Europe. Reported net sales of EYLEA™ increased by €58 million, or 13.0%, from €446 million in the three months ended March 31, 2017 to €504 million in the three months ended March 31, 2018.
- Xofigo™: On a currency-adjusted basis, net sales of our cancer drug Xofigo™ increased by 2.0% in the three months ended March 31, 2018. Higher demand in Japan and Europe more than offset the decline in the United States. Reported net sales of Xofigo™ decreased by €8 million, or 8.0%, from €100 million in the three months ended March 31, 2017 to €92 million in the three months ended March 31, 2018.
- Adempas™: On a currency-adjusted basis, net sales of Adempas™ to treat pulmonary hypertension rose strongly by 21.2% in the three months ended March 31, 2018 due primarily to positive development in the United States and Europe and, as in the past, reflected the proportionate recognition of the upfront and milestone payments resulting from the sGC collaboration with Merck & Co., Inc. Reported net sales of Adempas™ increased by €8 million, or 11.0%, from €73 million in the three months ended March 31, 2017 to €81 million in the three months ended March 31, 2018.
- Stivarga™: On a currency-adjusted basis, net sales of our cancer drug Stivarga™ increased by 3.3% in the three months ended March 31, 2018. This increase was mainly attributable to expanded volumes in Japan and China, where we benefited from the market launches in previous years. By contrast, sales declined significantly in the United States as a result of competitive pressure. Reported net sales of Stivarga™ decreased by €5 million, or 6.7%, from €75 million in the three months ended March 31, 2017 to €70 million in the three months ended March 31, 2018.
- Mirena™ product family: On a currency-adjusted basis, net sales of the hormone-releasing intrauterine devices of our Mirena™ product family (Mirena™, Kyleena™ and Jaydess™ / Skyla™) increased by 13.4% in the three months ended March 31, 2018. Net sales rose considerably, particularly in the United States, where the successful launch of Kyleena™ continued to have a positive impact. Reported net sales of Mirena™ increased by €2 million from €315 million in the three months ended March 31, 2017 to €317 million in the three months ended March 31, 2018.

- Kogenate™ / Kovaltry™: On a currency-adjusted basis, net sales of the blood-clotting medicine Kogenate™ / Kovaltry™ decreased by 15.9% in the three months ended March 31, 2018. Business with Kogenate™ / Kovaltry™ was negatively impacted by the termination of an agreement with a distribution partner at the end of 2017. Adjusted for this development, net sales increased on a currency-adjusted basis by 11.1%. Reported net sales of Kogenate™ / Kovaltry™ decreased by €61 million, or 22.2%, from €275 million in the three months ended March 31, 2017 to €214 million in the three months ended March 31, 2018.
- Adalat™: On a currency-adjusted basis, net sales of Adalat™, our product to treat hypertension and coronary heart disease, increased by 9.0% in the three months ended March 31, 2018. This marked increase was mainly attributable to the expansion of volumes in China. Reported net sales of Adalat™ increased by €2.0 million, or 1.1%, from €174 million in the three months ended March 31, 2017 to €176 million in the three months ended March 31, 2018.
- Glucobay™: On a currency-adjusted basis, net sales of our diabetes treatment Glucobay™ increased by 13.7% in the three months ended March 31, 2018. This increase was mainly attributable to the expansion of volumes in China. Reported net sales of Glucobay™ increased by €10 million, or 6.3%, from €158 million in the three months ended March 31, 2017 to €168 million in the three months ended March 31, 2018.
- Nexavar™: On a currency-adjusted basis, net sales of our cancer drug Nexavar™ decreased by 14.3% in the three months ended March 31, 2018. This significant decline was mainly the result of lower demand in the United States. Reported net sales of Nexavar™ decreased by €45 million, or 21.7%, from €207 million in the three months ended March 31, 2017 to €162 million in the three months ended March 31, 2018.
- YAZ™ / Yasmin™ / Yasminelle™: On a currency-adjusted basis, net sales of our YAZ™ / Yasmin™ / Yasminelle™ line of oral contraceptives decreased by 1.8% in the three months ended March 31, 2018. This decrease was primarily due to generic competition in Europe and the United States. Sales developed positively in Japan and China. Reported net sales of YAZ™ / Yasmin™ / Yasminelle™ decreased by €18 million, or 10.6%, from €170 million in the three months ended March 31, 2017 to €152 million in the three months ended March 31, 2018.
- Aspirin™ Cardio: On a currency-adjusted basis, net sales of Aspirin™ Cardio, our product for the secondary prevention of heart attacks, increased by 1.1% in the three months ended March 31, 2018. This slight increase was mainly attributable to the continuation of our good business performance in China. Slightly lower sales volumes in Europe had an opposing effect. Reported net sales of Aspirin™ Cardio decreased by €9 million, or 5.7%, from €157 million in the three months ended March 31, 2017 to €148 million in the three months ended March 31, 2018.
- Betaferon™ / Betaseron™: On a currency-adjusted basis, net sales of our multiple sclerosis product Betaferon™ / Betaseron™ decreased by 16.5% in the three months ended March 31, 2018. This expected decrease was mainly attributable to the highly competitive market environment in the United States. Reported net sales of Betaferon™ / Betaseron™ decreased by €41 million, or 24.0%, from €171 million in the three months ended March 31, 2017 to €130 million in the three months ended March 31, 2018.
- Avalox™ / Avelox™: On a currency-adjusted basis, net sales of our antibiotic Avalox™ / Avelox™ increased by 3.6% in the three months ended March 31, 2018. This increase was mainly a result of the good development of business in China. Reported net sales of Avalox™ / Avelox™ decreased by €3 million, or 3.0%, from €100 million in the three months ended March 31, 2017 to €97 million in the three months ended March 31, 2018.
- Gadavist™ / Gadovist™: On a currency-adjusted basis, net sales of our magnetic resonance imaging ("MRI") contrast agent Gadavist™ / Gadovist™ increased by 4.7% in the three months ended March 31, 2018, mainly due to higher sales in the United States. Reported net sales of Gadavist™ / Gadovist™ decreased by €2 million, or 2.2%, from €89 million in the three months ended March 31, 2017 to €87 million in the three months ended March 31, 2018.



### 10.8.2.1.2 EBITDA before Special Items

EBITDA before special items of Pharmaceuticals declined by €87 million, or 5.8%, from €1,502 million in the three months ended March 31, 2017 to €1,415 million in the three months ended March 31, 2018. This decline was driven by higher cost of goods sold, primarily due to higher project costs in connection with capital expenditures for production facilities, as well as an increase in research and development expenses and higher selling expenses. By contrast, positive earnings contributions primarily came from a significant expansion of volumes, particularly for our key growth products.

### 10.8.2.1.3 EBIT

EBIT of Pharmaceuticals decreased by €56 million, or 4.6%, from €1,219 million in the three months ended March 31, 2017 to €1,163 million in the three months ended March 31, 2018. EBIT included special charges of €1 million in the three months ended March 31, 2018, compared to €36 million in the three months ended March 31, 2017 which mainly related to impairment losses on intangible assets.

### 10.8.2.2 Consumer Health

The following table provides an overview of the key data for Consumer Health for the periods indicated:

	For the three months ended March 31,	
	2017 <sup>(1)</sup>	2018
	(unaudited) (in € million, unless otherwise indicated)	
<b>Net sales</b> .....	<b>1,601</b>	<b>1,409</b>
Change .....		(12.0)%
Currency- and portfolio-adjusted <sup>(2)</sup> .....		(2.2)%
<b>Sales by region</b> .....	<b>1,601</b>	<b>1,409</b>
Europe / Middle East / Africa .....	538	496
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		(3.5)%
North America .....	701	596
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		(2.1)%
Asia / Pacific .....	220	177
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		(12.3)%
Latin America .....	142	140
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		16.9%
<b>EBITDA before special items</b> <sup>(2)</sup> .....	<b>392</b>	<b>313</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(106)	(97)
Special items .....	(9)	(5)
of which:		
<i>Restructuring</i> .....	(9)	(5)
<b>EBIT</b> <sup>(2)</sup> .....	<b>278</b>	<b>211</b>

(1) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(2) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

#### 10.8.2.2.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Consumer Health decreased by 2.2% in the three months ended March 31, 2018. This development was driven by the sharp decline in the Asia / Pacific region which resulted mainly from the reclassification of two of Consumer Health's medicated skin care brands from OTC to prescription by the Chinese authorities in the fall of 2017. Sales also developed negatively in the North America and in the Europe / Middle East / Africa region. In Latin America, by contrast, Consumer Health posted encouraging sales gains on a currency-adjusted basis.

Reported net sales of Consumer Health decreased by €192 million, or 12.0%, from €1,601 million in the three months ended March 31, 2017 to €1,409 million in the three months ended March 31, 2018.

The table below provides a breakdown of the factors that affected Consumer Health's reported net sales in the three months ended March 31, 2018, in absolute amounts and as a period-on-period change:

	<b>For the three months ended March 31, 2018</b>	<b>Change (period-on-period)</b>
	(unaudited)	
	(in € million)	(in %)
Volume.....	(54)	(3.3)
Price.....	17	1.1
Currency .....	(155)	(9.8)
Portfolio.....	—	—
<b>Total</b> .....	<b>(192)</b>	<b>(12.0)</b>

The decrease in net sales of Consumer Health in the three months ended March 31, 2018 was attributable to unfavorable currency effects and a decrease in sales volume, which resulted in a 9.8% and 3.3% decrease of net sales, respectively. The impact of the unfavorable currency effects and the decrease in sales volume on net sales was partly offset by an increase in selling prices of 1.1%.

The unfavorable currency effects in the three months ended March 31, 2018 were mainly attributable to the Euro strengthening against the US Dollar (USD), the Argentinian Peso (ARS), the Russian Ruble (RUB) and the Chinese Renminbi (CNY).

The decline in sales volume was mainly due to the reclassification of two of Consumer Health's medicated skin care brands from OTC to prescription by the Chinese authorities in the fall of 2017.

The increase in selling prices mainly resulted from positive price developments in the Europe / Middle East / Africa region, particularly in Turkey, as well as in the Latin America region, particularly in Argentina and Brazil.

The following overview provides information on the net sales of Consumer Health's best-selling products for the three months ended March 31, 2018; for a more detailed description of these products, see "11.4.2.3.1 Overview of Key Products":

- **Claritin™**: On a currency-adjusted basis, net sales of our antihistamine Claritin™ remained level in the three months ended March 31, 2018, compared to the three months ended March 31, 2017. Growth in China was sufficient to offset declines in Japan that arose from price pressure and intense competitive pressure, as well as negative effects resulting from a slow start to the allergy season in the United States. Reported net sales of Claritin™ decreased by €23 million, or 12.1%, from €190 million in the three months ended March 31, 2017 to €167 million in the three months ended March 31, 2018.
- **Aspirin™**: On a currency-adjusted basis, net sales of our analgesic Aspirin™ increased by 3.1% in the three months ended March 31, 2018. This growth was mainly attributable to gains in Latin America. Reported net sales of Aspirin™ decreased by €8 million, or 6.8%, from €117 million in the three months ended March 31, 2017 to €109 million in the three months ended March 31, 2018. Together with Aspirin™ Cardio, which is reported under the Pharmaceuticals segment, reported net sales decreased by €17 million, or 6.2% (and by 2.0% on a currency-adjusted basis), from €274 million in the three months ended March 31, 2017 to €257 million in the three months ended March 31, 2018.
- **Bepanthen™ / Bepanthol™**: On a currency-adjusted basis, net sales of our Bepanthen™ / Bepanthol™ wound and skin care products increased by 10.7% in the three months ended March 31, 2018. Business with the Bepanthen™/Bepanthol™ wound and skin care products developed positively, especially in Brazil and Europe. Reported net sales of Bepanthen™ / Bepanthol™ increased by €5 million, or 5.3%, from €95 million in the three months ended March 31, 2017 to €100 million in the three months ended March 31, 2018.
- **Coppertone™**: On a currency-adjusted basis, net sales of our sunscreen product Coppertone™ decreased by 3.4% in the three months ended March 31, 2018. This decrease was due to a weaker season, particularly in the United States. Reported net sales of Coppertone™ decreased by €16 million, or 15.7%, from €102 million in the three months ended March 31, 2017 to €86 million in the three months ended March 31, 2018.

- Aleve™: On a currency-adjusted basis, net sales of our analgesic Aleve™ increased slightly by 1.1% in the three months ended March 31, 2018, compared to a weak prior-year quarter. Reported net sales of Aleve™ decreased by €10 million, or 12.2%, from €82 million in the three months ended March 31, 2017 to €72 million in the three months ended March 31, 2018.
- Canesten™: On a currency-adjusted basis, net sales of our skin and intimate health products Canesten™ decreased considerably by 21.2% in the three months ended March 31, 2018, primarily due to anticipated temporary supply disruptions. Reported net sales of Canesten™ decreased by €18 million, or 25.7%, from €70 million in the three months ended March 31, 2017 to €52 million in the three months ended March 31, 2018.
- Alka-Seltzer™: On a currency-adjusted basis, net sales of the Alka-Seltzer™ product family to treat gastric complaints and cold symptoms decreased by 14.5% in the three months ended March 31, 2018. This decrease was due, in part, to intense competitive pressure. Reported net sales of the Alka-Seltzer™ product family decreased by €18 million, or 25.7%, from €70 million in the three months ended March 31, 2017 to €52 million in the three months ended March 31, 2018.
- Elevit™: On a currency-adjusted basis, net sales of our prenatal vitamin Elevit™ increased by 6.1% in the three months ended March 31, 2018. This increase was mainly due to good demand in Europe. Reported net sales of Elevit™ decreased by €2 million, or 3.8%, from €52 million in the three months ended March 31, 2017 to €50 million in the three months ended March 31, 2018.
- Dr. Scholl's™: On a currency-adjusted basis, net sales of our Dr. Scholl's™ foot care products increased by 34.8% in the three months ended March 31, 2018. Strong sales gains were attributable particularly to the inventory reduction undertaken in the prior-year quarter in preparation for the repositioning of the brand. Reported net sales of Dr. Scholl's™ increased by €8 million, or 19.5%, from €41 million in the three months ended March 31, 2017 to €49 million in the three months ended March 31, 2018.
- One A Day™: On a currency-adjusted basis, net sales of our One A Day™ vitamin product decreased by 3.0% in the three months ended March 31, 2018, compared to the prior-year quarter, in which we had benefited from a product line extension. Reported net sales of One A Day™ decreased by €9 million, or 16.4%, from €55 million in the three months ended March 31, 2017 to €46 million in the three months ended March 31, 2018.

#### 10.8.2.2.2 EBITDA before Special Items

EBITDA before special items of Consumer Health decreased significantly by €79 million, or 20.2%, from €392 million in the three months ended March 31, 2017 to €313 million in the three months ended March 31, 2018. Adjusted for negative currency effects of €34 million, earnings decreased by 11.5%. This decrease was driven by lower volumes that chiefly resulted from anticipated temporary supply disruptions and the reclassification of two of Consumer Health's brands in China. In the three months ended March 31, 2017, earnings had included one-time gains of €34 million. Positive earnings contributions in the three months ended March 31, 2018 predominantly came from a lower cost of goods sold.

#### 10.8.2.2.3 EBIT

EBIT of Consumer Health decreased by €67 million, or 24.1%, from €278 million in the three months ended March 31, 2017 to €211 million in the three months ended March 31, 2018. EBIT included special charges of €5 million in the three months ended March 31, 2018, compared to €9 million in the three months ended March 31, 2017. The special charges in the three months ended March 31, 2018 resulted from efficiency improvement measures.

#### 10.8.2.3 Crop Science

The following table provides an overview of the key data for Crop Science for the periods indicated:

	For the three months ended March 31,	
	2017 <sup>(1)</sup>	2018
	(unaudited)	
	(in € million, unless otherwise indicated)	
<b>Net sales</b> .....	<b>3,120</b>	<b>2,861</b>
Change .....		(8.3)%
Currency- and portfolio-adjusted <sup>(2)</sup> .....		(1.0)%
<b>Sales by region</b> .....	<b>3,120</b>	<b>2,861</b>
Europe / Middle East / Africa .....	1,462	1,294
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		(8.8)%
North America .....	1,042	969
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		4.5%
Asia / Pacific .....	366	368
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		10.4%
Latin America .....	250	230
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		4.8%
<b>EBITDA before special items</b> <sup>(2)</sup> .....	<b>1,115</b>	<b>1,042</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(108)	(89)
Special items .....	(37)	(61)
of which:		
<i>Restructuring</i> .....	(16)	(2)
<i>Litigations</i> .....	–	(1)
<i>Acquisition costs</i> .....	(21)	(58)
<b>EBIT</b> <sup>(2)</sup> .....	<b>970</b>	<b>892</b>

(1) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(2) Alternative Performance Measure used by Bayer, for more information see “8.4 Additional Key Figures for the Bayer Group.”

#### 10.8.2.3.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Crop Science decreased by 1.0% in the three months ended March 31, 2018. The decline in net sales in the Europe / Middle East / Africa region was nearly offset by sales gains in the North America, Asia / Pacific and Latin America regions.

Reported net sales of Crop Science decreased by €259 million, or 8.3%, from €3,120 million in the three months ended March 31, 2017 to €2,861 million in the three months ended March 31, 2018.

The table below provides a breakdown of the factors that affected Crop Science’s reported net sales in the three months ended March 31, 2018, in absolute amounts and as a period-on-period change:

	For the three months ended March 31, 2018	Change (period-on-period)
	(in € million)	(in %)
Volume .....	(17)	(0.6)
Price .....	(14)	(0.4)
Currency .....	(228)	(7.3)
Portfolio .....	0	–
<b>Total</b> .....	<b>(259)</b>	<b>(8.3)</b>

The decrease in net sales in Crop Science in the three months ended March 31, 2018 was attributable to unfavorable currency effects, a decrease in sales volume and a decrease in selling prices, which resulted in a 7.3%, 0.6% and 0.4% decrease in net sales, respectively.

The unfavorable currency effects in the three months ended March 31, 2018 were mainly attributable to the Euro strengthening against the U.S. dollar (USD), the Canadian dollar (CAD), the Brazilian real (BRL) and the Ukrainian hryvni (UAH).

The decrease in sales volume in the three months ended March 31, 2018 was mainly attributable to decreases in sales in the Europe / Middle East / Africa region.

The decrease in selling prices was mainly attributable to the North America region.

The following overview provides information on Crop Science's net sales by region for the three months ended March 31, 2018. For more information on Crop Science's strategic business entities, see "11.4.3 Crop Science":

- **Europe / Middle East / Africa:** On a currency-adjusted basis, net sales decreased by 8.8% in the three months ended March 31, 2018. Crop Science recorded lower sales at Fungicides, Herbicides and Vegetable Seeds, mainly due to the weather conditions in Europe. At Fungicides, business was also held back by a substantial market decline in France. Net sales at SeedGrowth also decreased in the three months ended March 31, 2018, compared to the three months ended March 31, 2017. In contrast, net sales at Insecticides increased, but this growth was insufficient to offset the declines elsewhere. Reported net sales in our Europe / Middle East / Africa region decreased by €168 million, or 11.5%, from €1,462 million in the three months ended March 31, 2017 to €1,294 million in the three months ended March 31, 2018.
- **North America:** On a currency-adjusted basis, net sales increased by 4.5% in the three months ended March 31, 2018. The canola seed business in Canada performed very well due to increased acreages. Higher demand in Canada resulted in sales gains at Herbicides. On the other hand, there was a significant decline at Environmental Science due to lower product deliveries to the purchaser of the consumer business and at Insecticides due to lower pest pressure in the United States. Reported net sales in our North America region decreased by €73 million, or 7.0%, from €1,042 million in the three months ended March 31, 2017 to €969 million in the three months ended March 31, 2018.
- **Asia/Pacific:** On a currency-adjusted basis, net sales increased by 10.4% in the three months ended March 31, 2018. The encouraging growth at Fungicides and Insecticides was attributable especially to advance sales in China and to high pest pressure in India. By contrast, sales were down at Herbicides. Reported net sales in Crop Science's Asia / Pacific remained level at €368 million in the three months ended March 31, 2018, compared to €366 million in the three months ended March 31, 2017.
- **Latin America:** On a currency-adjusted basis, net sales increased by 4.8% in the three months ended March 31, 2018. Crop Science posted double-digit percentage growth at Fungicides after a weak prior-year quarter. In Brazil, demand for Crop Science's fungicides and insecticides increased, while inventories continued to normalize. However, sales at Herbicides declined, especially in Argentina. Reported net sales in Crop Science's Latin America region decreased by €20 million, or 8.0%, from €250 million in the three months ended March 31, 2017 to €230 million in the three months ended March 31, 2018.

The table below provides a breakdown of the net sales per strategic business entity for the periods indicated, in absolute amounts as well as the period-on-period change in net sales on a reported and on a currency- and portfolio-adjusted basis:

	For the three months ended		Change (period-on- period)	Currency- and portfolio- adjusted
	2017	2018		
	March 31,			
	(unaudited)		(unaudited)	
	(in € million)		(in %)	
Herbicides .....	912	800	(12.3)	(6.6)
Fungicides .....	787	728	(7.5)	(2.0)
Insecticides .....	301	299	(0.7)	8.0
SeedGrowth .....	251	210	(16.3)	(8.4)
Vegetable Seeds .....	162	144	(11.1)	(6.2)
Environmental Science .....	147	114	(22.4)	(14.3)
Other (Seeds & Traits) .....	560	566	1.1	12.9
<b>Total .....</b>	<b>3,120</b>	<b>2,861</b>	<b>(8.3)</b>	<b>(1.0)</b>

#### 10.8.2.3.2 EBITDA before Special Items

EBITDA before special items for Crop Science decreased by €73 million, or 6.5%, from €1,115 million in the three months ended March 31, 2017 to €1,042 million in the three months ended March 31, 2018. Adjusted for negative currency effects in the amount of €44 million, earnings were down by 2.6%. A decline in other operating income and a higher cost of goods sold were among factors that held back earnings. Lower expenses for research and development and for general administration had an opposing effect.

### 10.8.2.3.3 EBIT

EBIT of Crop Science decreased by €78 million, or 8.0%, from €970 million in the three months ended March 31, 2017 to €892 million in the three months ended March 31, 2018. EBIT comprised special charges of €61 million in the three months ended March 31, 2018, compared to €37 million in the three months ended March 31, 2017, primarily in connection with the Transaction.

### 10.8.2.4 Animal Health

The following table provides an overview of the key data for Animal Health for the periods indicated:

	For the three months ended March 31,	
	2017 <sup>(1)</sup>	2018
	(unaudited)	
	(in € million, unless otherwise indicated)	
<b>Net sales</b> .....	<b>440</b>	<b>414</b>
Change .....		(5.9)%
Currency- and portfolio-adjusted <sup>(2)</sup> .....		3.0%
<b>Sales by region</b> .....	<b>440</b>	<b>414</b>
Europe / Middle East / Africa .....	144	136
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		(4.2)%
North America .....	177	160
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		4.5%
Asia / Pacific .....	76	77
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		11.8%
Latin America .....	43	41
<i>Currency-adjusted change</i> <sup>(2)</sup> .....		7.0%
<b>EBITDA before special items</b> <sup>(2)</sup> .....	<b>135</b>	<b>139</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(9)	(10)
Special items .....	–	–
of which:		
<i>Restructuring</i> .....	–	–
<b>EBIT</b> <sup>(2)</sup> .....	<b>126</b>	<b>129</b>

(1) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(2) Alternative Performance Measure used by Bayer, for more information see “8.4 Additional Key Figures for the Bayer Group.”

#### 10.8.2.4.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Animal Health increased by 3.0% in the three months ended March 31, 2018. Growth at Animal Health was negatively impacted by amended financial reporting standards (IFRS 15), among other factors. For further information on the impact of IFRS 15, see the notes to the consolidated financial statements. The Asia/Pacific region developed very positively. Animal Health also expanded business in the Latin America and North America regions on a currency-adjusted basis, while sales receded in the Europe / Middle East / Africa region.

Reported net sales of Animal Health decreased by €26 million, or 5.9%, from €440 million in the three months ended March 31, 2017 to €414 million in the three months ended March 31, 2018.

The table below provides a breakdown of the factors that affected Animal Health’s reported net sales in the three months ended March 31, 2018, in absolute amounts and as a period-on-period change:

	For the three months ended March 31, 2018	Change (period-on-period)
	(in € million)	(in %)
Volume .....	11	2.5
Price .....	2	0.5
Currency .....	(39)	(8.9)
Portfolio .....	0	–
<b>Total</b> .....	<b>(26)</b>	<b>(5.9)</b>

The decrease in net sales in the three months ended March 31, 2018 was attributable to unfavorable currency effects, which resulted in a 8.9% decrease in net sales, respectively. The impact of the unfavorable currency effects on net sales was slightly offset by an increase in sales volume and an increase in selling prices by 2.5% and 0.5%, respectively.

The unfavorable currency effects in the three months ended March 31, 2018 were mainly attributable to the Euro strengthening against the U.S. dollar (USD).

The increase in sales volume was attributable to the Asia / Pacific as well as the North America and Latin America regions that were partially offset by lower sales volume in the Europe / Middle East / Africa region.

The increase in selling prices in the three months ended March 31, 2018 was mainly attributable to the Europe / Middle East / Africa and the Latin America regions.

The following overview provides information on the net sales of Animal Health's best-selling products for the three months ended March 31, 2018; for a more detailed description of these products, see "11.4.4.3.1 Overview of Key Products":

- Advantage™ product family: On a currency-adjusted basis, net sales of our Advantage™ family of flea, tick and worm control products decreased by 8.2% in the three months ended March 31, 2018 due to seasonal shifts in Europe / Middle East / Africa and North America regions. Volumes in the North America region were also negatively impacted by increased competitive pressure and the related decline in demand. Growth in the Asia / Pacific region was not sufficient to offset this development. Reported net sales of our Advantage™ family decreased by €22 million, or 16.2%, from €136 million in the three months ended March 31, 2017 to €114 million in the three months ended March 31, 2018.
- Seresto™: On a currency-adjusted basis, net sales of our Seresto™ flea and tick collar increased by 24.8% in the three months ended March 31, 2018. This development was mainly driven by higher demand in the United States and by price and volume increases in the Europe / Middle East / Africa region. Reported net sales of Seresto™ increased by €12 million, or 15.8%, from €76 million in the three months ended March 31, 2017 to €88 million in the three months ended March 31, 2018.
- Drontal™ product family: On a currency-adjusted basis, net sales of our Drontal™ line of dewormers decreased by 4.4% in the three months ended March 31, 2018. This was due to lower volumes in the Europe / Middle East / Africa region. In addition, demand in the North America region was below that of the strong prior-year quarter. Reported net sales of our Drontal™ line decreased by €4 million, or 11.4%, from €35 million in the three months ended March 31, 2017 to €31 million in the three months ended March 31, 2018.
- Baytril™: On a currency-adjusted basis, net sales of our antibiotic Baytril™ increased by 2.9% in the three months ended March 31, 2018. This slight increase resulted from a positive business development in the North America, Asia / Pacific and Latin America regions. Reported net sales of Baytril™ decreased by €2 million, or 7.4%, from €27 million in the three months ended March 31, 2017 to €25 million in the three months ended March 31, 2018.

#### 10.8.2.4.2 EBITDA before Special Items

EBITDA before special items of Animal Health increased by €4 million, or 3.0%, from €135 million in the three months ended March 31, 2017 to €139 million in the three months ended March 31, 2018. Adjusted for negative currency effects in the amount of €10 million, earnings increased by 10.4%. Positive contributions came from lower selling expenses, while the aforementioned effect of the first-time application of IFRS 15 had a negative impact on earnings.

#### 10.8.2.4.3 EBIT

EBIT of Animal Health increased by €3 million, or 2.4%, from €126 million in the three months ended March 31, 2017 to €129 million in the three months ended March 31, 2018. In the three months ended March 31, 2018 and March 31, 2017, EBIT included no special charges.



### 10.8.2.5 Reconciliation

Net sales recorded under Reconciliation amounted to €379 million in the three months ended March 31, 2018, compared to €256 million in the three months ended March 31, 2017. EBITDA before special items recorded under Reconciliation amounted to negative €13 million in the three months ended March 31, 2018, compared to negative €90 million in the three months ended March 31, 2017.

EBIT recorded under Reconciliation amounted to negative €85 million in the three months ended March 31, 2018, mainly attributable to Corporate Functions and Consolidation, compared to negative €166 million in the three months ended March 31, 2017. EBIT included special charges of negative €11 million in the three months ended March 31, 2018, compared to negative €20 million in the three months ended March 31, 2017. Special charges in the three months ended March 31, 2018 included €5 million in restructuring costs, €3 million in costs related to litigation and legal risks and €3 million in acquisition costs.

## 10.9 Comparison of Fiscal Year 2017 with Fiscal Year 2016

### 10.9.1 Results of Operations of the Bayer Group

The following discussion is based on the 2017 and 2016 figures included in the audited consolidated income statement of Bayer and the notes thereto for fiscal year ended December 31, 2017, including the comparative information for fiscal year ended December 31, 2016, which presents Covestro as discontinued operations. Accordingly, the following 2017 and 2016 figures are not directly comparable with the 2016 and 2015 figures presented and discussed under “10.10.1 Results of Operations of the Bayer Group”, which are included in the audited consolidated income statement of Bayer and the notes thereto for fiscal year ended December 31, 2016, including the comparative information for fiscal year ended December 31, 2015, which presents Covestro in continuing operations. For further information on the comparability of the information discussed in the following sections and the financial information contained in this Offering Memorandum, see “10.5 Comparability of the Financial Information Contained in the Audited Consolidated Financial Statements.”

#### 10.9.1.1 Net Sales

##### 10.9.1.1.1 Discussion of Factors Affecting Net Sales

Net sales of the Bayer Group remained level at €35,015 million in fiscal year 2017, compared to €34,943 million in fiscal year 2016. On a currency- and portfolio-adjusted basis, net sales increased by 1.5% in fiscal year 2017.

The table below provides a breakdown of the factors that affected the Bayer Group’s reported net sales in fiscal year 2017, in absolute amounts and as a year-on-year change:

	Fiscal year ended December 31, 2017	Change (year-on-year)
	(audited)	
	(in € million)	(in %)
Volume.....	810	2.3
Price.....	(269)	(0.8)
Currency .....	(490)	(1.4)
Portfolio.....	21	0.1
<b>Total</b> .....	<b>72</b>	<b>0.2</b>

Net sales of the Bayer Group remained level in fiscal year 2017. A higher sales volume and a portfolio effect resulted in a 2.3% and 0.1% increase in net sales, respectively. The impact of the increase in sales volume and the portfolio effect on net sales was partially offset by unfavorable currency effects and a slight decline in selling prices, which decreased net sales by 1.4% and 0.8%, respectively.

The volume-driven increase in the Group’s net sales in fiscal year 2017 was primarily attributable to a higher sales volume at Pharmaceuticals. The slightly positive portfolio effect on net sales was mainly attributable to the Cydectin™ product portfolio acquired by Animal Health in January 2017 from Boehringer Ingelheim Vetmedica, Inc., United States. The unfavorable currency effects in fiscal year 2017 were mainly attributable to the Euro strengthening against the US dollar (USD), the Japanese yen (JPY), the Turkish lira (TRY) and Chinese renminbi (CNY). The negative effect of selling prices on net sales in fiscal year 2017 was attributable to Crop Science and Pharmaceuticals.



For more information on our segments, including a breakdown of the factors that affected our segments' net sales, see "10.9.2 Selected Segment Information."

#### 10.9.1.1.2 Discussion of Net Sales by Region

The following table presents the Bayer Group's external net sales by region (by market) for the periods indicated, in absolute amounts and as a percentage of the Bayer Group's total net sales, as well as the year-on-year change in external net sales by region (by market) on a reported and on a currency-adjusted basis:

	Fiscal year ended December 31,		Change (year-on-year) (unaudited)	Currency-adjusted (year-on-year) (unaudited)
	2016 <sup>(1)</sup> (audited, unless stated otherwise) (in € million, unless otherwise indicated)	2017		
Europe / Middle East / Africa .....	13,062	13,388	2.5	2.9
% of net sales <sup>(2)</sup> .....	37.4	38.2		
North America .....	10,066	10,143	0.8	1.7
% of net sales <sup>(2)</sup> .....	28.8	29.0		
Asia / Pacific .....	7,413	7,637	3.0	5.7
% of net sales <sup>(2)</sup> .....	21.2	21.8		
Latin America .....	4,402	3,847	(12.6)	(9.5)
% of net sales <sup>(2)</sup> .....	12.6	11.0		
<b>Total</b> .....	<b>34,943</b>	<b>35,015</b>	<b>0.2</b>	<b>1.6</b>

(1) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated income statement of Bayer for fiscal year ended December 31, 2017, which presents Covestro as discontinued operations.

(2) Unaudited.

The following discussion of net sales by region is presented on a currency-adjusted basis:

The net sales of the Bayer Group in the Europe / Middle East / Africa region increased slightly. This was mainly attributable to increases in the net sales of Pharmaceuticals and Consumer Health. The net sales of Crop Science and Animal Health in the Europe/Middle East / Africa region remained level compared to the previous year.

The increase in net sales of the Bayer Group in the North America region was mainly attributable to increases in net sales of Pharmaceuticals, Crop Science and Animal Health. The net sales of Consumer Health declined.

The increase in net sales of the Bayer Group in the Asia / Pacific region was attributable to increases in net sales of Pharmaceuticals, Crop Science and Animal Health. The net sales of Consumer Health declined.

The decrease in net sales of the Bayer Group in the Latin America region was attributable to a substantial decrease in net sales of Crop Science. Net sales of Consumer Health and Animal Health remained level, compared to the previous year. The net sales of Pharmaceuticals increased.

#### 10.9.1.2 Cost of Goods Sold

Cost of goods sold of the Bayer Group decreased by €374 million, or 3.2%, from €11,756 million in fiscal year 2016 to €11,382 million in fiscal year 2017. Special charges impacting cost of goods sold in fiscal year 2017 amounted to €163 million, compared to €412 million in fiscal year 2016. Special charges were incurred mainly in relation to the execution of a divestment project and efficiency improvement programs in Crop Science as well as impairment losses on intangible assets in Consumer Health.

#### 10.9.1.3 Gross Profit

Gross profit of the Bayer Group increased by €446 million, or 1.9%, from €23,187 million in fiscal year 2016 to €23,633 million in fiscal year 2017. The increase in gross profit in fiscal year 2017 was mainly attributable to the increase in net sales in Pharmaceuticals and the decline in cost of goods sold. The ratio of cost of goods sold to total net sales declined year-on-year to 32.5% in fiscal year 2017, compared to 33.6% in fiscal year 2016.

#### 10.9.1.4 Selling Expenses

Selling expenses of the Bayer Group remained level in fiscal year 2017 at €11,116 million, compared to €11,148 million in fiscal year 2016. A decrease in our selling expenses was mainly incurred in other selling expenses which was slightly offset by an increase in selling expenses for physical distribution and warehousing of finished products and an increase in commission and licensing expenses. Special charges of €305 million impacted selling expenses in fiscal year 2017, compared to €317 million in fiscal year 2016. These mainly comprised impairment losses on intangible assets in Consumer Health.

#### 10.9.1.5 Research and Development (R&D) Expenses

R&D expenses of the Bayer Group increased by €99 million, or 2.2%, from €4,405 million in fiscal year 2016 to €4,504 million in fiscal year 2017.

The following table provides a breakdown of our R&D expenses by segment based on the Bayer Group's segment structure in effect from September 30, 2017 for the periods presented:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(audited, unless otherwise indicated) (in € million)	
Pharmaceuticals .....	2,787	2,888
Consumer Health .....	259	240
Crop Science .....	1,164	1,166
Animal Health .....	140	155
Reconciliation <sup>(2)</sup> .....	55	55
<b>Group</b> .....	<b>4,405</b>	<b>4,504</b>

(1) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated income statement of Bayer for fiscal year ended December 31, 2017, which presents Covestro as discontinued operations.

(2) Unaudited.

The increase in R&D expenses in fiscal year 2017 was mainly attributable to higher R&D investments in Pharmaceuticals. Special charges impacting R&D expenses in fiscal year 2017 amounted to €232 million, compared to €84 million in fiscal year 2016. They mainly included special charges related to impairment losses on intangible assets at Pharmaceuticals and Crop Science.

#### 10.9.1.6 General Administration Expenses

General administration expenses of the Bayer Group increased by €222 million, or 12.3%, from €1,804 million in fiscal year 2016 to €2,026 million in fiscal year 2017. The increase in administration expenses in fiscal year 2017 was mainly attributable to additional expenditures related to the Monsanto acquisition. Special charges impacting general administration expenses in fiscal year 2017 amounted to €339 million, compared to €185 million in fiscal year 2016, and arose primarily in connection with the Transaction.

#### 10.9.1.7 Other Operating Income

Other operating income of the Bayer Group increased by €77 million, or 9.8%, from €787 million in fiscal year 2016 to €864 million in fiscal year 2017.

The following table provides a breakdown of the Bayer Group's other operating income for the periods presented:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(audited) (in € million)	
Gains on retirements of noncurrent assets .....	64	173
Reversal of impairment losses on receivables.....	18	23

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(audited) (in € million)	
Reversals of unutilized provisions.....	122	26
Gains from derivatives .....	255	291
Miscellaneous operating income.....	328	351
<b>Total</b> .....	<b>787</b>	<b>864</b>
<i>of which special items</i> .....	<i>115</i>	<i>14</i>

(1) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated income statement of Bayer for fiscal year ended December 31, 2017, which presents Covestro as discontinued operations.

The increase in other operating income was mainly attributable to an increase in gains on retirements of noncurrent assets, gains from derivatives and miscellaneous operating income, which was partly offset by a decrease in reversals of unutilized provisions. Gains on retirements of noncurrent assets increased by €109 million, or 170.3%, from €64 million in fiscal year 2016 to €173 million in fiscal year 2017. Gains on retirements of noncurrent assets included an €81 million gain from the sale of trademark rights for the Vagitrol™, Benadon™, Claradol™, Transipeg™ and Colopeg™ brands and some smaller brands from the Consumer Health segment. Reversals of unutilized provisions decreased by €96 million, or 78.7%, from €122 million in fiscal year 2016 to €26 million in fiscal year 2017.

For further information, see note 10 on other operating income of Bayer's audited consolidated financial statements for fiscal year 2017.

#### 10.9.1.8 Other Operating Expenses

Other operating expenses of the Bayer Group increased by €69 million, or 7.8%, from €879 million in fiscal year 2016 to €948 million in fiscal year 2017.

The following table provides a breakdown of the Bayer Group's other operating expenses for the periods presented:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(audited) (in € million)	
Losses on retirements of noncurrent assets .....	19	39
Impairment losses on receivables.....	163	139
Expenses related to significant legal risks .....	262	258
Losses from derivatives .....	171	258
Miscellaneous operating expenses .....	264	254
<b>Total</b> .....	<b>879</b>	<b>948</b>
<i>of which special items</i> .....	<i>205</i>	<i>202</i>

(1) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated income statement of Bayer for fiscal year ended December 31, 2017, which presents Covestro as discontinued operations.

The increase in other operating expenses in fiscal year 2017 was mainly attributable to an increase in higher losses from derivatives. This increase was partly offset by lower expenses related to impairment losses on receivables and expenses related to significant legal risks. Special charges impacting other operating expenses in fiscal year 2017 amounted to €202 million, compared to €205 million in fiscal year 2016 and mainly related to, as in the previous year, impairment losses on receivables and accounting measures taken in connection with legal proceedings related to Xarelto™, Essure™ and Cipro™ / Avalox™.

For further information, see note 11 on other operating expenses of Bayer's audited consolidated financial statements for fiscal year 2017.

### 10.9.1.9 EBIT

EBIT of the Bayer Group increased by €165 million, or 2.9%, from €5,738 million in fiscal year 2016 to €5,903 million in fiscal year 2017. The increase in Group EBIT in fiscal year 2017 was mainly attributable to a substantial increase in EBIT of Pharmaceuticals, which was offset by substantial decreases in EBIT of Consumer Health and Crop Science. EBIT of the Bayer Group included special charges of €1,227 million in fiscal year 2017, compared to €1,088 million in fiscal year 2016. Special charges in fiscal year 2017 mainly comprised €450 million in impairment losses on intangible assets and €304 million in expenses in connection with the Transaction. In addition, in fiscal year 2017, special charges included €227 million for efficiency improvement programs and €188 million in provisions for litigations and legal risks.

EBIT before special items increased by €304 million, or 4.5%, from €6,826 million in fiscal year 2016 to €7,130 million in fiscal year 2017.

The following table provides an overview of special items included in EBIT by segment based on the Bayer Group's segment structure in effect from September 30, 2017 for the periods presented:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(unaudited, unless otherwise indicated) (in € million)	
<b>EBIT before special items<sup>(2) (3)</sup></b> .....	<b>6,826</b>	<b>7,130</b>
Special items of Pharmaceuticals .....	(558)	(340)
Special items of Consumer Health.....	(292)	(300)
Special items of Crop Science .....	(143)	(408)
Special items of Animal Health .....	(7)	(31)
Special items of Reconciliation .....	(88)	(148)
<b>Total special items<sup>(2)</sup></b> .....	<b>(1,088)</b>	<b>(1,227)</b>
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>5,738</b>	<b>5,903</b>

(1) Figures extracted or derived from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated income statement of Bayer for fiscal year ended December 31, 2017, which presents Covestro as discontinued operations.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

### 10.9.1.10 Financial Result

The financial result of Bayer was negative €1,326 million in fiscal year 2017, in comparison to negative €965 million in fiscal year 2016. Among other items, the financial result comprised net interest expense of €413 million in fiscal year 2017, compared to €504 million in fiscal year 2016, currency hedging costs in an amount of €326 million in fiscal year 2017, compared to €121 million in fiscal year 2016 and interest cost of €189 million for pension and other provisions in fiscal year 2017, compared to €251 million in fiscal year 2016 and miscellaneous expenses of net €428 million in fiscal year 2017, compared to net €87 million in fiscal year 2016. The financial result included special charges of €611 million in fiscal year 2017, compared to special gains in an amount of €105 million in fiscal year 2016, mainly related to the Transaction and the Exchangeable Bonds issued in June 2017.

Financial income of the Bayer Group increased by €140 million, or 94.0%, from €149 million in fiscal year 2016 to €289 million in fiscal year 2017. The increase was mainly attributable to an increase in income from interest and similar income by €137 million, or 101.5%, from €135 million in fiscal year 2016 to €272 million in fiscal year 2017.

Financial expenses of the Bayer Group increased by €527 million, or 47.6%, from €1,108 million in fiscal year 2016 to €1,635 million in fiscal year 2017. The increase in fiscal year 2017 was mainly attributable to an increase in miscellaneous financial expenses and an increase in exchange losses, both mainly relating to the Transaction and the Exchangeable Bonds issued in June 2017.

For further information, see note 13 of Bayer's audited consolidated financial statements for fiscal year 2017.

#### 10.9.1.11 Income before Income Taxes

Income before income taxes decreased by €196 million, or 4.1%, from €4,773 million in fiscal year 2016 to €4,577 million in fiscal year 2017.

Income tax expenses of the Bayer Group increased by €312 million, or 30.7%, from €1,017 million in fiscal year 2016 to €1,329 million in fiscal year 2017. This includes a negative one-time effect of €455 million that relates exclusively to the tax reform in the United States and results from the revaluation of deferred tax items and the recognition of an additional tax on unrepatriated profits. For further information on the effects the U.S. tax reform may have on Bayer, see "1.1.29 Bayer may be exposed to potential risks in connection with the recent U.S. tax reform, which cannot be fully assessed at this point in time." Net income attributable to Bayer AG stockholders from continuing and discontinued operations and after income tax expenses increased by €2,805 million, or 61.9%, from €4,531 million in fiscal year 2016 to €7,336 million in fiscal year 2017.

The following table provides a breakdown of our income tax expenses for the periods presented:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(audited) (in € million)	
Taxes paid or accrued .....	1,589	1,531
Deferred taxes .....	(572)	(202)
<b>Total</b> .....	<b>1,017</b>	<b>1,329</b>

(1) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated income statement of Bayer for fiscal year ended December 31, 2017, which presents Covestro as discontinued operations.

The use of tax loss carryforwards reduced current income taxes in fiscal year 2017 by €47 million, compared to a reduction by €82 million in fiscal year 2016. The use of tax credits reduced current income taxes by €16 million in fiscal year 2017, the same amount as in fiscal year 2016. The effective tax rate was 29.0% in 2017, compared to 21.3% in 2016.

For further information, see note 14 of Bayer's consolidated financial statements for fiscal year 2017.

#### 10.9.1.12 Income from Continuing Operations after Income Taxes

Income from continuing operations after income taxes decreased by €508 million, or 13.5%, from €3,756 million in fiscal year 2016 to €3,248 million in fiscal year 2017, due to the tax reform in the United States and results from the revaluation of deferred tax items and the recognition of an additional tax on unrepatriated profits.

#### 10.9.1.13 Income from Discontinued Operations after Income Taxes

Income from discontinued operations after income taxes increased by €3,776 million from €1,070 million in fiscal year 2016 to €4,846 million in fiscal year 2017. Of this amount, €4,468 million, compared to €802 million in fiscal year 2016, was attributable to Covestro. This figure primarily comprises a gain from deconsolidation and on remeasurement of the remaining interest at the end of the third quarter, as well as operating income in the first nine months of 2017. In comparison with the prior-year reporting period, Covestro increased sales for the nine months ended September 30, 2017 by 19.9% on a currency- and portfolio-adjusted basis to €10,556 million, compared to €8,829 million for the nine months ended September 30, 2016, in particular owing to significantly higher selling prices and higher volumes. EBITDA before special items of Covestro improved by €906 million, or 56.2%, from €1,611 million for the nine months ended September 30, 2016 to €2,517 million for the nine months ended September 30, 2017. Substantially higher selling prices more than offset increased raw material prices.

For additional information on the effects that the divestments of Covestro, the Diabetes Care Business and the Environmental Science Consumer Business have had on Bayer's income statement of discontinued operations, see note 6.3 Divestments, material sale transactions and discontinued operations of to the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017.

#### 10.9.1.14 Income after Income Taxes

Overall, income after income taxes increased by €3,268 million, or 67.7%, from €4,826 million in fiscal year 2016 to €8,094 million in fiscal year 2017 mostly due to gains resulting from the deconsolidation of Covestro.

#### 10.9.2 **Selected Segment Information**

The following discussion is based on the 2017 and 2016 figures included in the audited consolidated income statement of Bayer and the notes thereto for fiscal year ended December 31, 2017, including the comparative information for fiscal year ended December 31, 2016, which presents Covestro as discontinued operations. Since its deconsolidation at the end of September 2017, Covestro is no longer a reportable segment of our Group. Thus, the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, including the comparative information as of and for fiscal year ended December 31, 2016, discussed and presented in this section of the Offering Memorandum, only comprise the four reportable segments Pharmaceuticals, Consumer Health, Crop Science and Animal Health. Business activities that cannot be allocated to any other segment are reported under "All Other Segments" and mainly include services provided by the service areas Business Services, Technology Services and Currenta. Bayer holding companies and Leaps by Bayer (formerly: Bayer Lifescience Center) are reported under "Corporate Functions and Consolidation." "All Other Segments" and "Corporate Functions and Consolidation" are combined in the Reconciliation item, which bridges the gap between reportable segment and group figures.

##### 10.9.2.1 Pharmaceuticals

The following table provides an overview of the key data for Pharmaceuticals for the periods indicated:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>Net sales<sup>(2)</sup></b> .....	<b>16,420</b>	<b>16,847</b>
Change <sup>(2)</sup> .....		2.6%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		4.3%
<b>Sales by region</b> .....	<b>16,420</b>	<b>16,847</b>
Europe / Middle East / Africa .....	6,417	6,521
<i>Currency-adjusted change<sup>(3)</sup></i> .....		2.4%
North America .....	4,194	4,229
<i>Currency-adjusted change<sup>(3)</sup></i> .....		2.1%
Asia / Pacific .....	4,775	5,013
<i>Currency-adjusted change<sup>(3)</sup></i> .....		8.5%
Latin America .....	1,034	1,084
<i>Currency-adjusted change<sup>(3)</sup></i> .....		5.1%
<b>EBITDA before special items<sup>(2) (3)</sup></b> .....	<b>5,251</b>	<b>5,711</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(1,304)	(1,046)
Special items .....	(558)	(340)
of which:		
<i>Restructuring</i> .....	(69)	(9)
<i>Litigations</i> .....	(88)	(124)
<i>Impairment losses/impairment loss reversals</i> .....	(401)	(207)
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>3,389</b>	<b>4,325</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

##### 10.9.2.1.1 *Net Sales*

On a currency- and portfolio-adjusted basis, net sales of Pharmaceuticals increased by 4.3% in fiscal year 2017, mainly driven by its key growth products. Total combined net sales of Xarelto™, EYLEA™, Stivarga™, Xofigo™ and Adempas™ increased by €783 million, or 16.3% (currency-adjusted), from €5,413 million in fiscal year 2016 to €6,196 million in fiscal year 2017. Net sales of Kogenate™ declined considerably due to lower order

volumes being placed for the active ingredient from a distribution partner ahead of the planned contract termination at the end of 2017. After adjusting for this effect, sales of Pharmaceuticals increased by 5.6% on a currency- and portfolio-adjusted basis. The Pharmaceuticals business expanded in all regions.

Reported net sales of Pharmaceuticals increased by €427 million, or 2.6%, from €16,420 million in fiscal year 2016 to €16,847 million in fiscal year 2017.

The table below provides a breakdown of the factors that affected Pharmaceuticals' reported net sales in fiscal year 2017, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2017	Change (year-on-year)
	(unaudited)	
	(in € million)	(in %)
Volume.....	867	5.2
Price.....	(154)	(0.9)
Currency .....	(276)	(1.7)
Portfolio.....	(10)	(0.0)
<b>Total</b> .....	<b>427</b>	<b>2.6</b>

The increase in net sales in fiscal year 2017 was attributable to a higher sales volume, which resulted in a 5.2% increase in net sales. The impact of the sales volume on net sales was partially offset by unfavorable currency effects and a slight decrease in selling prices, which resulted in a 1.7% and 0.9% decrease in net sales, respectively.

The increase in sales volume was mainly driven by Pharmaceuticals' key growth products Xarelto™, EYLEA™, Stivarga™, Xofigo™ and Adempas™.

The unfavorable currency effects in fiscal year 2017 were mainly attributable to the Euro strengthening against the Japanese yen (JPY), the Chinese renminbi (CNY), the U.S. dollar (USD) and the British pound (GBP).

The following overview provides information on the net sales of Pharmaceuticals' best-selling products for fiscal year 2017; for a more detailed description of these products, see "11.4.1.3.1 Overview of Key Products":

- **Xarelto™**: On a currency-adjusted basis, net sales of our oral anticoagulant Xarelto™ increased by 13.9% in fiscal year 2017. This significant increase was mainly attributable to expanded sales volumes in Europe, Japan and China. We also posted gains in license revenues – recognized as sales – in the United States, where Xarelto™ is marketed by a subsidiary of Johnson & Johnson. Reported net sales of Xarelto™ increased by €370 million, or 12.6%, from €2,928 million in fiscal year 2016 to €3,298 million in fiscal year 2017.
- **EYLEA™**: On a currency-adjusted basis, net sales of our eye medicine EYLEA™ increased by 18.5% in fiscal year 2017. This strong increase was mainly attributable to expanded volumes in Europe, Canada and Japan. Reported net sales of EYLEA™ increased by €255 million, or 15.7%, from €1,625 million in fiscal year 2016 to €1,880 million in fiscal year 2017.
- **Xofigo™**: On a currency-adjusted basis, net sales of our cancer drug Xofigo™ increased significantly by 25.6% in fiscal year 2017. This increase was mainly attributable to its market launch in Japan in 2016 and to higher demand in the United States. Reported net sales of Xofigo™ increased by €77 million, or 23.3%, from €331 million in fiscal year 2016 to €408 million in fiscal year 2017.
- **Stivarga™**: On a currency-adjusted basis, net sales of our cancer drug Stivarga™ increased by 17.2% in fiscal year 2017. This substantial increase was mainly attributable to new approvals for the drug in 2017 as a second-line treatment for patients with hepatocellular carcinoma, especially in the United States and Japan. Reported net sales of Stivarga™ increased by €40 million, or 14.5%, from €275 million in fiscal year 2016 to €315 million in fiscal year 2017.
- **Adempas™**: On a currency-adjusted basis, net sales of Adempas™ to treat hypertension increased by 17.8% in fiscal year 2017 mainly as a result of expanded volumes in the United States. The sales of the product reflected proportionate recognition of upfront and milestone payments resulting from the sGC collaboration with Merck & Co., Inc. Reported net sales of

Adempas™ increased by €41 million, or 16.1%, from €254 million in fiscal year 2016 to €295 million in fiscal year 2017.

- Mirena™ product family: On a currency-adjusted basis, net sales of the hormone-releasing intrauterine devices of our Mirena™ product family (Mirena™, Jaydess™ / Skyla™ and Kyleena™) increased by 9.2% in fiscal year 2017. This noticeable increase was mainly attributable to the successful launch of the Kyleena™ intrauterine device, which led to higher volumes, particularly in the United States and Europe. Sales of Mirena™ grew primarily in Latin America and China. Reported net sales of the Mirena™ product family increased by €83 million, or 8.0%, from €1,043 million in fiscal year 2016 to €1,126 million in fiscal year 2017.
- Kogenate™ / Kovaltry™: On a currency-adjusted basis, net sales of the blood-clotting medicine Kogenate™ / Kovaltry™ decreased by 15.9% in fiscal year 2017. This sharp decrease was due to lower order volumes being placed for the active ingredient from a distribution partner ahead of the planned contract termination at the end of 2017. Adjusted for this development, sales were level with the previous year. Reported net sales of Kogenate™ / Kovaltry™ decreased by €199 million, or 17.1%, from €1,166 million in fiscal year 2016 to €967 million in fiscal year 2017.
- Nexavar™: On a currency-adjusted basis, net sales of our cancer drug Nexavar™ decreased by 2.7% in fiscal year 2017. This slight decline resulted from decreased demand and elevated pressure on prices, particularly in Germany and the United States. Reported net sales of Nexavar™ decreased by €36 million, or 4.1%, from €870 million in fiscal year 2016 to €834 million in fiscal year 2017.
- Betaferon™ / Betaseron™: On a currency-adjusted basis, net sales of our multiple sclerosis product Betaferon™ / Betaseron™ decreased by 10.0% in fiscal year 2017. This expected decrease was mainly attributable to lower sales volumes as a result of a highly competitive market environment in the United States and Europe. Reported net sales of Betaferon™ / Betaseron™ decreased by €83 million, or 11.3%, from €734 million in fiscal year 2016 to €651 million in fiscal year 2017.
- Adalat™: On a currency-adjusted basis, net sales of Adalat™, our product to treat hypertension and coronary heart disease, increased by 7.0% in fiscal year 2017. This marked increase was mainly attributable to a continued positive business performance in China. Reported net sales of Adalat™ increased by €24 million, or 3.8%, from €624 million in fiscal year 2016 to €648 million in fiscal year 2017.
- YAZ™ / Yasmin™ / Yasminelle™: On a currency-adjusted basis, net sales of our YAZ™ / Yasmin™ / Yasminelle™ line of oral contraceptives decreased by 4.2% in fiscal year 2017. This decrease was primarily due to generic competition in the United States. Sales growth in Japan, where we benefitted from a product line extension, and in China was not sufficient to offset this effect. Reported net sales of our YAZ™ / Yasmin™ / Yasminelle™ line decreased by €30 million, or 4.4%, from €678 million in fiscal year 2016 to €648 million in fiscal year 2017.
- Aspirin™ Cardio: On a currency-adjusted basis, net sales of Aspirin™ Cardio, our product for the secondary prevention of heart attacks, increased by 10.5% in fiscal year 2017. This increase was mainly attributable to a continued positive business performance in China. Reported net sales increased by €43 million, or 8.0%, from €538 million in fiscal year 2016 to €581 million in fiscal year 2017.
- Glucobay™: On a currency-adjusted basis, net sales of our diabetes treatment Glucobay™ increased by 13.0% in fiscal year 2017. This increase was mainly attributable to a continued positive business performance in China. Reported net sales of Glucobay™ increased by €48 million, or 9.3%, from €515 million in fiscal year 2016 to €563 million in fiscal year 2017.
- Gadavist™ / Gadovist™: On a currency-adjusted basis, net sales of our magnetic resonance imaging (“MRI”) contrast agent Gadavist™ / Gadovist™ increased by 7.2% in fiscal year 2017. This encouraging increase was mainly attributable to the positive development of business in the United States and Japan. Reported net sales of Gadavist™ / Gadovist™ increased by €19 million, or 5.5%, from €346 million in fiscal year 2016 to €365 million in fiscal year 2017.



- Avalox™ / Avelox™: On a currency-adjusted basis, net sales of our antibiotic Avalox™ / Avelox™ decreased by 5.1% in fiscal year 2017. This decrease was mainly a result of lower license revenues in Europe. The encouraging sales development in China was not sufficient to offset this effect. Reported net sales of Avalox™ / Avelox™ decreased by €20 million, or 5.7%, from €353 million in fiscal year 2016 to €333 million in fiscal year 2017.

#### 10.9.2.1.2 EBITDA before Special Items

EBITDA before special items of Pharmaceuticals increased by €460 million, or 8.8%, from €5,251 million in fiscal year 2016 to €5,711 million in fiscal year 2017. Adjusted for negative currency effects of €98 million, earnings advanced by 10.6%. Growth was mainly driven by higher volumes and lower cost of goods sold. Expenses for R&D were level with fiscal year 2016 and included a gain in the mid-double-digit millions from a development collaboration. In addition, we recorded a positive earnings effect from the recognition of a receivable in the mid-double-digit millions as one of our distribution partners for the active ingredient in Kogenate™ did not fulfill its purchase obligation.

#### 10.9.2.1.3 EBIT

EBIT of Pharmaceuticals increased by a substantial €936 million, or 27.6%, from €3,389 million in fiscal year 2016 to €4,325 million in fiscal year 2017. EBIT included special charges of €340 million in fiscal year 2017, compared to €558 million in fiscal year 2016. The special charges in 2017 mainly comprised €207 million in impairment losses on intangible assets and €124 million in provisions for litigations.

#### 10.9.2.2 Consumer Health

The following table provides an overview of the key data for Consumer Health for the periods indicated:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>Net sales<sup>(2)</sup></b> .....	<b>6,037</b>	<b>5,862</b>
Change <sup>(2)</sup> .....		(2.9)%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		(1.7)%
<b>Sales by region</b> .....	<b>6,037</b>	<b>5,862</b>
Europe / Middle East / Africa .....	1,918	1,962
<i>Currency-adjusted change<sup>(3)</sup></i> .....		2.1%
North America .....	2,627	2,480
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(4.1)%
Asia / Pacific .....	781	738
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(4.0)%
Latin America .....	711	682
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(0.4)%
<b>EBITDA before special items<sup>(2) (3)</sup></b> .....	<b>1,411</b>	<b>1,231</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(424)	(413)
Special items .....	(292)	(300)
of which:		
<i>Restructuring</i> .....	(32)	(98)
<i>Integration costs</i> .....	(100)	–
<i>Impairment losses/impairment loss reversals</i> .....	(160)	(202)
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>695</b>	<b>518</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

#### 10.9.2.2.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Consumer Health decreased by 1.7% in fiscal year 2017. This decrease was attributable to persistently weak business development in the United States. Furthermore, the reclassification of two of Consumer Health's medicated skin care brands from OTC to prescription

by the Chinese authorities in the fall of 2017 led to sales declines of around €70 million in the fourth quarter of 2017. Sales in Latin America came in at the prior-year level on a currency-adjusted basis. By contrast, business expanded slightly in Europe / Middle East / Africa, and particularly in Germany.

Reported net sales of Consumer Health decreased by €175 million, or 2.9%, from €6,037 million in fiscal year 2016 to €5,862 million in fiscal year 2017.

The table below provides a breakdown of the factors that affected Consumer Health's reported net sales in fiscal year 2017, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2017	Change (year-on-year)
	(unaudited)	
	(in € million)	(in %)
Volume.....	(177)	(3.0)
Price.....	77	1.3
Currency .....	(75)	(1.2)
Portfolio.....	0	0.0
<b>Total .....</b>	<b>(175)</b>	<b>(2.9)</b>

The decrease in net sales of Consumer Health in fiscal year 2017 was attributable to a lower sales volume mainly attributable to the weak business development in the United States and unfavorable currency effect, which resulted in a 3.0% and 1.2% decrease in net sales respectively. The impact of the decrease in sales volume and currency effects on net sales was partially offset by an increase in selling prices, which resulted in a 1.3% increase in net sales.

The increase in selling prices was mainly attributable to positive price developments in the Europe / Middle East / Africa region, particularly in Turkey.

The unfavorable currency effects in fiscal year 2017 were mainly attributable to the Euro weakening against the Turkish lira (TRY), the Argentinian Peso (ARS) and the British pound (GBP).

The following overview provides information on the net sales of our best-selling Consumer Health products for fiscal year 2017; for a more detailed description of these products, see "11.4.1.3.1 Overview of Key Products."

- **Claritin™:** On a currency-adjusted basis, net sales of our antihistamine Claritin™ decreased by 2.4% in fiscal year 2017, compared to the previous year, in which we benefited from a product line extension in the United States. This slight decrease was mainly attributable to intensified competition in the United States and Japan. Sales developed positively in China. Reported net sales of Claritin™ decreased by €20 million, or 3.3%, from €605 million in fiscal year 2016 to €585 million in fiscal year 2017.
- **Aspirin™:** On a currency-adjusted basis, net sales of our analgesic Aspirin™ increased by 1.8% in fiscal year 2017. This slight growth was mainly attributable to a positive business performance in the North America and Europe / Middle East / Africa regions. Reported net sales of Aspirin™ decreased by €1 million, or 0.2%, from €463 million in fiscal year 2016 to €462 million in fiscal year 2017. Together with Aspirin™ Cardio, which is reported under the Pharmaceuticals segment, reported net sales increased by €42 million, or 4.2% (and 6.5% on a currency-adjusted basis), from €1,001 million in fiscal year 2016 to €1,043 million in fiscal year 2017.
- **Bepanthen™ / Bepanthol™:** On a currency-adjusted basis, net sales of our Bepanthen™ / Bepanthol™ wound and skin care products increased by 6.6% in fiscal year 2017. This increase was mainly attributable to sales gains in the Europe / Middle East / Africa region, especially in Germany. Reported net sales of Bepanthen™ / Bepanthol™ increased by €17 million, or 4.7%, from €362 million in fiscal year 2016 to €379 million in fiscal year 2017.
- **Aleve™:** On a currency-adjusted basis, net sales of our analgesic Aleve™ decreased sharply by 7.9% in fiscal year 2017, compared to the previous year, in which we benefited from a product line extension. This decrease mainly resulted from intense competition in the United States. Reported net sales of Aleve™ decreased by €41 million, or 9.9%, from €416 million in fiscal year 2016 to €375 million in fiscal year 2017.

- Canesten™: On a currency-adjusted basis, net sales of our skin and intimate health products Canesten™ increased by 3.5% in fiscal year 2017. This increase was mainly attributable to a positive business performance in China and the United Kingdom. Reported net sales of Canesten™ increased by €9 million, or 3.3%, from €269 million in fiscal year 2016 to €278 million in fiscal year 2017.
- Alka-Seltzer™: On a currency-adjusted basis, net sales of the Alka-Seltzer™ product family to treat gastric complaints and cold symptoms decreased by 1.2% in fiscal year 2017. This slight decrease was mainly attributable to sales declines in Latin America that were partly offset by gains in the United States resulting mainly from a strong cold season. Reported net sales of the Alka-Seltzer™ product family decreased by €9 million, or 3.6%, from €253 million in fiscal year 2016 to €244 million in fiscal year 2017.
- One A Day™: On a currency-adjusted basis, net sales of our One A Day™ vitamin product increased by 2.3% in fiscal year 2017. This increase mainly resulted from the United States, where we benefited from the expansion of our regular and e-commerce distribution channels. Reported net sales of One A Day™ remained level year-on-year and amounted to €222 million in fiscal year 2017.
- Dr. Scholl's™: On a currency-adjusted basis, net sales of our Dr. Scholl's™ foot care products decreased by 8.6% in fiscal year 2017. Net sales decreased markedly, particularly in the United States, due to the repositioning of the brand. The success that followed this move was not sufficient to fully offset the associated inventory reduction. Reported net sales of Dr. Scholl's™ decreased by €24 million, or 10.2%, from €235 million in fiscal year 2016 to €211 million in fiscal year 2017.
- Coppertone™: On a currency-adjusted basis, net sales of our sunscreen product Coppertone™ decreased by 6.5% in fiscal year 2017. This decrease was primarily a result of intensified competition in the United States and Brazil. Reported net sales of Coppertone™ decreased by €11 million, or 5.0%, from €219 million in fiscal year 2016 to €208 million in fiscal year 2017.
- Elevit™: On a currency-adjusted basis, net sales of our prenatal vitamin Elevit™ increased by 4.7% in fiscal year 2017. This good development was mainly due to steady demand in our Asia / Pacific region. Reported net sales of Elevit™ increased by €7 million, or 3.8%, from €182 million in fiscal year 2016 to €189 million in fiscal year 2017.

#### 10.9.2.2.2 EBITDA before Special Items

EBITDA before special items of Consumer Health decreased by €180 million, or 12.8%, from €1,411 million in fiscal year 2016 to €1,231 million in fiscal year 2017. Adjusted for negative currency effects of €25 million, earnings were down 11.0%. This decline was largely due to lower volumes, in part as a consequence of the reclassification of two of Consumer Health's medicated skin care brands from OTC to prescription by the Chinese authorities in the fall of 2017 and the associated effect of around €50 million, as well as a higher cost of goods sold, primarily as a result of inventory impairments. Earnings were also held back by higher selling expenses. Positive contributions came from one-time gains of €80 million, predominantly relating to the divestment of noncore brands.

#### 10.9.2.2.3 EBIT

EBIT of Consumer Health decreased by €177 million, or 25.5%, from €695 million in fiscal year 2016 to €518 million in fiscal year 2017. EBIT included special charges of €300 million in 2017, compared to €292 million in fiscal year 2016. The special charges in fiscal year 2017 mainly related to special charges of €202 million for impairment losses on intangible assets and €98 million for restructuring measures.

### 10.9.2.3 Crop Science

The following table provides an overview of the key data for Crop Science for the periods indicated:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>Net sales<sup>(2)</sup></b> .....	<b>9,915</b>	<b>9,577</b>
Change <sup>(2)</sup> .....		(3.4)%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		(2.2)%
<b>Sales by region</b> .....	<b>9,915</b>	<b>9,577</b>
Europe / Middle East / Africa .....	3,290	3,335
<i>Currency-adjusted change<sup>(3)</sup></i> .....		1.5%
North America .....	2,616	2,772
<i>Currency-adjusted change<sup>(3)</sup></i> .....		5.8%
Asia / Pacific .....	1,548	1,563
<i>Currency-adjusted change<sup>(3)</sup></i> .....		2.0%
Latin America .....	2,461	1,907
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(18.0)%
<b>EBITDA before special items<sup>(2) (3)</sup></b> .....	<b>2,421</b>	<b>2,043</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(523)	(400)
Special items .....	(143)	(408)
of which:		
<i>Restructuring</i> .....	(51)	(32)
<i>Litigations</i> .....	(1)	(4)
<i>Acquisition costs</i> .....	(86)	(273)
<i>Impairment losses / reversals</i> .....	–	(41)
<i>Divestments</i> .....	(5)	(58)
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>1,755</b>	<b>1,235</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

#### 10.9.2.3.1 *Net Sales*

On a currency- and portfolio-adjusted basis, net sales of Crop Science decreased by 2.2% in fiscal year 2017. This decline was mainly attributable to the crop protection business in Brazil. High inventories in that market necessitated measures to normalize the situation that in turn led to negative sales development. Excluding the Brazilian business, sales of Crop Science increased by 3.0% year-on-year on a currency- and portfolio-adjusted basis. Environmental Science posted a positive performance, in part due to the delivery of products to the company that acquired Crop Science's consumer business. Reported net sales of Crop Science decreased by €338 million, or 3.4%, from €9,915 million in fiscal year 2016 to €9,577 million in fiscal year 2017.

The table below provides a breakdown of the factors that affected Crop Science's reported net sales in fiscal year 2017, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2017		Change (year-on-year)
	(unaudited)		
	(in € million)		(in %)
Volume .....	37		0.3
Price .....	(251)		(2.5)
Currency .....	(124)		(1.2)
Portfolio .....	0		0.0
<b>Total</b> .....	<b>(338)</b>		<b>(3.4)</b>

The decrease in net sales in Crop Science in fiscal year 2017 was attributable to a decrease in selling prices and unfavorable currency effects, which resulted in a 2.5% and 1.2% decrease in net sales, respectively.

The impact of these unfavorable effects on net sales was slightly offset by a higher sales volume which resulted in a 0.3% increase in net sales.

The decrease in selling prices was mainly attributable to the crop protection business in Brazil and North America.

The unfavorable currency effects in fiscal year 2017 were mainly attributable to the Euro strengthening against the Brazilian real (BRL), Turkish lira (TRY) and the U.S. dollar (USD).

The slight increase in sales volume in fiscal year 2017 was mainly attributable to the North American region of our Crop Protection business as well as to Seeds and to Environmental Science that compensated decreases in sales volume in Brazil.

The following overview provides information on Crop Science's net sales by region in fiscal year 2017 and on how the business units within Crop Science (Crop Protection / Seeds (i.e., Herbicides, Fungicides, Insecticides, Seed Growth and Seeds) as well as Environmental Science) affected these developments. For more information on Crop Science's business units, see "11.4.3 Crop Science":

- Europe/Middle East/Africa: On a currency-adjusted basis, net sales increased by 1.5% in fiscal year 2017. Insecticides developed very positively, in part due to increased demand and the introduction of new products. Also, net sales at Seeds increased, particularly for vegetables. On the other hand, increased competitive pressure led to declines at SeedGrowth and Fungicides. Reported net sales in our Europe / Middle East / Africa region decreased by €45 million, or 1.4%, from €3,290 million in fiscal year 2016 to €3,335 million in fiscal year 2017.
- North America: On a currency-adjusted basis, net sales increased by 5.8% in fiscal year 2017. The Seeds business registered a double-digit growth rate with robust sales gains for oilseed rape / canola – due to increased acreages in Canada – and for soybeans more than offsetting declines in net sales for cotton. SeedGrowth also developed very positively due to increased demand for products to treat soybean and wheat seed. In contrast, we recorded declines at Insecticides. Environmental Science posted a considerable increase in sales. Reported net sales in our North America region increased by €156 million, or 6.0%, from €2,616 million in fiscal year 2016 to €2,772 million in fiscal year 2017.
- Asia/Pacific: On a currency-adjusted basis, net sales increased by 2.0% in fiscal year 2017. Business performance was encouraging at Fungicides, particularly in Southeast Asia, and at Herbicides, mainly due to new product launches in China and Japan. In addition, Crop Science achieved sales growth in the Seeds business, particularly for cotton and oilseeds, but posted a decline at Insecticides. Reported net sales in Crop Science's Asia / Pacific region increased by €15 million, or 1.0%, from €1,548 million in fiscal year 2016 to €1,563 million in fiscal year 2017.
- Latin America: On a currency-adjusted basis, net sales decreased by 18.0% in fiscal year 2017. This decline was attributable to returns of crop protection products and lower sales into the distribution channel to normalize inventories in Brazil. Price reductions also had an effect. Crop Science posted gains in sales overall in the other Latin American countries on a currency-adjusted basis. Reported net sales in our Latin America region decreased by €554 million, or 22.5%, from €2,461 million in fiscal year 2016 to €1,907 million in fiscal year 2017.

The table below provides a breakdown of the net sales per business unit for the periods indicated, in absolute amounts as well as the year-on-year change in net sales on a reported and on a currency- and portfolio-adjusted basis:

	For fiscal year ended December 31,		Change (year-on-year) (unaudited)	Currency- and portfolio- adjusted
	2016 <sup>(1)</sup>	2017		
	(unaudited, unless otherwise indicated) (in € million)		(unaudited) (in %)	
<b>Crop Protection / Seeds</b>	<b>9,317</b>	<b>8,906</b>	<b>(4.4)</b>	<b>(3.2)</b>
Crop Protection.....	7,961	7,403	(7.0)	(5.3)
<i>Herbicides</i> .....	2,693	2,633	(2.2)	(1.6)
<i>Fungicides</i> .....	2,961	2,597	(12.3)	(9.9)
<i>Insecticides</i> .....	1,357	1,246	(8.2)	(6.1)
<i>SeedGrowth</i> .....	950	927	(2.4)	(0.3)
Seeds.....	1,356	1,503	10.8	9.1
<b>Environmental Science</b> .....	<b>598</b>	<b>671</b>	<b>12.2</b>	<b>14.0</b>

(1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

#### 10.9.2.3.2 EBITDA before Special Items

EBITDA before special items for Crop Science decreased by €378 million, or 15.6%, from €2,421 million in fiscal year 2016 to €2,043 million in fiscal year 2017. Adjusted for negative currency effects of €63 million, earnings were down by 13.0%. The decline is largely attributable to the aforementioned situation in Brazil, which resulted in lower selling prices and sales volumes. Outside of Brazil, lower selling prices were offset by expanded sales volumes. Other operating income had a positive effect on earnings.

#### 10.9.2.3.3 EBIT

EBIT of Crop Science decreased by €520 million, or 29.6%, from €1,755 million in fiscal year 2016 to €1,235 million in fiscal year 2017. EBIT in fiscal year 2017 included special charges of €408 million, compared to €143 million in fiscal year 2016. Special charges in fiscal year 2017 primarily related to the Transaction and the execution of a divestment project.

#### 10.9.2.4 Animal Health

The following table provides an overview of the key data for Animal Health for the periods indicated:

	For fiscal year ended December 31,	
	2016 <sup>(1)</sup>	2017
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>Net sales<sup>(2)</sup></b> .....	<b>1,523</b>	<b>1,571</b>
Change <sup>(2)</sup> .....		3.2%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		2.0%
<b>Sales by region</b> .....	<b>1,523</b>	<b>1,571</b>
Europe / Middle East / Africa.....	445	442
<i>Currency-adjusted change<sup>(3)</sup></i> .....		0.0%
North America.....	621	655
<i>Currency-adjusted change<sup>(3)</sup></i> .....		6.4%
Asia / Pacific.....	300	317
<i>Currency-adjusted change<sup>(3)</sup></i> .....		7.3%
Latin America.....	157	157
<i>Currency-adjusted change<sup>(3)</sup></i> .....		0.0%
<b>EBITDA before special items<sup>(2) (3)</sup></b> .....	<b>349</b>	<b>381</b>
Depreciation, amortization and impairment losses/loss reversals before special items.....	(29)	(43)
Special items.....	(7)	(31)
of which:		
<i>Restructuring</i> .....	(7)	(31)
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>313</b>	<b>307</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

#### 10.9.2.4.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Animal Health increased by 2.0% in fiscal year 2017. Business in the Asia / Pacific region developed especially positively due to higher demand and price increases. Animal Health also registered currency-adjusted growth in North America, with the Cydectin™ product portfolio acquired in January 2017 from Boehringer Ingelheim Vetmedica, Inc., United States, contributing to sales gains. The Europe / Middle East / Africa and Latin America regions remained at the prior-year level.

Reported net sales of Animal Health increased by €48 million, or 3.2%, from €1,523 million in fiscal year 2016 to €1,571 million in fiscal year 2017.

The table below provides a breakdown of the factors that affected Animal Health's reported net sales in fiscal year 2017, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2017 (unaudited) (in € million)	Change (year-on-year) (in %)
Volume.....	7	0.4
Price.....	25	1.6
Currency .....	(15)	(0.9)
Portfolio.....	31	2.1
<b>Total</b> .....	<b>48</b>	<b>3.2</b>

The increase in net sales in fiscal year 2017 was attributable to favorable portfolio effects, an increase in selling prices and higher sales volumes, which resulted in 2.1%, 1.6% and 0.4% increases in net sales, respectively. The impact of these favorable effects on net sales was partially offset by unfavorable currency effects which reduced net sales by 0.9%.

The favorable portfolio effects resulted from the Cydectin™ product portfolio acquired in January 2017 from Boehringer Ingelheim Vetmedica, Inc., United States.

The increase in selling prices was attributable to the increases in selling prices in all regions.

The increase in sales volume in fiscal year 2017 was mainly attributable to business in the Asia / Pacific region and was partially offset by decreases in sales volume in the Latin America and Europe / Middle East / Africa regions.

The unfavorable currency effects in fiscal year 2017 were mainly attributable to the Euro strengthening against the British pound (GBP) and the U.S. dollar (USD).

The following overview provides information on the net sales of Animal Health's best-selling products for fiscal year 2017; for a more detailed description of these products, see "11.4.1.3.1 Overview of Key Products."

- Advantage™ product family: On a currency-adjusted basis, net sales of our Advantage™ family of flea, tick and worm control products decreased by 7.8% in fiscal year 2017. This decrease was mainly due to increased competitive pressure and the related decline in demand in the Europe / Middle East / Africa and North America regions. Reported net sales of our Advantage™ family decreased by €47 million, or 8.8%, from €535 million in fiscal year 2016 to €488 million in fiscal year 2017.
- Seresto™: On a currency-adjusted basis, net sales of our Seresto™ flea and tick collar increased by 25.1% in fiscal year 2017. This strong increase was mainly attributable to increased demand in the United States and Europe. Reported net sales of Seresto™ increased by €44 million, or 25.3%, from €174 million in fiscal year 2016 to €218 million in fiscal year 2017.
- Drontal™ product family: On a currency-adjusted basis, net sales of our Drontal™ line of dewormers increased by 4.5% in fiscal year 2017. This increase was mainly attributable to increased prices and volumes in the United States and in the Asia / Pacific region. Reported net sales of our Drontal™ line increased by €4 million, or 3.1%, from €128 million in fiscal year 2016 to €132 million in fiscal year 2017.
- Baytril™: On a currency-adjusted basis, net sales of our antibiotic Baytril™ increased by 2.5% in fiscal year 2017. This increase was mainly attributable to the United States, partly due to a

one-time effect in connection with a change in the distribution model and due to expanded volumes in Mexico. Reported net sales of Baytril™ remained level year-on-year and amounted to €113 million in fiscal year 2017.

#### 10.9.2.4.2 *EBITDA before Special Items*

EBITDA before special items of Animal Health increased by €32 million, or 9.2%, from €349 million in fiscal year 2016 to €381 million in fiscal year 2017. Adjusted for negative currency effects of €8 million, earnings increased by 11.5%. Price increases, the acquired Cydectin™ business and lower selling expenses contributed to the growth in earnings. In contrast, negative contributions came from net other operating expenses as well as higher research and development expenses.

#### 10.9.2.4.3 *EBIT*

EBIT of Animal Health decreased by €6 million, or 1.9%, from €313 million in fiscal year 2016 to €307 million in fiscal year 2017. In 2017, EBIT included €31 million in special charges in conjunction with efficiency improvement measures, compared to €7 million in fiscal year 2016.

#### 10.9.2.5 *Reconciliation*

Net sales recorded under Reconciliation amounted to €1,158 million in fiscal year 2017, compared to €1,048 million in fiscal year 2016. EBITDA before special items recorded under Reconciliation amounted to negative €78 million in fiscal year 2017, mainly attributable to Corporate Functions and Consolidation, compared to €114 million in fiscal year 2016.

EBIT recorded under Reconciliation amounted to negative €482 million in fiscal year 2017, mainly attributable to Corporate Functions and Consolidation, compared to negative €414 million in fiscal year 2016. EBIT included special charges of €148 million in fiscal year 2017, compared to €88 million in fiscal year 2016. Special charges in fiscal year 2017 included charges of €60 million connected with provisions for legal risks, €57 million related to restructuring measures and €31 million expenses related to acquisitions.

### **10.10 Comparison of Fiscal Year 2016 with Fiscal Year 2015**

#### **10.10.1 Results of Operations of the Bayer Group**

The following discussion is based on the 2015 and 2016 figures contained in the audited consolidated income statement of Bayer and the notes thereto as of and for fiscal year ended December 31, 2016, including the comparative information for fiscal year ended December 31, 2015, which present, Covestro in continuing operations. Since the following 2015 and 2016 figures include results of operations from Covestro, they are not directly comparable with the 2016 and 2017 figures presented and discussed under “10.9.1 Results of Operations of the Bayer Group.” For further information on the comparability of the information discussed in the following sections, see “10.5 Comparability of the Financial Information Contained in the Audited Consolidated Financial Statements.”

##### 10.10.1.1 *Net Sales*

###### 10.10.1.1.1 *Discussion of Factors Affecting Net Sales*

Net sales of the Bayer Group increased by €684 million, or 1.5%, from €46,085 million in fiscal year 2015 to €46,769 million in fiscal year 2016. On a currency- and portfolio-adjusted basis, net sales increased by 3.5% in fiscal year 2016.

Net sales of Life Sciences increased by €840 million, or 2.5%, from €34,103 million in fiscal year 2015 to €34,943 million in fiscal year 2016. On a currency- and portfolio-adjusted basis, net sales of Life Sciences increased by 4.7% in fiscal year 2016.



The table below provides a breakdown of the factors that affected the Bayer Group's and the aggregated Life Sciences' reported net sales in fiscal year 2016, in absolute amounts and as a year-on-year change:

	Group		Life Sciences	
	Fiscal year ended December 31, 2016 <sup>(1)</sup>		Fiscal year ended December 31, 2016 <sup>(1)</sup>	
	(in € million)	Change (year-on-year) (in %)	(in € million)	Change (year-on-year) (in %)
Volume.....	1,936	4.2	1,306	3.9
Price.....	(348)	(0.7)	280	0.8
Currency .....	(913)	(2.0)	(755)	(2.2)
Portfolio.....	9	0.0	9	0.0
<b>Total .....</b>	<b>684</b>	<b>1.5</b>	<b>840</b>	<b>2.5</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

The increase in the Group's net sales in fiscal year 2016 was mainly attributable to a higher sales volume, which resulted in a 4.2% increase in net sales. The impact of the increase in sales volume on net sales was partially offset by unfavorable currency effects and a slight decline in selling prices, which decreased net sales by 2.0% and 0.7%, respectively.

The volume-driven increase in the Group's net sales in fiscal year 2016 was primarily attributable to higher sales volumes in Pharmaceuticals and Covestro. The unfavorable currency effects in fiscal year 2016 were mainly attributable to the Euro strengthening against the Chinese renminbi (CNY), the British pound (GBP), the Canadian dollar (CAD) and the Russian ruble (RUB). The negative effect of selling prices on net sales in fiscal year 2016 was mainly attributable to lower selling prices at Covestro which were mainly due to lower raw material prices.

The increase in the net sales of Life Sciences in fiscal year 2016 was mainly attributable to a higher sales volume, which resulted in a 3.9% increase in net sales. The impact of the increase in sales volume on net sales was partially offset by unfavorable currency effects, which decreased net sales by 2.2%. Selling prices remained level year-on-year.

The volume-driven increase in net sales in fiscal year 2016 was primarily attributable to higher sales volumes in Pharmaceuticals. The unfavorable currency effects in fiscal year 2016 were mainly attributable to the Euro (EUR) strengthening against the Chinese renminbi (CNY), the Argentinian Peso (ARS), the British pound (GBP) and the Mexican Peso (MXN). The decrease in selling prices registered in Reconciliation and Pharmaceuticals was compensated by price increases at Consumer Health, Animal Health and Crop Science.

For more information on our segments, including a breakdown of the factors that affected our segments' net sales, see "10.9.2 Selected Segment Information."

#### 10.10.1.1.2 Discussion of Net Sales by Region

The following table presents the Bayer Group's and the aggregated Life Sciences' external net sales by region (by market), based on our regional breakdown introduced as of December 31, 2016, for the periods indicated, in absolute amounts and as a percentage of the Bayer Group's and the aggregated Life Sciences' total net sales, as well as the year-on-year change in external net sales by region (by market) on a reported and on a currency-adjusted basis:

	Group				Life Sciences			
	Fiscal year ended December 31,		Change (year- on-year)	Currency- adjusted (year-on- year)	Fiscal year ended December 31,		Change (year-on- year)	Currency - adjusted (year-on- year)
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>			2015 <sup>(1)</sup>	2016 <sup>(1)</sup>		
	(audited)		(audited)		(unaudited)		(unaudited)	
	(in € million, unless otherwise indicated)		(in %)		(in € million, unless otherwise indicated)		(in %)	
Europe / Middle East / Africa.....	17,707	17,823	0.7	2.8	12,779	13,062	2.2	5.1
% of net sales <sup>(2)</sup> .....	38.4%	38.1%			37.5%	37.4%		
North America .....	12,621	12,806	1.5	2.0	9,736	10,066	3.4	4.1
% of net sales <sup>(2)</sup> .....	27.4%	27.4%			28.5%	28.8%		
Asia / Pacific .....	10,263	11,032	7.5	7.9	6,886	7,413	7.7	7.0
% of net sales <sup>(2)</sup> .....	22.3%	23.6%			20.2%	21.2%		
Latin America.....	5,494	5,108	(7.0)	0.8	4,702	4,402	(6.4)	1.2

	Group				Life Sciences			
	Fiscal year ended December 31,		Change (year- on-year)	Currency- adjusted (year-on- year)	Fiscal year ended December 31,		Change (year-on- year)	Currency - adjusted (year-on- year)
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>			2015 <sup>(1)</sup>	2016 <sup>(1)</sup>		
<i>% of net sales<sup>(2)</sup> .....</i>	(audited) (in € million, unless otherwise indicated)	(audited) (in %)	(audited)	(in %)	(unaudited) (in € million, unless otherwise indicated)	(unaudited) (in %)	(unaudited)	(unaudited)
<b>Total .....</b>	<b>11.9%</b>	<b>10.9%</b>	<b>1.5</b>	<b>3.5</b>	<b>13.8%</b>	<b>12.6%</b>	<b>2.5</b>	<b>4.7</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

(2) Unaudited.

The following discussion of net sales by region is presented on a currency-adjusted basis:

The net sales of the Bayer Group in the Europe / Middle East / Africa region increased slightly. This was mainly attributable to an increase in the net sales of Pharmaceuticals. Net sales of the other Life Science segments grew as well. The net sales of Covestro in the Europe/Middle East / Africa region declined.

The increase in net sales of the Bayer Group in the North America region was mainly attributable to increases in net sales of Pharmaceuticals, Crop Science and Animal Health. The net sales of Covestro declined.

The increase in net sales of the Bayer Group in the Asia / Pacific region was attributable to increases in net sales of all segments, particularly of Pharmaceuticals and Covestro.

The net sales of the Bayer Group in the Latin America region remained level (on a currency-adjusted basis) compared to the previous year. Compared to 2015, net sales of Pharmaceuticals and Consumer Health increased significantly and Animal Health's net sales grew slightly, while the net sales of Crop Science decreased. The net sales of Covestro declined slightly compared to the previous year.

#### 10.10.1.2 Cost of Goods Sold

Cost of goods sold of the Bayer Group decreased by €745 million, or 3.5%, from €21,040 million in fiscal year 2015 to €20,295 million in fiscal year 2016. The decrease in cost of goods sold in fiscal year 2016 was mainly due to lower raw material costs at Covestro. Special charges impacting cost of goods sold in fiscal year 2016 amounted to €412 million, compared to €440 million in fiscal year 2015, and mainly included special charges for Pharmaceuticals, due to impairment losses on intangible assets associated with Essure™ as well as, to a lesser degree, special charges for Consumer Health, associated with the integration cost of acquired businesses and efficiency enhancement measures.

#### 10.10.1.3 Gross Profit

Gross profit of the Bayer Group increased by €1,429 million, or 5.7%, from €25,045 million in fiscal year 2015 to €26,474 million in fiscal year 2016. The increase in gross profit in fiscal year 2016 was mainly attributable to the increase in net sales in Pharmaceuticals and the decline in cost of goods sold in Covestro. The ratio of cost of goods sold to total net sales declined year-on-year to 43.4% in fiscal year 2016, compared to 45.7% in fiscal year 2015.

#### 10.10.1.4 Selling Expenses

Selling expenses of the Bayer Group increased by €202 million, or 1.6%, from €12,272 million in fiscal year 2015 to €12,474 million in fiscal year 2016. The increase in selling expenses was mainly attributable to an increase in the physical distribution and warehousing of finished products, an increase in commission and licensing expenses and an increase in internal and external sales force expenses which were slightly offset by decreases in other selling expenses and advertising and customer advice. Special charges impacting selling expenses in fiscal year 2016 amounted to €317 million, compared to €198 million in fiscal year 2015, and mainly reflect impairment losses on intangible assets associated with Triderm™ and Citracal™ in Consumer Health and with Essure™ in Pharmaceuticals as well as efficiency enhancement measures in Pharmaceuticals.

#### 10.10.1.5 Research and Development (R&D) Expenses

R&D expenses of the Bayer Group increased by €392 million, or 9.2%, from €4,274 million in fiscal year 2015 to €4,666 million in fiscal year 2016.

The following table provides a breakdown of our R&D expenses by segment based on the Bayer Group's segment structure in effect from January 1, 2016 up to and excluding September 30, 2017 and aggregated for Life Sciences for the periods presented:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(audited, unless otherwise indicated) (in € million)	
Pharmaceuticals .....	2,450	2,787
Consumer Health .....	250	259
Crop Science .....	1,082	1,164
Animal Health .....	134	140
Reconciliation <sup>(2)</sup> .....	96	55
<b>Life Sciences</b> .....	<b>4,012</b>	<b>4,405</b>
Covestro .....	262	261
<b>Group</b> .....	<b>4,274</b>	<b>4,666</b>

(1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

(2) Unaudited.

The increase in R&D expenses in fiscal year 2016 was mainly attributable to higher R&D investments in Pharmaceuticals as well as an increased spending on R&D in Crop Science. Special charges impacting R&D expenses in fiscal year 2016 amounted to €84 million, compared to €67 million in fiscal year 2015. They mainly included special charges for Pharmaceuticals, in particular, due to impairment losses on intangible assets associated with Essure™ and efficiency enhancement measures, as well as for Consumer Health associated with the integration of acquired businesses.

#### 10.10.1.6 General Administration Expenses

General administration expenses of the Bayer Group increased by €164 million, or 7.8%, from €2,092 million in fiscal year 2015 to €2,256 million in fiscal year 2016. The increase in administration expenses in fiscal year 2016 was mainly attributable to the establishment of administrative functions at Covestro. Special charges impacting general administration expenses in fiscal year 2016 amounted to €185 million, compared to €203 million in fiscal year 2015, and arose primarily in connection with the Transaction and efficiency improvement measures related to the Group's new corporate structure.

#### 10.10.1.7 Other Operating Income

Other operating income of the Bayer Group decreased by €211 million, or 19.0%, from €1,109 million in fiscal year 2015 to €898 million in fiscal year 2016.

The following table provides a breakdown of the Bayer Group's other operating income for the periods presented:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(audited) (in € million)	
Gains on retirements of noncurrent assets .....	137	66
Reversal of impairment losses on receivables.....	32	20
Reversals of unutilized provisions.....	25	131
Gains from derivatives .....	272	259
Miscellaneous operating income.....	643	422
<b>Total</b> .....	<b>1,109</b>	<b>898</b>

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(audited) (in € million)	
of which special items .....	336	115

(1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

The decrease in other operating income was mainly attributable to a decrease in miscellaneous operating income and gains on retirements of noncurrent assets, which was partly offset by an increase in reversals of unutilized provisions. Miscellaneous operating income decreased by €221 million, or 34.4%, from €643 million in fiscal year 2015 to €422 million in fiscal year 2016. Miscellaneous operating income in fiscal year 2015 included special gains of €314 million recorded in Crop Science in connection with a litigation against Dow AgroSciences. Reversals of unutilized provisions increased by €106 million, from €25 million in fiscal year 2015 to €131 million in fiscal year 2016 and reflected special gains of €104 million from the reversal of provisions for the Yasmin™ / YAZ™ litigation.

For further information, see note 10 on other operating income of Bayer's consolidated financial statements for fiscal year 2016.

#### 10.10.1.8 Other Operating Expenses

Other operating expenses of the Bayer Group decreased by €341 million, or 26.7%, from €1,275 million in fiscal year 2015 to €934 million in fiscal year 2016.

The following table provides a breakdown of the Bayer Group's other operating expenses for the periods presented:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(audited) (in € million)	
Losses on retirements of noncurrent assets .....	(32)	(22)
Impairment losses on receivables.....	(183)	(171)
Expenses related to significant legal risks .....	(151)	(262)
Losses from derivatives .....	(626)	(181)
Miscellaneous operating expenses.....	(283)	(298)
<b>Total</b> .....	<b>(1,275)</b>	<b>(934)</b>
of which special items .....	(247)	(205)

(1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

The decrease in other operating expenses in fiscal year 2016 was mainly attributable to lower losses from derivatives due to positive effects from derivatives to hedge planned sales and which was partly offset by higher expenses related to significant legal risks. Special charges impacting other operating expenses in fiscal year 2016 amounted to €205 million and mainly related to impairment losses on receivables and accounting measures taken in connection with legal proceedings related to Xarelto™, Essure™ and Cipro™ / Avalox™.

For further information, see note 11 on other operating expenses of Bayer's consolidated financial statements for fiscal year 2016.

#### 10.10.1.9 EBIT

EBIT of the Bayer Group increased by €801 million, or 12.8%, from €6,241 million in fiscal year 2015 to €7,042 million in fiscal year 2016. The increase in Group EBIT in fiscal year 2016 was mainly attributable to an increase in EBIT of Pharmaceuticals and Covestro. EBIT of the Bayer Group included special charges of €1,088 million in fiscal year 2016, compared to €819 million in fiscal year 2015. Special charges in fiscal year 2016 mainly related to €561 million for impairment losses on intangible assets in connection with Essure™ in Pharmaceuticals and Triderm™ and Citracal™ in Consumer Health as well as special charges of €242 million in connection with efficiency improvement programs and of €100 million in integration costs for acquired businesses.

In addition, special charges of €94 million related to provisions for litigation, mainly in Pharmaceuticals, while €86 million were connected with the Transaction in Crop Science.

EBIT before special items increased by €1,070 million, or 15.2%, from €7,060 million in fiscal year 2015 to €8,130 million in fiscal year 2016.

The following table provides an overview of special items included in EBIT by segment based on our segment structure in effect from January 1, 2016 up to and excluding September 30, 2017 for the periods presented:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated) (in € million)	
<b>EBIT before special items<sup>(2) (3)</sup></b> .....	<b>7,060</b>	<b>8,130</b>
Special items of Pharmaceuticals .....	(299)	(558)
Special items of Consumer Health.....	(237)	(292)
Special items of Crop Science .....	222	(143)
Special items of Animal Health .....	(64)	(7)
Special items of Reconciliation .....	(109)	(88)
Special items of Covestro .....	(332)	–
<b>Total special items<sup>(2)</sup></b> .....	<b>(819)</b>	<b>(1,088)</b>
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>6,241</b>	<b>7,042</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see “8.4 Additional Key Figures for the Bayer Group.”

#### 10.10.1.10 Financial Result

Financial result increased by €150 million, or 14.9%, from negative €1,005 million in fiscal year 2015 to negative €1,155 million in fiscal year 2016. The financial result comprised items including net interest expense of €548 million in fiscal year 2016, compared to €455 million in fiscal year 2015, interest cost of €294 million in fiscal year 2016, compared to €287 million in fiscal year 2015 for pension and other provisions, and currency hedging costs of €193 million in fiscal year 2016, compared to €254 million in fiscal year 2015.

Financial income of the Bayer Group decreased by €220 million, or 59.3%, from €371 million in fiscal year 2015 to €151 million in fiscal year 2016. The decrease was mainly attributable to a decrease in income from interest and similar income by €160 million, or 53.9%, from €297 million in fiscal year 2015 to €137 million in fiscal year 2016.

Financial expenses of the Bayer Group decreased by €87 million, or 6.4%, from €1,367 million in fiscal year 2015 to €1,280 million in fiscal year 2016. The decrease in fiscal year 2016 was mainly attributable to a decrease in interest and similar expenses by €68 million, or 9.0%, from €752 million in fiscal year 2015 to €684 million in fiscal year 2016.

For further information, see note 13 of Bayer’s consolidated financial statements for fiscal year 2016.

#### 10.10.1.11 Income before Income Taxes

Income before income taxes increased by €651 million, or 12.4%, from €5,236 million in fiscal year 2015 to €5,887 million in fiscal year 2016. Income tax expenses of the Bayer Group increased by €106 million, or 8.7%, from €1,223 million in fiscal year 2015 to €1,329 million in fiscal year 2016.

The following table provides a breakdown of our income tax expenses for the periods presented:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(audited) (in € million)	
Taxes paid or accrued .....	(2,254)	(1,925)
Deferred taxes .....	1,031	596
<b>Total</b> .....	<b>(1,223)</b>	<b>(1,329)</b>

(1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016, which present Covestro in continuing operations.

The use of tax loss carryforwards reduced income taxes in fiscal year 2016 by €152 million, compared to €136 million in fiscal year 2015. The use of tax credits reduced current income taxes by €18 million in fiscal year 2016, compared to €21 million in fiscal year 2015. The effective tax rate was 22.6% in 2016, compared to 23.4% in 2015.

For further information, see note 14 of Bayer's consolidated financial statements for fiscal year 2016.

#### 10.10.1.12 Income after Income Taxes

Income after income taxes increased by €728 million, or 17.8%, from €4,098 million in fiscal year 2015 to €4,826 million in fiscal year 2016.

#### 10.10.2 **Selected Segment Information**

The figures and discussion in the following sections is based on the segment structure that was in effect from January 1, 2016 up to and excluding September 30, 2017 which, apart from the current four reportable segments Pharmaceuticals, Consumer Health, Crop Science and Animal Health, included Covestro as a reportable segment. For further information, see "10.2.2 Bayer's Corporate Structure in Effect from January 1, 2016."

##### 10.10.2.1 Pharmaceuticals

The following table provides an overview of the key data for Pharmaceuticals for the periods indicated, based on our regional breakdown in effect as of December 31, 2016:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>Net sales</b> <sup>(2)</sup> .....	<b>15,308</b>	<b>16,420</b>
Change <sup>(2)</sup> .....		7.3%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		8.7%
<b>Sales by region</b> .....	<b>15,308</b>	<b>16,420</b>
Europe / Middle East / Africa .....	5,981	6,417
Currency-adjusted change <sup>(3)</sup> .....		9.7%
North America .....	3,937	4,194
Currency-adjusted change <sup>(3)</sup> .....		6.7%
Asia / Pacific .....	4,319	4,775
Currency-adjusted change <sup>(3)</sup> .....		8.6%
Latin America .....	1,071	1,034
Currency-adjusted change <sup>(3)</sup> .....		11.0%
<b>EBITDA before special items</b> <sup>(2) (3)</sup> .....	<b>4,616</b>	<b>5,251</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(1,289)	(1,304)
Special items .....	(299)	(558)
of which:		
Restructuring .....	(174)	(69)
Litigations .....	(16)	(88)
Integration costs .....	(2)	–
Impairment losses/impairment loss reversals .....	(43)	(401)

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated)	
	(in € million, unless otherwise indicated)	
Divestments.....	3	–
Revaluation of other receivables.....	(67)	–
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>3,028</b>	<b>3,389</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see “8.4 Additional Key Figures for the Bayer Group.”

#### 10.10.2.1.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Pharmaceuticals increased by 8.7% in fiscal year 2016, mainly driven by its key growth products. Total combined net sales of Xarelto™, EYLEA™, Stivarga™, Xofigo™ and Adempas™ increased by €1,182 million, or 27.9%, from €4,231 million in fiscal year 2015 to €5,413 million in fiscal year 2016. The Pharmaceuticals business expanded noticeably in all regions.

Reported net sales of Pharmaceuticals increased by €1,112 million, or 7.3%, from €15,308 million in fiscal year 2015 to €16,420 million in fiscal year 2016.

The table below provides a breakdown of the factors that affected Pharmaceuticals’ reported net sales in fiscal year 2016, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2016	Change (year-on-year)
	(unaudited) (in € million)	(in %)
Volume.....	1,377	9.0
Price.....	(39)	(0.3)
Currency.....	(226)	(1.4)
Portfolio.....	0	0.0
<b>Total</b> .....	<b>1,112</b>	<b>7.3</b>

The increase in net sales in fiscal year 2016 was attributable to a higher sales volume mainly driven by Pharmaceuticals’ key growth products and which resulted in a 9.0% increase in net sales. The impact of the increase in sales volume on net sales was partially offset by unfavorable currency effects and a slight decline in selling prices, which reduced net sales by 1.4% and 0.3%, respectively.

The unfavorable currency effects in fiscal year 2016 were mainly attributable to the Euro strengthening against the Canadian dollar (CAD), the British pound (GBP) and the Argentinian peso (ARS).

The following overview provides information on the net sales of Pharmaceuticals’ best-selling products for fiscal year 2016; for a more detailed description of these products, see “11.4.1.3.1 Overview of Key Products.”

- **Xarelto™**: On a currency-adjusted basis, net sales of our oral anticoagulant Xarelto™ increased by 30.8% in fiscal year 2016. This increase was mainly attributable to expanded sales volumes in Europe and Japan. We also posted significant gains in license revenues – recognized as sales – in the United States, where Xarelto™ is marketed by a subsidiary of Johnson & Johnson. Reported net sales of Xarelto™ increased by €676 million, or 30.0%, from €2,252 million in fiscal year 2015 to €2,928 million in fiscal year 2016.
- **EYLEA™**: On a currency-adjusted basis, net sales of our eye medicine EYLEA™ increased by 33.0% in fiscal year 2016. This increase was mainly attributable to the successful development of business in Europe, Canada and Japan. Reported net sales of EYLEA™ increased by €397 million, or 32.3%, from €1,228 million in fiscal year 2015 to €1,625 million in fiscal year 2016.

- Kogenate™ / Kovaltry™: On a currency-adjusted basis, net sales of the blood-clotting medicine Kogenate™ / Kovaltry™ increased by 1.1% in fiscal year 2016. This increase was mainly attributable to the successful introduction of Kovaltry™ in the United States. Reported net sales of Kogenate™ / Kovaltry™ increased by €11 million, or 1.0%, from €1,155 in fiscal year 2015 to €1,166 million in fiscal year 2016.
- Mirena™ product family: On a currency-adjusted basis, net sales of the hormone-releasing intrauterine devices of our Mirena™ product family (Mirena™, Jaydess™ / Skyla™ and Kyleena™) increased by 8.8% in fiscal year 2016. This increase was mainly attributable to the positive development in prices in the United States and the introduction of the new low-dose product Kyleena™. Reported net sales of the Mirena™ product family increased by €75 million, or 7.7%, from €968 million in fiscal year 2015 to €1,043 million in fiscal year 2016.
- Nexavar™: On a currency-adjusted basis, net sales of our cancer drug Nexavar™ decreased by 1.6% in fiscal year 2016. This decrease was mainly attributable to higher competitive pressure in the United States. Reported net sales of Nexavar™ decreased by €22 million, or 2.5%, from €892 million in fiscal year 2015 to €870 million in fiscal year 2016.
- Betaferon™ / Betaseron™: On a currency-adjusted basis, net sales of our multiple sclerosis treatment Betaferon™ / Betaseron™ decreased by 9.9% in fiscal year 2016. This decrease was mainly attributable to a weaker business performance in Europe and the United States. Reported net sales of Betaferon™ / Betaseron™ decreased by €90 million, or 10.9%, from €824 million in fiscal year 2015 to €734 million in fiscal year 2016.
- YAZ™ / Yasmin™ / Yasminelle™: On a currency-adjusted basis, net sales of our YAZ™ / Yasmin™ / Yasminelle™ line of oral contraceptives were level with the previous year. Higher demand in China and Russia was offset by a weaker business development in Europe, Brazil and the United States. Reported net sales of our YAZ™ / Yasmin™ / Yasminelle™ line decreased by €28 million, or 4.0%, from €706 million in fiscal year 2015 to €678 million in fiscal year 2016.
- Adalat™: On a currency-adjusted basis, net sales of Adalat™, our product to treat hypertension and coronary heart disease, increased by 2.7% in fiscal year 2016. This slight increase was mainly attributable to expanded volumes in China. Reported net sales of Adalat™ decreased by €9 million, or 1.4%, from €633 million in fiscal year 2015 to €624 million in fiscal year 2016.
- Aspirin™ Cardio: On a currency-adjusted basis, net sales of Aspirin™ Cardio, for the secondary prevention of heart attacks, increased by 7.4% in fiscal year 2016. This increase was mainly attributable to an improved business situation in China and Latin America. Reported net sales increased by €14 million, or 2.7%, from €524 million in fiscal year 2015 to €538 million in fiscal year 2016.
- Glucobay™: On a currency-adjusted basis, net sales of our diabetes treatment Glucobay™ increased by 3.3% in fiscal year 2016. This increase was mainly due to continuing high demand in China. Reported net sales of Glucobay™ decreased by €8 million, or 1.5%, from €523 million in fiscal year 2015 to €515 million in fiscal year 2016.
- Avalox™ / Avelox™: On a currency-adjusted basis, net sales of our antibiotic Avalox™ / Avelox™ decreased by 2.0% in fiscal year 2016. This slight decrease was mainly attributable to the weak development of business in Canada and Europe, which was only partly offset by higher demand in China. Reported net sales of Avalox™ / Avelox™ decreased by €26 million, or 6.9%, from €379 million in fiscal year 2015 to €353 million in fiscal year 2016.
- Gadavist™ / Gadovist™: On a currency-adjusted basis, net sales of our magnetic resonance imaging ("MRI") contrast agent Gadavist™ / Gadovist™ increased by 19.7% in fiscal year 2016. This increase was mainly attributable to the significant expansion of sales volumes in Japan and



the United States. Reported net sales of Gadavist™ / Gadovist™ increased by €56 million, or 19.3%, from €290 million in fiscal year 2015 to €346 million in fiscal year 2016.

- **Xofigo™**: On a currency-adjusted basis, net sales of our cancer drug Xofigo™ increased by 29.3% in fiscal year 2016. This increase was mainly attributable to the positive development of business in the United States and Europe. Reported net sales of Xofigo™ increased by €74 million, or 28.8%, from €257 million in fiscal year 2015 to €331 million in fiscal year 2016.
- **Ultravist™**: On a currency-adjusted basis, net sales of our x-ray contrast agent Ultravist™ increased by 3.5% in fiscal year 2016. This increase was mainly attributable to higher volumes in Latin America and Europe. Reported net sales of Ultravist™ decreased slightly by €2 million, or 0.6%, from €318 million in fiscal year 2015 to €316 million in fiscal year 2016.
- **Stivarga™**: On a currency-adjusted basis, net sales of our cancer drug Stivarga™ decreased by 11.7% in fiscal year 2016. This decrease was mainly attributable to stronger competition in the United States. Reported net sales of Stivarga™ decreased by €38 million, or 12.1%, from €313 million in fiscal year 2015 to €275 million in fiscal year 2016.
- **Adempas™**: On a currency-adjusted basis, net sales of Adempas™ to treat hypertension increased by 39.3% in fiscal year 2016 and included the proportionate recognition of the one-time payment resulting from the sGC collaboration with Merck & Co., Inc. Business developed particularly positive in the United States. Reported net sales of Adempas™ increased by €73 million, or 40.3%, from €181 million in fiscal year 2015 to €254 million in fiscal year 2016.

#### 10.10.2.1.2 *EBITDA before Special Items*

EBITDA before special items of Pharmaceuticals increased by €635 million, or 13.8%, from €4,616 million in fiscal year 2015 to €5,251 million in fiscal year 2016. The substantial growth in earnings was primarily attributable to Pharmaceuticals very good business development. Significantly higher R&D expenses and negative currency effects in an amount of €65 million had an opposing effect.

#### 10.10.2.1.3 *EBIT*

EBIT of Pharmaceuticals increased by €361 million, or 11.9%, from €3,028 million in fiscal year 2015 to €3,389 million in fiscal year 2016. EBIT included special charges of €558 million in fiscal year 2016, compared to €299 million in fiscal year 2015. The special charges in fiscal year 2016 mainly related to special charges of €401 million associated with Essure™, mainly for impairment losses on intangible assets. Further charges were associated with accounting measures of €88 million in connection with litigations and charges of €69 million for efficiency enhancement programs.

#### 10.10.2.2 *Consumer Health*

The following table provides an overview of the key data for Consumer Health for the periods indicated, based on our regional breakdown in effect as of December 31, 2016:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>Net sales<sup>(2)</sup></b> .....	<b>6,076</b>	<b>6,037</b>
Change <sup>(2)</sup> .....		(0.6)%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		3.5%
<b>Sales by region</b> .....	<b>6,076</b>	<b>6,037</b>
Europe / Middle East / Africa .....	1,955	1,918
<i>Currency-adjusted change<sup>(3)</sup></i> .....		1.5%
North America .....	2,635	2,627
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(0.1)%
Asia / Pacific .....	738	781
<i>Currency-adjusted change<sup>(3)</sup></i> .....		8.1%
Latin America .....	748	711
<i>Currency-adjusted change<sup>(3)</sup></i> .....		17.1%

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>EBITDA before special items<sup>(2) (3)</sup></b> .....	<b>1,456</b>	<b>1,411</b>
Depreciation, amortization and impairment losses/loss reversals before special items.....	(451)	(424)
Special items .....	(237)	(292)
of which:		
<i>Restructuring</i> .....	(5)	(32)
<i>Integration costs</i> .....	(225)	(100)
<i>Impairment losses/impairment loss reversals</i> .....	–	(160)
<i>Revaluation of other receivables</i> .....	(7)	–
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>768</b>	<b>695</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see “8.4 Additional Key Figures for the Bayer Group.”

#### 10.10.2.2.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Consumer Health increased by 3.5% in fiscal year 2016. Consumer Health achieved significant gains in the Latin America and Asia / Pacific regions on a currency-adjusted basis, and the Europe / Middle East / Africa region contributed to its net sales growth with a slight increase. Net sales in the North America region came in at the prior year level.

Reported net sales of Consumer Health decreased by €39 million, or 0.6%, from €6,076 million in fiscal year 2015 to €6,037 million in fiscal year 2016.

The table below provides a breakdown of the factors that affected Consumer Health’s reported net sales in fiscal year 2016, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2016	Change (year-on-year)
	(unaudited) (in € million)	(in %)
Volume.....	38	0.6
Price.....	178	2.9
Currency .....	(255)	(4.1)
Portfolio.....	0	0.0
<b>Total</b> .....	<b>(39)</b>	<b>(0.6)</b>

The decrease in net sales of Consumer Health in fiscal year 2016 was attributable to unfavorable currency effects which resulted in a 4.1% decrease in net sales. The impact of these unfavorable currency effects on net sales was only partially offset by higher selling prices and a slight increase in sales volume which resulted in a 2.9% and 0.6% increase in net sales, respectively.

The unfavorable currency effects in fiscal year 2016 were mainly attributable to the Euro strengthening against the Argentinian peso (ARS) and the Mexican peso (MXN).

The increases in selling prices and sales volume were mainly attributable to positive price developments in the Latin America region as well as a strong performance with respect to sales volume in the Asia / Pacific region.

The following overview provides information on the net sales of our best-selling Consumer Health products for fiscal year 2016; for a more detailed description of these products, see “11.4.2.3.1 Overview of Key Products.”

- **Claritin™**: On a currency-adjusted basis, net sales of our antihistamine Claritin™ decreased by 2.6%. This decrease was mainly attributable to a decrease in net sales in our Asia / Pacific region, compared to the strong performance in fiscal year 2015, due to intensified competition and price controls for prescription medicines in Japan. This decrease was only partly offset by an increase in net sales in the United States, attributable to a product line extension with ClariSpray™. Reported net sales of Claritin™ decreased by €22 million, or 3.5%, from €627 million in fiscal year 2015 to €605 million in fiscal year 2016.

- Aspirin™: On a currency-adjusted basis, net sales of our analgesic Aspirin™ increased by 2.4% in fiscal year 2016. This increase was mainly attributable to gains in net sales in the United States and Latin America which more than offset the decrease in net sales in Europe resulting from a weak cold season. Reported net sales of Aspirin™ decreased by €10 million, or 2.1%, from €473 million in fiscal year 2015 to €463 million in fiscal year 2016. Together with Aspirin™ Cardio, reported under Pharmaceuticals, reported net sales increased by €4 million, or 0.4% (and 5.0% on a currency-adjusted basis), from €997 million in fiscal year 2015 to €1,001 million in fiscal year 2016.
- Aleve™: On a currency-adjusted basis, net sales of our analgesic Aleve™ increased by 2.1% in fiscal year 2016. This increase resulted from a very favorable development in the United States, where Consumer Health benefited from the addition of Aleve Tens™ to the product portfolio. Reported net sales of Aleve™ increased by €3 million, or 0.7%, from €413 million in fiscal year 2015 to €416 million in fiscal year 2016.
- Bepanthen™ / Bepanthol™: On a currency-adjusted basis, net sales of our Bepanthen™ / Bepanthol™ wound and skin care products increased strongly by 9.2% in fiscal year 2016. This increase was mainly attributable an increase in net sales in Europe and particularly in France, Germany and Russia. Reported net sales of Bepanthen™ / Bepanthol™ increased by €7 million, or 2%, from €355 million in fiscal year 2015 to €362 million in fiscal year 2016.
- Canesten™: On a currency-adjusted basis, net sales of our skin and intimate health products Canesten™ increased by 13.4% in fiscal year 2016. This increase was attributable to expanded sales volumes in all regions. Business developed especially positive in Germany, due primarily to Canesten Gyn™. Reported net sales of Canesten™ increased by €2 million, or 0.7%, from €267 million in fiscal year 2015 to €269 million in fiscal year 2016.
- Alka-Seltzer™: On a currency-adjusted basis, net sales of the Alka-Seltzer™ product family to treat gastric complaints and cold symptoms increased by 2.2% in fiscal year 2016. This increase was mainly attributable to a product line extension in the United States. Reported net sales of the Alka-Seltzer™ product family increased by €2 million, or 0.8%, from €251 million in fiscal year 2015 to €253 million in fiscal year 2016.
- Dr. Scholl's™: On a currency-adjusted basis, net sales of our Dr. Scholl's™ foot care products decreased by 6.9% in fiscal year 2016. This decrease was mainly attributable to higher competitive pressure and a weak market environment in the United States. Reported net sales of Dr. Scholl's™ decreased by €18 million, or 7.1%, from €253 million in fiscal year 2015 to €235 million in fiscal year 2016.
- One A Day™: On a currency-adjusted basis, net sales of our One A Day™ vitamin product increased by 5.3% in fiscal year 2016. This increase was attributable to pleasing sales development in the United States due to product line extensions and the expansion of distribution channels. Reported net sales of One A Day™ increased by €11 million, or 5.2%, from €211 million in fiscal year 2015 to €222 million in fiscal year 2016.
- Coppertone™: On a currency-adjusted basis, net sales of our sunscreen product Coppertone™ increased by 1.4% in fiscal year 2016. This increase was attributable to higher demand in our Asia / Pacific and Latin America regions that more than offset declines in net sales in the United States. Reported net sales of Coppertone™ increased by €2 million, or 0.9%, from €217 million in fiscal year 2015 to €219 million in fiscal year 2016.
- Elevit™: On a currency-adjusted basis, net sales of our prenatal vitamin Elevit™ increased by 17.2% in fiscal year 2016. This increase was mainly attributable to double-digit-percentage growth rates in our Asia / Pacific and Europe / Middle East / Africa regions. Reported net sales of Elevit™ increased strongly by €20 million, or 12.3%, from €162 million in fiscal year 2015 to €182 million in fiscal year 2016.

#### 10.10.2.2.2 EBITDA before Special Items

EBITDA before special items of Consumer Health decreased by €45 million, or 3.1%, from €1,456 million in fiscal year 2015 to €1,411 million in fiscal year 2016. Earnings were diminished by a higher cost of goods sold and negative currency effects of €63 million. These were partly compensated by the positive development of net sales and cost synergies.

#### 10.10.2.2.3 EBIT

EBIT of Consumer Health decreased by €73 million, or 9.5%, from €768 million in fiscal year 2015 to €695 million in fiscal year 2016. EBIT included special charges of €292 million in 2016, compared to €237 million in fiscal year 2015. The special charges in fiscal year 2016 mainly related to special charges of €160 million for impairment losses on intangible assets on Triderm™ and Citracal™, charges of €100 million for the integration of acquired businesses and charges of €32 million for efficiency enhancement measures.

#### 10.10.2.3 Crop Science

The following table provides an overview of the key data for Crop Science for the periods indicated, based on our regional breakdown in effect as of December 31, 2016:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>Net sales<sup>(2)</sup></b> .....	<b>10,128</b>	<b>9,915</b>
Change <sup>(2)</sup> .....		(2.1)%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		0.1%
<b>Sales by region</b> .....	<b>10,128</b>	<b>9,915</b>
Europe / Middle East / Africa .....	3,368	3,290
<i>Currency-adjusted change<sup>(3)</sup></i> .....		1.8%
North America .....	2,570	2,616
<i>Currency-adjusted change<sup>(3)</sup></i> .....		3.9%
Asia / Pacific .....	1,530	1,548
<i>Currency-adjusted change<sup>(3)</sup></i> .....		2.7%
Latin America .....	2,660	2,461
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(6.9)%
<b>EBITDA before special items<sup>(2) (3)</sup></b> .....	<b>2,406</b>	<b>2,421</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(534)	(523)
Special items .....	222	(143)
of which:		
<i>Restructuring</i> .....	–	(51)
<i>Litigations</i> .....	285	(1)
<i>Acquisition costs</i> .....	–	(86)
<i>Divestments</i> .....	(50)	(5)
<i>Revaluation of other receivables</i> .....	(13)	–
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>2,094</b>	<b>1,755</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see “8.4 Additional Key Figures for the Bayer Group.”

#### 10.10.2.3.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales growth of Crop Science remained level year-on-year at 0.1%. Crop Protection / Seeds matched the prior-year net sales despite a persisting weak market environment, particularly in Latin America. Environmental Science registered a gratifying growth in net sales.

Reported net sales of Crop Science decreased by €213 million, or 2.1%, from €10,128 million in fiscal year 2015 to €9,915 million in fiscal year 2016.

The table below provides a breakdown of the factors that affected Crop Science’s reported net sales in fiscal year 2016, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2016	Change (year-on-year)
	(unaudited) (in € million)	(in %)
Volume.....	(133)	(1.3)
Price.....	142	1.4
Currency.....	(231)	(2.3)
Portfolio.....	9	0.1
<b>Total</b> .....	<b>(213)</b>	<b>(2.1)</b>

The decrease in net sales in Crop Science in fiscal year 2016 was attributable to unfavorable currency effects and a decrease in sales volume which resulted in a 2.3% and 1.3% decrease in net sales, respectively. The impact of these unfavorable effects on net sales was partially offset by higher selling prices and portfolio effects which resulted in a 1.4% and 0.1% increase in net sales, respectively.

The unfavorable currency effects in fiscal year 2016 were mainly attributable to the Euro strengthening against the Canadian dollar (CAD), the Russian ruble (RUB), the British pound (GBP), the Mexican peso (MXN), the Ukrainian hryvni (UAH) and the Indian rupee (INR).

The decrease in sales volume in fiscal year 2016 was mainly attributable to a persistently weak market environment in Brazil. Market volumes decreased in Latin America, due to macroeconomic developments, unfavorable weather conditions and high inventories of crop protection products.

The increase in selling prices was mainly attributable to the performance of the Europe / Middle East / Africa and Latin America regions, of the Crop Protection business as well as the Seeds business.

The favorable portfolio effects were attributable to the acquisition of SeedWorks India Pvt. Ltd. that was completed on July 1, 2015.

The following overview provides information on Crop Science's net sales by region in fiscal year 2016 and on how the business units within Crop Science (Crop Protection / Seeds (i.e., Herbicides, Fungicides, Insecticides, Seed Growth and Seeds) as well as Environmental Science) affected these developments. For more information on Crop Science's business units, see "11.4.3 Crop Science":

- Europe/Middle East/Africa: On a currency-adjusted basis, net sales increased by 1.8% in fiscal year 2016. Seed Growth registered gains, particularly due to higher demand for products to treat cereal seed. Crop Science also slightly expanded business at Herbicides, while net sales at Insecticides and Fungicides came in at the prior year level. Net sales of Vegetable Seeds developed positively, as did net sales of Environmental Science. Reported net sales in our Europe / Middle East / Africa region decreased by €78 million, or 2.3%, from €3,368 million in fiscal year 2015 to €3,290 million in fiscal year 2016.
- North America: On a currency-adjusted basis, net sales increased by 3.9% in fiscal year 2016. Net sales developed very positively at Seed Growth due to increased demand for products to treat corn and cereal seed. Also, net sales at Fungicides increased. In addition, Crop Science achieved strong, double-digit-percentage growth with soybean seeds. Net sales at Environmental Science increased slightly. However, Crop Science registered a substantial decrease in net sales at Insecticides resulting from weak demand. Reported net sales in our North America region increased by €46 million, or 1.8%, from €2,570 million in fiscal year 2015 to €2,616 million in fiscal year 2016.
- Asia/Pacific: On a currency-adjusted basis, net sales increased by 2.7% in fiscal year 2016. This was mainly attributable to a positive development at Fungicides, particularly in Australia and India. Net sales of Vegetable Seeds increased by a double-digit-percentage. Business at Herbicides receded slightly, as did net sales at Environmental Science. Reported net sales in our Asia / Pacific region increased by €18 million, or 1.2%, from €1,530 million in fiscal year 2015 to €1,548 million in fiscal year 2016.
- Latin America: On a currency-adjusted basis, net sales decreased by 6.9% in fiscal year 2016. Business was mainly held back by the persistently weak market environment in Brazil,

particularly at Insecticides, Herbicides and Seed Growth. Lower pest pressure had an additional negative impact on Insecticides. However, Crop Science recorded gains in net sales at Fungicides and Seeds. Business at Environmental Science increased by a double-digit-percentage. Reported net sales in our Latin America region decreased by €199 million, or 7.5%, from €2,660 million in fiscal year 2015 to €2,461 million in fiscal year 2016.

The table below provides a breakdown of the net sales per business unit for the periods indicated, in absolute amounts as well as the year-on-year change in net sales on a reported and on a currency- and portfolio-adjusted basis:

	For fiscal year ended December 31,		Change (year-on-year)	Currency- and portfolio- adjusted
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>		
	(audited) (in € million)		(audited) (in %)	
<b>Crop Protection / Seeds</b>	<b>9,548</b>	<b>9,317</b>	<b>(2.4)</b>	<b>(0.2)</b>
Crop Protection.....	8,271	7,961	(3.7)	(1.5)
<i>Herbicides</i> .....	2,830	2,693	(4.8)	(2.2)
<i>Fungicides</i> .....	2,911	2,961	1.7	4.0
<i>Insecticides</i> .....	1,596	1,357	(15.0)	(13.3)
<i>SeedGrowth</i> .....	934	950	1.7	4.1
Seeds.....	1,277	1,356	6.2	8.3
<b>Environmental Science<sup>(2)</sup></b> .....	<b>580</b>	<b>598</b>	<b>3.1</b>	<b>4.5</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

#### 10.10.2.3.2 EBITDA before Special Items

EBITDA before special items for Crop Science increased by €15 million, or 0.6%, from €2,406 million in fiscal year 2015 to €2,421 million in fiscal year 2016. A positive currency effect of €139 million and higher selling prices compensated for lower sales volumes, increased spending on R&D and higher impairment losses on inventories and receivables.

#### 10.10.2.3.3 EBIT

EBIT of Crop Science decreased by €339 million, or 16.2%, from €2,094 million in fiscal year 2015 to €1,755 million in fiscal year 2016. EBIT in fiscal year 2016 included special charges of €143 million, compared to special gains of €222 million in fiscal year 2015. Special charges in fiscal year 2016 mainly related to the Transaction as well as efficiency improvement measures.

#### 10.10.2.4 Animal Health

The following table provides an overview of the key data for Animal Health for the periods indicated, based on our regional breakdown in effect as of December 31, 2016:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated) (in € million, unless otherwise indicated)	
<b>Net sales<sup>(2)</sup></b> .....	<b>1,490</b>	<b>1,523</b>
Change <sup>(2)</sup> .....		2.2%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		4.8%
<b>Sales by region</b> .....	<b>1,490</b>	<b>1,523</b>
Europe / Middle East / Africa.....	447	445
<i>Currency-adjusted change<sup>(3)</sup></i> .....		3.8%
North America.....	587	621
<i>Currency-adjusted change<sup>(3)</sup></i> .....		6.0%
Asia / Pacific.....	285	300
<i>Currency-adjusted change<sup>(3)</sup></i> .....		5.6%
Latin America.....	171	157
<i>Currency-adjusted change<sup>(3)</sup></i> .....		1.8%

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated)	
	(in € million, unless otherwise indicated)	
<b>EBITDA before special items<sup>(2) (3)</sup></b> .....	<b>347</b>	<b>349</b>
Depreciation, amortization and impairment losses/loss reversals before special items.....	(29)	(29)
Special items .....	(64)	(7)
of which:		
<i>Restructuring</i> .....	(64)	(7)
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>254</b>	<b>313</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see “8.4 Additional Key Figures for the Bayer Group.”

#### 10.10.2.4.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Animal Health increased by 4.8% in fiscal year 2016. The North America and Asia / Pacific regions developed especially positively due to higher demand. Animal Health also registered currency-adjusted net sales growth in the Europe / Middle East / Africa and Latin America regions.

Reported net sales of Animal Health increased by €33 million, or 2.2%, from €1,490 million in fiscal year 2015 to €1,523 million in fiscal year 2016.

The table below provides a breakdown of the factors that affected Animal Health’s reported net sales in fiscal year 2016, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2016	Change (year-on-year)
	(unaudited) (in € million)	(in %)
Volume.....	38	2.6
Price.....	33	2.2
Currency .....	(38)	(2.6)
Portfolio.....	0	0.0
<b>Total</b> .....	<b>33</b>	<b>2.2</b>

The increase in net sales in fiscal year 2016 was attributable to a higher sales volume and an increase in selling prices, which resulted in a 2.6% and 2.2% increase in net sales, respectively. The impact of the increase in sales volume and selling prices on net sales was partially offset by unfavorable currency effects, which reduced net sales by 2.6%.

The increase in sales volume in fiscal year 2016 was attributable to the North America and Asia / Pacific regions, which more than offset a decrease in sales volume in Latin America.

The increase in selling prices was mainly attributable to the Europe / Middle East / Africa and Latin America regions. The unfavorable currency effects in fiscal year 2016 were mainly attributable to the Euro strengthening against the British pound (GBP), the Mexican peso (MXN), the Argentine peso (ARS), the Brazilian real (BRL), the Chinese renminbi (CNY) and the South African rand (ZAR).

The following overview provides information on the net sales of Animal Health’s best-selling products for fiscal year 2016; for a more detailed description of these products, see “11.4.4.3.1 Overview of Key Products.”

- **Advantage™ product family:** On a currency-adjusted basis, net sales growth of our Advantage™ family of flea, tick and worm control products was level with the previous year at 0.1%. The positive development in the Europe / Middle East / Africa and the Asia / Pacific region stood against slight declines in net sales in the North America region. Reported net sales of our Advantage™ family decreased by €12 million, or 2.2%, from €547 million in fiscal year 2015 to €535 million in fiscal year 2016.

- Seresto™: On a currency-adjusted basis, net sales of our Seresto™ flea and tick collar increased by 55.4% in fiscal year 2016. This strong increase was mainly attributable to increased demand in the United States and Europe. Reported net sales of Seresto™ increased by €61 million, or 54.0%, from €113 million in fiscal year 2015 to €174 million in fiscal year 2016.
- Drontal™ product family: On a currency-adjusted basis, net sales of our Drontal™ line of dewormers increased by 7.2% in fiscal year 2016. This increase was mainly attributable to an increase in sales volume in the United States and in the Asia / Pacific region. Reported net sales of our Drontal™ line increased by €6 million, or 4.9%, from €122 million in fiscal year 2015 to €128 million in fiscal year 2016.
- Baytril™: On a currency-adjusted basis, net sales of our antibiotic Baytril™ decreased by 5.0% in fiscal year 2016. This decrease was mainly attributable to lower net sales in the North America region due to a difficult market environment and generic competition. Gains in the Asia / Pacific and Latin America regions were not sufficient to offset this development. Reported net sales of Baytril™ decreased by €7 million, or 5.8%, from €120 million in fiscal year 2015 to €113 million in fiscal year 2016.

#### 10.10.2.4.2 *EBITDA before Special Items*

EBITDA before special items of Animal Health was steady year on year, increasing by €2 million, or 0.6%, from €347 million in fiscal year 2015 to €349 million in fiscal year 2016. Positive earnings contributions from volume and price increases stood against higher selling expenses and an increase in cost of production. In addition, a negative currency effect of €12 million diminished earnings.

#### 10.10.2.4.3 *EBIT*

EBIT of Animal Health increased by a substantial €59 million, or 23.2%, from €254 million in fiscal year 2015 to €313 million in fiscal year 2016. In 2016, EBIT included €7 million in special charges relating to restructuring, compared to €64 million in fiscal year 2015.

#### 10.10.2.5 Covestro

The following table provides an overview of the key data for Covestro for the periods indicated, based on our regional breakdown in effect as of December 31, 2016:

	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated)	
	(in € million, unless otherwise indicated)	
<b>Net sales<sup>(2)</sup></b> .....	<b>11,982</b>	<b>11,826</b>
Change <sup>(2)</sup> .....		(1.3)%
Currency- and portfolio-adjusted <sup>(3)</sup> .....		0.0%
<b>Sales by region</b> .....	<b>11,982</b>	<b>11,826</b>
Europe / Middle East / Africa .....	4,928	4,761
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(3.3)%
North America .....	2,885	2,740
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(5.3)%
Asia / Pacific .....	3,377	3,619
<i>Currency-adjusted change<sup>(3)</sup></i> .....		9.8%
Latin America .....	792	706
<i>Currency-adjusted change<sup>(3)</sup></i> .....		(1.8)%
<b>EBITDA before special items<sup>(2) (3)</sup></b> .....	<b>1,659</b>	<b>1,984</b>
Depreciation, amortization and impairment losses/loss reversals before special items .....	(692)	(680)
Special items .....	(332)	–
of which:		
<i>Restructuring</i> .....	(329)	–
<i>Revaluation of other receivables</i> .....	(3)	–



	For fiscal year ended December 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>
	(unaudited, unless otherwise indicated)	
	(in € million, unless otherwise indicated)	
<b>EBIT<sup>(2) (3)</sup></b> .....	<b>635</b>	<b>1,304</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Audited.

(3) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

#### 10.10.2.5.1 Net Sales

On a currency- and portfolio-adjusted basis, net sales of Covestro remained level year-on-year. Selling prices receded overall, primarily due to lower raw material prices. Sales volumes were above the prior year level.

Reported net sales decreased by €156 million, or 1.3%, from €11,982 million in fiscal year 2015 to €11,826 million in fiscal year 2016.

The table below provides a breakdown of the factors that affected Covestro's reported net sales in fiscal year 2016, in absolute amounts and as a year-on-year change:

	For fiscal year ended December 31, 2016	Change (year-on-year)
	(unaudited) (in € million)	(in %)
Volume.....	630	5.3
Price.....	(628)	(5.3)
Currency .....	(158)	(1.3)
Portfolio.....	0	0.0
<b>Total</b> .....	<b>156</b>	<b>(1.3)</b>

The decrease in net sales at Covestro in fiscal year 2016 was attributable to a decrease in selling prices and unfavorable currency effects, which resulted in a 5.3% and 1.3% decrease in net sales, respectively. The impact of these unfavorable effects on net sales was partially offset by an increase in sales volume, which resulted in a 5.3% increase in net sales.

The decrease in selling prices in fiscal year 2016 was mainly attributable to lower selling prices in almost all regions, due primarily to lower raw material prices. Only in the Asia / Pacific region prices remained at the prior year level. The unfavorable currency effects in fiscal year 2016 were mainly attributable to the Euro strengthening against the Chinese renminbi (CNY) and the Mexican peso (MXN).

The increase in sales volume was mainly attributable to the Asia / Pacific and the North America region. In the Europe / Middle East / Africa region sales volumes were also above the level of fiscal year 2015, whereas sales volumes in Latin America remained at the prior year level.

The following overview provides information on the net sales of Covestro's business units (Polyurethanes; Polycarbonates and Coatings, Adhesives, Specialties) as well as the other Covestro business for fiscal year 2016. For more information on Covestro's business units, see "11.4.5 Covestro."

- Polyurethanes: On a currency- and portfolio-adjusted basis, net sales decreased by 1.2% in fiscal year 2016. The decrease in net sales was mainly attributable to lower overall selling prices, not fully offset by higher volumes. Reported net sales in the Polyurethanes business unit decreased by €158 million, or 2.6%, from €6,084 million in fiscal year 2015 to €5,926 million in fiscal year 2016.
- Polycarbonates: On a currency- and portfolio-adjusted basis, net sales increased by 5.8% in fiscal year 2016. This increase was mainly attributable to a considerable volume growth, which more than compensated lower selling prices. Reported net sales in the Polycarbonates business unit increased by €128 million, or 4.0%, from €3,169 million in fiscal year 2015 to €3,297 million in fiscal year 2016.

- Coatings, Adhesives, Specialties: On a currency- and portfolio-adjusted basis, net sales decreased by 1.8% in fiscal year 2016. This decrease was mainly attributable to lower selling prices. Reported net sales in the Coatings, Adhesives, Specialties business unit decreased by €53 million, or 2.5%, from €2,092 million in fiscal year 2015 to €2,039 million in fiscal year 2016.
- Other Covestro business: On a currency- and portfolio-adjusted basis, net sales decreased by 11.5% in fiscal year 2016. This decrease was mainly attributable to lower selling prices. Reported net sales of the other Covestro business decreased by €73 million, or 11.5%, from €637 million in fiscal year 2015 to €564 million in fiscal year 2016.

#### 10.10.2.5.2 *EBITDA before Special Items*

EBITDA before special items of Covestro increased by €325 million, or 19.6%, from €1,659 million in fiscal year 2015 to €1,984 million in fiscal year 2016. This increase was mainly attributable to reductions in raw material prices and higher volumes that outweighed lower selling prices as well as a negative currency effect of €21 million.

#### 10.10.2.5.3 *EBIT*

EBIT of Covestro more than doubled compared to the previous year, increasing by €669 million, from €635 million in fiscal year 2015 to €1,304 million in fiscal year 2016. EBIT in fiscal year 2016 did not comprise any special charges or gains.

#### 10.10.2.6 *Reconciliation*

Net sales recorded under Reconciliation amounted to €1,048 million in fiscal year 2016, compared to €1,101 million in fiscal year 2015. EBITDA before special items recorded under Reconciliation amounted to negative €114 million in fiscal year 2016 and was mainly attributable to Corporate Functions and Consolidation, compared to negative €228 million in fiscal year 2015.

EBIT recorded under Reconciliation amounted to negative €414 million in fiscal year 2016, mainly attributable to Corporate Functions and Consolidation, compared to negative €538 million in fiscal year 2015. EBIT included special charges of €88 million in fiscal year 2016, compared to €109 million in fiscal year 2015. Special charges in fiscal year 2016 included €83 million in restructuring costs and €5 million in litigation costs.

### 10.11 Information on Consolidated Statement of Financial Position

The following table provides an overview of the Bayer Group's assets as of the dates shown:

	As of December 31,			As of March 31,
	2015 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017 <sup>(3)</sup>	2018
	(audited) (in € million)			(unaudited) (in € million)
<b>Assets</b>				
<b>Noncurrent assets</b> .....	<b>50,096</b>	<b>51,791</b>	<b>45,014</b>	<b>42,225</b>
Goodwill .....	16,096	16,312	14,751	14,480
Other intangible assets .....	15,178	13,567	11,674	11,185
Property, plant and equipment .....	12,375	13,114	7,633	7,330
Investments accounted for using the equity method..	246	584	4,007	2,574
Other financial assets .....	1,092	1,281	1,634	1,737
Other receivables .....	430	583	400	535
Deferred taxes .....	4,679	6,350	4,915	4,384
<b>Current assets</b> .....	<b>23,821</b>	<b>30,447</b>	<b>30,073</b>	<b>33,169</b>
Inventories .....	8,550	8,408	6,550	6,402
Trade accounts receivable .....	9,933	10,969	8,582	9,498
Other financial assets .....	756	6,275	3,529	7,315
Other receivables .....	2,017	2,210	1,276	1,029
Claims for income tax refunds .....	509	676	474	461
Cash and cash equivalents .....	1,859	1,899	7,581	5,332
Assets held for sale .....	197	10	2,081	3,132
<b>Total assets</b> .....	<b>73,917</b>	<b>82,238</b>	<b>75,087</b>	<b>75,394</b>
<b>Equity</b> .....	<b>25,445</b>	<b>31,897</b>	<b>36,861</b>	<b>38,384</b>
Capital stock .....	2,117	2,117	2,117	2,117

	As of December 31,			As of March 31,
	2015 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017 <sup>(3)</sup>	2018
		(audited) (in € million)		(unaudited) (in € million)
Capital reserves.....	6,167	9,658	9,658	9,658
Other reserves.....	15,981	18,558	25,026	26,553
<b>Equity attributable to Bayer AG stockholders .....</b>	<b>24,265</b>	<b>30,333</b>	<b>36,801</b>	<b>38,328</b>
Equity attributable to noncontrolling interest.....	1,180	1,564	60	56
<b>Noncurrent liabilities .....</b>	<b>31,492</b>	<b>31,804</b>	<b>24,633</b>	<b>23,912</b>
Provisions for pensions and other post-employment benefits.....	10,873	11,134	8,020	8,096
Other provisions .....	1,740	1,780	1,366	1,302
Refund liabilities <sup>(4)</sup> .....	–	–	–	146
Contract liabilities <sup>(4)</sup> .....	–	–	–	799
Financial liabilities.....	16,513	16,180	12,483	12,273
Income tax liabilities .....	475	423	495	482
Other liabilities.....	1,065	957	1,116	228
Deferred taxes.....	826	1,330	1,153	586
<b>Current liabilities .....</b>	<b>16,980</b>	<b>18,537</b>	<b>13,593</b>	<b>13,098</b>
Other provisions .....	5,045	5,421	4,344	2,194
Refund liabilities <sup>(4)</sup> .....	–	–	–	2,519
Contract liabilities <sup>(4)</sup> .....	–	–	–	197
Financial liabilities.....	3,421	3,401	1,935	1,761
Trade accounts payable .....	5,945	6,410	5,129	3,943
Income tax liabilities .....	923	884	422	646
Other liabilities.....	1,534	2,421	1,652	1,318
Liabilities directly related to assets held for sale.....	112	–	111	520
<b>Total equity and liabilities .....</b>	<b>73,917</b>	<b>82,238</b>	<b>75,087</b>	<b>75,394</b>

- (1) Figures extracted from the audited consolidated statement of financial position of Bayer as of December 31, 2016, in which the assets and liabilities related to Covestro are still recognized within the financial position of the Group. In alignment with IFRS, the information on Bayer's financial position as of December 31, 2015 was not adjusted to reflect the sale of the Environmental Science Consumer Business.
- (2) Figures extracted from the audited consolidated statement of financial position of Bayer as of December 31, 2016 in which the assets and liabilities related to Covestro are still recognized within the statement of financial position of the Group. The assets and liabilities related to the Environmental Science Consumer Business are derecognized in the audited consolidated statements of financial position of Bayer as of December 31, 2016. In alignment with IFRS, the information on Bayer's financial position as of December 31, 2016 was not adjusted to reflect the deconsolidation of Covestro.
- (3) Figures extracted from the audited consolidated statements of financial position of Bayer as of December 31, 2017 in which the assets and liabilities related to Covestro, including the noncontrolling interest in Covestro, are derecognized. As of October 1, 2017, the remaining interest in Covestro was classified as an associate and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss.
- (4) The line items Refund liabilities and Contract liabilities were introduced as of January 1, 2018 and reflect accounting changes due to the first-time application of IFRS 15.

### 10.11.1 Comparison of March 31, 2018 with December 31, 2017

#### 10.11.1.1 Noncurrent Assets

Noncurrent assets decreased by €2,789 million, or 6.2%, from €45,014 million as of December 31, 2017 to €42,225 million as of March 31, 2018. This decrease was mainly attributable to a decrease of investments accounted for using the equity method and deferred taxes. The decrease in investments accounted for using the equity method by €1,433 million, or 35.8%, from €4,007 million as of December 31, 2017 to €2,574 million as of March 31, 2018, was mainly attributable to the sale of further Covestro Shares. Deferred taxes decreased by €531 million, or 10.8%, from €4,915 million as of December 31, 2017 to €4,384 million as of March 31, 2018.

#### 10.11.1.2 Current Assets

Current assets increased by €3,096 million, or 10.3%, from €30,073 million as of December 31, 2017 to €33,169 million as of March 31, 2018. This increase was mainly attributable to an increase in other financial assets, assets held for sale and trade accounts receivable. The increase in other financial assets from €3,529 million as of December 31, 2017 to €7,315 million as of March 31, 2018 was mainly due to additional investments in money market funds. Assets held for sale increased by €1,051 million, or 50.5%, from €2,081 million as of December 31, 2017 to €3,132 million as of March 31, 2018, particularly due to the planned sale of the vegetable seeds business.

Trade accounts receivable increased by €916 million, or 10.7%, from €8,582 million as of December 31, 2017 to €9,498 million as of March 31, 2018, mainly resulting from the operating business activity.

Cash and cash equivalents decreased by €2,249 million, or 29.7%, from €7,581 million as of December 31, 2017 to €5,332 million as of March 31, 2018.

#### **10.11.1.3 Equity**

Equity increased by €1,523 million, or 4.1%, from €36,861 million as of December 31, 2017 to €38,384 million as of March 31, 2018. Income after income taxes of €1,954 million had a positive effect. Currency effects recognized in other comprehensive income reduced equity by €382 million. A further reduction of €176 million came from the increase in pension provisions recognized in other comprehensive income.

#### **10.11.1.4 Noncurrent Liabilities**

Noncurrent liabilities decreased by €721 million, or 2.9%, from €24,633 million as of December 31, 2017 to €23,912 million as of March 31, 2018. Other liabilities decreased by €888 million, or 79.6%, from €1,116 million as of December 31, 2017 to €228 million as of March 31, 2018. This decrease was mainly due to the first-time application of IFRS 15, which required certain amounts to be reclassified from “other liabilities” to “contract liabilities.” Contract liabilities resulting mainly from the first-time application of IFRS 15 amounted to €799 million as of March 31, 2018. Deferred taxes decreased by €567 million, or 49.2%, from €1,153 million as of December 31, 2017 to €586 million as of March 31, 2018.

#### **10.11.1.5 Current Liabilities**

Current liabilities decreased by €495 million, or 3.6%, from €13,593 million as of December 31, 2017 to €13,098 million as of March 31, 2018. Other provisions decreased by €2,150 million, or 49.5%, from €4,344 million as of December 31, 2017 to €2,194 million as of March 31, 2018. This decrease was mainly due to the first-time application of IFRS 15, which required certain amounts to be reclassified from “other provisions” to “refund liabilities.” Refund liabilities mainly resulting from the first-time application of IFRS 15 amounted to €2,519 million as of March 31, 2018. Trade accounts payable decreased by €1,186 million, or 23.1%, from €5,129 million as of December 31, 2017 to €3,943 million as of March 31, 2018 mainly due to the first-time application of IFRS 15, which required certain amounts to be reclassified from “trade accounts payable” to “contract liabilities” as well as from the operating business activity.

### **10.11.2 Comparison of December 31, 2017 with December 31, 2016**

#### **10.11.2.1 Noncurrent Assets**

Noncurrent assets decreased by €6,777 million, or 13.1%, from €51,791 million as of December 31, 2016 to €45,014 million as of December 31, 2017. The decrease was mainly attributable to decreases in property, plant and equipment, other intangible assets and goodwill, which were partially offset by an increase in investments accounted for using the equity method. The decrease in property, plant and equipment by €5,481 million, or 41.8%, from €13,114 million as of December 31, 2016 to €7,633 million as of December 31, 2017 was mainly due to the deconsolidation of Covestro in connection with which an amount of €4,206 million was derecognized as of September 30, 2017. The decrease in other intangible assets by €1,893 million, or 14.0%, from €13,567 million as of December 31, 2016 to €11,674 million as of December 31, 2017 was primarily due to exchange differences, to amortization and to impairment losses mainly in Pharmaceuticals and Consumer Health. The decrease in goodwill by €1,561 million, or 9.6%, from €16,312 million as of December 31, 2016 to €14,751 million as of December 31, 2017 mainly resulted from exchange differences. Goodwill in an amount of €252 million, among others, was derecognized as of September 30, 2017 in connection with the deconsolidation of Covestro. The increase in investments accounted for using the equity method by €3,423 million from €584 million as of December 31, 2016 to €4,007 million as of December 31, 2017 was also mainly due to the deconsolidation of Covestro. The remaining interest in Covestro was recognized at a market value of €3,624 million as investments accounted for using the equity method.

#### 10.11.2.2 Current Assets

Current assets decreased by €374 million, or 1.2%, from €30,447 million as of December 31, 2016 to €30,073 million as of December 31, 2017. The decrease was mainly attributable to decreases in other financial assets, trade accounts receivables and inventories, which were partly offset by an increase in cash and cash equivalents and assets held for sale. The decrease in other financial assets by €2,746 million, or 43.8%, from €6,275 million as of December 31, 2016 to €3,529 million as of December 31, 2017 was mainly due to decreases in investments in debt instruments classified as available-for-sale and a decrease in loans and receivables. The decrease in trade accounts receivables by €2,387 million, or 21.8%, from €10,969 million as of December 31, 2016 to €8,582 million as of December 31, 2017 was mainly due to the deconsolidation of Covestro which reduced trade accounts receivable by €1,943 million as well as exchange differences. Inventories decreased by €1,858 million, or 22.1%, from €8,408 million as of December 31, 2016 to €6,550 million as of December 31, 2017 mainly as a result of the deconsolidation of Covestro, which reduced inventories by €1,831 million. Cash and cash equivalents increased by €5,682 million from €1,899 million as of December 31, 2016 to €7,581 million as of December 31, 2017. For further information on Bayer's cash flow for fiscal year 2017, see "10.12.3 Comparison of Fiscal Year 2017 with Fiscal Year 2016." Assets held for sale increased by €2,071 million from €10 million as of December 31, 2016 to €2,081 million as of December 31, 2017 in conjunction with the First BASF Divestiture Package.

#### 10.11.2.3 Equity

Equity increased by €4,964 million, or 15.6%, from €31,897 million as of December 31, 2016 to €36,861 million as of December 31, 2017. Income after income taxes (total) had a positive effect on Bayer's equity of €8.1 billion including effects from the deconsolidation of Covestro and from the revaluation of the residual shares in the capital stock of Covestro AG accounted for as an associate. Currency effects recognized in other comprehensive income reduced equity by €2.2 billion and the dividend payment by Bayer AG also reduced equity by €2.4 billion. An increase of €0.7 billion net of taxes recognized in other comprehensive income resulted from the reduction in post-employment benefit obligations. Effects of the reduction in the interest in Covestro and of the deconsolidation of this company recognized directly in equity increased equity by €0.7 billion.

#### 10.11.2.4 Noncurrent Liabilities

Noncurrent liabilities decreased by €7,171 million, or 22.5%, from €31,804 million as of December 31, 2016 to €24,633 million as of December 31, 2017. This decrease was mainly attributable to decreases in financial liabilities and provisions for pensions and other post-employment benefits. Noncurrent financial liabilities declined by €3,697 million, or 22.8%, from €16,180 million as of December 31, 2016 to €12,483 million, with a reduction of €1.8 billion from divestments mainly due to the deconsolidation of Covestro, the early repayment of an outstanding bank loan of €900 million that was taken out to finance the acquisition of the Merck OTC business as well as an early repayment of a Debt Issuance Program ("DIP") bond of €0.75 billion, which was issued by Bayer AG. Furthermore, in June 2017, Bayer AG issued debt instruments (exchangeable bonds) with a nominal value of €1.0 billion that will mature in 2020, leading to an increase in the noncurrent financial liabilities while some bonds switched to short-term financial liabilities as of December 31, 2017. Provisions for pensions and other post-employment benefits decreased by €3,114 million, or 28.0%, from €11,134 million as of December 31, 2016 to €8,020 million as of December 31, 2017 with €1.2 billion of the amount resulting from the deconsolidation of Covestro, a further €1.2 billion from actuarial gains and €0.5 billion from the transfer of Covestro Shares to Bayer Pension Trust.

#### 10.11.2.5 Current Liabilities

Current liabilities decreased by €4,944 million, or 26.7%, from €18,537 million as of December 31, 2016 to €13,593 million as of December 31, 2017. The decrease in current liabilities was mainly attributable to a decrease in financial liabilities, trade accounts payable and other provisions. Financial liabilities decreased by €1,466 million, or 43.1%, from €3,401 million as of December 31, 2016 to €1,935 million as of December 31, 2017 mainly due to the repayment of issued bonds. Trade accounts payable decreased by €1,281 million, or 20.0%, from €6,410 million as of December 31, 2016 to €5,129 million as of December 31, 2017 mainly due to the deconsolidation of Covestro, which reduced trade accounts payable by €1,286 million.

### **10.11.3 Comparison of December 31, 2016 with December 31, 2015**

#### **10.11.3.1 Noncurrent Assets**

Noncurrent assets increased by €1,695 million, or 3.4%, from €50,096 million as of December 31, 2015 to €51,791 million as of December 31, 2016. The increase was mainly attributable to increases in deferred taxes, property plant and equipment and investments accounted for using the equity method, which were slightly offset by a decrease in other intangible assets. The increase in deferred taxes by €1,671 million, or 35.7%, from €4,679 million as of December 31, 2015 to €6,350 million as of December 31, 2016 was mainly due to a lower set-off and increase in deferred taxes on inventories and financial assets. The increase in property, plant and equipment by €739 million, or 6.0%, from €12,375 million as of December 31, 2015 to €13,114 million as of December 31, 2016 was mainly due to capital expenditures that outweighed depreciation charges. The increase in investments accounted for using the equity method by €338 million, or 137.4%, from €246 million as of December 31, 2015 to €584 million as of December 31, 2016 was due to the joint venture Casebia Therapeutics LLC that was established in 2016 together with CRISPR Therapeutics AG, Switzerland. The decrease in other intangible assets by €1,611 million, or 10.6%, from €15,178 million as of December 31, 2015 to €13,567 million as of December 31, 2016 was mainly due to amortization and to impairment losses mainly in Pharmaceuticals and Consumer Health. This decrease was partly offset by capital expenditures and currency effects.

#### **10.11.3.2 Current Assets**

Current assets increased by €6,626 million, or 27.8%, from €23,821 million as of December 31, 2015 to €30,447 million as of December 31, 2016. The increase was mainly attributable to an increase in other financial assets by €5,519 million from €756 million as of December 31, 2015 to €6,275 million as of December 31, 2016 due to cash inflows from the issuance of the Mandatory Convertible Notes.

#### **10.11.3.3 Equity**

Equity increased by €6,452 million, or 25.4%, from €25,445 million as of December 31, 2015 to €31,897 million as of December 31, 2016. This increase was mainly attributable to increases in capital reserves and other reserves. The increase in capital reserves of €3,491 million, or 56.6%, from €6,167 million as of December 31, 2015 to €9,658 million as of December 31, 2016 was due to the issuance of the Mandatory Convertible Notes. The increase in other reserves by €2,577 million, or 16.1%, from €15,981 million as of December 31, 2015 to €18,558 million as of December 31, 2016 was mainly due to income after income taxes and currency effects recognized in other comprehensive income that were partly offset by the dividend payment of €2,126 million and a negative effect from changes in post-employment benefit obligations recognized in other comprehensive income.

#### **10.11.3.4 Noncurrent Liabilities**

Noncurrent liabilities increased by €312 million, or 1.0%, from €31,492 million as of December 31, 2015 to €31,804 million as of December 31, 2016. This increase was mainly attributable to increases in deferred taxes and provisions for pensions and other post-employment benefits which were partially offset by decreases in financial liabilities. The increase in deferred taxes by €504 million, or 61.0%, from €826 million as of December 31, 2015 to €1,330 million as of December 31, 2016 was due to a lower set-off that was partly offset by decreases in deferred tax liabilities on provisions for pension and other post-employment benefits as well as on intangible assets. The increase in provisions for pensions and other post-employment benefits by €261 million, or 2.4%, from €10,873 million as of December 31, 2015 to €11,134 million as of December 31, 2016 was mainly due to losses from the revaluation of the net obligations for defined benefit plans for pensions and other post-employment benefits that more than offset the contribution by Bayer AG of 4.9% of the outstanding Covestro Shares to Bayer Pension Trust and Covestro's contribution of bonds. The decrease in financial liabilities by €333 million, or 2.0%, from €16,513 million as of December 31, 2015 to €16,180 million as of December 31, 2016 was mainly attributable to a decrease in liabilities to banks as well as bonds and notes/promissory notes that more than offset an increase in other financial liabilities due to the placement of the Mandatory Convertible Notes in November 2016.



### 10.11.3.5 Current Liabilities

Current liabilities increased by €1,557 million, or 9.2%, from €16,980 million as of December 31, 2015 to €18,537 million as of December 31, 2016. This increase was mainly attributable to an increase in other liabilities, trade accounts payable and other provisions. Other liabilities increased by €887 million, or 57.8%, from €1,534 million as of December 31, 2015 to €2,421 million as of December 31, 2016 due to an increase in deferred income mainly attributable to the proceeds from the sale of the Diabetes Care Business as well as due to an increase in miscellaneous liabilities mainly attributable to capital contribution liabilities to the joint venture Casebia Therapeutics LLP established on February 12, 2016 as well as to an increase in liabilities from derivatives. Trade accounts payable increased by €465 million, or 7.8%, from €5,945 million in fiscal year 2015 to €6,410 million in fiscal year 2016, mainly resulting from the operating business activity. Other provisions increased by €376 million, or 7.5%, from €5,045 million as of December 31, 2015 to €5,421 million as of December 31, 2016 mainly due to an increase in trade related commitments as well as in personnel commitments.

## 10.12 Liquidity and Capital Resources

Bayer finances its activities mainly through cash flows from operating activities and funds raised in the debt capital markets as well as, to a more limited extent, through bank loans. In connection with financing the Transaction, Bayer entered into the Loan Facilities Agreement, issued the Mandatory Convertible Notes, the Exchangeable Bonds, has conducted the Rights Offering and has engaged in the Bond Offerings, which include the offering of the Notes, see also “10.3.2 *The Acquisition of Monsanto and Related Divestitures.*” For more information on Bayer’s debt financings, see “10.16.3.1 *Financial Liabilities.*”

### 10.12.1 Cash Flows

The following tables provides a summary of our cash flow for the periods shown:

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited) (in € million)		(audited) (in € million)		(unaudited) (in € million)	
Income from continuing operations after income taxes.....	4,013	4,558	3,756	3,248	1,707	1,946
Income taxes .....	1,223	1,329	1,017	1,329	424	494
Financial result.....	1,005	1,155	965	1,326	296	(130)
Income taxes paid.....	(1,699)	(2,092)	(1,701)	(1,821)	(493)	(388)
Depreciation, amortization and impairments .....	3,332	3,743	3,063	2,660	572	508
Change in pension provisions.....	(221)	(285)	(297)	(227)	(63)	(98)
(Gains) losses on retirements of noncurrent assets .....	(105)	(44)	(45)	(133)	(50)	(20)
Decrease (increase) in inventories .....	(191)	(3)	(78)	(293)	(100)	(84)
Decrease (increase) in trade accounts receivable .....	(1,059)	(552)	(385)	(18)	(1,645)	(1,349)
(Decrease) increase in trade accounts payable.....	400	452	310	265	(728)	(436)
Changes in other working capital, other noncash items .....	138	(2)	(170)	275	631	215
<b>Net cash provided by (used in) operating activities from continuing operations .....</b>	<b>6,836</b>	<b>8,259</b>	<b>6,435</b>	<b>6,611</b>	<b>551</b>	<b>658</b>
Net cash provided by (used in) operating activities from discontinued operations.....	54	830	2,654	1,523	290	–
<b>Net cash provided by (used in) operating activities .....</b>	<b>6,890</b>	<b>9,089</b>	<b>9,089</b>	<b>8,134</b>	<b>841</b>	<b>658</b>

	For fiscal year ended December 31,				For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017	2017 <sup>(3)</sup>	2018
	(audited) (in € million)		(audited) (in € million)		(unaudited) (in € million)	
Cash outflows for additions to property, plant, equipment and intangible assets .....	(2,517)	(2,578)	(2,578)	(2,366)	(415)	(349)
Cash inflows from sales of property, plant, equipment and other assets .....	193	111	111	241	54	59
Cash inflows from (outflows for) divestments.....	2	(18)	(18)	453	–	145
Cash outflows for noncurrent financial assets .....	(26)	(690)	(690)	(313)	(54)	1,777
Cash inflows from (outflows for) acquisitions less acquired cash ..	(176)	2	2	(158)	(158)	–
Interest and dividends received ..	106	89	89	168	20	22
Cash inflows from (outflows for) current financial assets .....	(344)	(5,645)	(5,645)	1,543	(583)	(3,712)
<b>Net cash provided by (used in) investing activities.....</b>	<b>(2,762)</b>	<b>(8,729)</b>	<b>(8,729)</b>	<b>(432)</b>	<b>(1,136)</b>	<b>(2,058)</b>
Capital contributions .....	–	3,300	3,300	–	–	–
Proceeds from shares of Covestro AG .....	1,490	–	–	3,717	1,460	–
Dividend payments .....	(1,869)	(2,126)	(2,126)	(2,364)	–	–
Issuances of debt.....	16,620	15,190	15,190	10,369	292	1,021
Retirements of debt .....	(19,549)	(15,920)	(15,920)	(12,848)	(1,036)	(1,528)
Interest paid including interest-rate swaps .....	(812)	(853)	(853)	(801)	(114)	(83)
Interest received from interest-rate swaps .....	160	59	59	69	9	9
Cash outflows for the purchase of additional interests in subsidiaries.....	(14)	–	–	(23)	–	–
<b>Net cash provided by (used in) financing activities.....</b>	<b>(3,974)</b>	<b>(350)</b>	<b>(350)</b>	<b>(1,881)</b>	<b>611</b>	<b>(581)</b>
<b>Change in cash and cash equivalents due to business activities .....</b>	<b>154</b>	<b>10</b>	<b>10</b>	<b>5,821</b>	<b>316</b>	<b>(1,981)</b>
<b>Cash and cash equivalents at beginning of period .....</b>	<b>1,853</b>	<b>1,859</b>	<b>1,859</b>	<b>1,899</b>	<b>1,899</b>	<b>7,436</b>
Change in cash and cash equivalents due to changes in scope of consolidation .....	5	3	3	–	–	1
Change in cash and cash equivalents due to exchange rate movements .....	(153)	27	27	(139)	9	(118)
<b>Cash and cash equivalents at end of period .....</b>	<b>1,859</b>	<b>1,899</b>	<b>1,899</b>	<b>7,581</b>	<b>2,224</b>	<b>5,338</b>

(1) Figures extracted from the audited consolidated statement of cash flows of Bayer for fiscal year ended December 31, 2016, which present the cash flow from operating activities related to Covestro as cash provided by (used in) operating activities from continuing operations.

(2) Figures extracted from the restated comparative figures for fiscal year ended December 31, 2016 as included in the audited consolidated statement of cash flows of Bayer for fiscal year ended December 31, 2017, which present the cash flow from operating activities related to Covestro as cash provided by (used in) operating activities from discontinued operations.

(3) Figures derived from the restated comparative figures for the three months ended March 31, 2017 as included in the unaudited condensed consolidated interim statement of cash flows of Bayer for the three months ended March 31, 2018,



which presents the cash flow from operating activities related to Covestro as cash provided by (used in) operating activities from discontinued operations separately.

## **10.12.2 Comparison of Three Months Ended March 31, 2018 with Three Months Ended March 31, 2017**

### **10.12.2.1 Net Cash Provided by (Used in) Operating Activities**

Net cash provided by operating activities decreased by €183 million, or 21.8%, from €841 million for the three months ended March 31, 2017 to €658 million for the three months ended March 31, 2018. Net cash provided by operating activities in continuing operations increased by €107 million, or 19.4%, from €551 million for the three months ended March 31, 2017 to €658 million for the three months ended March 31, 2018, mainly due to lower additions to cash tied up in working capital. Operating activities from discontinued operations provided €290 million net cash for the three months ended March 31, 2017, compared to no net cash being provided by operating activities from discontinued operations for the three months ended March 31, 2018. Covestro was still included in the prior-year quarter.

### **10.12.2.2 Net Cash Provided by (Used in) Investing Activities**

Net cash used in investing activities amounted to €2,058 million for the three months ended March 31, 2018 compared to €1,136 million for the three months ended March 31, 2017. Bayer invested €3,712 million in current financial assets in the three months ended March 31, 2018, compared to €583 million in the three months ended March 31, 2017. The sale of further Covestro Shares contributed a net cash inflow of €1,802 million in the three months ended March 31, 2018. At €349 million in the three months ended March 31, 2018, cash outflows for additions to property, plant and equipment and intangible assets were 15.9% lower compared to €415 million in the three months ended March 31, 2017 (which included investments in an amount of €74 million at Covestro), and included investment activities of €219 million at Pharmaceuticals (compared to €152 million in the three months ended March 31, 2017), €28 million at Consumer Health (compared to €24 million in the three months ended March 31, 2017), €63 million at Crop Science (compared to €99 million in the three months ended March 31, 2017) and €5 million at Animal Health (compared to €6 million in the three months ended March 31, 2017).

### **10.12.2.3 Net Cash Provided by (Used in) Financing Activities**

Net cash used in financing activities amounted to €581 million for the three months ended March 31, 2018 compared to net cash provided by financing activities of €611 million for the three months ended March 31, 2017 and which included a net inflow of €1,460 million from the sale of Covestro Shares while the company remained fully consolidated. Net loan repayments amounted to €507 million in the three months ended March 31, 2018, compared to €744 million in the three months ended March 31, 2017. Net interest payments decreased by €31 million to €74 million.

## **10.12.3 Comparison of Fiscal Year 2017 with Fiscal Year 2016**

The following discussion is based on the 2016 and 2017 figures presented in the audited consolidated statement of cash flows of Bayer for fiscal year ended December 31, 2017, including the comparative information for fiscal year ended December 31, 2016, which presents the cash flow from operating activities related to Covestro as cash provided by (used in) operating activities from discontinued operations. The 2016 and 2017 figures discussed and presented here are therefore not directly comparable with the 2015 and 2016 figures presented and discussed under “10.12.4 Comparison of Fiscal Year 2016 with Fiscal Year 2015.” For further information on the comparability of the figures in these sections, see “10.5 Comparability of the Financial Information Contained in the Audited Consolidated Financial Statements.”

### **10.12.3.1 Net Cash Provided by (Used in) Operating Activities**

Net cash provided by operating activities decreased by €955 million, or 10.5%, from €9,089 million for fiscal year 2016 to €8,134 million for fiscal year 2017. The €9,089 million for fiscal year 2016 included inflows from the divestment of the Diabetes Care Business. Net cash provided by operating activities in continuing operations increased by €176 million, or 2.7%, from €6,435 million in fiscal year 2016 to €6,611 million in fiscal year 2017 due to an improvement in EBIT and a reduction in cash tied up in working capital. This figure included the components of the payments received from Dow Chemical as part of a patent dispute that falls under operating activities. The

transfer of Covestro Shares with a value of €504 million to Bayer Pension Trust in the second quarter of 2017 was a noncash transaction and therefore did not result in an operating cash outflow. Net cash provided by operating activities from discontinued operations decreased by €1,131 million, or 42.6%, from €2,654 million for fiscal year 2016 to €1,523 million for fiscal year 2017.

#### 10.12.3.2 Net Cash Provided by (Used in) Investing Activities

Net cash used in investing activities for fiscal year 2017 amounted to €432 million compared to €8,729 million for fiscal year 2016. This decrease in cash outflows was mainly due to an increase in cash inflows from current financial assets of €7,188 million, from an outflow of €5,645 million in fiscal year 2016 to an inflow of €1,543 million in fiscal year 2017. At €2,366 million for fiscal year 2017, cash outflows for additions to property, plant and equipment and intangible assets were 8.2% lower compared to €2,578 million for fiscal year 2016, and included investment activities of €915 million at Pharmaceuticals, of €178 million at Consumer Health, of €553 million at Crop Science, of €38 million at Animal Health and of €283 million at Covestro. Divestments resulted in a net inflow of €453 million. This includes the proceeds of €999 million from the sale of Covestro Shares on September 29, 2017, less the Covestro cash and cash equivalents of €637 million deducted as a consequence of the Loss of Control. Cash outflows for acquisitions in an amount of €158 million related to the acquisition of the Cydectin™ product portfolio in the United States in the Animal Health segment.

#### 10.12.3.3 Net Cash Provided by (Used in) Financing Activities

Net cash used in financing activities amounted to €1,881 million for fiscal year 2017 compared to €350 million for fiscal year 2016. In fiscal year 2017, we received proceeds of €3,717 million from the sale of Covestro Shares prior to the Loss of Control, while net loan repayments amounted to €2,479 million, compared to €730 million in fiscal year 2016. Cash outflows for dividend payments amounted to €2,364 million for fiscal year 2017, compared to €2,126 million for fiscal year 2016. Net interest expense was 7.8% lower for fiscal year 2017 at €732 million, compared to €794 million in 2016. The transfer of Covestro Shares with a value of €504 million to Bayer Pension Trust in the second quarter of 2017 was a noncash transaction and therefore did not result in a financing cash inflow. In the previous year, the net cash inflow from the issuance of mandatory convertible notes amounted to €3,952 million, reported as a €3,300 million capital contribution and a €652 million borrowing.

#### **10.12.4 Comparison of Fiscal Year 2016 with Fiscal Year 2015**

The following discussion is based on the 2015 and 2016 figures presented in the audited consolidated statement of cash flows of Bayer for fiscal year ended December 31, 2016, including the comparative information for fiscal year ended December 31, 2015, which presents the cash flow from operating activities related to Covestro as cash provided by (used in) operating activities from continuing operations. The following 2015 and 2016 figures are therefore not directly comparable with the 2016 and 2017 figures presented and discussed under “10.12.3 Comparison of Fiscal Year 2017 with Fiscal Year 2016.” For further information on the comparability of the figures in these sections, see “10.5 Comparability of the Financial Information Contained in the Audited Consolidated Financial Statements.”

#### 10.12.4.1 Net Cash Provided by (Used in) Operating Activities

Net cash provided by operating activities increased by €2,199 million, or 31.9%, from €6,890 million for fiscal year 2015 to €9,089 million for fiscal year 2016. Of this, an increase of €1,423 million, or 20.8%, from €6,836 million for fiscal year 2015 to €8,259 million for fiscal year 2016 was provided by continuing operations. Discontinued operations accounted for an increase in net cash flows by €776 million, mainly attributable to the sale of the Diabetes Care Business.

The increase in net cash provided by operating activities was mainly attributable to a significant improvement of EBITDA and a decrease in additional cash tied up in working capital as well as the aforementioned cash inflow from the sale of the Diabetes Care Business.

#### 10.12.4.2 Net Cash Provided by (Used in) Investing Activities

Net cash used in investing activities for fiscal year 2016 amounted to €8,729 million compared to €2,762 million for fiscal year 2015. Cash outflows for noncurrent and current financial assets, especially for the

short-term investment of the cash flows from the Mandatory Convertible Notes, amounted to €6,335 million for fiscal year 2016 compared to €370 million for fiscal year 2015. Inflows from interest and dividends totaled €89 million for fiscal year 2016 compared to €106 million for fiscal year 2015. At €2,578 million for fiscal year 2016, cash outflows for property, plant and equipment and intangible assets were 2.4% higher compared to €2,517 million for fiscal year 2015, and included investment activities of €835 million at Pharmaceuticals, of €215 million at Consumer Health, of €757 million at Crop Science, of €37 million at Animal Health and of €415 million at Covestro.

#### 10.12.4.3 Net Cash Provided by (Used in) Financing Activities

Net cash used in financing activities amounted to €350 million for fiscal year 2016 compared to €3,974 million for fiscal year 2015 and included net loan repayments of €730 million for fiscal year 2016 compared to €2,929 million for fiscal year 2015. At €794 million, net interest payments for fiscal year 2016 were 21.8% higher compared to net interest payments of €652 million for fiscal year 2015. The cash outflow for dividends amounted to €2,126 million in fiscal year 2016 compared to €1,869 million in fiscal year 2015. The net cash inflow from the issuance of the Mandatory Convertible Notes amounted to €3,952 million for fiscal year 2016, reported as a €3,300 million capital contribution and a €652 million borrowing. For fiscal year 2015, the stock market floatation of Covestro resulted in a cash inflow of €1,490 million.

### 10.13 Capital Expenditures

#### 10.13.1 Significant Capital Expenditures in the Three Months Ended March 31, 2018

Bayer recorded €242 million in capital expenditures (excluding Covestro) for the three months ended March 31, 2018, of which €39 million related to intangible assets and €203 million related to property, plant and equipment. By segment, total capital expenditures, i.e., capital expenditures relating to intangible assets and property, plant and equipment, and, as applicable, principal strategic capital expenditures for property, plant and equipment, for the three months ended March 31, 2018 were as follows:

- Pharmaceuticals: Pharmaceuticals recorded a total of €90 million in capital expenditures for the three months ended March 31, 2018. Pharmaceuticals' principal strategic capital expenditures for property, plant, and equipment for the three months ended March 31, 2018 related to investments in the production capacities for new therapies based on rFactor VIII, a recombinant protein used for the treatment of hemophilia A, in Wuppertal-Elberfeld and Leverkusen (Germany), the expansion of R&D laboratory capacities in Wuppertal (Germany), the modernization of research facilities in Berlin (Germany), the modernization of site infrastructure in Leverkusen (Germany), the construction of a new research building in Wuppertal-Aprath (Germany) and the expansion of production capacities for EYLEA in Berlin (Germany) and in Shiga (Japan).
- Consumer Health: Consumer Health recorded a total of €48 million in capital expenditures for the three months ended March 31, 2018. Consumer Health's principal strategic capital expenditures for property, plant and equipment for the three months ended March 31, 2018 related to investments in the reconstruction and expansion of production sites in Majinpu/Kunming (China) and infrastructure and production upgrades for GMP activities.
- Crop Science: Crop Science recorded a total of €64 million in capital expenditures for the three months ended March 31, 2018. Crop Science's principal strategic capital expenditures for property, plant and equipment for the three months ended March 31, 2018 related to investments in capacity expansions for herbicides in Knapsack (Germany), the expansion of production capacities for fungicides in Dormagen (Germany), the expansion of production and research greenhouses in Nunhem (Netherlands), the construction of a production facility for fungicides in Kansas City, Missouri (United States) and the expansion of production capacities for insecticides in Vapi (India).
- Animal Health: Animal Health recorded a total of €5 million in capital expenditures for the three months ended March 31, 2018. In July 2017, Bayer announced plans to expand the Animal Health production site in Kiel, Germany, for €90 million until 2021, with limited spend in fiscal year 2017 and gaining momentum in the first quarter of 2018.

- **Reconciliation:** Reconciliation recorded a total of €35 million in capital expenditures for the three months ended March 31, 2018.

For information on our most important investments in progress and our most important future investments to which our management has already committed, see “11.10 Investments.”

### 10.13.2 Significant Capital Expenditures in Fiscal Year 2017

Bayer recorded €2,418 million in capital expenditures (excluding Covestro) for fiscal year 2017, of which €755 million related to intangible assets and €1,663 million related to property, plant and equipment. By segment, total capital expenditures, i.e., capital expenditures relating to intangible assets and property, plant and equipment, and, as applicable, principal strategic capital expenditures for property, plant and equipment, for fiscal year 2017 were as follows:

- **Pharmaceuticals:** Pharmaceuticals recorded a total of €1,126 million in capital expenditures in fiscal year 2017, of which a significant amount related to upfront payments of US\$400 million made under an exclusive global collaboration agreement concluded with the biopharmaceutical company Loxo Oncology, Inc., Stamford, Connecticut, United States, in November 2017. Pharmaceuticals’ principal strategic capital expenditures for property, plant, and equipment for fiscal year 2017 related to investments in the production capacities for new therapies based on rFactor VIII, a recombinant protein used for the treatment of hemophilia A, in Wuppertal-Elberfeld and Leverkusen (Germany), the expansion of R&D laboratory capacities in Wuppertal (Germany), the modernization of research facilities in Berlin (Germany), the modernization of site infrastructure in Wuppertal and Leverkusen (Germany), the construction of a new research building in Wuppertal-Aprath (Germany) and the expansion of production capacities for EYLEA in Berlin (Germany).
- **Consumer Health:** Consumer Health recorded a total of €181 million in capital expenditures in fiscal year 2017. Consumer Health’s principal strategic capital expenditures for property, plant and equipment for fiscal year 2017 related to investments in the reconstruction and expansion of production sites in Majinpu/Kunming (China).
- **Crop Science:** Crop Science recorded a total of €670 million in capital expenditures in fiscal year 2017. Crop Science’s principal strategic capital expenditures for property, plant and equipment for fiscal year 2017 related to investments in capacity expansions for herbicides in Muskegon, Michigan, Mobile and Alabama (United States) and in Frankfurt and Knapsack (Germany), the construction of a production facility for insecticides in Dormagen (Germany), the expansion of production capacities for fungicides in Dormagen (Germany), the expansion of research and development facilities in Monheim (Germany), the establishment of breeding stations for various plant species worldwide, the expansion of R&D facilities in Raleigh (North Carolina, United States), the expansion of production and research greenhouses in Nunhem (Netherlands), the construction of a production facility for fungicides in Kansas City, Missouri (United States) and the expansion of production capacities for insecticides in Vapi (India).
- **Animal Health:** Animal Health recorded a total of €41 million in capital expenditures in fiscal year 2017. In July 2017, Bayer announced plans to expand the Animal Health production site in Kiel, Germany, for €90 million until 2021, with limited spend in fiscal year 2017.
- **Reconciliation:** Reconciliation recorded a total of €400 million in capital expenditures in fiscal year 2017.

For information on our most important investments in progress and our most important future investments to which our management has already committed, see “11.10 Investments.”

### 10.13.3 Significant Capital Expenditures in Fiscal Year 2016

Bayer recorded €2,627 million in capital expenditures for fiscal year 2016, of which €363 million related to intangible assets and €2,264 million related to property, plant and equipment. By segment (including Covestro) and for the Life Sciences, total capital expenditures, i.e., capital expenditures relating to intangible assets and property,

plant and equipment, and, as applicable, principal strategic capital expenditures for property, plant and equipment, for fiscal year 2016 were as follows:

- Pharmaceuticals: Pharmaceuticals recorded a total of €851 million in capital expenditures in fiscal year 2016. Pharmaceuticals' principal strategic capital expenditures for property, plant, and equipment for fiscal year 2016 related to investments in the production capacities for new rFactor VIII therapies in Wuppertal-Elberfeld and Leverkusen (Germany), the expansion of R&D laboratory capacities in Wuppertal (Germany), the modernization of research facilities in Berlin (Germany), the modernization of site infrastructure in Wuppertal and Leverkusen (Germany), the expansion of production capacities in Beijing (China) and the expansion of Quality Control Biologics in Berkeley (California, United States).
- Consumer Health: Consumer Health recorded a total of €220 million in capital expenditures in fiscal year 2016. Consumer Health's principal strategic capital expenditures for property, plant and equipment for fiscal year 2016 related to investments in the reconstruction and expansion of production facilities in Kunming and Majinpu (China).
- Crop Science: Crop Science recorded a total of €773 million in capital expenditures in fiscal year 2016. Crop Science's principal strategic capital expenditures for property, plant and equipment for fiscal year 2016 related to investments in capacity expansions for herbicides in Muskegon, Michigan, Mobile and Alabama (United States) and in Frankfurt and Knapsack (Germany), the construction of a production facility for insecticides in Dormagen (Germany), the expansion of production capacities for fungicides in Dormagen (Germany), the expansion of R&D facilities in Monheim (Germany), the establishment of breeding stations for various plant species worldwide and the expansion of R&D facilities in Raleigh (North Carolina, United States).
- Animal Health: Animal Health recorded a total of €39 million in capital expenditures in fiscal year 2016.
- Reconciliation: Reconciliation recorded a total of €325 million in capital expenditures in fiscal year 2016.
- Life Sciences: Life Sciences recorded a total of €2,208 million in capital expenditures in fiscal year 2016.
- Covestro: Covestro recorded a total of €419 million in capital expenditures in fiscal year 2016. Covestro's principal strategic capital expenditures for property, plant and equipment for fiscal year 2016 related to investments in the capacity expansion of MDI facility in Brunsbüttel (Germany), the start-up of a production line for CO<sub>2</sub>-based polyols in Dormagen (Germany), the continuation of capital expenditure projects from 2014, including the doubling of the production capacity for polycarbonate in Shanghai (China) and the doubling of the production capacity for the aliphatic isocyanate HDI in Shanghai (China).

#### **10.13.4 Significant Capital Expenditures in Fiscal Year 2015**

Bayer recorded €2,554 million in capital expenditures for fiscal year 2015, of which €388 million related to intangible assets and €2,168 million related to property, plant and equipment. By segment (including Covestro) and for the Life Sciences, total capital expenditures i.e., capital expenditures relating to intangible assets and property, plant and equipment, and, as applicable, principal strategic capital expenditures for property, plant and equipment, for fiscal year 2015 were as follows:

- Pharmaceuticals: Pharmaceuticals recorded a total of €764 million in capital expenditures in fiscal year 2015. Pharmaceuticals' principal strategic capital expenditures for property, plant and equipment for fiscal year 2015 related to investments in the production capacities for new rFactor VIII therapies in Wuppertal (Germany), the expansion of R&D laboratory capacities in Wuppertal (Germany), the modernization of research facilities in Berlin (Germany), the modernization of site infrastructure in Wuppertal and Leverkusen (Germany), the expansion of production capacities in Beijing (China) and the expansion of Quality Control Biologics in Berkeley (California, United States).



- Consumer Health: Consumer Health recorded a total of €182 million in capital expenditures in fiscal year 2015. None of Consumer Health's individual capital expenditures for fiscal year 2015 were classified as a strategic investment.
- Crop Science: Crop Science recorded a total of €735 million in capital expenditures in fiscal year 2015. Crop Science's principal strategic capital expenditures for property, plant and equipment for fiscal year 2015 related to investments in the capacity expansions for herbicides in the United States and Germany, the construction of production facilities for insecticides in Vapi (India) and Dormagen (Germany), additional capacity expansions for fungicides in Germany, the expansion of R&D facilities in Germany (continued in 2016), the establishment of breeding stations for various plant species worldwide and the expansion of R&D facilities in North America.
- Animal Health: Animal Health recorded a total of €43 million in capital expenditures in fiscal year 2015.
- Reconciliation: Reconciliation recorded a total of €316 million in capital expenditures in fiscal year 2015.
- Life Sciences: Life Sciences recorded a total of €2,040 million in capital expenditures in fiscal year 2015.
- Covestro: Covestro recorded a total of €514 million in capital expenditures in fiscal year 2015. Covestro's principal strategic capital expenditures for property, plant and equipment for fiscal year 2015 related to the construction of a production line for CO<sub>2</sub>-based polyols in Dormagen (Germany), the continuation and finalization of capital expenditure projects from 2014 including the doubling of the production capacity for polycarbonate in Shanghai (China) and the doubling of the production capacity for the aliphatic isocyanate HDI in Shanghai (China).

#### **10.14 Pension and Other Post-Employment Benefit Obligations**

The companies within the Bayer Group provide retirement benefits for most of their employees, either directly or by contributing to privately or publicly administered funds. The benefits vary depending on the legal, fiscal and economic conditions of each country. The obligations relate both to existing retirees' pensions and to pension entitlements of future retirees.

Bayer has set up funded pension plans for its employees in various countries. Since the capital investment strategy for each pension plan is developed individually in light of the risk structure of the obligations (especially demographics, the current funded status, the structure of the expected future cash flows, interest sensitivity and biometric risks), the regulatory environment and the existing level of risk tolerance, the investment strategies for different pension plans may vary considerably. The investment strategies are generally aligned less toward maximizing absolute returns and more toward trying to achieve the maximum probability of being able to finance pension commitments over the long term. For pension plans, stress scenarios are simulated and other risk analyses (such as value at risk) undertaken with the aid of risk management systems.

Bayer-Pensionskasse VVaG (Bayer-Pensionskasse), Leverkusen, Germany, is by far the most significant of the pension plans. It has been closed to new members since 2005. Pension entitlements for people who joined Bayer in Germany in 2005 or later are granted via Rheinische Pensionskasse VVaG, Leverkusen. Future pension payments from this plan are based on contributions and the return on plan assets; a guaranteed interest rate applies. Another important pension provision vehicle is Bayer Pension Trust. This covers further retirement provision arrangements of the Bayer Group, such as deferred compensation, pension obligations previously administered by Schering Altersversorgung Treuhand e.V., and components of other direct commitments. The defined benefit pension plans in the United States have been frozen for some years, and no significant new entitlements can be earned under these plans. The defined benefit pension plans in the United Kingdom have been closed to new members for some years. The other post-employment benefit obligations outside Germany mainly comprised health care benefit payments for retirees in the United States.

Bayer's defined benefit obligations, net defined benefit liability and the funded status of funded obligations developed as follows:

	As of December 31,		
	2015	2016 (audited) (in € million)	2017
<b>Defined benefit obligation</b>			
<i>of which unfunded</i> .....	1,227	1,356	1,181
<i>Pension obligation</i> .....	1,126	1,231	1,117
<i>Other post-employment benefit obligation</i> .....	101	125	64
<i>Of which funded</i> .....	25,582	27,639	23,311
<i>Pension obligation</i> .....	24,847	26,897	22,704
<i>Other post-employment benefit obligation</i> .....	735	742	607
<b>Total defined benefit obligation</b> .....	<b>26,809</b>	<b>28,995</b>	<b>24,492</b>
Fair value of plan assets.....	(15,998)	(17,936)	(16,539)
Effects of the asset ceiling.....	32	49	31
<b>Net defined benefit liability</b> .....	<b>10,843</b>	<b>11,108</b>	<b>7,984</b>

For further information on our pension and other post-employment benefits, see note 25 of Bayer's consolidated financial statements for fiscal year 2017 and note 25 of Bayer's consolidated financial statements for fiscal year 2016.

## 10.15 Other Liabilities

Bayer's other liabilities were as follows:

	As of December 31,			As of March 31,
	2015	2016 (audited) (in € million)	2017	2018 (unaudited) (in € million)
Other tax liabilities.....	435	544	420	448
Deferred income.....	1,148	1,463	1,156	70
Liabilities to employees.....	217	229	181	156
Liabilities for social expenses.....	174	168	138	137
Accrued interest on liabilities.....	189	186	149	205
Miscellaneous liabilities.....	436	788	724	530
<b>Total</b> .....	<b>2,599</b>	<b>3,378</b>	<b>2,768</b>	<b>1,546</b>
<i>of which current</i> .....	1,534	2,421	1,652	1,318

For further information on our other liabilities, see note 29 of Bayer's consolidated financial statements for fiscal year 2017 and note 29 of Bayer's consolidated financial statements for fiscal year 2016.

## 10.16 Contingent Liabilities and Other Financial Commitments

### 10.16.1 Contingent Liabilities

The following table provides an overview of Bayer's contingent liabilities as of the dates shown:

	As of December 31,		
	2015	2016 (audited) (in € million)	2017
Warranties.....	99	100	88
Guarantees.....	123	264	148
Other contingent liabilities.....	562	444	614
<b>Total</b> .....	<b>784</b>	<b>808</b>	<b>850</b>

For further information on our contingent liabilities, see note 31 of Bayer's consolidated financial statements for fiscal year 2017 and note 31 of Bayer's consolidated financial statements for fiscal year 2016.

#### 10.16.1.1 Comparison of December 31, 2017 with December 31, 2016

Bayer's contingent liabilities increased by €42 million, or 5.2%, from €808 million as of December 31, 2016 to €850 million as of December 31, 2017 mainly due to an increase in other contingent liabilities relating to new legal cases and which more than offset the decline in guarantees and warranties. The guarantees mainly comprise a declaration issued by Bayer AG to the trustees of the U.K. pension plans guaranteeing the pension obligations of Bayer Public Limited Company and Bayer Crop Science Limited. Under the declaration, Bayer AG – in addition to the two companies – undertakes to make further payments into the plans upon receipt of a payment request from the trustees. The net liability with respect to these defined benefit plans as of December 31, 2017, declined to €148 million, compared to €264 million as of December 31, 2016.

#### 10.16.1.2 Comparison of December 31, 2016 with December 31, 2015

Bayer's contingent liabilities increased by €24 million, or 3.1%, from €784 million as of December 31, 2015 to €808 million as of December 31, 2016 mainly due to an increase in guarantees, which more than offset the decline in other contingent liabilities. The guarantees mainly comprise a declaration issued by Bayer AG to the trustees of the U.K. pension plans guaranteeing the pension obligations of Bayer Public Limited Company and Bayer Crop Science Limited. Under the declaration, Bayer AG – in addition to the two companies – undertakes to make further payments into the plans upon receipt of a payment request from the trustees. The net liability with respect to these defined benefit plans as of December 31, 2016, increased to €264 million, compared to €123 million as of December 31, 2015 due to a sharp drop in interest rates.

#### 10.16.2 **Other Financial Commitments**

The following table provides an overview of Bayer's other financial commitments as of the dates shown:

	As of December 31,		
	2015	2016 (audited) (in € million)	2017
Operating leases.....	891	1,101	801
Obligations under purchase agreements for property, plant and equipment <sup>(1)</sup> .....	690	479	493
Contractual obligation to acquire intangible assets <sup>(1)</sup> .....	–	243	83
Capital contribution commitments.....	391	182	149
Binding acquisition agreement with Monsanto Company, St. Louis, Missouri, U.S.A. <sup>(2)</sup> .....	–	53,000	47,000
Unpaid portion of the effective initial fund.....	1,213	1,213	1,005
Potential payment obligations under R&D collaboration Agreements.....	2,887	2,444	2,349
Revenue-based milestone payment commitments.....	2,241	1,839	1,923
<b>Total</b> .....	<b>8,313</b>	<b>60,501</b>	<b>53,803</b>

(1) Included under "Orders already placed under purchase agreements" in our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016.

(2) The contingent financial commitment was translated at the EUR/USD closing rate at year end.

For further information on our other financial commitments, see note 31 of Bayer's consolidated financial statements for fiscal year 2017 and note 31 of Bayer's consolidated financial statements for fiscal year 2016.

#### 10.16.2.1 Comparison of December 31, 2017 with December 31, 2016

Bayer's other financial commitments decreased by €6,698 million, or 11.1%, from €60,501 million as of December 31, 2016 to €53,803 million as of December 31, 2017. This decrease was mainly due to a decrease in the contingent financial commitment to acquire Monsanto Company pursuant to the Merger Agreement from €53 billion to €47 billion due to exchange differences.

#### 10.16.2.2 Comparison of December 31, 2016 with December 31, 2015

Bayer's other financial commitments increased by €52,188 million from €8,313 million as of December 31, 2015 to €60,501 million as of December 31, 2016. This very significant increase was due to, in particular, the



signing of the Merger Agreement in connection with the Transaction, according to which Bayer at the time had a contingent financial commitment in an amount of approximately US\$56 billion to acquire Monsanto's entire outstanding capital stock.

### 10.16.3 Financial Liabilities and Lease Liabilities

#### 10.16.3.1 Financial Liabilities

The following table sets forth Bayer's financial liabilities as of March 31, 2018:

	Less than 1 year	2-5 years	More than 5 years	Total
	(unaudited) (in € million)			
Bonds and notes/promissory notes.....	559	4,995	6,736	12,290
Liabilities to banks .....	597	14	–	611
Liabilities under finance leases .....	36	92	120	248
Liabilities from derivatives.....	191	8	–	199
Other financial liabilities .....	378	308	–	686
<b>Total .....</b>	<b>1,761</b>	<b>5,417</b>	<b>6,856</b>	<b>14,034</b>

As of March 31, 2018, Bayer AG and various group companies of Bayer have issued €12,245 million in bonds and notes in addition to €45 million in promissory notes. The Bayer Group has issued a number of bonds under its DIP. In 2014 and 2015, Bayer AG issued hybrid bonds in an aggregate nominal amount of €4,550 million, which are subordinated and treated by Moody's and S&P Global Ratings as 50% equity. They therefore have a more limited effect on the Bayer Group's rating-relevant debt indicators than senior borrowings. In November 2016, Bayer Capital Corporation B.V. placed the Mandatory Convertible Notes in a nominal amount of €4,000 million in reliance on Rule 144A and Regulation S under the Securities Act, which will be converted into no-par shares of Bayer AG at maturity. The Mandatory Convertible Notes represented the first part of the equity component of the financing for the Transaction. Other financial liabilities as of March 31, 2018 contained €528 million related to the Mandatory Convertible Notes. In June 2017, Bayer AG placed Exchangeable Bonds in a nominal amount of €1,000 million maturing in 2020. The bonds bear interest at a rate of 0.05% per annum. Upon exchange of the bonds, Bayer AG will have the flexibility to settle the bonds in cash, by delivery of Covestro Shares or by a combination thereof.

Bayer AG guarantees all the notes and bonds issued by its subsidiaries.

As of March 31, 2018, the Bayer Group had an undrawn €3.5 billion syndicated revolving credit facility with a current maturity of 2020.

For further information on our financial liabilities, see note 27 of Bayer's consolidated financial statements for fiscal year 2017 and note 27 of Bayer's consolidated financial statements for fiscal year 2016.

#### 10.16.3.2 Lease Liabilities

The following table sets forth Bayer's lease liabilities as of December 31, 2017:

	Less than 1 year	2-5 years <sup>(1)</sup>	More than 5 years	Total
	(audited, unless otherwise indicated) (in € million)			
Lease payments .....	49	139	177	365
Interest component .....	17	46	64	127
Liabilities under finance leases .....	32	93	113	238

(1) Unaudited.

For further information on our lease liabilities, see note 27 of Bayer's consolidated financial statements for fiscal year 2017 and note 27 of Bayer's consolidated financial statements for fiscal year 2016.

## **10.17 Off-Balance Sheet Arrangements**

There are no significant off-balance sheet arrangements that are likely to have a current or future effect on Bayer's financial condition, results of operations, liquidity, capital expenditures or capital resources other than the contingent liabilities and other financial commitments disclosed above.

## **10.18 Quantitative and Qualitative Disclosure about Financial Opportunities and Risks**

The Bayer Group sees financial opportunities in the market prices it can command, and is exposed to financial risks in the form of liquidity, credit and market price risks, as well as risks resulting from pension obligations.

### **10.18.1 Liquidity Risk**

Liquidity risks reflect the possible inability of Bayer to meet current or future payment obligations. The liquidity risk is determined and managed by the Finance function as part of its same-day and medium-term liquidity planning. The Bayer Group holds sufficient liquidity to ensure the fulfillment of all planned payment obligations at maturity. For unbudgeted shortfalls in cash receipts or unexpected disbursements, furthermore, a reserve is maintained whose amount is regularly reviewed and adjusted. Credit facilities also exist with banks, including, in particular, an undrawn €3.5 billion syndicated revolving credit facility with a current maturity of 2020. For further information on the liquidity risks that Bayer is exposed to, see "1.1.23 *The Bayer Group is exposed to financial risk, including liquidity, credit and market price risks.*"

### **10.18.2 Credit Risks**

Credit risks arise from the possibility that the value of receivables or other financial assets of the Bayer Group may be impaired because counterparties cannot meet their payment or other performance obligations. The maximum default risk is reduced by existing collateral, especially its global credit insurance programs. To manage credit risks from trade receivables, the respective invoicing companies appoint credit managers who regularly analyze customers' creditworthiness. Some of these receivables are collateralized, and the collateral is used according to local conditions. These include credit insurances and guarantees. Bayer generally agrees reservation of title with its customers. Credit limits are set for all customers. All credit limits for debtors where total exposure is €10 million or more are evaluated locally and submitted to the Group Finance function. Credit risks from financial transactions are managed centrally in the Finance function. To minimize risks, financial transactions are only conducted within predefined exposure limits and with banks and other partners that preferably have investment-grade ratings. For further information on the credit risks that Bayer is exposed to, see "1.1.23 *The Bayer Group is exposed to financial risk, including liquidity, credit and market price risks.*"

### **10.18.3 Opportunities and Risks Resulting from Market Price Changes**

Opportunities and risks resulting from fluctuating exchange and interest rates in the market are managed by the Finance function. Risks are avoided or mitigated through the use of derivative financial instruments. The type and level of currency and interest-rate risks are explained using sensitivity analyses based on hypothetical changes in risk variables (such as interest curves) to determine the potential effects of market price fluctuations on equity and earnings. The assumptions used in the sensitivity analyses reflect Bayer's view of the changes in currency exchange and interest rates that are reasonably possible over a one-year period. These assumptions are regularly reviewed.

Foreign currency opportunities and risks for the Bayer Group result from changes in exchange rates and the related changes in the value of financial instruments (including receivables and payables) and of anticipated payment receipts and disbursements in the functional currency. Receivables and payables in liquid currencies from operating activities and financial items are generally fully exchange-hedged through cross-currency interest-rate swaps. Anticipated exposure from planned payment receipts and disbursements in the future is hedged through forward exchange contracts and currency options according to management guidelines.

Sensitivities were determined on the basis of a hypothetical scenario in which the euro appreciates or depreciates by 10% against all other currencies compared with the year-end exchange rates. In this scenario, the estimated hypothetical increase or decrease in cash flows from derivative and nonderivative financial instruments would have improved or diminished earnings and equity (other comprehensive income) as of March 31, 2018, by €332 million (December 31, 2017: €346 million). Of this amount, €131 million is related to the U.S. dollar (USD),

€65 million to the Chinese renminbi (CYN), €42 million to the Japanese yen (JPY) and €38 million to the Canadian dollar (CAD). Currency effects on anticipated exposure are not taken into account. Derivatives used to hedge anticipated currency exposure that are designated for hedge accounting would have improved or diminished other comprehensive income by €346 million.

Interest-rate opportunities and risks result for the Bayer Group through changes in capital market interest rates, which in turn could lead to changes in the fair value of fixed-rate financial instruments and changes in interest payments in the case of floating-rate instruments. Interest-rate opportunities and risks are managed over a target duration established by management for Bayer Group debt that is subject to regular review. Interest-rate swaps are concluded to achieve the target structure for Bayer Group debt. A sensitivity analysis based on Bayer's net floating-rate receivables and payables position as of March 31, 2018, taking into account the interest rates relevant for its receivables and payables in all principal currencies, produced the following result: A hypothetical increase of 100 basis points or one percentage point in these interest rates (assuming constant currency exchange rates) as of January 1, 2018, would have raised Bayer's interest expense as of March 31, 2018, by €11 million (December 31, 2017: €13 million). For further information on the market price risks that Bayer is exposed to, see "1.1.23 *The Bayer Group is exposed to financial risk, including liquidity, credit and market price risks.*"

#### **10.18.4 Financial Risks Associated with Pension Obligations**

The Bayer Group has obligations to current and former employees related to pensions and other post-employment benefits. Changes in relevant measurement parameters such as interest rates, mortality and salary increase rates may raise the present value of Bayer's pension obligations. This may lead to increased costs for pension plans or diminish equity due to actuarial losses being recognized as other comprehensive income in the statement of comprehensive income. A large proportion of Bayer's pension and other post-employment benefit obligations is covered by plan assets including fixed-income securities, shares, real estate and other investments. Declining or even negative returns on these investments may adversely affect the future fair value of plan assets. Both these effects may negatively impact the development of equity and / or earnings and / or may necessitate additional payments by Bayer. Bayer addresses the risk of market-related fluctuations in the fair value of its plan assets through balanced strategic investment, and constantly monitors investment risks in regard to its global pension obligations. For further information on the financial risks that Bayer is exposed to with regard to its pension obligations, see "1.1.24 *The Bayer Group faces risks from capital market developments in connection with its pension and post-employment benefit obligations.*"

#### **10.18.5 Tax risks**

Bayer AG and its subsidiaries operate worldwide and are thus subject to many different national tax laws and regulations. Bayer Group companies are regularly audited by the tax authorities in various countries. Amendments to tax laws and regulations, legal judgments and their interpretation by the tax authorities, and the findings of tax audits in these countries may result in higher tax expense and payments, thus also influencing the level of tax receivables, tax liabilities and deferred tax assets and liabilities. Bayer counters the resulting risks by continuously identifying and evaluating the tax framework. For further information on the tax risks that Bayer is exposed to, see "1.1.27 *Due to a complex multi-level group structure and the extended geographic reach of Bayer's business activities, Bayer could incur greater tax liabilities than expected and be affected by changes to the regulatory framework in particular in relation to the non-deductibility of interest payments, the future tax treatment of dividend payments in various jurisdictions and the introduction of additional taxes.*" and "1.1.28 *Pending and future tax audits and changes to the interpretation of fiscal regulations could lead to additional tax liabilities.*"

### **10.19 Basic Principles, Methods and Critical Accounting Estimates**

The consolidated financial statements of the Group are based on the principle of the historical cost of acquisition, construction or production, with the exception of the items reflected at fair value, such as for example, financial assets held for trading or available for sale, derivatives and liabilities for which Bayer has made use of the fair value option.

In preparing the consolidated financial statements, the management has to make certain assumptions and estimates that may substantially impact the presentation of the Group's financial position and/or results of operations.

Such estimates, assumptions or the exercise of discretion mainly relate to the useful life of noncurrent assets, the discounted cash flows used for impairment testing and purchase price allocations, and the recognition

of provisions, including those for litigation-related expenses, pensions and other benefits, taxes, environmental compliance and remediation costs, sales allowances, product liability and guarantees. Essential estimates and assumptions that may affect reporting in the various item categories of the financial statements are described under note 4 to the audited consolidated financial statements as of and for the fiscal year ended December 31, 2017. Estimates are based on historical experience and other assumptions that are considered reasonable under given circumstances. They are continually reviewed but may vary from the actual values.

For further information regarding Bayer's critical accounting policies, see note 4 to the audited consolidated financial statements as of and for the fiscal year ended December 31, 2017. For additional information on the effects new financial reporting standards have on Bayer, see note 3 to the audited consolidated financial statements as of and for the fiscal year ended December 31, 2017.

## 11. BUSINESS

### 11.1 Overview

Bayer is a globally operating life science company with a more than 150-year history and core competencies in the areas of health care and agriculture. With our innovative products, we believe we are helping to find solutions to some of the major challenges of our time. With life expectancy continuing to rise, we are striving to improve quality of life for a growing population by focusing our research and development activities on preventing, alleviating and treating diseases. We are also aiming to make an important contribution to providing a reliable supply of high-quality food, feed and plant-based raw materials.

Our goal is to create value for our customers, stockholders and employees, while at the same time strengthening the group's profitability. We are further committed to operating sustainably and addressing our social and ethical responsibilities. To achieve our goals, we build on our employees as well as our core strengths which include establishing leading businesses and brands, our ability to deliver continuously successful operating performance, our ability to innovate, our strong track record of value creation through portfolio management, process excellence, as well as our ability to attract, develop and retain talented people.

Our operations are currently managed in three divisions, Pharmaceuticals, Consumer Health and Crop Science, and a business unit Animal Health, each of which is also a reportable segment. The operational business is managed by Bayer AG as the parent company of the Bayer Group, represented by the Board of Management, and is supported by the corporate functions, Business Services and the service company Currenta. The operational activities of our three divisions and one business unit may be briefly summarized as follows:

- *Pharmaceuticals:* Pharmaceuticals focuses on researching, developing and marketing prescription products, especially for cardiology and women's health care, and on specialty therapeutics in the areas of oncology, hematology and ophthalmology. The division also comprises the radiology business, which markets diagnostic imaging equipment together with the necessary contrast agents.
- *Consumer Health:* Consumer Health markets nonprescription OTC medicines, medical products and cosmetics in the dermatology, nutritional supplement, analgesic, digestive health, allergy, cold, foot care and sun protection categories, to treat and prevent diseases and to improve well-being through self-care solutions.
- *Crop Science:* Crop Science is an agriculture enterprise with businesses in crop protection, seeds and nonagricultural pest and weed control. Upon completion of the Transaction on June 7, 2018, described in more detail below, Crop Science is Bayer's largest division in terms of net sales. Crop Science markets a broad range of high-value seeds and innovative pest management solutions, while at the same time providing extensive customer service for sustainable agriculture. In addition, it provides products and services for professional nonagricultural applications, such as vector control (i.e., methods for the avoidance or targeted control of pathogens transmitting organisms), pest control and forestry.
- *Animal Health:* The Animal Health business unit develops and markets veterinary products and solutions for the prevention and treatment of diseases in farm and companion animals and ranks among the innovators in its field.

On September 14, 2016, Bayer entered into a Merger Agreement with Monsanto, a global provider of agricultural products, including seeds and trait technologies, herbicides, and digital platforms to give farmers agronomic recommendations. The Merger Agreement provided for Bayer's acquisition (through a merger) of all outstanding shares of Monsanto Company against a payment of US\$128.00 per share in cash which at the time corresponded to an expected transaction value of approximately US\$66 billion as of May 31, 2016. As of the date of this Offering Memorandum, this corresponds to a transaction value of approximately US\$63 billion taking into account Monsanto's debt outstanding as of February 28, 2018. The Transaction, which was subject to customary closing conditions, including the receipt of required antitrust and other regulatory approvals, was completed on June 7, 2018 after all required closing conditions were satisfied or waived. Upon completion of the Transaction, Crop Science including Monsanto's business became Bayer's largest division in terms of net sales and, upon this basis, Bayer intends to create a global leader committed to transforming agriculture, which offers advanced

customized agronomic solutions designed to help farmers achieve the productivity increases needed to feed an ever growing world population. For more information on the Transaction, see “6. *The Acquisition of Monsanto.*”

In connection with obtaining required antitrust approvals to complete the Transaction Bayer, in separate transactions entered into in October 2017 and April 2018, respectively, has agreed to sell selected Crop Science businesses to BASF. For more information, see “6.10 *Overview of Transaction-related Divestments.*”

Until its deconsolidation at the end of September 2017, Covestro AG, which is a global provider of high-tech polymer materials and associated application solutions, was an additional reportable segment of Bayer. For summary on the business of Covestro and its deconsolidation, see “11.4.5 *Covestro.*” For information on our recent corporate reorganization see “10.2 *Recent Reorganizations of the Group.*”

Apart from the Transaction, Bayer has engaged in a number of strategic acquisitions and divestitures over the past years, including the acquisition of the consumer care business of the U.S. company Merck & Co., Inc. in 2014. For further information on our divestitures and acquisitions over the past years, see “10.3.1 *Previous Transactions.*”

Bayer AG is the ultimate parent company within the Group, which comprised 237 consolidated companies in 79 countries and employed 99,820 persons (full-time equivalents) as of December 31, 2017. In 2017, Bayer recognized external net sales of €35,015 million (2016: €34,943 million) and EBIT of €5,903 million (2016: €5,738 million). The individual segments contributed to the total external net sales and EBIT in 2017 as follows: Pharmaceuticals: €16,847 million in external net sales (48.1%), €4,325 million in EBIT (73.3%); Consumer Health: €5,862 million in external net sales (16.7%), €518 million in EBIT (8.8%); Crop Science: €9,577 million in external net sales (27.4%), €1,235 million in EBIT (20.9%), and Animal Health: €1,571 million in external net sales (4.5%), €307 million in EBIT (5.2%).

For the three months ended March 31, 2018, Bayer recognized external net sales of €9,138 million (three months ended March 31, 2017: €9,680 million) and EBIT of €2,310 million (three months ended March 31, 2017: €2,427 million). The individual segments contributed to the total external net sales and EBIT in the three months ended March 31, 2018 as follows: Pharmaceuticals: €4,075 million in external net sales (44.6%), €1,163 million in EBIT (50.3%); Consumer Health: €1,409 million in external net sales (15.4%), €211 million in EBIT (9.1%); Crop Science: €2,861 million in external net sales (31.3%), €892 million in EBIT (38.6%) and Animal Health: €414 million in external net sales (4.5%), €129 million in EBIT (5.6%).

In geographical terms and in terms of external net sales by destination, the individual regions contributed to the total external net sales in 2017 as follows: Europe / Middle East / Africa: €13,388 million (38.2%); North America: €10,143 million (29.0%); Asia / Pacific: €7,637 million (21.8%) and Latin America: €3,847 million (11.0%).

For the three months ended March 31, 2018, the individual regions contributed to the total external net sales (by destination) of €9,138 million as follows: Europe / Middle East / Africa: €3,907 million (42.8%); North America: €2,654 million (29.0%); Asia / Pacific: €1,927 million (21.1%) and Latin America: €650 million (7.1%).

## **11.2 Competitive Strengths**

Bayer believes that the development of its business is supported by the following competitive strengths:

### **11.2.1 Ability to Build and Maintain Leadership Positions in Our Markets of Focus to Create Value**

Bayer occupies leading positions in a number of its areas of focus. In this way we create value for our customers, shareholders and employees, while at the same time strengthening the Group’s profitability. We believe that Pharmaceuticals has established itself as one of the world’s market leaders in the therapeutic areas of cardiology, hematology, radiology and women’s health care. Consumer Health, through its strong portfolio of brands, has become a major global seller of nonprescription OTC products. Crop Science, as a result of the Transaction and upon the successful integration of Monsanto, aims to become a global leader committed to transforming agriculture, which offers advanced customized agronomic solutions designed to help farmers achieve the productivity increases needed to feed an ever growing world population. Additionally, Animal Health ranks among the innovators in its field.



### **11.2.2 Well-Positioned to Deliver Continuously Strong Operating Performance**

Bayer has a long-standing record of successful operating performance and a strong reputation for high-quality products, which is underpinned by a stringent, group-wide quality management. Since 2010, the Group has continuously delivered growth in terms of external net sales, EBITDA before special items, EBITDA margin before special items and Core EPS. We strive to maintain and further build on these results in the future, and consider ourselves to be well-positioned to do so. With respect to Pharmaceuticals, we believe the combined peak sales potential of our key growth products, Xarelto™, EYLEA™, Xofigo™, Stivarga™ and Adempas™, to be at above €10 billion, which is expected to drive future growth at Pharmaceuticals. Regarding Crop Science, we expect to benefit from a cyclical upswing and long-term above GDP growth potential due to several macro-economic trends, such as a growing world population, a decrease in land available for agriculture per capita and a simultaneous increase in demand for yield/productivity increases.

### **11.2.3 Successful Focus on Innovation to Foster Growth**

As a business driven by innovation, we have succeeded in establishing an innovation culture which has driven the success of our key growth products and which we believe will continue to be crucial to our success in the future. The know-how and skills of our employees are our most valuable resource in this regard. We have increased our R&D investments in recent years and Bayer (excluding Monsanto) plans to invest around €4.1 billion in 2018. At Pharmaceuticals, we believe that some of our most promising late-stage pipeline assets, vericiguat, finerenone, vilaprisan, darolutamide (previously ODM-201), anetumab ravtansine and copanlisib, have a combined peak sales potential of equal to or more than €6 billion, assuming that regulatory approvals are obtained, and market launches occur, according to plan. Consumer Health intends to further accelerate innovation by creating more efficient processes, increasing customer-centricity of its innovation efforts and building new digital capabilities. At Crop Science, we are pursuing the advancement of a strong pipeline across crops, indications and technologies. Following completion of the Transaction, we intend to deploy the Combined Agriculture Business' joint innovation capabilities to deliver enhanced solutions for the next generation of farming. We will focus on delivering integrated systems based on technologies optimally designed to work together to increase efficiency in farming for our customers.

### **11.2.4 Strong Track Record of Value Creation through Portfolio Management**

We have a history of delivering value to our shareholders through active portfolio management. In the course of transitioning to a life science business, Bayer has closed around 150 deals since 2005, with a total transaction value of approximately €60 billion. In recent years, Bayer has successfully integrated the Merck Consumer Care Business and has divested most of its interest in Covestro, mainly in connection with Covestro's stock market floatation and through subsequent sales of Covestro's shares; we have also disposed of our Diabetes Care Business and our Environmental Science Consumer Business. Bayer intends to build on this strong track record also with respect to the Transaction, which we expect will be no more complex than previous integrations such as the acquisition of Schering AG in 2006.

Our portfolio management approach is based on clearly defined general portfolio criteria which include our focus on markets with long-term above GDP growth potential, the ability to create attractive returns, success driven by innovation-based business models, or the potential to achieve leadership positions. Our portfolio management decisions are based on regular portfolio review and market opportunity. We consider strong value creation to be imperative, and evaluate key performance indicators such as sales growth relative to market, Core EPS accretion and value generation. In managing our portfolio we also consider whether Bayer is the best owner for a potential target and adhere to the basic principle that no capital should be allocated to one business at the cost of underinvestment in another.

### **11.2.5 Process Excellence**

Our global and local platforms of support functions, as well as a global supply network, are key underlying value drivers for Bayer, which we are continuously enhancing. This enables our businesses to focus on their commercial operations, while relying on the most professional and efficient support functions. Bayer Business Services, for example, provides an array of professional shared services in IT, procurement, human resources, finance and accounting, and also includes an in-house management consulting unit.

### 11.3 Group Strategy and Targets

Bayer is committed to addressing some of today's most pressing global challenges in health and nutrition by striving to drive the development of better medicines and the production of high-quality food through innovative solutions. Alongside our goal of achieving economic success, we also seek to make a responsible contribution to the United Nations Sustainable Development Goals "Good Health and Well-Being" and "Zero Hunger" within the scope of our entrepreneurial possibilities. We further strive to meet our responsibility to the environment and society, and to continuously develop our businesses such that they assume and maintain leadership positions in their respective industries and segments to achieve long-term success for our Company. We invest in a diversified portfolio of strong businesses that have historically created value and which we expect to create value in the future. Our efforts are sustained by our employees and our core competencies of innovation, customer focus, quality, process excellence and portfolio management. To advance in the consistent implementation of our strategy, we have set ambitious group targets for our company (excluding Monsanto) in the areas of growth and profitability, innovation, sustainability and employees. While the combined business and operations of Bayer and Monsanto will be managed by applying Bayer's principles, business practices and procedures following completion of the Transaction, the specific targets and goals set by Bayer prior to the Transaction will be reevaluated.

#### 11.3.1 Growth & Profitability

One of our prime objectives is to achieve profitable growth in order to steadily increase our enterprise value and sustain Bayer as a going concern. Economic planning and management for Bayer takes place within a framework for the segments determined by the Board of Management in the course of the strategic management process and translated into specific targets during operational planning. Continuous monitoring of business developments complements the planning and management process, and key management and performance indicators are regularly updated. This process also involves implementing strategic objectives and adopting countermeasures in the event of deviations from the budget. Moreover, the Board of Management uses targets and performance indicators to steer the company's sustainable alignment.

For more information on our key performance indicators, which we use to plan, manage and monitor the development of our business, see "8.4 Additional Key Figures for the Bayer Group."

#### 11.3.2 Innovation

Innovation is one of our core competencies and therefore a cornerstone of our Group strategy. We define innovations as new solutions that generate added value for our customers and society. The R&D activities we pursue are aligned with the innovation strategies of our segments. At Pharmaceuticals, Crop Science and Animal Health, these activities focus on the research and development of safe and sustainable active ingredients to meet the need for new pharmaceutical and crop protection products as well as of new seed products. Meanwhile, Consumer Health concentrates primarily on the development of new, non-prescription products and solutions, such as improved product formulations, packaging, technical applications and medical devices. Second, the transition of prescription drugs to OTC status is a key tool for meeting the growing desire of customers for self-care products.

Bayer maintains a global network of R&D locations, which employ more than 14,000 researchers. In 2017, we increased our R&D investment by 3.1% on a currency-adjusted basis to €4,504 million. Bayer (excluding Monsanto) plans to invest around €4.1 billion in R&D in 2018.

Globally reliable protection of intellectual property rights is particularly relevant for an innovation company like Bayer. Depending on the legal framework, we therefore endeavor to obtain patent protection for our products and technologies in major markets. When we successfully market patent-protected products, this enables us to reinvest the profits in sustainable research and development. Several years can pass between the time we submit a product approval application and market launch of a product, so only a few years are left for generating a return on the investment in this intellectual property. At the end of 2017, we owned approximately 48,100 valid patent applications and patents worldwide relating to more than 4,700 protected inventions. For more information on Bayer's patent protection strategy and its intellectual property more generally, see "11.8 Intellectual Property."

Partnerships are integral to our innovation strategy. We enter into strategic alliances with various partners such as universities, governmental agencies, start-ups, suppliers and industry. This gives us access to complementary technologies and expertise that expand our framework conditions for innovation. Our open innovation network spans all parts of the company along the value chain. Our open innovation portal offers a platform for interdisciplinary collaborations between different organizational units. We also invest in venture capital



funds that finance life science start-up companies, among other projects. Our newly established, cross-segment LifeHub in Boston, Massachusetts, United States, reinforces our opportunities to work with leading partners to develop new health care and nutrition solutions.

Another key tool for achieving our strategic goals is the use of new, groundbreaking technologies. We pursue such technologies through the activities of Leaps by Bayer (formerly Lifescience Center) and our Life Science Collaboration program.

In May 2016, ERS Genomics, Ireland (“ERS”), agreed to give Bayer access to ERS’s CRISPR-Cas9 genome-editing patents, granting us rights for defined research applications of this technology. In August 2016, Casebia Therapeutics LLC, established by us and CRISPR Therapeutics in March 2016, launched operations to develop new, trend-setting therapeutics to treat blood diseases, blindness and congenital heart disease. In December 2016, Bayer and Versant Ventures established the company BlueRock Therapeutics, which will be active in the area of regenerative medicine. The company plans to develop highly efficient therapies based on induced pluripotent stem cells to cure various cardiovascular diseases, neurological disorders and diseases of the central nervous system.

In 2017, Bayer signed a global exclusive cooperation agreement with the biopharmaceutical company Loxo Oncology, Inc., Stamford, Connecticut, United States (“**Loxo Oncology, Inc.**”), for the development and commercialization of larotrectinib (LOXO-101) and LOXO-195. Both compounds are being investigated in global studies for the treatment of patients with cancers harboring tropomyosin receptor kinase (TRK) gene fusions, which are genetic alterations across a wide range of tumors resulting in uncontrolled TRK signaling and tumor growth. Under the terms of the agreement, Loxo Oncology, Inc., received an upfront payment of USD 400 million and is eligible for USD 450 million in milestone payments upon larotrectinib regulatory approvals and first commercial sale events in certain major markets and an additional USD 200 million in milestone payments upon LOXO-195 regulatory approvals and first commercial sale events in certain major markets. Bayer and Loxo Oncology, Inc. will jointly develop the two products, larotrectinib and LOXO-195, and share development costs on a 50/50 basis. Bayer will lead regulatory activities outside the U.S., and worldwide commercial activities. In the U.S., where Bayer and Loxo Oncology, Inc. will co-promote the products, the parties will share commercial costs and profits on a 50/50 basis. Loxo Oncology, Inc. will remain responsible for the filing in the U.S. Bayer will pay Loxo Oncology tiered double-digit percentage royalties on future net sales outside of the U.S. and milestone payments totaling USD 500 million for sales in U.S. and outside the U.S.

### **11.3.3 Sustainability**

To us, sustainability means safeguarding our future social and economic viability. Understood in this context and as a part of our corporate strategy, sustainability is integrated into our day-to-day procedures. We underline our mission as a company that acts sustainably through our commitment to the U.N. Global Compact (UNGC) and the Responsible Care™ initiative, as well as through our involvement in the World Business Council for Sustainable Development (WBCSD). In our sustainability reporting we have followed the guidelines of the Global Reporting Initiative (GRI) for many years. Bayer is committed to the U.N. Sustainable Development Goals (SDGs) and has published a company position detailing this. Our innovations, products and services aim to contribute to overcoming some of the biggest global challenges, including the goals of “Zero Hunger” (SDG 2) and “Good Health and Well-Being” (SDG 3) in particular.

Our defined targets with respect to our sustainability efforts involved the evaluation of all strategically important suppliers by 2017 as well as of potentially high-risk suppliers, i.e., those showing a sustainability risk based on a combination of country and category sustainability risks as well as a significant Bayer spend, by 2020. We also aim to achieve significant gains in energy efficiency and decreases in specific greenhouse gas emissions. Further, we have set goals to increase occupational safety and to assess the hazard potential of all substances used in quantities exceeding one metric ton p.a., and have established an annual compliance training for virtually all of our managers.

Responsibility for the Group’s sustainable orientation is concentrated centrally at the level of the Board of Management, as well as at the operational levels throughout the value chain. For further information on how sustainability management is organized at Bayer, refer to “11.12 Sustainability.”

We engage in an ongoing and systematic dialogue with our stakeholders since their expectations and viewpoints affect public acceptance of Bayer and thus our commercial success. We also believe this approach enables us to recognize trends and developments in society and our markets at an early stage and provide input for the continuing development of our business activities, risk management and reporting.

### 11.3.4 Employees

Our business success is based to a large extent on the knowledge, skills, commitment and satisfaction of our employees. As a global life science company, we build on our highly qualified employees and we are constantly striving to attract people, whose personal ambitions, qualifications and values are in line with our own. Our globally established employer branding “Passion to Innovate | Power to Change” describes our work culture and makes clear what we expect of our employees and, at the same time, what we as a company offer them. We use our employer branding internally to enhance employee identification and externally to position the company on the employment market. The Group hired 11,731 new employees on a full-time equivalent basis in 2017. As of December 31, 2017, the Group employed 99,820 employees in total.

To meet the need for skilled employees, Bayer provides sound training in more than 20 different occupations and offers more vocational training places than required to meet its needs. In 2017, 746 young people started a vocational training course at Bayer in Germany alone. In addition, Bayer offers trainee programs in various areas for those embarking on a career and internships for students around the world. Furthermore, employees in all fields are able to take part in extensive ongoing training opportunities. We bundle our Group-wide continuing education offerings in the Bayer Academy, which offers both continuous professional training and systematic development of managerial employees and has received numerous international awards.

As a reflection of our dedication to continuous improvement, we have set ambitious targets regarding our employees. First, we aim to continuously improve employee engagement. Additionally, we intend to increase the proportion of women in senior management and the proportion of senior managers from outside the EU, the U.S. and Canada.

## 11.4 Business Operations

The following description provides detailed information on the operations of our current segments Pharmaceuticals, Consumer Health, Crop Science, and Animal Health, which together make up our Life Sciences business, as well as summary information on our former segment Covestro.

### 11.4.1 Pharmaceuticals

#### 11.4.1.1.1 Introduction

Pharmaceuticals primarily engages in the therapeutic areas of cardiology, oncology, women’s health care, hematology as well as ophthalmology, and prior to completion of the Transaction was Bayer’s largest individual segment in terms of net sales, accounting for €16.8 billion, or 48.1%, of Bayer’s external net sales in fiscal year 2017 and of €4.1 billion, or 44.6%, of Bayer’s external net sales in the three months ended March 31, 2018.

The following table presents an overview of the economic performance of Pharmaceuticals for the fiscal years 2015, 2016, 2017 and the three months ended March 31, 2018:

	For the fiscal year ended December 31,			For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2017	2017 <sup>(2)</sup>	2018
	(unaudited, unless otherwise indicated) (in € million)			(unaudited) (in € million)	
<b>Net sales (external)</b> .....	<b>15,308<sup>(3)</sup></b>	<b>16,420<sup>(3)</sup></b>	<b>16,847<sup>(3)</sup></b>	<b>4,263</b>	<b>4,075</b>
<b>Sales by region</b>					
Europe / Middle East / Africa .....	5,981	6,417	6,521	1,606	1,611
North America .....	3,937	4,194	4,229	1,073	923
Asia / Pacific .....	4,319	4,775	5,013	1,312	1,303
Latin America .....	1,071	1,034	1,084	272	238
<b>EBITDA<sup>(4)</sup></b> .....	<b>4,375</b>	<b>5,084</b>	<b>5,576</b>	<b>1,499</b>	<b>1,414</b>
Special Items .....	(241)	(167)	(135)	(3)	(1)
<b>EBITDA before special items<sup>(4)</sup></b> .....	<b>4,616<sup>(3)</sup></b>	<b>5,251<sup>(3)</sup></b>	<b>5,711<sup>(3)</sup></b>	<b>1,502</b>	<b>1,415</b>
<b>EBIT<sup>(4)</sup></b> .....	<b>3,028<sup>(3)</sup></b>	<b>3,389<sup>(3)</sup></b>	<b>4,325<sup>(3)</sup></b>	<b>1,219</b>	<b>1,163</b>
Special Items .....	(299)	(558)	(340)	(36)	(1)
<b>EBIT before special items<sup>(4)</sup></b> .....	<b>3,327<sup>(3)</sup></b>	<b>3,947<sup>(3)</sup></b>	<b>4,665<sup>(3)</sup></b>	<b>1,255</b>	<b>1,164</b>
<b>Net cash provided by operating activities</b> .....	<b>3,157<sup>(3)</sup></b>	<b>3,368<sup>(3)</sup></b>	<b>3,867<sup>(3)</sup></b>	<b>973</b>	<b>1,232</b>

- (1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.
- (2) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.
- (3) Audited for the fiscal years ended December 31, 2015, 2016 and 2017.
- (4) Alternative Performance Measure used by Bayer, for more information see “8.4 Additional Key Figures for the Bayer Group.”

#### 11.4.1.2 Strategy

Demographic change is impacting health care systems through the growing number of chronic diseases and the increasing occurrence of multiple conditions. Pharmaceuticals is seeking to contribute to medical progress through its focus on researching, developing and marketing innovative medicines that provide significant clinical benefit and value, primarily in cardiology, oncology, women’s health, hematology and ophthalmology.

Pharmaceuticals expects its medium-term growth to be primarily driven by its successfully launched products Xarelto™, EYLEA™, Stivarga™, Xofigo™ and Adempas™. To safeguard long-term growth, the business continues to invest in R&D. Here its efforts are focused on the areas in which Pharmaceuticals sees a substantial need for innovation and can make a major impact through the expertise amassed by its researchers. This is true especially for cardiovascular diseases, cancer and certain uses in women’s health. To supplement its R&D activities, Pharmaceuticals will continue to expand its portfolio through acquisitions, licensing agreements and external collaborations while maintaining a targeted approach.

In some countries where sections of the population have no access to innovative medicines via health care systems, Pharmaceuticals has established patient assistance programs for selected products. These aim particularly to provide access to oncology and cardiovascular products and products to treat chronic diseases such as multiple sclerosis and hemophilia. Such programs exist in the United States, China, South Africa, a number of countries in Southeast Asia, and other regions.

#### 11.4.1.3 Products

##### 11.4.1.3.1 Overview of Key Products

The growth of Pharmaceuticals in 2017 was mainly driven by its key growth products, Xarelto™, EYLEA™, Stivarga™, Xofigo™ and Adempas™, which contributed combined external net sales of €6,196 million in 2017. The combined peak sales potential estimate for these products amounts to more than €10 billion.

In the following, we briefly describe Pharmaceuticals’ best-selling products in fiscal years 2015 through 2017 and in the three months ended March 31, 2018 by therapeutic area. The top fifteen best-selling products in each year and in the three months ended March 31, 2018, as presented under “10.10.2.1.1 Net Sales,” “10.9.2.1.1 Net Sales” and “10.8.2.1.1 Net Sales” accounted for approximately three-quarters of Pharmaceuticals’ sales in each of these periods.

##### 11.4.1.3.1.1 Cardiovascular

Xarelto™ (active ingredient: rivaroxaban): Xarelto™ is an oral anticoagulant for the treatment and prevention of blood clots. Rivaroxaban, the Xarelto™ active ingredient, was invented by Bayer and is being jointly developed with Janssen Research & Development, LLC, United States (“**Janssen R&D**”), a subsidiary of Johnson & Johnson. In the United States, Xarelto™ is marketed by Janssen Pharmaceuticals, Inc. (“**Janssen Pharmaceuticals**”), also a subsidiary of Johnson & Johnson, and Bayer earns royalties on Xarelto™ sales.

For information on ongoing litigation concerning Xarelto™, see “1.1.13 Bayer is exposed to material risks from legal disputes and proceedings.”, “11.15.1 Product-related Litigation.” and “11.15.2 Patent Disputes.”

Adempas™ (active ingredient: riociguat): Adempas™ is a member of a class of vasodilation agents known as soluble guanylate cyclase (sGC) modulators for the treatment of particular forms of chronic thromboembolic pulmonary hypertension (CTEPH) and pulmonary arterial hypertension (PAH). The development and commercialization of sGC modulators is part of Pharmaceuticals’ strategic collaboration with Merck & Co., Inc.

For information on patent infringement suits filed by Bayer regarding Adempas™, see “11.15.2 Patent Disputes”.

Adalat™ (active ingredient: nifedipine): Adalat™ is used to treat hypertension and coronary heart disease and is administered orally in tablet form.

Aspirin™ Cardio (active ingredient: acetylsalicylic acid): Aspirin™ Cardio is used for the secondary prevention of heart attacks.

#### 11.4.1.3.1.2 Oncology

Stivarga™ (active ingredient: regorafenib): Stivarga™ is a cancer drug that inhibits various signal pathways that are responsible for tumor growth. Stivarga™ is approved for the treatment of patients with metastatic colorectal cancer (mCRC) and gastrointestinal stromal tumors (GIST). Stivarga™ was developed by Bayer. In 2011, Bayer and Onyx Pharmaceuticals, Inc., a subsidiary of Amgen Inc., United States (“**Onyx Pharmaceuticals**”), agreed that Onyx Pharmaceuticals would receive royalties on global sales of Stivarga™ in the area of cancer treatment.

Regorafenib, the Stivarga™ active ingredient, has also been investigated for treatment of unresectable liver cancer and in the course of 2017 was approved by the United States Food and Drug Administration (“**FDA**”), the Japanese Ministry of Health, Labour and Welfare, the European Commission and the Chinese Food and Drug Administration for the use in the second-line treatment of patients with hepatocellular carcinoma who previously had been treated with sorafenib. For information regarding patent infringement suits filed by Bayer regarding Stivarga™, see “11.15.2 Patent Disputes.”

Xofigo™ (active ingredient: radium-223 dichloride): Xofigo™ is a cancer drug for the treatment of adult patients with castration-resistant prostate cancer (CRPC) with symptomatic bone metastases but no known visceral metastases.

Nexavar™ (active ingredient: sorafenib): Nexavar™ is a cancer drug that inhibits various signal pathways that are responsible for tumor growth. Nexavar™ is approved for the treatment of patients with certain types of liver, kidney or thyroid cancer. Bayer has worldwide exclusive marketing rights for Nexavar™, with Bayer paying a royalty on U.S. sales to Onyx Pharmaceuticals. Outside the U.S., Bayer and Onyx Pharmaceuticals share profits globally, excluding Japan.

For information regarding patent infringement suits filed by Bayer regarding Nexavar™, see “11.15.2 Patent Disputes.”

#### 11.4.1.3.1.3 Ophthalmology

EYLEA™ (active ingredient: aflibercept): EYLEA™ is a product jointly marketed with Regeneron Pharmaceuticals, Inc., United States (“**Regeneron Pharmaceuticals**”). The EYLEA™ active ingredient, aflibercept, blocks the natural growth factor VEGF (vascular endothelial growth factor), thus preventing the abnormal formation of new blood vessels that tend to leak fluid. The medication is administered directly into the eye and is approved for the treatment of wet age-related macular degeneration (AMD), visual impairment due to diabetic macular edema (DME), visual impairment due to macular edema secondary to retinal vein occlusion (RVO) (branch RVO or central RVO) and myopic choroidal neovascularization (mCNV). Regeneron Pharmaceuticals holds exclusive rights to the product in the United States, while in other countries it is marketed by Bayer.

#### 11.4.1.3.1.4 Hematology

Kogenate™/Kovaltry™ (active ingredient: antihemophilic factor (recombinant)): Kogenate™ / Kovaltry™ are blood-clotting medicines allowing for prophylactic treatment of hemophilia A patients to prevent or reduce the frequency of bleeding episodes and in connection with peri-operative management (surgical prophylaxis). It has also demonstrated efficacy and tolerability as an on-demand therapy.

#### 11.4.1.3.1.5 Women’s Health

Mirena™ product family (levonorgestrel-releasing intrauterine system): The Mirena™ product family (Mirena™, Jaydess™ / Skyla™ and Kyleena™) consists of hormone-releasing intrauterine devices providing long-term reversible contraception. For information on ongoing litigation concerning Mirena™, see “11.15.1 Product-related Litigation.”

YAZ™/Yasmin™/Yasminelle™ (active ingredient: drospirenone and ethinyl estradiol): YAZ™, Yasmin™ and Yasminelle™ make up a line of combined oral contraceptives. For information on litigation concerning YAZ™

/ Yasmin™, see “1.1.13 Bayer is exposed to material risks from legal disputes and proceedings.” and “11.15.1 Product-related Litigation.”

#### 11.4.1.3.1.6 Radiology

Gadavist™/Gadovist™ (active ingredient: gadobutrol): Gadavist™ / Gadovist™ is a magnetic resonance imaging (MRI) contrast agent used for MRI to detect pathologies of the whole body in adults and children of all ages.

Ultravist™ (active ingredient: iopromide): Ultravist™ is a X-ray contrast agent suitable for all modern X-ray techniques requiring contrast enhancement.

Medrad™ Stellant™: Medrad™ Stellant™ is a contrast agent injection system used for the specific purpose of injecting intravenous contrast media for diagnostic studies in computed tomography (CT) applications.

#### 11.4.1.3.1.7 Other

Betaferon™/Betaseron™ (active ingredient: interferon beta-1b): Betaferon™ / Betaseron™ is used for the treatment of multiple sclerosis, particularly to reduce the number of relapses in patients with relapsing forms of multiple sclerosis. For information regarding an ongoing patent dispute regarding Betaferon™, see “11.15.2 Patent Disputes.”

Glucobay™ (active ingredient: acarbose): Glucobay™ is a diabetes medication that belongs to the class of oral antidiabetic drugs and is used to control blood glucose.

Avalox™/Avelox™ (active ingredient: moxifloxacin): Avalox™ / Avelox™ is an antibiotic approved for the treatment of infections of the lower and upper airways, the lungs, and in some countries for the treatment of complicated skin and skin structure infections (cSSSI) as well as intraabdominal and pelvic infections.

Levitra™ (active ingredient: vardenafil HCl): Levitra™ is used on demand to treat erectile dysfunction.

Cipro™/Ciprobay™ (active ingredient: ciprofloxacin): Cipro™ / Ciprobay™ is an anti-bacterial drug used for a wide variety of infections.

#### 11.4.1.3.2 Patent Protection for Key Products

The following table provides an overview of key products of Pharmaceuticals, which benefit from significant patent protection, distinguishing by patent-protected feature related to the product, key markets and relevant expiration dates.

Products	Market										
	Germany	France	U.K.	Italy	Spain	Japan	China	Switzerland	Brazil	U.S.A.	Canada
Adempas™ .....											
Active ingredient ..	2028	2028	2023 <sup>(1)</sup>	2028	2028	2027-2028 <sup>(4)</sup>	2023	2028	2023 <sup>(2)</sup>	2023 <sup>(1)</sup>	2023
Production process/intermediate .....	2030	2030	2030	2030	2030	2030	2030	2030	2030 <sup>(2)</sup>	2030	2030
EYLEA™ .....											
Active ingredient ..	2025	2025	2020 <sup>(1)</sup>	2025	2025	2021-2023 <sup>(4)</sup>	2020	2025	2020 <sup>(2)</sup>	–	2020
Formulation .....	2027	2027	2027	2027	2027	2029 <sup>(4)</sup>	2027 <sup>(2)</sup>	2027	2027 <sup>(2)</sup>	–	2027
Kogenate™											
Active ingredient ..	–	–	–	–	–	–	–	–	–	–	2021
Formulation .....	2017	2017	2017	2017	2017	2020	2017	2017	2020	–	2017
Kovaltry™											
Active ingredient ..	–	–	–	–	–	–	–	–	–	–	2021
Formulation .....	2017	2017	2017	2017	2017	2023 <sup>(5)</sup>	2017	2017	2020	–	2017
Production process.....	2018	2018	2018	2018	2018	2023 <sup>(5)</sup>	2018	2018	2023	2018 <sup>(1)</sup>	2018
Production process (cell line/chaperone) ...	2029 <sup>(5)</sup>	2024 <sup>(1)</sup>	2024 <sup>(1)</sup>	2029 <sup>(5)</sup>	2024 <sup>(1)</sup>	2028 <sup>(5)</sup>	–	–	–	2024	2024
Mirena™											
Inserter.....	2029	2029	2029	2029	2029	2029	2029	2029	2029 <sup>(2)</sup>	2031 <sup>(3)</sup>	2029
Nexavar™											
Active ingredient ..	2021	2021	2021	2021	2021	2021-2025 <sup>(4)</sup>	2020	2021	2025	2020	2020
Salt form.....	2022	2022	2022	2022	2022	–	–	2022	–	–	–

	Market										
	Germany	France	U.K.	Italy	Spain	Japan	China	Switzerland	Brazil	U.S.A.	Canada
Polymorph .....	2025	2025	2025	2025	2025	2025-2026 <sup>(4)</sup>	2025	2025	2025 <sup>(2)</sup>	2027	2025
Formulation .....	2026	2026	2026	2026	2026	2027 <sup>(4)</sup>	2026	2026	2026 <sup>(2)</sup>	2028 <sup>(3)</sup>	2026
Stivarga™											
Active ingredient ..	2028	2028	2024 <sup>(1)</sup>	2028	2028	2026 <sup>(4)</sup>	2024	2028	2024 <sup>(2)</sup>	2031	2024
Formulation .....	2025	2025	2025	2025	2025	2026 <sup>(4)</sup>	2025	2025	2025 <sup>(2)</sup>	2031	2025
Production process.....	2031	2031	2031	2031	2031	2031	2031	2031	2031 <sup>(2)</sup>	2031	2031
Xarelto™											
Active ingredient ..	2023	2023	2023	2023	2023	2022-2025 <sup>(4)</sup>	2020	2023	2022	2024	2020
Formulation .....	2024	2024	2024	2024	2024	2028 <sup>(4)</sup>	2024	2024	2024 <sup>(2)</sup>	2024	2024
Xofigo™											
Use .....	2024	2024	2024	2024	2024	2019 <sup>(1)</sup>	2019	2024	–	2022 <sup>(5)</sup>	2019
Production process.....	2031	2031	2031	2031	2031	2031	2031	2031	2031 <sup>(2)</sup>	2031	2031 <sup>(2)</sup>

(1) Current expiration date; patent term extension applied for.

(2) Patent application pending.

(3) Patent term revised.

(4) Application-specific term extension(s).

(5) Patent term extension granted.

For more information on Bayer's patent protection strategy and its intellectual property more generally, see "11.8 Intellectual Property."

#### 11.4.1.4 R&D

##### 11.4.1.4.1 Introduction

Pharmaceuticals focuses its R&D efforts on indications with high medical need in the areas of cardiovascular diseases, oncology, women's health care, hematology and ophthalmology. R&D activities are mainly conducted in Germany, the United States, Japan, China, Finland and Norway.

Pharmaceuticals' spending on R&D has increased every year from 2012 until 2017. In fiscal year 2017, Pharmaceuticals' R&D expenses amounted to 17.1% of Pharmaceuticals' net sales. In addition to conducting clinical trials with drug candidates from its R&D pipeline, Pharmaceuticals' R&D activities focus on strengthening products already on the market through additional development activities to further improve their application and/or expand their spectrum of indications.

In line with Pharmaceuticals' target for 2017, ten new molecular entities ("NMEs") from the research pipeline were transitioned into preclinical development in 2017. For 2018 the target will be the transition of nine NMEs and one new indication or formulation project into preclinical development. In preclinical trials these substances are examined further in various models with respect to their suitability for clinical trials and linked "first-in-man" studies. Bayer defines NMEs as new chemical or biological substances that have not been in development to date.

Clinical trials are an essential tool for determining the efficacy and safety of new drugs before they can be used to diagnose or treat diseases. The benefits and risks of new medicinal products must always be scientifically proven and well documented. Further, the nature of drug discovery and development is such that not all compounds can be expected to meet the predefined project goals. It is possible that any or all of the development projects mentioned in the following may have to be discontinued for scientific and/or commercial reasons and will not result in commercialized products. It is also possible that the requisite FDA, European Medicines Agency ("EMA") or other regulatory approvals will not be granted for the compounds being tested. For more information on the regulatory framework governing product development processes at Pharmaceuticals and the typical stages in the development process, see "12.1.1 Development of Drugs." See also "1.1.6 There can be no assurance that Bayer will identify a sufficient number of research candidates and that Bayer's products will receive and maintain any necessary regulatory approvals, and any increase in regulatory and legal requirements, including as a result of higher public expectations, could lead to more costly and lengthy registration or approval procedures and could impair or preclude Bayer's product development and commercialization efforts."



#### 11.4.1.4.2 Drug Development Pipeline and Drug Candidates Submitted for Approval

The following tables show Pharmaceuticals' most important drug candidates currently in Phase II or Phase III of clinical testing.

<b>R&amp;D Projects (Phase II)<sup>(1)</sup></b>	
<b>Projects</b>	<b>Indication</b>
Anetumab Ravtansine (mesothelin ADC)	Malignant pleural mesothelioma <sup>(2)</sup>
BAY 1128688 (AKR1C3 inhibitor)	Endometriosis
Fulacimstat (BAY 1142524, chymase inhibitor)	Heart failure
Fulacimstat (BAY 1142524, chymase inhibitor)	Chronic kidney disease
BAY 1193397 (AR alpha 2c rec ant.)	Peripheral artery disease (PAD)
BAY 1213790 (anti-FXIIa antibody)	Prevention of thrombosis
BAY 2306001 (IONIS-FXIRx)	Prevention of thrombosis <sup>(3)</sup>
Neladenoson bialanate	Chronic heart failure
Nesvacumab (Ang2 antibody) + aflibercept	Serious eye diseases <sup>(4)</sup>
Radium-223 dichloride	Breast cancer with bone metastases
Radium-223 dichloride	Multiple myeloma
Riociguat	Systemic sclerosis
Vilaprisan (S-PRM)	Endometriosis

(1) As of April 5, 2018

(2) This trial did not meet its primary endpoint. However, it has not yet been terminated. Additional studies investigating anetumab ravtansine as a treatment for different forms of solid tumors are ongoing.

(3) Sponsored by Ionis Pharmaceuticals, Inc.

(4) Sponsored by Regeneron Pharmaceuticals.

<b>R&amp;D Projects (Phase III)<sup>(1)</sup></b>	
<b>Projects</b>	<b>Indication</b>
Copanlisib (PI3K inhibitor)	Various forms of non-Hodgkin lymphoma (NHL)
Darolutamide (ODM-201, AR antagonist)	Castration-resistant nonmetastatic prostate cancer
Darolutamide (ODM-201, AR antagonist)	Hormone-sensitive metastatic prostate cancer
Finerenone (MR antagonist)	Diabetic kidney disease
Molidustat (HIF-PH inhibitor)	Renal anemia
Radium-223 dichloride	Combination treatment of castration-resistant prostate cancer <sup>(2)</sup>
Rivaroxaban	Anticoagulation in patients with chronic heart failure <sup>(3)</sup>
Rivaroxaban	Prevention of venous thromboembolism in high-risk patients after discharge from hospital <sup>(3)</sup>
Rivaroxaban	Peripheral artery disease (PAD)
Rivaroxaban	Venous thromboembolism (VTE) treatment in children
Vericiguat (sGC stimulator)	Chronic heart failure <sup>(4)</sup>
Vilaprisan (S-PRM)	Symptomatic uterine fibroids

(1) As of April 5, 2018

- (2) This trial was unblinded ahead of schedule and there are no patients who are still receiving active treatment. Otherwise, however, the trial is continuing, especially with regard to per protocol patient monitoring. The final assessment has not yet been completed.
- (3) Sponsored by Janssen R&D
- (4) Sponsored by Merck & Co., Inc.

Pharmaceuticals regularly evaluates its R&D pipeline in order to prioritize its most promising projects. Following the completion of all required studies with a number of these drug candidates, applications to one or more regulatory agencies for approvals or approval extensions are submitted. The most important drug candidates currently in the approval process are:

<b>Main Products Submitted for Approval<sup>(1)</sup></b>	
<b>Projects</b>	<b>Indication</b>
Damoctocog alpha pegol (long-acting rFVIII)	Europe, U.S.A., Japan: hemophilia A
Rivaroxaban	Europe, U.S.A.: prevention of major adverse cardiac events (MACE), COMPASS trial
Rivaroxaban <sup>(2)</sup>	U.S.A.: secondary prophylaxis of acute coronary syndrome (ACS), Rivaroxaban in combination with dual antiplatelet therapy (DAPT); ATLAS trial
Larotrectinib (LOXO-101, TRK fusion inhibitor)	U.S.A.: solid tumors with NTRK gene fusions <sup>(3)</sup>

(1) As of April 5, 2018

(2) Submitted by Janssen R&D

(3) Submitted by Loxo Oncology, Inc.

#### 11.4.1.4.3 Key Pipeline Assets

The following table highlights some of Pharmaceuticals' key pipeline assets together with their indication, peak sales potential and expected year of launch. Bayer's Board of Management believes that the pipeline projects described below have a combined peak sales potential of €6 billion or more.

<b>Key Pharma Pipeline Assets With Combined Peak Sales Potential of ≥ €6 billion</b>			
<b>Pipeline Project</b>	<b>Indication</b>	<b>Peak Sales Potential</b>	<b>Expected Launch Date</b>
Vericiguat <sup>(1)</sup>	Worsening chronic heart failure	~ €0.5bn	2021
Finerenone	Diabetic kidney disease	≥ €1.0bn	2021
Vilaprisan	Uterine fibroids	≥ €1.0bn	2021
Darolutamide (previously: ODM-201, AR antagonist)	Non-metastatic castration-resistant prostate cancer; metastatic hormone-sensitive prostate cancer	≥ €1.0bn	2019
Anetumab Ravtansine	Various cancer types, including ovarian cancer and mesothelioma	≥ €2.0bn	2019
Copanlisib	Lymphoma	≥ €0.5bn	2018

(1) Sponsored by Merck & Co.

#### 11.4.1.4.4 Collaborations and Strategic Alliances

While Pharmaceuticals operates its own science and innovation centers, Pharmaceuticals also augments its own research capacities through collaborations and strategic alliances with external industrial and academic research partners. This enables it to gain access to complementary technologies and external innovation potential.



The following table provides summary information on Pharmaceuticals' current main collaborations:

<b>Main Cooperations</b>	
<b>Partner</b>	<b>Cooperation objective</b>
Broad Institute	Strategic partnership in the field of genome and drug research in cardiology aimed at using findings from human genetics to develop new cardiovascular therapies and in the field of oncology to identify and develop active ingredients that target tumor-specific gene alterations
German Cancer Research Center (DKFZ)	Strategic partnership for the investigation and development of new therapeutic options in oncology, especially in immunotherapy
Evotec AG	Collaboration to identify development candidates for the treatment of endometriosis and kidney diseases
ImmunoGen Inc.	Development of antibody-drug conjugates (ADCs) for novel tumor therapies
Janssen Research & Development, LLC of Johnson & Johnson	Development of Xarelto™ (rivaroxaban)
Loxo Oncology, Inc.	Development and marketing of larotrectinib (LOXO-101) and LOXO-195 for the treatment of cancer patients with a mutation of the TRK gene
Merck & Co., Inc.	Development and marketing collaboration in the field of soluble guanylate cyclase (sGC) modulation
MorphoSys AG	Development of antibody-drug conjugates using MorphoSys's HuCAL technology
Orion Corporation	Development of darolutamide (previously ODM-201) for the treatment of patients with prostate cancer
PeptiDream Inc.	Active ingredient research in various therapeutic areas and target classes with the help of PeptiDream's Peptide Discovery Platform System technology
Regeneron Pharmaceuticals Inc.	Development of EYLEA™ (afibercept) to treat various eye diseases  Development of a combination therapy of the anti-angiopoietin-2 (Ang-2) antibody nesvacumab and afibercept for the treatment of serious eye diseases
Vanderbilt University Medical Center	Strategic research alliance to identify and develop new potential active ingredients for the treatment of kidney diseases

For information on two significant cooperations with CRISPR Therapeutics and Versant Ventures and conducted at Leaps by Bayer and further information on the cooperation with Loxo Oncology, Inc., refer to "11.3.2 Innovation."

#### 11.4.1.5 Markets and Distribution

##### 11.4.1.5.1 Markets and Competition

Growth in the global pharmaceuticals market was below the prior-year level at 3% in 2017<sup>17</sup> (2016: 5%<sup>18</sup>). Intensified pricing pressure caused by generic competition and health care reforms led to lower growth in all regions compared with the prior year. The pharmaceuticals market is forecasted to post slightly higher growth in 2018 (4%)

<sup>17</sup> CBI – IQVIA Market Prognosis

<sup>18</sup> Quintiles IMS – Market Prognosis March 2017 Update

than in 2017.<sup>19</sup> In Bayer's view, the main growth drivers are likely to be new product launches. The expiration of patents is expected to have a negative impact as it could result in increased competition from generics. Bayer expects a positive development in the United States, Europe, Latin America and Asia, but slower growth in the Japanese pharmaceuticals market.

In general, the increase in quality of life and life expectancy is leading to a heightened focus on the medical care needs of elderly patients. Accordingly, Bayer believes that Pharmaceuticals' concentration on certain partly age-related diseases such as cancer or chronic cardiovascular disorders harbors opportunities for the business. In response to the growing demand for innovative health care products to treat age-related diseases, Pharmaceuticals is concentrating its research and development activities on relevant therapeutic areas.

There is a risk that Pharmaceuticals' growth and market share could be impeded by continued increasing global cost pressure on health care systems, price regulations and pressure on prices due to aggressive price policies by competitors and generic suppliers. Price controls and pricing pressure reduce earnings from the business' pharmaceutical products and may occasionally make the market launch of a new product unprofitable. Bayer expects the current extent of regulatory controls and pricing pressure to persist or increase. For more information on the regulatory environment, in which Pharmaceuticals operates, see "12.1 Pharmaceuticals" and "1.1.17 Pharmaceuticals is exposed to pricing pressure resulting from regulation and market conditions, which may negatively impact Bayer's business and results of operations."

A further factor is that Pharmaceuticals operates in the highly competitive life science markets, see also "1.1.4 The industries in which Bayer operates are highly competitive, and competitive pressure could increase. Furthermore, disruptive technologies or changes to competitors' business models may adversely affect Bayer's business." Pharmaceuticals encounters competition in all of its geographical markets from large national and international competitors. Furthermore, corporate mergers, along with business practices such as aggressive pricing strategies – not only in the field of generic competition – may adversely affect Pharmaceuticals' earnings.

In the following, we provide an overview of Pharmaceuticals' main competitors by therapeutic areas with a focus on some of its key products:

- Cardiovascular: Actelion (a Janssen Pharmaceuticals company of Johnson and Johnson), Boehringer Ingelheim, Bristol-Myers Squibb and Pfizer (as partners with respect to selected products), Daiichi Sankyo.
- Oncology: Astellas Pharma, Bristol-Myers Squibb, Janssen Pharmaceuticals (a Johnson & Johnson company), Merck, Pfizer, Roche, Sanofi.
- Ophthalmology: Allergan, Novartis.
- Hematology: Bioverativ, CSL Behring, Novo Nordisk, Octopharma, Pfizer, Shire (formerly Baxalta), Swedish Orphan Biovitrum (SOBI).
- Women's Health: Allergan, Gedeon Richter, Merck, Teva.
- Radiology: Bracco, General Electric, Guerbet.

#### 11.4.1.5.2 Distribution

The products of Pharmaceuticals are primarily distributed through wholesalers, pharmacies and hospitals as well as, to a limited extent, directly to patients. Pharmaceuticals is further bound by all codes of the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA), which serve as a minimum global standard for all of Bayer's pharmaceutical products. In addition, Bayer observes the codes of the European Federation of Pharmaceutical Industries and Associations (EFPIA) for dealings with health care professionals and patient organizations. The WHO's Ethical Criteria for Medicinal Drug Promotion, together with national ethical standards that are usually also enshrined in industry codes at the local level, represent the minimum standard for the advertising of human pharmaceutical products at Bayer. For further information on regulation with respect to the marketing of drugs see "12.1.2 Promotional and Pricing Practices, Marketing and Distribution of Drugs." Pharmaceuticals is actively engaged in dialogues with patient organizations and groups so as to improve disease awareness and access to innovative therapies.

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<sup>19</sup> CBI – IQVIA Market Prognosis

## 11.4.2 Consumer Health

### 11.4.2.1 Introduction

Consumer Health markets nonprescription OTC medicines, medical products and cosmetics in the dermatology, nutritional supplement, analgesic, digestive health, allergy, cold, foot care and sun protection categories, to treat and prevent diseases and to improve well-being through self-care solutions. These products include globally known brands such as Claritin™, Aspirin™, Aleve™, Bepanthen™ / Bepanthol™, Canesten™, Dr. Scholl's™ (only in the Americas) and Coppertone™.

Consumer Health has successfully integrated a number of acquired businesses since 2005, including the Merck Consumer Care Business and Dihon Pharmaceutical Group Co. Ltd., China, a pharmaceutical company specializing in the manufacture and marketing of OTC and herbal traditional Chinese medicine products, both of which it acquired in 2014.

The following table presents an overview of the economic performance of Consumer Health for the fiscal years 2015, 2016 and 2017 and the three months ended March 31, 2018:

	For the fiscal year ended December 31,			For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2017	2017 <sup>(2)</sup>	2018
	(unaudited, unless otherwise indicated)			(unaudited)	
	(in € million)			(in € million)	
<b>Net sales (external)</b> .....	<b>6,076<sup>(3)</sup></b>	<b>6,037<sup>(3)</sup></b>	<b>5,862<sup>(3)</sup></b>	<b>1,601</b>	<b>1,409</b>
<b>Sales by region</b>					
Europe / Middle East / Africa .....	1,955	1,918	1,962	538	496
North America.....	2,635	2,627	2,480	701	596
Asia / Pacific .....	738	781	738	220	177
Latin America.....	748	711	682	142	140
<b>EBITDA<sup>(4)</sup></b> .....	<b>1,222</b>	<b>1,296</b>	<b>1,145</b>	<b>384</b>	<b>308</b>
Special Items .....	(234)	(115)	(86)	(8)	(5)
<b>EBITDA before special items<sup>(4)</sup></b> .....	<b>1,456<sup>(3)</sup></b>	<b>1,411<sup>(3)</sup></b>	<b>1,231<sup>(3)</sup></b>	<b>392</b>	<b>313</b>
<b>EBIT<sup>(4)</sup></b> .....	<b>768<sup>(3)</sup></b>	<b>695<sup>(3)</sup></b>	<b>518<sup>(3)</sup></b>	<b>278</b>	<b>211</b>
Special Items .....	(237)	(292)	(300)	(9)	(5)
<b>EBIT before special items<sup>(4)</sup></b> .....	<b>1,005<sup>(3)</sup></b>	<b>987<sup>(3)</sup></b>	<b>818<sup>(3)</sup></b>	<b>287</b>	<b>216</b>
<b>Net cash provided by operating activities</b> .....	<b>816<sup>(3)</sup></b>	<b>874<sup>(3)</sup></b>	<b>1,059<sup>(3)</sup></b>	<b>265</b>	<b>173</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(3) Audited for the fiscal years ended December 31, 2015, 2016 and 2017.

(4) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

### 11.4.2.2 Strategy

Increasing cost pressure on public health care systems and consumers taking greater personal responsibility for their health are increasingly putting the spotlight on the benefits of self-care. In addition, advancing digitization in the health care market necessitates a stronger focus on digital products and services.

Consumer Health is responding to these changes by investing in innovation to reinforce its core brands Claritin™, Aspirin™, Aleve™, Bepanthen™, Canesten™, Alka-Seltzer™, Dr. Scholl's™, One a Day™, Coppertone™, Elevit™ and Berocca™. Consumer Health is also expanding its digital range as well as its e-commerce activities.

Furthermore, Consumer Health is focusing on increasing its presence in key markets such as the United States, Germany, Brazil, Russia and China, as well as additional countries. It is also promoting the transfer of prescription medicines and active ingredients to nonprescription status (Rx-to-OTC switch), enabling them to be used in self-care.

### 11.4.2.3 Products

#### 11.4.2.3.1 Overview of Key Products

The ten best-selling Consumer Health products made up 53% of Consumer Health's total net sales, at €3,229 million and €3,226 million for fiscal years 2015 and 2016, respectively, 54% at €3,153 million for fiscal year 2017 and 56% at €783 million for the three months ended March 31, 2018.

In the following, we briefly present Consumer Health's best-selling products in fiscal years 2015 through 2017 and in the three months ended March 31, 2018. The products are presented by categories. For a discussion of the best-selling products' contribution to Consumer Health's net sales in fiscal years 2015 through 2017 and in the three months ended March 31, 2018, see "10.10.2.2.1 Net Sales," "10.9.2.2.1 Net Sales" and "10.8.2.2.1 Net Sales."

##### 11.4.2.3.1.1 Allergy

Claritin™ (active ingredient: loratadine): The Claritin™ portfolio consists of allergy medicines in tablet and spray forms. Claritin™ is Consumer Health's largest brand, with its product family being available in more than 100 countries worldwide, for various indications and under different trademarks. It was acquired in connection with the acquisition of the Merck Consumer Care Business and is being steadily supplemented and expanded through new innovations. In 2016, Consumer Health introduced ClariSpray™, a 24-hour nasal spray, to the U.S. market.

##### 11.4.2.3.1.2 Analgesics

Aspirin™ (active ingredient: acetylsalicylic acid): Our analgesic Aspirin™ has been on the market for more than 115 years. Its active ingredient's anti-platelet and blood thinning properties distinguish it from all other category ingredients. Aspirin™ is widely regarded as a benchmark product for pain relief and as a cornerstone therapy for preventing cardiovascular events such as heart attack or ischemic stroke.

For information on Aspirin™ Cardio, which is reported under Pharmaceuticals, see "11.4.1.3.1.1 Cardiovascular."

Aleve™ (active ingredient: naproxen sodium): Aleve™ is a pain relief medicine that is provided in tablet form and marketed in more than 20 countries as Aleve™ (North & Central America), Flanax™ (Mexico & Brazil), Aptonax™ (Latin America), and Lasonil™ (Italy).

##### 11.4.2.3.1.3 Dermatology

Bepanthen™/Bepanthol™ (active ingredient: dexpanthenol): Bepanthen™ / Bepanthol™ is a medicated wound and skin care brand offering a range of healing and protection products for demanding skin conditions. The brand is over 70 years old and has enjoyed significant compound annual growth over the past decade, with sales almost quadrupling between 2005 and 2015. The brand continues to perform strongly across large markets such as Germany, Russia, Switzerland, Mexico and Turkey, driven by growth in the nappy rash and wound healing portfolios.

Canesten™ (main active ingredients: clotrimazole, bifonazole): Canesten™ is a skin and intimate health product. Its products are used for diagnosis, treatment and prevention of discomforting and embarrassing skin and intimate health conditions and contain the original active ingredient clotrimazole developed by Bayer. Clotrimazole – a fungicide – was first introduced on the global market in 1973. In recent years, the brand performed particularly well in large markets like the UK, Germany, Spain, Mexico and Brazil, driven by the positive performance of the women's intimate health portfolio.

##### 11.4.2.3.1.4 Cough and Cold

Alka-Seltzer™ product family (active ingredients: anhydrous™ citric acid, sodium bicarbonate, analgesic, potassium bicarbonate, calcium carbonate, simethicone): Alka-Seltzer™ treats gastric complaints and Alka-Seltzer™ Plus treats cold symptoms.

##### 11.4.2.3.1.5 Foot Care

Dr. Scholl's™: Dr. Scholl's™ is a series of foot care products sold by Bayer in the Americas. The brand was acquired in connection with the Merck Consumer Care Business acquisition. After net sales of Dr. Scholl's™

foot care products decreased in recent years, Consumer Health is now reinvesting in the brand in order to achieve its turnaround. Consumer Health plans to evolve Dr. Scholl's™ from a strictly foot care-focused brand to a brand that helps people move better.

#### 11.4.2.3.1.6 Nutrition

One A Day™: One A Day™ consists of a line of vitamin products geared toward gender-specific formulas for the different nutritional concerns of women and men, prenatal support for women before, during and after pregnancy and nutritional support for people over the age of 50 and growing teens.

Elevit™: Elevit™ is a prenatal nutritional supplement with a 30-year history and has recorded significant compound annual growth over the past decade. Consumer Health launched the new two-phase system for Elevit™ (Elevit™1 and Elevit™2) in Germany in October 2016. These two complementary products for the healthy development of babies are specially tailored to the increased nutrient requirements of women in the conception and pregnancy phases. Consumer Health has also been working to stretch Elevit™ beyond conception and pregnancy to fertility (including men's fertility) and to provide nutritional support for breast-feeding mothers.

Supradyn™: Supradyn™ is a dietary supplement that contains 12 vitamins as well as minerals and trace elements and is available in many formats. The brand was acquired as part of the Roche acquisition in 2005 and launched in 1959 as one of Europe's first multivitamin products. Today, Supradyn™ is the leading multivitamin product in Europe<sup>20</sup>.

#### 11.4.2.3.1.7 Sun care

Coppertone™: Coppertone™ is a line of sunscreen products, with a 70-year history of providing sun protection for the entire family. The brand was acquired as part of the Merck Consumer Care Business acquisition. As Coppertone™ sales have decreased in recent years, Consumer Health is now reinvesting in the business to achieve its turnaround, with a focus on building long-term brand health through new positioning, consumer-centric innovation and a comprehensive new media marketing campaign.

#### 11.4.2.4 R&D

Consumer Health concentrates on developing new nonprescription (OTC) products and solutions that improve the health and well-being of consumers in the areas of pain relief, dermatology, nutritional supplements, digestive health, allergy relief and cold symptoms, as well as foot care and sun care. The focus lies on product developments that are aligned to the desires and needs of consumers. Consumer Health's innovations range from new product formulations and packaging to technical applications and medical devices. Consumer Health maintains a global network of research and development facilities, with sites in the United States, France, Germany and China. Another important part of Consumer Health's strategy is transferring current prescription medicines that are suitable for self-care to OTC status (Rx-to-OTC switches).

In fiscal year 2017, Consumer Health's R&D expenses amounted to 4.1% of Consumer Health's net sales. Consumer Health was able to realize around 50 new consumer-validated concepts and thus significantly exceeded the target of 25 set for 2017. For 2018, the target has again been set at 25.

#### 11.4.2.5 Markets and Distribution

##### 11.4.2.5.1 Markets and Competition

According to Bayer's calculations, growth of the global consumer health market came in at slightly below 4% in 2017 (2016: 4%). Important growth drivers included steady demand for self-care products and a strong cold season in Europe. In contrast, a weaker allergy season, pricing pressure in the e-commerce distribution channel, and intensified competition weighed on growth. Bayer anticipates growth of 3 – 4% in 2018. The market is likely to remain difficult as a result of rising pricing pressure from e-commerce and consolidation of the retail sector.

Generally, weather conditions and other seasonal factors may impact the demand for some of Consumer Health's best-selling products in the cold, allergy, sinus & flu and sun protection categories, which could significantly affect Consumer Health's results of operations. For further information see also "1.1.18 Bayer's business

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<sup>20</sup> Quintiles IMS – MAT Q3 2016

*operations and financial performance may be affected by variations of weather conditions and other seasonal factors as well as by resistances.”*

The Consumer Health segment is exposed to the risk of existing business models being disrupted by digitalization or new digital products. Digitalization is a key factor in gaining a competitive advantage. If Consumer Health fails to adequately integrate this development into its existing business models, it could lose customers or market share. In the context of initiatives, Consumer Health monitors the market very closely and develops strategies to illustrate developments in its business models. However, increased competition and a difficult economic environment has had, and could in the future continue to have, a dampening effect on customer demand. Product demand may be significantly impacted by economic conditions in key markets, such as the United States, Consumer Health’s most important market in terms of single-country sales, and emerging markets, such as China, Brazil and Russia. Due to Consumer Health’s focus on key emerging markets, Bayer’s results of operations may also become more volatile since the economic development in these markets, be it positive or negative, is often characterized by a greater sensitivity to trends in the global economy. For further information see also “*1.1.1 Sales and growth of the Bayer Group are dependent on the conditions of the global economy in general and of the economies where the Bayer Group operates in particular.*” and “*1.1.4 The industries in which Bayer operates are highly competitive, and competitive pressure could increase. Furthermore, disruptive technologies or changes to competitors’ business models may adversely affect Bayer’s business.*”

Consumer Health encounters competition in all of its geographical markets from large national and international competitors, such as Sanofi (in relation to digestive health; nutritionals and analgesics); Johnson & Johnson (in relation to digestive health; dermatology; cold, allergy, sinus, flu and sun care); GlaxoSmithKline and Novartis (as partners) (in relation to digestive health; dermatology; cold, allergy, sinus, flu and analgesics); Procter & Gamble (in relation to digestive health); Pfizer (in relation to nutritionals and analgesics); Reckitt Benckiser (in relation to cold, allergy, sinus, flu); L’Oreal (in relation to sun care); and Beiersdorf (in relation to sun care).<sup>21</sup>

#### 11.4.2.5.2 *Distribution*

The nonprescription products of Consumer Health are generally sold in pharmacies, with supermarket chains, online specialists and other large retailers also playing a significant role in certain markets such as the United States.

Consumer Care is in constant dialogue with all customer groups and engages in market research to optimize its distribution processes. Consumer Health has now successfully introduced its excellence program to improve customer orientation in 22 countries. With this program the business is aiming to make Bayer the leading health care company in the areas of market development strategies, distribution and trading.

### **11.4.3 Crop Science**

#### 11.4.3.1 Introduction

Crop Science is an agriculture enterprise with businesses in crop protection, seeds and nonagricultural pest and weed control. Upon completion of the acquisition of Monsanto Company on June 7, 2018, Crop Science became Bayer’s largest division in terms of net sales. Bayer believes that the Transaction is an important step towards defining its position as an agricultural innovator. In addition, the Transaction will balance Bayer’s life science portfolio with an enlarged Crop Science division, complementing Bayer’s health care businesses, Pharmaceuticals and Consumer Health. For more information, see “*6. The Acquisition of Monsanto.*”

In connection with the Transaction and related antitrust clearance proceedings, Bayer and BASF, in separate transactions entered into in October 2017 and April 2018, have agreed on the Transaction-related Divestments with respect to selected Crop Science businesses. The First Bayer Divestiture Package agreed upon in October 2017 includes Bayer’s global glufosinate-ammonium herbicide business and the related LibertyLink™ technology for herbicide tolerance as well as respective R&D capabilities. The seeds businesses being divested include the global cotton seed business (excluding India and South Africa), as well as essentially the entire canola and soybean seed business. The Second Bayer Divestiture Package agreed upon in April 2018 in particular includes Bayer’s global vegetable seeds business, certain seed treatment products, Bayer’s research platform for wheat hybrids and certain glyphosate-based herbicides in Europe that are predominantly used in industrial

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<sup>21</sup> Nicholas Hall – Full Year 2016; Euromonitor – Sun Care 2016



applications. In addition, three research projects in the field of total herbicides and Bayer's digital farming business will be transferred. Bayer may license back, on a non-exclusive basis, technology needed for Bayer to sell certain digital agriculture products outside North America. The businesses covered by the Transaction-related Divestitures generated total sales of €2.2 billion for the fiscal year ended December 31, 2017. Following completion of the Transaction and the Transaction-related Divestments, Bayer will remain active in the areas covered by the Transaction-related Divestments as a result of the programs, products and offerings of Monsanto that it has acquired as part of the Transaction. For more information, see "6.10 Overview of Transaction-related Divestments."

The following table presents an overview of the economic performance of Crop Science for the fiscal years 2015, 2016 and 2017 and the three months ended March 31, 2018:

	For the fiscal year ended December 31,			For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2017	2017	2018
	(unaudited, unless otherwise indicated) (in € million)			(unaudited) (in € million)	
<b>Net sales (external)</b> .....	<b>10,128<sup>(3)</sup></b>	<b>9,915<sup>(3)</sup></b>	<b>9,577<sup>(3)</sup></b>	<b>3,120</b>	<b>2,861</b>
<b>Sales by region</b>					
Europe / Middle East / Africa .....	3,368	3,290	3,335	1,462	1,294
North America.....	2,570	2,616	2,772	1,042	969
Asia / Pacific .....	1,530	1,548	1,563	366	368
Latin America.....	2,660	2,461	1,907	250	230
<b>EBITDA<sup>(4)</sup></b> .....	<b>2,628</b>	<b>2,280</b>	<b>1,716</b>	<b>1,091</b>	<b>981</b>
Special Items .....	222	(141)	(327)	(24)	(61)
<b>EBITDA before special items<sup>(4)</sup></b> .....	<b>2,406<sup>(3)</sup></b>	<b>2,421<sup>(3)</sup></b>	<b>2,043<sup>(3)</sup></b>	<b>1,115</b>	<b>1,042</b>
<b>EBIT<sup>(4)</sup></b> .....	<b>2,094<sup>(3)</sup></b>	<b>1,755<sup>(3)</sup></b>	<b>1,235<sup>(3)</sup></b>	<b>970</b>	<b>892</b>
Special Items .....	222	(143)	(408)	(37)	(61)
<b>EBIT before special items<sup>(4)</sup></b> .....	<b>1,872<sup>(3)</sup></b>	<b>1,898<sup>(3)</sup></b>	<b>1,643<sup>(3)</sup></b>	<b>1,007</b>	<b>953</b>
<b>Net cash provided by operating activities ...</b>	<b>749<sup>(3)</sup></b>	<b>2,071<sup>(3)</sup></b>	<b>1,884<sup>(3)</sup></b>	<b>(679)</b>	<b>(703)</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Figures derived from the restated comparative figures for the three months ended March 31, 2017 as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018, which present Covestro as discontinued operations.

(3) Audited for the fiscal years ended December 31, 2015, 2016 and 2017.

(4) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

Until December 31, 2017, Crop Science marketed its broad range of high-value seeds and innovative pest management solutions and provided extensive customer service for sustainable agriculture through its Crop Protection / Seeds unit. In addition, following the divestiture of the Environmental Science Consumer Business in 2016, Crop Science through its Environmental Science operating unit provided products and services exclusively for professional nonagricultural (i.e., non-crop) applications, such as vector and pest control and forestry. In connection with the Transaction and in preparation for the Combined Agriculture Business, the structure of Crop Science was adjusted as of January 1, 2018. In the new structure, all the strategic business entities – including the Herbicides, Fungicides, Insecticides and SeedGrowth businesses – are organizationally located directly below the Crop Science segment. The Crop Protection / Seeds unit has ceased to exist, as has the intermediate Crop Protection level below it. In addition, the business entities within Seeds (including Traits) are now regarded individually and not jointly. In line with this, Vegetable Seeds is reported separately. In view of the current size, the other Seeds businesses – comprising Corn Seed & Traits, Soybean Seed & Traits, Cotton Seed & Traits, Oilseeds & Traits and Other Seeds & Traits – are grouped together under Other (Seeds & Traits). Environmental Science continues to be managed as a separate entity, on the same level as the other strategic business entities. The new reporting structure is expected to be reviewed again, and may be modified, in light of the completion of the Transaction.

#### 11.4.3.2 Strategy

The need for food, animal feed and renewable raw materials is growing worldwide. At the same time, however, the available arable land is limited and is increasingly endangered by the impact of climate change. In addition, there is a growing demand for sustainable farming practices. This requires innovative solutions that can be leveraged to boost agricultural productivity and guarantee food security. Crop Science's strategy as described in the following was formulated prior to completion of the Transaction and highlights certain strategic expectations

in connection with the Transaction. While Crop Science currently expects the strategic considerations outlined below to also remain valid following completion of the Transaction, Crop Science is working on developing a new strategy for the Combined Agriculture Business, which will be communicated in due course.

As part of Crop Science's strategy to develop holistic solutions, Crop Science aims to build on its expertise in the integration of seed technology with chemical and biological crop protection. The business is also striving to drive digitization. In the field of digital farming, Crop Science plans to develop a proprietary range of services with specific data models to provide farmers with tailored recommendations on the targeted and correct use of its products, thus helping them to improve their yields.

In line with Crop Science's commitment to sustainable agriculture, the business promotes cost-effective and socially viable farming practices that use resources efficiently and protect the environment. By providing tailored solutions, Crop Science aims to help smallholder farmers in developing and emerging countries to optimize agricultural production and improve their living standards. Moreover, as part of the Bayer ForwardFarming initiative, Crop Science develops and promotes innovative solutions for sustainable agricultural practices in collaboration with farmers. As part of these efforts, Crop Science is continuously expanding its network of model operations known as "ForwardFarms."

Following the successful integration of Monsanto and taking into account the Transaction-related Divestments, we see additional opportunities for combining the complementary innovative expertise of Bayer and Monsanto. Feeding a growing global population in an ecologically sustainable way is among the challenges faced by agriculture and requires a new approach that more systematically integrates expertise across seeds, traits and crop protection including biologicals. We believe the merger will enable us to offer a broader portfolio of innovative products tailored to meet farmers' individual needs and the many challenges they face. The range and depth of the combined research and development activities should make it possible to optimize the various technologies so that we can accelerate the time-to-market of enhanced innovations. We further believe that by combining the two companies' innovation capacities and research and development budget, we will be able to more effectively tackle the challenges faced in developing and introducing innovations in agriculture, including longer and more costly development cycles and stricter regulatory requirements. In the medium to long term, we plan to leverage the strengths of the combined R&D platform to deliver pioneering technologies faster and to provide our customers with advanced, customized product solutions on the basis of agricultural analysis, along with supporting digital farming applications. These developments are expected to result in significant and lasting benefits for farmers: from improved sourcing and increased convenience to higher yield, better environmental protection and sustainability. We believe the Combined Agriculture Business will be very well-positioned to tap the considerable long-term growth potential of the agricultural sector. For further information on the Transaction and its strategic rationale, see "6. *The Acquisition of Monsanto.*"

#### 11.4.3.3 Products

##### 11.4.3.3.1 *Introduction*

In fiscal year 2017, Crop Protection's products accounted for €7,403 million in external net sales, followed by Seeds with €1,503 million in external net sales, and Environmental Science, now only comprising the business for professional users, which contributed €671 million in external net sales. In the three months ended March 31, 2018, Crop Science's combined products accounted for €2,861 million in external net sales. For a further discussion of Crop Science's net sales in fiscal years 2015 through 2017 and in the three months ended March 31, 2018, see "10.10.2.3.1 *Net Sales*" and "10.9.2.3.1 *Net Sales*" and "10.8.2.3.1 *Net Sales*." The following description briefly presents Crop Science's strategic business entities and their products in more detail. While material effects of the completion of the Transaction and the expected impact of the Transaction-related Divestments have generally been taken into account for the description, it should be noted that overall Bayer will remain active in the areas covered by the Transaction-related Divestments as a result of the programs, products and offerings it has acquired from Monsanto upon the completion of the Transaction. The presentation of Crop Science's operations and key products may be subject to change over the coming months, however, as a result of the completion of the Transaction-related Divestments and the integration of the new product portfolio acquired in connection with the Transaction.

##### 11.4.3.3.2 *Overview of Operations and Key Products*

Crop Science's strategic business entities related to crop protection, i.e., Insecticides, Fungicides, Herbicides, SeedGrowth, are engaged in researching, producing, marketing and distributing safe and effective



active ingredients for use as insecticides, fungicides, herbicides and crop efficiency products for foliar and soil application as well as seed treatment. In addition to a wide range of chemical solutions, Crop Science's crop protection offering includes biological products derived from plants, bacteria and fungi. These products have unique plant protection properties, improve plant health and promote yield. We believe biologicals are a vital tool in sustainable agriculture, providing benefits to growers and the food chain. The products range from the Serenade™ fungicide product family used in fruit and vegetable crops, oilseed rape, legumes and other crops in more than 30 countries worldwide, to Requiem™, a flexible-to-use insecticide which improves the quality of harvests and produce such as fruits, vegetables, vines and nuts.

Crop Science's insecticides aim to control damaging insects and nematodes in a variety of crops. Cost-effective and degraded quickly, Bayer believes these insecticides are a key part of integrated pest management programs. In addition to warding off pests, certain Bayer insecticides promote cell growth and plant restoration, activate plants' natural defense mechanisms and safeguard crops from many environmental stresses. The portfolio consists of long-established brand families such as Confidor™ and Decis™, as well as more recently launched brand families, such as Movento™ and Sivanto™ with a unique mode of action for sucking pest control, as well as Velum™ for nematode control.

Crop Science's fungicides aim to provide control of a broad spectrum of crop diseases, with a view to leading to healthier plants and higher yields. We believe these products offer a wide variety of fungicidal benefits, with multiple modes of action that protect crops from leaf surface to plant core. The business has developed new formulations with a view to making its fungicides easier to handle, lowering use rates and providing tankmix compatibility with a wide range of crop protection products. The Nativo™ product family, the Prosaro™ product family, the Xpro™ product family and the Luna™ product family are Crop Science's key fungicides brands, which we believe have high sales potential.

Crop Science's herbicides are used to fight weeds by controlling weed pressure and providing reliable, season-long control and burndown solutions. The herbicides may utilize multiple modes of action to help combat glyphosate-tolerant and resistant grass and broadleaf weeds. The portfolio of selective herbicides includes well-established brands like Atlantis™, Liberator™, Puma™, Sencor™ and Betanal™ as well as recently launched brands such as Laudis™, Adengo™ and Capreno™. While Crop Science will divest its global glufosinate-ammonium herbicide business and the related LibertyLink™ technology for herbicide tolerance as well as respective R&D capabilities as a result of the Transaction, the Monsanto manufactured glyphosate-based herbicides marketed under the Roundup brand, which represents the world's leading agrochemical<sup>22</sup> as well as other herbicides for use by farmers, have been added to Crop Science's product portfolio. Furthermore, Roundup agricultural herbicides combined with Monsanto's seeds with Roundup Ready technology (glyphosate-tolerance) provide growers with a weed management system designed to deliver enhanced weed control. For information on certain risks associated with glyphosate-based herbicides marketed under the Roundup brand, see "1.2.5 The lack of public understanding and acceptance or perceived public acceptance of Monsanto's biotechnology and other agricultural products as well as of the merits of the Transaction could harm Bayer's reputation and, as a consequence, negatively affect Bayer's business and results of operations."

Crop Science's SeedGrowth offering extends from seed-applied solutions that aim to maximize seed investment and improve per-acre profits by protecting plants both above and below the ground, to seed treatment equipment and seed enhancers like coatings. This includes technical support, testing, training and advice provided by Bayer SeedGrowth. Taking into account the Transaction-related Divestments, pursuant to which Crop Science will have to divest seed treatment assets and products sold under the Poncho/VOTiVO, COPeO and ILeVO brands, Crop Science's most important SeedGrowth products following completion of the Transaction are CropStar™ and Sonido™. As a result of the Transaction Crop Science has also acquired Monsanto's NemaStrike assets, which relate to seed treatments to protect against nematodes.

Crop Science's Other (Seeds & Traits) strategic business entity researches, develops and markets high-performance varieties and hybrids in cotton, oilseed rape/canola, soybeans, rice and wheat that aim to increase yields and enhance quality. In connection with the Transaction-related Divestments, Crop Science has agreed to divest a significant part of the seed assets it had assigned to this strategic business entity as of January 1, 2018. As a result of the Transaction, however, Crop Science has also acquired high-quality seeds for row crops like corn, soybean, cotton and canola, which are marketed under Monsanto's major brands DEKALB, Asgrow and Deltapine to farmers globally. In addition, Monsanto develops and produces biotechnology traits which are marketed under various brands including Roundup Ready, Bollgard and Xtend. These products offer weed and pest control and

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<sup>22</sup> Phillips Mc Dougall – AgriService 2017

ultimately aim to enhance yields for farmers by enabling crops to protect themselves against a variety of agricultural pest species and/or to be tolerant of specific herbicides.

Crop Science's Vegetables Seeds business currently includes Nunhems, a widely known brand in the hybrid seed industry with over 1,200 seed varieties in about 25 vegetable crops, suited to different climates, growing conditions and cultural preferences, which will be divested in its entirety as part of the Transaction-related Divestments. As a result of the Transaction, however, Crop Science has also acquired seeds for a wide variety of vegetable crops, which are predominantly marketed under Monsanto's brands Seminis and De Ruiter in more than 150 countries.

Crop Science's Environmental Science strategic business entity develops substances for professional uses in non-agricultural (i.e., non-crop) areas, e.g., solutions for controlling pests such as cockroaches or rodents in public areas and the food industry, or to control weeds on roads or railways. Crop Science's most important Environmental Science products include Ficam™, an insecticide used for malaria control in indoor residual spray with a broad spectrum of activity, controlling mosquitoes and various other pests. Maxforce™ is a further insecticide used in baits and gels for cockroach and ant control. Esplanade™ is a non-selective herbicide used in vegetation management. K-Othrine™ is an insecticide which is used in sprays and applicable to a broad spectrum of activity and has a long lasting efficacy.

#### 11.4.3.3.3 *Product Innovation Pipeline and Recent Launches*

Crop Science's product pipeline contains numerous new crop protection products, seed varieties and enhanced products (life cycle management). The most recent product innovation pipeline report published by Bayer for the three months ended March 31, 2018, did not take the Transaction and the Transaction-related Divestments into account and, accordingly, is not presented in this Offering Memorandum. The product innovation pipeline of the Combined Agriculture Business is currently being assessed. The following descriptions highlight selected recent developments in the area of product innovation and product launches.

In April 2017, Bayer received regulatory approval for the biological nematicide BioAct™ Prime DC in Greece. The new substance is intended for use in a variety of fruit and vegetables and directly targets eggs and larvae from nematode pests. Further approvals are planned in other European countries. For further information on the regulatory environment that Crop Science conducts its business in, see "12.3 Crop Science."

In May 2017, Bayer launched a new rice seed in India that offers pest resistance and disease tolerance. In June 2017, Bayer also launched a rice seed in Bangladesh that offers flood tolerance.

Environmental Science also launched new products in 2017. These included the Exteris™ fungicide for the maintenance of golf courses, as well as Altus™, which is designed to protect ornamental plants against insect pests. Environmental Science also expanded its Maxforce™ product range by adding insecticides for pest control. Bayer BEYOND, a new digital service platform, automates the work performed by pest controllers and enhances rodent monitoring through predictive analysis.

#### 11.4.3.4 *R&D*

Crop Science's R&D strategy as described in the following was formulated prior to completion of the Transaction. As a result of the Transaction and the Transaction-related Divestments and the associated changes in Crop Science's product portfolio, there could be changes to Crop Science's R&D strategy, although Bayer overall expects to remain active in the areas covered by the Transaction-related Divestments as a result of the programs, products and offerings it has acquired from Monsanto upon the completion of the Transaction.

Crop Science pursues the goal of identifying and developing innovative, safe and sustainable active ingredients for use as insecticides, fungicides, herbicides and crop efficiency products by foliar and soil application as well as seed treatment. These substances also undergo further development for professional applications outside of farming (i.e., in the non-crop segment) (Environmental Science), such as in pest control and vector control to combat diseases transmitted by mosquitoes. They are also used to control weeds and maintain sport facilities and public parks. In the area of seeds, Crop Science is conducting research and development for optimized plant traits and is developing new varieties in cotton, oilseed rape / canola, soybeans, rice, wheat and vegetables. Crop Science's scientists are working on increasing the yield potential of crops, enhancing their quality and developing new herbicide tolerance and insect resistance traits based on novel modes of action, and improving tolerance against disease and extreme weather conditions.

Crop Science maintains a global network of research and development facilities. While research is carried out centrally at a number of dedicated sites, development of crop protection products as well as plant breeding and trait development activities take place both at these sites and at numerous field testing and breeding stations in all regions. Crop Science’s scientists working across the areas of seed traits, seed technology, seed breeding, agricultural chemistry and biologics closely collaborate as part of its integrated research approach. This optimally combines Crop Science’s complementary expertise in chemistry and biology.

In fiscal year 2017, Crop Science’s R&D expenses amounted to 12.2% of Crop Science’s net sales.

To provide farmers with sustainable agronomic recommendations, Crop Science develops digital products and services that support them through the use of specific data models, among other things, in evaluating conditions in the field. The business’ long-term goal is to help farmers to improve their yields by providing them with tailored recommendations.

In 2017, Crop Science launched confirmatory technical proof-of-concept field studies for two new active ingredients. For 2018 Crop Science had set itself the target of launching confirmatory technical proof-of-concept field studies for three to four NMEs, plant traits or biologics. Following completion of the Transaction, this target could be subject to change.

Crop Science conducts its R&D activities as part of a global network of partners from various parts of the agricultural industry and academic research. The following table provides summary information on Crop Science’s most significant long-term cooperations after taking into account the Transaction-related Divestments, but excluding any cooperations assumed in connection with completing the Transaction:

<u>Partner</u>	<u>Cooperation objective</u>
Citrus Research Development Foundation ...	Search for solutions to citrus greening disease, which currently threatens the global citrus production and juice industry
Embrapa .....	Cooperation on several R&D objectives in various areas of relevance for agriculture in Brazil, e.g., Asian soybean rust
Innovative Vector Control Consortium .....	Joint development of new substances to control mosquitoes that transmit diseases such as malaria and dengue fever
Targenomix GmbH.....	Development and application of systems biology approaches to achieve a better understanding of metabolic processes in plants and facilitate the development of new herbicides and safeners

Crop Science expects to further improve and complement its R&D capabilities as a result of the Transaction. For further information see “6. *The Acquisition of Monsanto.*”

#### 11.4.3.5 Markets and Distribution

##### 11.4.3.5.1 Markets and Competition

According to Bayer’s calculations, the global seed and crop protection market expanded slightly in 2017, growing by around 1% (2016: 0%). While demand for high-quality seed increased, sales of crop protection products stagnated worldwide. Positive growth momentum in 2017 came from the North America and Eastern Europe regions. Market volumes in Latin America declined as a result of high inventories of crop protection products and unfavorable macroeconomic conditions in Brazil. Stabilizing global stocks-to-use ratios for major broad acre crops corn and soy as well as a recovering Latin American agricultural market, suggest a slight recovery in the market. The Western European market also contracted, primarily as a result of relatively low fungal infestation levels. Bayer expects the global seed and crop protection market to develop positively in 2018 (+3%). In Bayer’s view, the principal growth momentum will come from Latin America, mainly due to the expected normalization of inventories of crop protection products in Brazil and a further increase in the area of soybean acreages. Bayer also expects the market to grow in the Asia/Pacific region and in Eastern Europe. The persistently low price of agricultural commodities in North America and Western Europe is likely to be reflected in sluggish growth, which will lag behind the overall global development.

Bayer believes that current global market trends, among them global population and middle class growth and the increasing demand for food, provide opportunities for Crop Science in the medium to long term. In addition, consumer behavior in some regions is shifting toward higher demand for food products of animal origin. We also

anticipate that agricultural productivity will need to increase significantly in view of declining per-capita acreages, the challenges presented by climate change, and increasing pest and weed resistance. We expect the demand for high-quality seed and crop protection products to rise in light of the need to produce sufficient food and animal feed to meet the growing demand in spite of limited acreages. In response, Crop Science is developing processes to more effectively protect plants against climatic and environmental influences and raise crop yields, for example.

Modern agricultural methods, the application of certain classes of crop protection products and the use of genetic engineering are repeatedly the subject of intense public debate, which could potentially lead to legislative and regulatory decisions that significantly limit the use of Crop Science's products or even result in voluntary or mandated product withdrawals. See also "1.1.12 Bayer is subject to extensive and increasingly stringent environmental, health and safety laws, regulations and standards, which may result in restrictions on production or marketing of its products, increased costs to ensure compliance, damage to Bayer's reputation, legal liability and remediation efforts." In addition, regulatory decisions in one jurisdiction may also affect agricultural imports from other parts of the world and therefore Bayer's business in those regions. Accordingly, Crop Science is engaged in a constant dialogue with interest groups and regulators to promote a scientifically founded, rational and responsible discussion and decision-making process. For further information on this topic, see also "12.3.1 Regulation on Genetically Modified Organisms."

Risks for the crop protection and seeds businesses may also arise from variations of weather conditions and other seasonal factors, market volatility for agricultural products and its customers' financial situations, for example, see also "1.1.16 Bayer's production and procurement activities are exposed to various risks, including in connection with technical failures, natural disasters, regulatory action or legislative changes." and "1.1.18 Bayer's business operations and financial performance may be affected by variations of weather conditions and other seasonal factors as well as by resistances."

Finally, the current global mergers and acquisitions activities in the seeds and crop protection industry could alter Crop Science's future competitive environment significantly, see also "1.1.4 The industries in which Bayer operates are highly competitive, and competitive pressure could increase. Furthermore, disruptive technologies or changes to competitors' business models may adversely affect Bayer's business." Crop Science is responding to this trend with acquisitions, collaborations and the expansion of in-house R&D capacities.

Crop Science encounters competition in all of its geographical markets from international competitors, such as Syngenta (in relation to Crop Science's seeds and traits, crop protection and non-crop product offering); BASF SE (in relation to Crop Science's crop protection and non-crop product offering, and upon completion of the Second BASF Divestiture package in relation to Crop Science's seeds and traits product offering); DowDuPont Inc. Agriculture (in relation to Crop Science's seeds and traits, crop protection and non-crop product offering); and FMC Corp. (in relation to Crop Science's crop protection and non-crop product offering).

#### 11.4.3.5.2 Distribution

Crop Science's crop protection products are offered in more than 120 countries and marketed primarily through wholesalers, directly to retailers or, in limited cases, directly to farmers. Its seeds are sold to growers, seedling companies, specialist retailers and the processing industry. Plant traits developed using modern breeding methods are either incorporated into proprietary seed varieties or licensed to other seed companies. Environmental Science's range of pest and weed control products is marketed through wholesalers and specialist retailers to professional users in the green industry, forestry, industrial vegetation management and pest control. Environmental Science also markets its products in the area of public health, mainly through tendering by government agencies and non-governmental organizations.

The requirements of Crop Science's customers vary according to product, region and culture and range from rising demands in terms of food safety and quality to trends such as digital farming. Crop Science's marketing activities ("field marketing") are therefore aligned particularly to the local needs of its customers, whose satisfaction is individually determined by the country organizations using standardized questionnaires.

To strengthen customer centricity along the entire value chain, Crop Science is intensifying its direct cooperation with farmers through initiatives such as Bayer ForwardFarming. On Bayer ForwardFarms, the Company cooperates with farmers to demonstrate innovative crop solutions and services for sustainable agriculture to interested stakeholders. Bayer expanded the network of ForwardFarms in 2017 to include Brazil and Argentina. The food chain partnership model successfully developed by Crop Science is also being steadily expanded. Crop Science has initiated over 500 food chain partnership projects for 76 crops in more than 40 countries, mainly in Asia, Latin America and Europe. The goal is, together with participants in the food chain such as farmers, the

processing industry, exporters and dealers, to develop integrated solutions for sustainable agriculture so as to safeguard and increase yields and to improve the quality of harvested produce.

Crop Science follows the guidelines of its Product Stewardship Policy with regard to the distribution and use of its crop protection products. This policy, which also satisfies the requirements of the Corporate Policy "Responsible Marketing & Sales," is based on the International Code of Conduct issued by the Food and Agriculture Organization of the United Nations ("FAO").

#### 11.4.4 Animal Health

##### 11.4.4.1 Introduction

The Animal Health business unit develops and markets veterinary products and solutions for the prevention and treatment of diseases in companion and farm animals.

The following table presents an overview of the economic performance of the Animal Health business unit for the fiscal years 2015, 2016 and 2017 and the three months ended March 31, 2018:

	For the fiscal year ended December 31,			For the three months ended March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2017	2017	2018
	(unaudited, unless otherwise indicated)			(unaudited)	
	(in € million)				
<b>Net sales (external)</b> .....	<b>1,490<sup>(3)</sup></b>	<b>1,523<sup>(3)</sup></b>	<b>1,571<sup>(3)</sup></b>	<b>440</b>	<b>414</b>
<b>Sales by region</b>					
Europe / Middle East / Africa .....	447	445	442	144	136
North America.....	587	621	655	177	160
Asia / Pacific .....	285	300	317	76	77
Latin America.....	171	157	157	43	41
<b>EBITDA<sup>(4)</sup></b> .....	<b>317</b>	<b>343</b>	<b>352</b>	<b>135</b>	<b>139</b>
Special Items .....	(30)	(6)	(29)	–	–
<b>EBITDA before special items<sup>(4)</sup></b> .....	<b>347<sup>(3)</sup></b>	<b>349<sup>(3)</sup></b>	<b>381<sup>(3)</sup></b>	<b>135</b>	<b>139</b>
<b>EBIT<sup>(4)</sup></b> .....	<b>254<sup>(3)</sup></b>	<b>313<sup>(3)</sup></b>	<b>307<sup>(3)</sup></b>	<b>126</b>	<b>129</b>
Special Items .....	(64)	(7)	(31)	–	–
<b>EBIT before special items<sup>(4)</sup></b> .....	<b>318<sup>(3)</sup></b>	<b>320<sup>(3)</sup></b>	<b>338<sup>(3)</sup></b>	<b>126</b>	<b>129</b>
<b>Net cash provided by operating activities</b> .....	<b>348<sup>(3)</sup></b>	<b>193<sup>(3)</sup></b>	<b>209<sup>(3)</sup></b>	<b>(31)</b>	<b>13</b>

(1) Figures extracted or derived from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Figures derived from the restated comparative figures for the three months ended March 31, 2017, which present Covestro as discontinued operations, as included in the unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018.

(3) Audited for the fiscal years ended December 31, 2015, 2016 and 2017.

(4) Alternative Performance Measure used by Bayer, for more information see "8.4 Additional Key Figures for the Bayer Group."

##### 11.4.4.2 Strategy

We believe the development of the animal health market to be primarily driven by a growing global population and higher average incomes. In the companion animals segment, we expect this to lead to rising pet ownership levels. In the farm animals segment, moreover, a growing aspiration to adopt Western lifestyle habits is expected to lead to higher meat consumption. Effective and safe animal medicines should therefore increasingly be in demand in both areas.

In the companion animals business, Animal Health holds a strong position in the global parasiticide segment. Animal Health is focusing on maintaining the strong performance of the Seresto™ flea and tick collar, opening up new distribution channels and leveraging the brand equity of the Advantage™ flea, tick and worm control product family.

In the farm animals business, Animal Health is focusing on antiparasitics and anti-infectives for the treatment of infectious diseases. In addition to the products developed in-house, Animal Health also explores opportunities to strengthen its business through acquisitions. In January 2017, for example, Animal Health has expanded its antiparasitics business in the United States with the acquisition of the Cydectin™ endectocide

portfolio which comprises the CYDECTIN Pour-On, CYDECTIN Injectable and CYDECTIN Oral Drench endectocides for cattle and sheep.

#### 11.4.4.3 Products

##### 11.4.4.3.1 *Overview of Key Products*

In 2017, Animal Health's four best-selling products contributed €951 million in overall external net sales, amounting to 61% of the Animal Health external net sales (down from 62% in 2016). The Animal Health business has generally demonstrated strength in life-cycle management over the past decades, and offers a number of top-selling brands in the industry.

In the following, we briefly present the Animal Health business unit's best-selling products in fiscal years 2015 through 2017 and in the three months ended March 31, 2018. For a discussion of the best-selling products' contribution to Animal Health's external net sales in fiscal years 2015 through 2017 and for the three months ended March 31, 2018, see "10.10.2.4.1 Net Sales," "10.9.2.4.1 Net Sales" and "10.8.2.4.1 Net Sales."

Advantage™ product family: The Advantage™ product family consists of flea, tick and worm control products for the protection of pets and residential space.

Seresto™: Seresto™ is a flea and tick collar for cats and dogs, with a duration of up to eight months.

Drontal™ product family: The Drontal™ product family is a line of de-wormers for the elimination of every type of intestinal worm that is commonly found in dogs and cats.

Baytril™: Baytril™ is an antibiotic for veterinary use in various indications in companion animals (dogs, cats, exotic animals) and farm animals (poultry, cattle, sheep, pigs).

#### 11.4.4.4 R&D

At Animal Health, R&D activities focus on antiparasitics, antibiotics, medicines to treat noninfectious disorders and nonantibiotic alternatives for infectious diseases. The business' central research activities are conducted in close cooperation with the research departments at Pharmaceuticals and Crop Science.

Animal Health endeavors to improve the health and well-being of companion and farm animals through innovations. Animal Health pursues the "one health" concept: it offers animal health products that reduce the risk of transmission of disease pathogens to humans, such as endoparasiticides for cats and dogs or ectoparasiticides to protect especially against fleas and ticks. Through Animal Health's initiative focusing on companion vector-borne diseases (CVBD™) and with the global scientists who participate in this initiative, Animal Health believes it is setting trends in basic research and the fight against vector-borne diseases.

In fiscal year 2017, Animal Health's R&D expenses amounted to 9.9% of Animal Health's net sales.

In January 2017, the European regulatory authorities approved PolyVar™ yellow, a new product to protect honey bees against the Varroa mite. This decision was implemented in national law in more than 20 countries during the year.

Animal Health also aims to reinforce its business by continually identifying further product development candidates through new and existing collaborations. Animal Health works closely together with its partners in areas such as the development of innovative technologies, application innovations and lead structure optimizations.

#### 11.4.4.5 Markets and Distribution

##### 11.4.4.5.1 *Markets and Competition*

According to Bayer's calculations, the animal health market expanded by around 2% in 2017 (2016: 5%), with growth significantly lagging behind previous years. Alongside a difficult market environment in the farm animals business in Europe and North America, growth rates in the companion animals business, and in the important parasiticides market in particular, were also lower than in previous years. The slight recovery of the farm animals business in the core markets and an upturn in the American companion animals business at the end of the year were unable to offset the weaker market development in the first half of the year. Bayer expects growth to increase to 4% in 2018. In Bayer's view, the main factors here are likely to be an improvement in market conditions in the farm animals sector, along with further robust demand in the companion animals business.



Generally, Bayer believes that the animal health market, driven by an increasing world population and higher incomes, remains very attractive.

Animal Health encounters competition in all of its geographical markets from large national and international competitors, such as Zoetis, Merck, Elanco, Boehringer Ingelheim, Ceva, and Virbac. For information on the competitive risks facing Animal Health, see “1.1.4 *The industries in which Bayer operates are highly competitive, and competitive pressure could increase. Furthermore, disruptive technologies or changes to competitors’ business models may adversely affect Bayer’s business.*”

#### 11.4.4.5.2 *Distribution*

Depending on national regulatory frameworks, Animal Health markets its products through veterinarians and other distribution channels such as pharmacies or retail stores. Depending on the respective market segment, Animal Health conducts studies on customer satisfaction and customer retention.

In the marketing and use of its products, Animal Health not only observes statutory regulations, but also further-reaching Group-wide policies and voluntary industry-wide commitments. Where several regulations are applicable, Animal Health principally observes the more stringent requirements.

#### **11.4.5 Covestro**

Our former segment Covestro is a global provider of high-tech polymer materials and associated application solutions for many areas of modern life, and supplies key industry sectors such as the automotive, construction, electronics and wood/furniture industries. Covestro’s business is divided into three business units. The Polyurethanes business unit focuses on the development, production and marketing of polyurethane raw materials, either on a stand-alone basis or as a formulation of an isocyanate and a polyether polyol, i.e., a system. The Polycarbonates business unit’s focus is on the development, production and marketing of polycarbonates, which are an engineering thermoplastic that may be easily worked, molded and thermoformed. The Coatings, Adhesives and Specialties business unit is a global provider of high performance materials to the industrial coatings, adhesives, sealants and other specialties industry segments.

Covestro was legally and financially separated from Bayer on September 1, 2015, and subsequently was floated on the stock exchange in connection with its initial public offering of shares in October 2015. Following the gradual reduction of its equity interest in Covestro since Covestro’s separation, as of the date of this Offering Memorandum, Bayer directly holds 6.8% of Covestro Shares. As a result of the reductions of the equity stake and the conclusion of a control termination agreement at the end of September 2017, Covestro ceased to be a reportable segment and fulfilled the conditions for presentation as discontinued operations for the first nine months of 2017. As of October 1, 2017, Covestro was classified as an associate due to Bayer’s remaining significant influence and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss. The comparative information for fiscal year ended December 31, 2016 (with the exception of the consolidated statement of financial position as of December 31, 2016) was restated accordingly to present Covestro as discontinued operations for the full fiscal year ended December 31, 2016.

#### **11.5 Corporate Functions/Business Services/Technology Services/Currenta**

Business activities that cannot be allocated to any of the Life Science businesses described above are reported under “All Other Segments.” These primarily include the services provided by the service areas Business Services, Technology Services and Currenta. The corporate functions and Business Services operate as group-wide competence centers in which business support services are bundled. Business Services’ activities range from development and implementation of IT-based solutions and design, build and execution of end-to-end process operations to in-house management consulting. Technology Services supports the Group through providing technology and engineering services. Currenta is the service company responsible for managing and operating the Chempark sites in Leverkusen, Dormagen and Krefeld-Uerdingen, Germany.

#### **11.6 Procurement and Supplier Management**

Procurement at Bayer is a corporate function, the head of which reports directly to the chief financial officer. Bayer has a diverse procurement portfolio due to the varying nature of its segments. Procurement acts centrally on behalf of all segments and leverages synergies by pooling know-how and procurement spend.

Procurement operates according to uniformly established procurement and supplier management processes. Long-term contracts and active supplier management for strategically important goods and services are important elements of these processes. The goal is to not only minimize procurement-specific risks such as supply bottlenecks or significant price fluctuations, but also to safeguard Bayer's competitiveness and ensure smooth production processes. Close cooperation with and systematic integration of selected suppliers in innovation processes gives Bayer access to innovative solutions.

The following table provides key information on Bayer's procurement activities.

<b>Procurement Activities</b>	<b>2016</b>	<b>2017</b>
Procurement spend (in € billion) .....	14.8	14.9
Spend in OECD countries (mainly Germany and United States) (in € billion)..	12.2	12.2
Spend in non-OECD countries (mainly Brazil, India and China) (in € billion)...	2.6	2.7
Number of suppliers.....	97,270	93,330
Number of countries.....	151	148

Bayer purchases locally wherever possible in order to respond promptly to the requirements of its sites, thereby simultaneously strengthens local economies. In 2017, this applied to 71% (2016: 71%) of Bayer's procurement spend at its main business locations, and to 71% (2016: 71%) of procurement spend in all countries worldwide.

The following table shows the main direct procurement materials for each of Bayer's current segments.

<b>Main Direct Procurement Materials</b>	
Pharmaceuticals	Active ingredients (e.g., small molecules, biologics), radioactive ingredients (e.g., actinium, radium), intermediates (e.g., epoxy phthalimide), raw materials (e.g., iodine, cell culture media, solvents), pharmaceutical excipients (e.g., celluloses, starches), packaging materials, medical devices, finished products (e.g., Zetia)
Consumer Health	Active ingredients (e.g., naproxen sodium, loratadine, paracetamol), vitamins (e.g., vitamin C and B), excipients and operating materials, finished products (e.g., Canesten™, Dr. Scholl's™, Berocca™), packaging materials
Crop Science	Active ingredients (e.g., mancozeb), excipients and solvents (e.g., rapeseed oil, toluene, ammonia), complex intermediates (e.g., pyridine polyfluoride), packaging materials
Animal Health	Finished products, active ingredients (e.g., moxidectin, praziquantel, Baycox-Isocyanate), packaging materials (e.g., Seresto™ tins, spot-on tubes), raw materials, excipients

As of the date of this Offering Memorandum, Bayer is not aware of any single supply risk of material significance to the whole Group. For further information on risks with regard to procurement, see "1.1.16 Bayer's production and procurement activities are exposed to various risks, including in connection with technical failures, natural disasters, regulatory action or legislative changes."

## **11.7 Production and Logistics**

### **11.7.1 Production**

As of December 31, 2017, Bayer operated production facilities at more than 130 sites in 34 countries. For information on each segment's most important production sites see "11.9 Real Property and Main Facilities." Through its group policies Bayer aims to ensure the safety of its sites and employees, and the protection of the environment and efficient energy use throughout its production processes. For more information on how we establish and organize sustainable conduct throughout the Group, see also "11.12 Sustainability." Group policies additionally stipulate that new production sites must not be set up in areas that are statutorily protected with regard to natural characteristics, biodiversity or other factors.

Pharmaceuticals and Consumer Health operate their own production sites around the world at which active ingredients are manufactured and formulation and packaging services are performed for their respective product portfolios. The manufacturing of pharmaceutical and medical devices is subject to extraordinarily stringent quality requirements that are based on internationally recognized standards, as well as on rules for good working



practice in the development and manufacture of pharmaceuticals. For information on a Warning Letter issued by the FDA in relation to Bayer's Leverkusen Supply Center, a production site in Leverkusen, Germany, that is engaged in the process of drug manufacturing including solid oral dosages forms, see "1.1.16 Bayer's production and procurement activities are exposed to various risks, including in connection with technical failures, natural disasters, regulatory action or legislative changes."

The crop protection products of Crop Science (excluding Monsanto) are mainly produced at the segment's own production sites. By maintaining numerous decentralized formulation and filling sites, Bayer believes that it is in a position to quickly react to the needs of local markets. At these sites the active ingredients are processed and packaged according to local requirements and application areas. Production of seeds takes place at locations close to Bayer's customers in Europe, Asia, and North and South America at Bayer's own farms or under contract. Crop Science's products are manufactured according to high quality standards. All of the Crop Science's products are reviewed and registered by relevant national authorities in various countries with a view to fulfilling applicable requirements for quality and user safety.

Animal Health procures the active ingredients for its products both from internal sources within Bayer and external suppliers worldwide. The unit's globally marketed animal health products are mainly manufactured at sites in Kiel, Germany, and Shawnee, Kansas, United States.

For further information on the regulatory requirements that Bayer's production sites may be subject to, or that Bayer is required to adhere to in connection with the manufacturing of its products, see "12. Regulatory Environment." For information on Bayer's future, pending and past investments in production sites, see "11.10 Investments" and "10.13 Capital Expenditures."

### **11.7.2 Logistics**

Logistics at Bayer comprises not just the transport and warehousing of goods, but in fact the entire steering and monitoring of all flows of goods and logistics data for the Bayer Group. We work continuously to develop logistics concepts that aim to account for safety, environmental and cost aspects in equal measure. Areas of focus in the ecological field include the reduction of energy consumption and CO<sub>2</sub> emissions, for example by minimizing air transport or using logistic concepts that include rail- and waterways.

Our logistics organization operates according to management systems and directives with global validity. We use both internal capacities and external logistics partners for storage and transport services. Bayer selects these according to strict safety, environmental and quality criteria. Alongside the Corporate Supply Chain unit, each segment maintains its own logistics activities that are aligned toward the unique circumstances of the respective business model and products.

## **11.8 Intellectual Property**

Bayer's global intellectual property strategy aims to protect and enhance Bayer's competitive position in the various geographical regions in which it operates. This is achieved by effective management of Bayer's intellectual property rights, including patents, trademarks and know-how. A high priority is placed on protecting innovation and the actual and future business value that Bayer can derive therefrom. Apart from the intellectual property rights mentioned in the following, and not taking into consideration Bayer's information technology systems, Bayer does not hold any significant intellectual property rights and does not depend on patents or licensed materials in order to conduct its business.

### **11.8.1 Patents**

Globally reliable protection of intellectual property rights is particularly relevant for an innovation company like Bayer. Depending on the legal framework, we therefore endeavor to obtain patent protection for our products and technologies in major markets. The Bayer Group has a portfolio that contains a considerable amount of patent protected products. As of the end of 2017, we (excluding Monsanto) owned approximately 48,100 valid patent applications and patents relating to more than 4,700 protected inventions worldwide.

Patent terms vary according to the laws of the country granting the patent. In view of the high investment required for product research and development, the EU member states, the United States, Japan and some other countries extend patent terms or issue supplementary protection certificates to compensate for the shortening of the effective patent protection period due to regulatory approval processes for new drugs. The term of a patent is normally 20 years. Since it takes an average of 12 years to develop a new medicine, only eight years of patent

protection generally remain following the product's approval. In most cases it would be impossible to cover the high costs incurred in the research and development of innovative medicines or of new indications or dosage forms for existing drugs without this protection. We are therefore committed worldwide to protecting both the international patent system and our own intellectual property.

Due to the long period of time between the patent application and the market launch of a product, Bayer generally only has a few years in which to earn an adequate return on its investment in research and development. This makes effective and reliable patent protection all the more important. See also *"1.1.5 Patents protecting products that are currently profitable for Bayer are subject to expiration, and there can be no assurance that Bayer will be successful in developing new products that upon market approval will achieve the commercial success to counterbalance the expected decline in revenues generated by such products upon the expiration of their patents."* Our patents department regularly reviews the patent situation in collaboration with the respective operating units and monitors for potential patent infringements so that legal action can be taken if necessary. For information regarding ongoing patent-related legal proceedings, see *"11.15.2 Patent Disputes."* See also *"1.1.7 Bayer's business and results of operations may be adversely affected if Bayer is unable to obtain or defend its intellectual property or if the rights associated with its intellectual property do not provide effective protection."*

While patent protection is essential to Bayer's entire business, its relative importance varies by segment. In general, patents are most important for Pharmaceuticals, followed by Animal Health and Crop Science. For Consumer Health, trademarks are very important, while it is almost independent of patents. In Pharmaceuticals, the core protection is frequently provided by a limited number of patents for a small number of compounds or, sometimes, even a single compound. With respect to Animal Health the situation is similar. In Crop Science, there is typically a bundle of products containing a patent-protected compound or trait in combination with some or many other compounds or traits. Accordingly, a single patent in Crop Science is typically of much less value than in Pharmaceuticals or Animal Health, meaning that the pricing premium to be achieved for patented products in Crop Science is generally lower. In addition, Crop Science's customers are more price sensitive and quite reluctant to pay higher prices for the benefits offered by patented products if somewhat less effective but much cheaper generic products are available. As a result, while the loss of exclusivity for Crop Science products has a detrimental effect on the pricing of the product concerned, such effect would typically be more significant for Pharmaceuticals or Animal Health products. Consumer Health has almost no patented products and Consumer Health products that offer patent-protected benefits face pressure from customers that is similar to that described for Crop Science. Consumer Health's business depends more on reputation and brand recognition, which accounts for the greater importance of trademarks. For more information on our trademarks, see *"11.8.2 Trademarks"* below.

Given the large number of patents held by Bayer, we do not consider any single specified patent to be of material importance for the continuity of the entire Group. Particular products and technologies are typically covered by a number of patents following a careful consideration of aspects relevant to the product, its production process, and its various fields of application, as well as to technological alternatives and variations. This approach ensures that Bayer is less exposed to the fate of individual patents, meaning that if a single patent expires or is not granted, there are usually others that can help provide a level of protection. As described above, the relative importance of patent protection varies by segment, and patent protection generally is most important for Pharmaceuticals. For further information on the expiration dates for the Bayer Group's significant patents, see *"11.4.1 Pharmaceuticals."*

### **11.8.2 Trademarks**

As of mid-April 2018, the portfolio of trademark rights of the Group (excluding Monsanto) consisted of more than 57,000 national registrations and applications in multiple jurisdictions around the world, more than 1,300 European trademarks, as well as more than 1,500 additional international trademarks. The business name "Bayer," the Bayer logo and numerous product markings are trademark protected. Except for the "Bayer" and the "Bayer Cross" trademarks, we do not consider any further trademarks essential for our economic success. Trademark protection is of particular importance for Consumer Health.

### **11.8.3 Licenses**

The Bayer Group has numerous active licensing agreements with third parties under which it obtains or grants licenses in connection with R&D and/or the distribution, marketing and sale of products. For example, Rivaroxaban, the Xarelto™ active ingredient, was invented by Bayer and is being jointly developed with Janssen R&D. In the United States, Xarelto™ is marketed by Janssen Pharmaceuticals, and Bayer earns royalties on Xarelto™ sales. Another significant example is the agreement with Regeneron Pharmaceuticals to jointly develop

EYLEA™. For information on Pharmaceuticals and Crop Science's main R&D collaborations, see "11.4.1.4.4 Collaborations and Strategic Alliances" and "11.4.3.4 R&D."

In connection with these agreements, Bayer depends upon its successful cooperation with third parties, given that inadequate performance by collaboration partners could adversely affect the development of Bayer's sales and costs. See also "1.1.15 Bayer's dependence on external partnerships, including with suppliers, could adversely impact Bayer's business, operations and reputation."

#### 11.8.4 Domains

As of mid-April 2018, the portfolio of domains of the Bayer Group (excluding Monsanto) consisted of more than 21,500 domains, which are managed centrally at the group level. The most well-known of our domains are "bayer.com" and "bayer.de." We do not consider any of our domains to be essential for our economic success.

#### 11.9 Real Property and Main Facilities

Bayer operates production and research facilities worldwide and uses land with office buildings, warehouses and other facilities in a large number of countries as either owner or lessee.

Bayer is currently represented at approximately 1,198 locations, of which approximately 874 are leased. As of June 5, 2018, Bayer owned approximately 377 million m<sup>2</sup> of land.

The following table provides an overview of our main facilities (excluding Monsanto) as of June 5, 2018:

Sites by segments	As of June 5, 2018		Key Site Uses
	Land area in thousand square meters <sup>(1)</sup>	Owned/Leased	
<b>Pharmaceuticals</b>			
Bergkamen, Germany	1,113 / 528	Owned	Active ingredient production
Berkeley, California, U.S.A.	174	Owned	Active ingredient production based on biotechnological processes
Berlin, Germany	206 / 200	Owned	Headquarters of Pharmaceuticals division, formulation and packaging, Research & Development
Leverkusen, Germany	936 / 99	Owned	Formulation and packaging
Pittsburgh, Pennsylvania, U.S.A.	57	Owned	Manufacture of medical devices such as contrast agent injectors and consumables
Turku, Finland	165	Owned	Formulation and packaging of intrauterine systems
Weimar, Germany	114 / 114	Owned	Formulation and packaging
Wuppertal, Germany	1,582 / 541	Owned	Active ingredient production, Research & Development
Whippany, New Jersey, U.S.A.	785	Owned	U.S. headquarters of Pharmaceuticals division
<b>Consumer Health</b>			
Basel, Switzerland	N/A <sup>(2)</sup>	Leased	Consumer Health headquarters
Bitterfeld-Wolfen, Germany	530 / 53	Owned	Formulation and packaging
Cimanggis, Indonesia	101	Owned	Formulation and packaging
Darmstadt, Germany	10 / 10	Owned	Formulation, filling and packaging
Grenzach, Germany	15 / 15	Owned/Leased	Formulation, filling and packaging
Myerstown, Pennsylvania, U.S.A.	251	Owned/Leased	Formulation and packaging
Whippany, New Jersey, U.S.A.	see Pharmaceuticals above		U.S. headquarters of Consumer Health division

<b>As of June 5, 2018</b>			
<b>Sites by segments</b>	<b>Land area in thousand square meters<sup>(1)</sup></b>	<b>Owned/Leased</b>	<b>Key Site Uses</b>
<b>Crop Science</b>			
Dormagen, Germany	2,197 / 170	Owned	Development of new production processes and manufacture of Crop Protection and Environmental Science products
Frankfurt am Main, Germany <sup>(3)</sup>	161 / 119	Land Lease	Manufacture of Crop Protection and Environmental Science products
Gatersleben, Germany <sup>(4)</sup>	78 / 78	Owned	Research & Development for wheat
Ghent, Belgium <sup>(4)</sup>	18	Land Lease	Research & Development for seeds and traits
Kansas City, Missouri, U.S.A.	955	Owned	Manufacture of Crop Protection and Environmental Science products
Knapsack, Germany <sup>(3)</sup>	67 / 59	Land Lease	Manufacture of Crop Protection and Environmental Science products
Marbach, Germany <sup>(4)</sup>	23 / 23	Owned	Research & Development and production of Vegetable Seeds
Monheim, Germany	6,233 / 624	Owned	Headquarters of Crop Science division, Research & Development for fungicides and insecticides
Nunhem (Haelen), Netherlands <sup>(4)</sup>	920	Owned	Research & Development, production of Vegetable Seeds
Research Triangle Park, North Carolina, U.S.A. <sup>(4)</sup>	283	Owned	Crop Science North America Headquarters, Research & Development for seeds and traits
Vapi, India	348	Owned	Development of new production processes and manufacture of Crop Protection and Environmental Science products
West Sacramento, California, U.S.A.	61	Owned	Research & Development for Biologics and Vegetable Seeds
Wismar, Germany	24 / 24	Owned	Research & Development for Biologics
<b>Animal Health</b>			
Kiel, Germany	96 / 96	Owned	Formulation and packaging of animal health products
Monheim, Germany	see Crop Science above		Headquarters of Animal Health, Research & Development for Animal Health products
Shawnee, Kansas, U.S.A.	210	Owned	Research & Development, formulation and packaging of animal health products

(1) For the facilities located in Germany, the secondary figures provided relate to the developed parts of land areas.

(2) Not applicable because only office space leased at this site.

(3) Site to be partially transferred as part of the Transaction-related Divestments.

(4) Site to be completely transferred as part of the Transaction-related Divestments.

The headquarters of the Bayer Group are located in Leverkusen, Germany, while the headquarters of Pharmaceuticals is located in Berlin, Germany, the headquarters of Consumer Health in Basel, Switzerland and the headquarters of Crop Science and Animal Health in Monheim, Germany.

### 11.10 Investments

Currently, Pharmaceuticals is investing in production capacities for the manufacture of rFactor VIII therapy products at the Wuppertal and Leverkusen sites in Germany in connection with the currently biggest capital expenditure program of Pharmaceuticals with a total volume of around €800 million. The R&D laboratory capacities in Wuppertal, Germany, are also being considerably expanded with a capital expenditure volume of approximately €135 million. In addition, Pharmaceuticals is investing in production and R&D site upgrades and expansions in Germany. A major intangible investment relates to the exclusive global cooperation with Loxo Oncology, Inc., which was concluded in 2017. For more information on Bayer's agreement with Loxo Oncology, Inc., including payments due thereunder, see "11.3.2 Innovation."

Consumer Health's largest investment project for a production site comprises the multiyear modification and expansion of the facilities in Majinpu/Kunming (China).

Between 2014 and 2017 Bayer invested some €2.6 billion overall in property, plant and equipment to satisfy increased demand for crop protection products and seeds. This included investment in the replacement and expansion of production capacities and in research and development facilities. Here the focus was on the United States, Germany and India, and on expanding the network of breeding stations for various crops, particularly from the Netherlands and Brazil.

In 2017, Bayer undertook initial capital expenditures totaling some €90 million through 2021 at the Animal Health production site in Kiel in connection with a site expansion that will take several years. We manufacture some 60 percent of the Animal Health products we market worldwide in Kiel.

The approval of future investments by Bayer's relevant management bodies occurs in due course prior to their execution, following a defined stage gate process. As of June 5, 2018, apart from future investments to be made in connection with the pending investments described above, there are no principal future investments which Bayer's relevant management bodies have approved. Bayer funds the pending investments described above through its free operating cash flow.

For information on our investments for fiscal years ended December 31, 2015, December 31, 2016 and December 31, 2017 and for the three months ended March 31, 2018, see "10.13 Capital Expenditures."

### 11.11 Employees

As of June 5, 2018, Bayer employed approximately 100,110 people worldwide on a full-time equivalent basis. Upon completion of the Transaction-related Divestments this figure is expected to decline by approximately 4,600 employees who are expected to move to BASF. At December 31, 2017, Monsanto had approximately 20,270 employees on a full-time equivalent basis. Accordingly, following completion of the Transaction and the Transaction-related Divestments, Bayer expects to employ more than 115,000 people on a full-time equivalent basis.

As of December 31, 2017, 2016 and 2015, Bayer employed 99,820, 115,170 and 116,583 people, respectively. The decline in the number of employees from 2016 to 2017 was due to the deconsolidation of Covestro at the end of September 2017. In each of the years ended December 31, 2017, 2016 and 2015 as well as the three months ended March 31, 2018, roughly a third of our workforce was based in Germany.

As of December 31, 2017, our employees had worked for the Bayer Group for an average of ten years. The rate of voluntary fluctuation (employee-driven terminations) in 2017 at 4.8% was level with the figure for 2016. The overall fluctuation rate was 10.4%, a decrease of 2.8% percentage points compared with 2016. This figure includes all employer- and employee-driven terminations, retirements and deaths. Our workforce includes only a small number of employees on temporary contracts (4.4%) and hardly any temporary employees from staffing agencies. At our significant locations of operation, the average is 3.5%. Bayer uses temporary personnel from staffing agencies primarily in response to short-term personnel requirements, fluctuations in order levels, temporary projects or long-term illness.

The following table provides an overview of the distribution of our employees by region on a full-time equivalent basis as of the dates set forth below:

	As of December 31,				As of March 31,
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017 <sup>(3)</sup>	2018 <sup>(3)</sup>
	(audited)		(unaudited)		(unaudited)
Europe / Middle East / Africa.....	58,839	59,483	50,970	52,380	53,095
North America .....	15,961	15,788	13,001	13,001	12,813
Asia / Pacific .....	28,818	27,407	22,852	22,852	22,457
Latin America .....	12,965	12,492	11,582	11,587	11,745

(1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

(2) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2017, where the comparative employee figures for fiscal year ended December 31, 2016 have been restated to account for the deconsolidation of Covestro.

(3) Figures do not include Covestro, which was deconsolidated at the end of September 2017.

The following table provides an overview of the distribution of our employees by current reportable segment as well as for our former segment Covestro on a full-time equivalent basis as of the dates set forth below:

	As of December 31,		As of March 31,	
	2015 <sup>(1)</sup>	2016 <sup>(1)</sup>	2017	2018
	(audited)		(unaudited)	(unaudited)
Pharmaceuticals .....	40,504	40,093	38,295	38,433
Consumer Health .....	13,513	12,821	11,760	11,594
Crop Science .....	23,268	22,399	20,736	20,661
Animal Health.....	3,804	3,957	3,527	3,677
Reconciliation.....	19,724	20,322	25,502	25,745
Covestro.....	15,770	15,578	–	–

(1) Figures extracted from the audited consolidated financial statements of Bayer as of and for fiscal year ended December 31, 2016.

For the fiscal years ended December 31, 2015 and 2016, 100,813 and 99,592 of our employees, respectively, worked in the Life Sciences.

In fiscal year 2017, there was a reduction in the number of employees in the Latin America, Asia / Pacific, and North America regions, but an increase in the Europe / Middle East / Africa region. While the number of employees in the segments decreased, there was an increase in the number included in Reconciliation, i.e., at group level. This change was mainly due to the reorganization of the Group with effect from January 1, 2016, see also “10.2.2 Bayer’s Corporate Structure in Effect from January 1, 2016.” Employees in the service functions, which were previously part of a segment, were assigned to the respective units in the corporate functions and country platforms in 2017. The breakdown by function shows more employees working in administration and a slight decrease in the number of employees working in production and R&D. The proportion of women in the workforce increased by 0.5 percentage points to 40.2%. In 2017, there was no significant change in the age structure compared with the previous year.

Bayer offers a number of pension and other post-employment benefit plans and a company pension plan is available to 75% of Bayer employees worldwide. The benefits provided depend on the legal, fiscal and economic conditions in each country, employee compensation and years of service. The value of total pension obligations at the end of 2017 was €24,492 million. Further information hereto is contained in “10.14 Pension and Other Post-Employment Benefit Obligations” as well as in Note 25 to the consolidated financial statements as of and for the fiscal year ended December 31, 2016 and in Note 25 to the consolidated financial statements as of and for the fiscal year ended December 31, 2017.

Bayer offers stock-based compensation programs collectively to different groups of employees. Further information on the different share-based compensation plans of Bayer is contained in Note 26 to the consolidated financial statements of Bayer for the fiscal year 2017 which are incorporated by reference in “19.1 Bayer Information”.

Employees at all Bayer sites around the world have the right to elect their own representatives. In 2017, the working conditions for around 63% of our employees worldwide were governed by collective or company agreements. At various country companies, the interests of the workforce are represented by elected employee representatives who have a right to be consulted on certain personnel-related decisions. The contractually agreed working hours of our employees do not exceed 48 hours a week in any country.

## 11.12 Sustainability

We regard sustainability as a means to safeguard our future viability and, accordingly, have made it a fundamental part of our corporate strategy and strive to integrate it into everyday procedures.

Responsibility for the Group’s sustainable orientation lies with the Board of Management member responsible for Human Resources, Technology and Sustainability, currently Mr. Klusik, in his role as Chief Sustainability Officer, and with the Sustainable Development Committee (SDC) under the auspices of the Health, Safety & Sustainability function introduced in 2016. The SDC sets targets and draws up initiatives, management systems and corporate policies, and is responsible for their implementation. Operational implementation is effected with the help of nonfinancial targets and performance indicators throughout the value chain, based on a clear definition of responsibilities in the corporate structure and the identification of major areas of activity using a materiality analysis. Corporate policies aim to ensure our sustainability principles are firmly established in business operations and are implemented through corresponding management systems, committees and processes. The



review and revision of these regulations and internal audits seek to ensure that our management systems are continuously improved and aligned to the respective requirements.

The following table shows how Sustainability Management is structured at Bayer:

A 1.2.3/1

**Structure of Sustainability Management**

Sustainability management		
Organization	Major areas of activity	Steering, measurement and documentation
<ul style="list-style-type: none"> <li>&gt; Member of the Board of Management responsible for Human Resources, Technology and Sustainability</li> <li>&gt; Corporate Health, Safety &amp; Sustainability function</li> <li>&gt; Sustainable Development Committee</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Product and process innovation</li> <li>&gt; Access to medicine</li> <li>&gt; Sustainable food supply</li> <li>&gt; Employee relations &amp; development</li> <li>&gt; Business ethics</li> <li>&gt; Product stewardship</li> <li>&gt; Safety</li> <li>&gt; Environmental protection / resource efficiency</li> <li>&gt; Supplier management</li> <li>&gt; Stakeholder engagement / partnering</li> <li>&gt; Societal engagement</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Corporate policies on, for example,               <ul style="list-style-type: none"> <li>– human rights</li> <li>– compliance</li> <li>– sustainable development</li> <li>– responsible marketing</li> </ul> </li> <li>&gt; Targets / indicators</li> <li>&gt; HSEQ management systems and audits</li> <li>&gt; Opportunity and risk management</li> <li>&gt; Integrated Annual Report with independent auditing</li> </ul>
<p>Initiatives such as WBCSD, GRI (Global Reporting Initiative), U.N. Global Compact, Responsible Care</p>		

We underline our mission as a company that acts sustainably through our commitment to the U.N. Global Compact and the Responsible Care™ initiative, as well as through our involvement in the World Business Council for Sustainable Development (WBCSD). Bayer is committed to the U.N. Sustainable Development Goals (SDGs) and has published a company position detailing this. Our innovations, products and services make a contribution to overcoming some of the biggest global challenges, including the goals of zero hunger (SDG 2) and healthy lives and wellbeing (SDG 3) in particular.

Our supply chain is designed at both a global and regional level according to clear, sustainability-oriented criteria and standards. Bayer regards adherence to these standards as a crucial value-adding factor and an important lever for minimizing risks. A four-step process is thus established throughout the Group to improve sustainability practices in the supply chain, comprising the elements awareness-raising and supplier selection, evaluation and development.

Our sustainability requirements are established in the Bayer Supplier Code of Conduct (the “**Code of Conduct**”), which is based on the principles of the U.N. Global Compact and our Human Rights Position. It is available in 14 languages and covers the areas of ethics, labor, health, safety, environment & quality and management systems. The code lays out the general basis of cooperation with our suppliers and is applied in their selection and evaluation. The Supplier Code of Conduct is integrated into electronic ordering systems and contracts throughout the Bayer Group. Furthermore, our standard supply contracts contain clauses that authorize Bayer to verify suppliers’ compliance with our sustainability requirements, which we validate, e.g., through online assessments and on-site audits by external auditors.

Bayer’s goal was to have evaluated all strategically important suppliers by the end of 2017. This group includes those suppliers with a major influence on business in terms of, for example, procurement spend and long-term collaboration prospects (3-5 years). All in all, 99.5% (2016: 98%) of these suppliers were evaluated, the missing coverage being due to fluctuations inherent in the business. The remaining evaluations are scheduled to take place in the first quarter of 2018. By 2020, furthermore, we aim to evaluate all those suppliers with a significant procurement spend (> €1 million p.a.) that are regarded as potentially high-risk suppliers due to their combined country and category risk. Our target attainment as of 2017 was 93% (2016: 83%). In the case of new suppliers of this type Bayer reserves the right to review their sustainability performance through an online assessment or an on-site audit. Bayer auditors evaluate selected new and existing suppliers particularly with regard to health, safety and environmental protection. These audits are performed, e.g., on contract manufacturing suppliers with an increased risk. A total of 115 suppliers were evaluated by Bayer auditors in 2017.

Bayer reserves the right to terminate a supplier relationship if especially critical sustainability weaknesses have been identified during an online assessment or on-site audit and no improvement is observed during a follow-up evaluation. In 2017, Bayer was not prompted to end any supplier relationship due solely to sustainability performance.

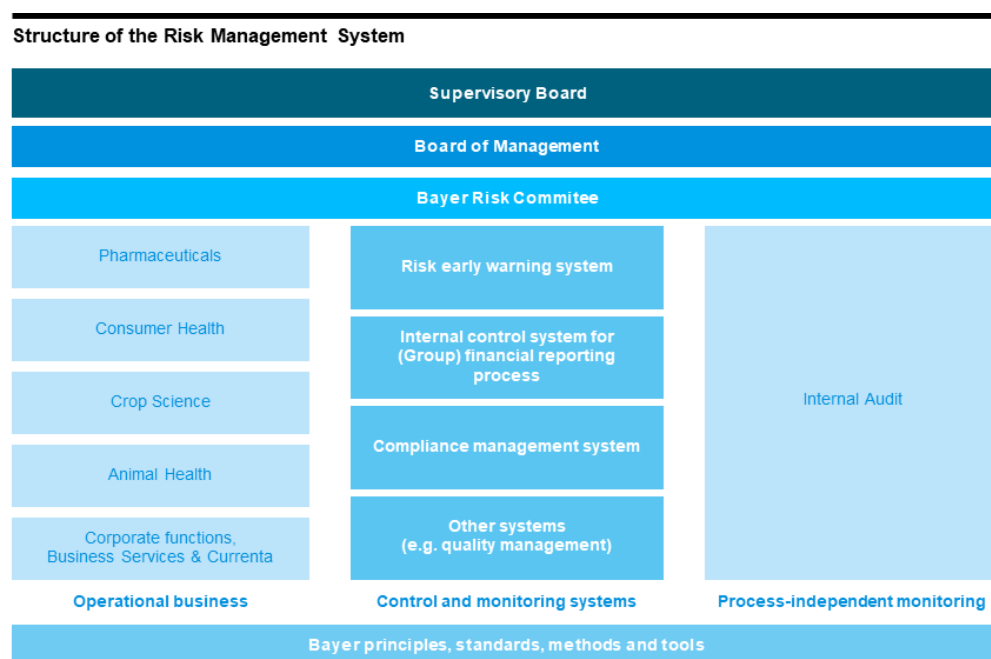
## 11.13 Risk Management & Compliance

### 11.13.1 Risk Management

As a global life science enterprise, the Bayer Group is constantly exposed to a wide range of internal or external developments and events that could significantly impact the achievement of our financial and nonfinancial objectives. Opportunity and risk management is therefore an integral part of corporate management at Bayer. We regard opportunities as positive deviations, and risks as negative deviations, from projected or target values for potential future developments.

As Covestro AG is no longer a reportable segment in the Bayer Group, the opportunity and risk management of Covestro is no longer analyzed. The operational risks of Covestro are no longer part of Bayer's risk profile.

The following graph gives an overview of the Group's risk management structure overseen by the Bayer Risk Committee.



We identify opportunities as part of the annual strategic planning cycle, during which the segments analyze internal and external factors that may positively affect the development of our business. These may be factors of a social, economic or environmental nature. The core phase of our strategic planning process normally takes place in the first half of the year and starts with a comprehensive analysis of the markets. The segments build on this by analyzing their respective market environments to identify their opportunities. They base these analyses on different time periods to take into account the fact that trends or developments may impact our business over the short, medium or long term. In addition, opportunities are identified by the management and employees through daily observation of internal processes and markets. We have already taken account in our planning of opportunities that we believe are highly probable to materialize.

In connection with the reorganization of the Bayer Group initiated at the beginning of 2016, coordination of risk management activities was combined within the Group Risk Management function, which reports directly to the chief financial officer, and the risk management system was comprehensively and extensively realigned. This realignment involved, among other things, the adjustment of the risk management process – Enterprise Risk Management (ERM) process – to include a revised risk catalogue (Bayer Risk Universe) and a modified assessment system. The Bayer Group has implemented a holistic and integrated risk management system designed to ensure the continued existence and future target attainment of the Group through the early



identification, assessment and treatment of risks. The Bayer Group's risk management system is aligned to internationally recognized standards and principles.

To enable the Board of Management and the Supervisory Board to monitor material business risks as required by law, the Bayer Group has implemented a risk early warning system pursuant to Section 91 para. 2 of the German Stock Corporation Act (AktG), an internal control system ("ICS") for (Group) accounting and financial reporting processes and a compliance management system.

Bayer has an ICS in place for the accounting and financial reporting process. This process comprises defined structures and workflows implemented throughout the organization. The purpose of our ICS is to ensure proper and effective accounting and financial reporting in accordance with Section 289 para. 4 of the HGB (formerly Section 289 para. 5 of the HGB) and Section 315 para. 4 of the HGB (formerly Section 315 para. 2 No. 5 of the HGB). The ICS is designed to guarantee timely, uniform and accurate accounting for all business transactions based on applicable statutory regulations, accounting and financial reporting standards and the internal Group policies that are binding upon all consolidated companies. Risks are identified and assessed, and mitigated using suitable countermeasures. Mandatory ICS standards such as system-based and manual reconciliation processes and functional separation have been derived from these frameworks and promulgated throughout the Group by the Group Risk Management function on behalf of the chief financial officer of Bayer AG. The ICS standards are implemented by the Group companies and their compliance overseen by the respective management. Using Bayer's shared service centers, these companies prepare their financial statements locally and transmit them with the aid of a standard Group data model. This data model is based on the Group accounting policy and thus ensures the regulatory compliance of the consolidated financial statements. The Board of Management has confirmed the effective functioning of the ICS and the relevant criteria for the 2017 fiscal year. However, it should be noted that an internal control system, irrespective of its design, cannot provide absolute assurance that material misstatements in the financial reporting will be avoided or identified.

#### **11.13.2 Compliance**

Our compliance management system is aimed at ensuring lawful and responsible conduct by our employees. It is designed to identify potential violations in advance and systematically prevent their occurrence. The compliance management system thus contributes significantly to the integration of compliance into our operating units and their processes.

To create a positive compliance culture in our Company, we support all employees in conducting their professional activities with integrity and avoiding potential violations before they can occur. Bayer therefore organizes Group-wide training programs tailored to requirements and target groups, along with extensive communications activities on relevant compliance issues and risks. In addition, compliance managers are available worldwide to answer questions from all employees regarding lawful and ethical behavior in business-related situations. Employees can also discuss such matters with their supervisors, who serve as role models for compliance. We have set a Group target for nearly all of Bayer's managerial employees worldwide to complete at least one compliance training program each year. In 2017, 35,159 employees, or around 96.6%, completed such a program.

Our compliance principles apply throughout the Bayer Group and are established in our Corporate Compliance Policy, in which we commit to uphold the following ten principles:

- Antitrust: fair competition in our markets
- Anticorruption: integrity in our business dealings at all times
- Corporate responsibility: sustainability, safety and product stewardship
- Foreign trade law: observance of relevant trade controls
- Insider trading: safeguarding of equal opportunity in securities trading
- Accurate books and records: complete and detailed recording of our business activities and financial transactions
- Fairness and respect at work: treating one another with fairness and respect
- Intellectual property: safeguarding our own intellectual property and respecting that of others
- Avoiding conflicts of interest: separation of business and personal interests

- Privacy: precautions to protect and secure personal data

#### **11.14 Insurance**

Bayer has taken out insurance policies it considers usual and necessary in the industry such as but not limited to public-, product and environmental liability insurance, Directors & Officers liability insurance, property and business interruption insurance, transport and marine cargo insurance and trade credit insurance.

#### **11.15 Litigation**

As a global company with a diverse business portfolio, the Bayer Group is exposed to numerous legal risks, particularly in the areas of product liability, competition and antitrust law, anticorruption, patent disputes, tax assessments and environmental matters. The outcome of any current or future proceedings cannot normally be predicted. It is therefore possible that legal or regulatory judgments or future settlements could give rise to expenses that are not covered, or not fully covered, by insurers' compensation payments and could significantly affect our revenues and earnings.

Legal proceedings considered to involve, or to have involved in the course of the last twelve months, material risks are outlined below. The legal proceedings referred to do not represent an exhaustive list. For further information on the risks involved in legal proceedings, see also "1.1.13 Bayer is exposed to material risks from legal disputes and proceedings." For information on legal proceedings that Monsanto is involved in, see "1.2.4 As a result of the Transaction, Bayer has assumed the litigation risk arising in connection with Monsanto's pending and future litigation. Adverse outcomes in legal proceedings, including environmental remediation matters, could subject the Bayer Group to substantial damages and adversely affect the Bayer Group's results of operations."

##### **11.15.1 Product-related Litigation**

**Yasmin™ / YAZ™:** Bayer is or has been involved in a number of lawsuits and claims in the United States concerning Bayer's drospirenone-containing oral contraceptives Yasmin™ and YAZ™ or their generic versions, most of which have been resolved in recent years. Claimants allege that users have suffered personal injuries, some of them fatal, from the use of Yasmin™ and/or YAZ™ or their generic versions, and seek compensatory and punitive damages, claiming, in particular, that Bayer had not adequately warned of the alleged risks.

As of January 30, 2018, Bayer had reached agreements, without admission of liability, to settle approximately 10,600 claims in the U.S. for venous clot injuries (primarily deep vein thrombosis or pulmonary embolism) for a total amount of approximately US\$2.1 billion.

Bayer believes that it has meritorious defenses and will continue to defend itself vigorously against all claims that are not considered for settlement. Bayer believes the litigation risks in connection with Yasmin™/YAZ™ are no longer material as of the date of this Offering Memorandum.

**Mirena™:** As of April 13, 2018, lawsuits from approximately 3,100 users of Mirena™, a levonorgestrel-releasing intrauterine system providing long-term contraception, had been served upon Bayer in the United States (excluding lawsuits no longer pending). Plaintiffs allege personal injuries resulting from the use of Mirena™, including perforation of the uterus, ectopic pregnancy or idiopathic intracranial hypertension, and seek compensatory and punitive damages. Plaintiffs claim, inter alia, that Mirena™ is defective and that Bayer knew or should have known of the risks associated with it and failed to adequately warn its users. Additional lawsuits are anticipated. In April 2017, most of the cases pending in U.S. federal courts in which plaintiffs allege idiopathic intracranial hypertension were consolidated in a multidistrict litigation ("**MDL**") proceeding for common pre-trial management. As of April 13, 2018, lawsuits from approximately 480 users of Mirena™ alleging idiopathic intracranial hypertension had been served upon Bayer in the United States. Another MDL proceeding concerning perforation cases has, in the meantime, been dismissed. The Second Circuit Court of Appeals affirmed the perforation MDL district court's summary judgment order of 2016 dismissing approximately 1,230 cases pending before that court, and the Supreme Court of the United States rejected a petition for review. In August 2017, Bayer reached an agreement in principle with plaintiffs' counsel leadership for global settlement of the perforation litigation, for a total amount of US\$12.2 million. This agreement was executed in April 2018. Bayer may withdraw from the agreement if fewer than 98% of those who are eligible choose to participate. As of April 13, 2018, a total of approximately 4,100 cases would be included in the settlement. The idiopathic intracranial hypertension MDL proceeding is not included in the settlement.

As of April 13, 2018, five Canadian lawsuits relating to Mirena™ seeking class action certification had been served upon Bayer. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

*Xarelto™*: As of April 13, 2018, U.S. lawsuits from approximately 23,200 recipients of Xarelto™, an oral anticoagulant for the treatment and prevention of blood clots, had been served upon Bayer. Plaintiffs allege personal injuries from the use of Xarelto™, including cerebral, gastrointestinal or other bleeding and death, and seek compensatory and punitive damages. They claim, among other things, that Xarelto™ is defective and that Bayer knew or should have known of these risks associated with the use of Xarelto™ and failed to adequately warn its users. Additional lawsuits are anticipated. Cases pending in U.S. federal courts have been consolidated in an MDL for common pre-trial management. In May, June and August 2017, the first three MDL trials resulted in complete defense verdicts; plaintiffs have appealed all three verdicts. In January 2018, after the first trial to proceed in Pennsylvania state court had initially resulted in a judgment in favor of the plaintiff, the trial judge vacated the jury's verdict and granted judgment in favor of Bayer. In April 2018, the second Pennsylvania state court jury trial resulted in a complete defense verdict; plaintiff will appeal. Further Pennsylvania state court trials are currently scheduled for the third and fourth quarter of 2018. Bayer anticipates that additional trials will be scheduled. As of April 13, 2018, ten Canadian lawsuits relating to Xarelto™ seeking class action certification had been served upon Bayer. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

*Essure™*: As of April 13, 2018, U.S. lawsuits from approximately 16,800 users of Essure™, a medical device offering permanent birth control with a nonsurgical procedure, had been served upon Bayer. Plaintiffs allege personal injuries from the use of Essure™, including hysterectomy, perforation, pain, bleeding, weight gain, nickel sensitivity, depression and unwanted pregnancy, and seek compensatory and punitive damages. Additional lawsuits are anticipated. As of January 30, 2018, two Canadian lawsuits relating to Essure™ seeking class action certification had been served upon Bayer. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

*Class actions over neonicotinoids in Canada*: Proposed class actions against Bayer were filed in Quebec and Ontario (Canada) concerning crop protection products containing the active substances imidacloprid and clothianidin (neonicotinoids). Plaintiffs are honey producers, who have filed a proposed nationwide class action in Ontario and a Quebec-only class action in Quebec. Plaintiffs claim for damages and punitive damages and allege Bayer and another crop protection company were negligent in the design, development, marketing and sale of neonicotinoid pesticides. The proposed Ontario class action is in a very early procedural phase. In Quebec, the court certified a class in late February 2018. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

In connection with the above-mentioned proceedings, Bayer is insured against statutory product liability claims against Bayer to the extent customary in the respective industries and has, based on the information currently available, taken appropriate accounting measures for anticipated defense costs. However, the accounting measures relating to Yasmin™ / YAZ™ and Essure™ claims exceed the available insurance coverage.

### **11.15.2 Patent Disputes**

*Adempas™*: In January 2018, Bayer filed patent infringement lawsuits in a U.S. federal court against Alembic Pharmaceuticals Limited, Alembic Global Holding SA, Alembic Pharmaceuticals, Inc. and INC Research, LLC (together "**Alembic**"), against MSN Laboratories Private Limited and MSN Pharmaceuticals Inc. (together "**MSN**") and against Teva Pharmaceuticals USA, Inc. and Teva Pharmaceutical Industries Ltd. (together "**Teva**"). In December 2017, Bayer had received notices of an abbreviated new drug application with a paragraph IV certification ("**ANDA IV**") pursuant to which Alembic, MSN and Teva each seek approval of a generic version of Bayer's pulmonary hypertension drug Adempas™ in the United States.

*Betaferon™ / Betaseron™*: In 2010, Bayer filed a complaint against Biogen Idec MA Inc. ("**Biogen**") in a U.S. federal court seeking a declaration by the court that a patent issued to Biogen in 2009 is invalid and not infringed by Bayer's production and distribution of Betaseron™, Bayer's drug product for the treatment of multiple sclerosis. Biogen is alleging patent infringement by Bayer through Bayer's production and distribution of Betaseron™ and Extavia™ and has sued Bayer accordingly. Bayer manufactures Betaseron™ and distributes the product in the United States. Extavia™ is also a drug product for the treatment of multiple sclerosis; it is manufactured by Bayer, but distributed in the United States by Novartis Pharmaceuticals Corporation, another defendant in the lawsuit. In 2016, the U.S. federal court decided a disputed issue regarding the scope of the patent in Biogen's favor. Bayer disagrees with the decision, which may be appealed at the conclusion of the proceedings in the U.S. federal court. In February 2018, a jury decided that Biogen's patent is invalid at the end of a trial

regarding Biogen's claims against EMD Serono, Inc. and Pfizer Inc. for infringement of the same patent. Biogen has challenged the jury's verdict. Unless the jury's verdict is overturned, Biogen cannot assert its claims against Bayer.

*Damoctocog alfa pegol* (BAY 94-9027, long-acting recombinant factor VIII): In August 2017, Bayer filed a lawsuit in a U.S. federal court against Nektar Therapeutics ("**Nektar**"), Baxalta Incorporated and Baxalta U.S., Inc. (together "**Baxalta**") seeking a declaration by the court that a patent by Nektar is invalid and not infringed by Bayer's drug candidate BAY 94-9027 for the treatment of hemophilia A. In September 2017, Baxalta and Nektar filed a complaint in a different U.S. federal court against Bayer alleging that BAY 94-9027 infringes seven other patents by Nektar. Regarding the complaint by Bayer, Nektar and Baxalta gave Bayer a covenant not to make any claims against Bayer for infringement of that patent. Bayer amended the complaint to now seek a declaration by the court that the seven other patents by Nektar are not infringed by BAY 94-9027. The patents are part of a patent family registered in the name of Nektar and further comprising European patent applications with the title "Polymer-factor VIII moiety conjugates" which are at issue in a lawsuit Bayer filed against Nektar in 2013 in the district court of Munich, Germany. In this proceeding, Bayer claims rights to the European patent applications based on a past collaboration between Bayer and Nektar in the field of hemophilia. However, Bayer believes that the patent family does not include any valid patent claim relevant for Bayer's drug candidate BAY 94-9027 for the treatment of hemophilia A.

*Nexavar*<sup>TM</sup>: In 2015, Bayer filed patent infringement lawsuits in a U.S. federal court against Mylan Pharmaceuticals Inc. and Mylan Inc. (together "**Mylan**"). In 2014 and 2015, Bayer had received notices of an ANDA IV application pursuant to which Mylan seeks approval of a generic version of Bayer's cancer drug Nexavar<sup>TM</sup> in the United States. In October 2017, Bayer reached an agreement with Mylan to settle this patent dispute. Under the settlement terms, Mylan will obtain a license to sell its generic version of Nexavar<sup>TM</sup> in the United States at a date after the expiration of the patent for the active ingredient expiring in January 2020. In 2016, Bayer had received another notice of such an ANDA IV application by Teva Pharmaceuticals USA, Inc. Bayer filed a patent infringement lawsuit against Teva in the same U.S. federal court. In January 2018, Bayer reached an agreement with Teva to settle this patent dispute. Under the settlement terms, Teva will obtain a license to sell its generic version of Nexavar<sup>TM</sup> in the United States at a date after the expiration of the patent for the active ingredient expiring in January 2020.

*Stivarga*<sup>TM</sup>: In 2016, Bayer filed patent infringement lawsuits in a U.S. federal court against Apotex, Inc. and Apotex Corp. (together "**Apotex**") and against Teva. Bayer had received notices of an ANDA IV application pursuant to which Apotex and Teva each seek approval of a generic version of Bayer's cancer drug Stivarga<sup>TM</sup> in the United States.

*Xarelto*<sup>TM</sup>: In 2015, Bayer and Janssen Pharmaceuticals filed a patent infringement lawsuit in a U.S. federal court against Aurobindo Pharma Limited, Aurobindo Pharma USA, Inc. (together "**Aurobindo**"), Breckenridge Pharmaceutical Inc. ("**Breckenridge**"), Micro Labs Ltd., Micro Labs USA Inc. (together "**Micro Labs**"), Mylan, Princeton Pharmaceutical Inc. ("**Princeton**"), Sigmapharm Laboratories, LLC ("**Sigmapharm**"), Torrent Pharmaceuticals, Limited and Torrent Pharma Inc. (together "**Torrent**"). Bayer had received notices of an ANDA IV application by Aurobindo, Breckenridge, Micro Labs, Mylan, Princeton, Sigmapharm and Torrent, each seeking approval to market a generic version of Xarelto<sup>TM</sup>, an oral anticoagulant for the treatment and prevention of blood clots, in the United States. In 2016, Bayer received another notice of such an ANDA IV application by InvaGen Pharmaceuticals, Inc. ("**InvaGen**"). Bayer and Janssen Pharmaceuticals filed a patent infringement lawsuit against InvaGen in the same U.S. federal court.

Bayer believes it has meritorious defenses in the above ongoing patent disputes and intends to defend itself vigorously.

For further information on the legal risks arising in connection with patent disputes, see "1.1.7 Bayer's business and results of operations may be adversely affected if Bayer is unable to obtain or defend its intellectual property or if the rights associated with its intellectual property do not provide effective protection." and "1.1.8 Bayer may inadvertently infringe on the intellectual property rights of third parties and could be enjoined from using or selling the infringing products or technology and/or required to pay monetary damages or royalties."

### **11.15.3 Further Legal Proceedings**

*Trasylol*<sup>TM</sup> / *Avelox*<sup>TM</sup>: A qui tam complaint relating to marketing practices for Trasylol<sup>TM</sup> (aprotinin) and Avelox<sup>TM</sup> (moxifloxacin) filed by a former Bayer employee is pending in the United States District Court in New Jersey. The U.S. government has declined to intervene at the present time.

*Newark Bay Environmental Matters:* In the United States, Bayer is one of numerous parties involved in a series of claims brought by federal and state environmental protection agencies. The claims arise from operations by entities which historically were conducted near Newark Bay or surrounding bodies of water, or which allegedly discharged hazardous waste into these waterways or onto nearby land. For more information on this legal dispute, see “1.1.12 Bayer is subject to extensive and increasingly stringent environmental, health and safety laws, regulations and standards, which may result in restrictions on production or marketing of its products, increased costs to ensure compliance, damage to Bayer’s reputation, legal liability and remediation efforts.”

*Asbestos:* A further risk may arise from asbestos litigation in the United States. In many cases, the plaintiffs allege that Bayer and co-defendants employed third parties on their sites in past decades without providing them with sufficient warnings or protection against the known dangers of asbestos. Additionally, a Bayer affiliate in the United States is the legal successor to companies that sold asbestos products until 1976. Union Carbide has agreed to indemnify Bayer for this liability. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

#### **11.15.4 Tax Proceedings**

*Stamp taxes in Greece:* In 2014, 2016 and 2017, a Greek administrative court of first instance dismissed Bayer’s lawsuits against the assessment of stamp taxes and contingent penalties in a total amount of approximately €130 million on certain intra-Group loans to a Greek subsidiary. Bayer is convinced that the decisions are wrong and either has appealed the relevant decisions or plans to do so in due course. Bayer believes it has meritorious arguments to support its legal position and intends to defend itself vigorously.

#### **11.16 Material Agreements**

The following section provides an overview of material agreements to which any member of the Group is a party.

##### **11.16.1 Material Agreements entered into in Connection with the Transaction**

On September 14, 2016, we entered into an agreement and plan of merger with Monsanto Company, which provides for our acquisition (through a merger) of all outstanding shares of Monsanto Company against a payment of US\$128.00 per share in cash. This agreement is described under “6.8 Key Terms of the Merger Agreement.”

In connection with financing of the Transaction, Bayer entered into the Loan Facilities Agreement, which is described in “6.9 Financing of the Transaction.”

For information on the Divestiture Agreements entered into with BASF in connection with the Transaction-related Divestments, see “6.10 Overview of Transaction-related Divestments.”

For information on the NSA, which Bayer entered into with the United States Government as part of the CFIUS review process, see “6.7 Transaction Timeline and Regulatory Approval Processes.”

##### **11.16.2 Other Agreements**

Bayer entered into a €3.5 billion syndicated credit facility that is undrawn as of yet and was arranged by Bayer AG and its U.S. subsidiary Bayer Corporation. This credit facility is available until December 2020. The participating banks are entitled to terminate the credit facility in the event of a change of control at Bayer and demand repayment of any loans that may have been granted under this facility up to that time.

On November 22, 2016, Bayer Capital Corporation B.V. issued Mandatory Convertible Notes in a nominal amount of €4.0 billion, excluding subscription rights for existing shareholders, guaranteed by Bayer AG and maturing in November 2019. The terms on which holders may convert the notes into shares before the maturity date are more favorable in the event of a change of control than they would be otherwise.

On June 14, 2017 Bayer AG issued Exchangeable Bonds in a nominal amount of €1.0 billion, maturing in 2020, which may either be settled in cash or by delivery of Covestro Shares or by a combination thereof. In the event of a change of control and the occurrence of a rating downgrade, bondholders have a put option to demand redemption of any or all of their bonds for which they did not yet exercise their exchange right.

For information on Pharmaceuticals' current main collaborations in R&D, see "11.4.1.4.4 Collaborations and Strategic Alliances" and for Crop Science's most significant long-term cooperations, see "11.4.3.4 R&D."



## 12. REGULATORY ENVIRONMENT

*The business of our three divisions Pharmaceuticals, Consumer Health and Crop Science and our business unit Animal Health is subject to significant governmental regulation. Applicable rules and regulations include, for example, provisions on the development, manufacturing, approval process, labeling, distribution, pricing and/or marketing of our products, which include drugs, consumer care products, veterinary products, seeds, pesticides (for plant and non-plant protection) and chemical products. In addition, our operations are subject to significant environmental regulation. The regulatory frameworks affecting the Group vary depending on the jurisdictions where Bayer carries out its operations and markets its products.*

*While relevant regulations are typically of a national scope, within the European Union (“EU”), a considerable degree of regulatory harmonization exists in a number of areas relevant to our operations, such as in the approval process of pharmaceuticals, veterinary drugs, and the active ingredients in plant protection products. In some instances, the EU has created a common regulatory framework that applies in all EU member states (“Member States”) (and that sometimes allows Member States to adopt more detailed and more stringent regulations), and has indirect harmonizing effects in certain other European countries.*

### 12.1 Pharmaceuticals

The primary emphasis of pharmaceutical and drug regulation is to assure the safety and effectiveness of products. Accordingly, in conducting the business of Pharmaceuticals, the Group is required to comply with various laws and regulations, including rules implemented by regulatory agencies and by other national or supra-national regulatory authorities, as well as, with industry standards. These regulations and the industry standards in the different countries where the Group develops, manufactures and/or markets drugs, contain, among others, provisions on the testing, safety, efficacy, labeling (including warnings), approval, manufacturing, promotion, marketing and post-marketing surveillance of prescription pharmaceuticals. Also see “1.1.6 *There can be no assurance that Bayer will identify a sufficient number of research candidates and that Bayer’s products will receive and maintain any necessary regulatory approvals, and any increase in regulatory and legal requirements, including as a result of higher public expectations, could lead to more costly and lengthy registration or approval procedures and could impair or preclude Bayer’s product development and commercialization efforts.*” Non-compliance with any such laws may result in regulatory action or law suits, relating to, for example, product liability, anti-competition or patent infringements. In the U.S. and France as well as any other countries in which class actions for pharmaceutical products are permitted, the litigation risk and exposure is significantly higher than in countries where class actions aren’t permitted. Also see “1.1.13 *Bayer is exposed to material risks from legal disputes and proceedings.*” Notable competent authorities implementing these regulations include the EMA, the FDA, the Pharmaceuticals and Medical Devices Agency in Japan and the China Food and Drug Administration.

#### 12.1.1 Development of Drugs

##### 12.1.1.1 General

Specific rules are applicable to the development of new drugs and the conduct of the trials involved in such development. The regulatory requirements typically follow stringent standards that vary by country. In almost all countries, finished drugs (that is, products manufactured and marketed in packaging ready for distribution to consumers) can only be placed on the market for a specific medical indication after receipt of marketing authorizations (“MA”) by the competent authorities. In order for a drug candidate to qualify for MA, most jurisdictions require a dossier in the form of a “common technical document” (“CTD”) to be submitted to the relevant competent authority for review and evaluation in a registration process. The CTD contains detailed information about the drug candidate, including its efficacy, safety and quality. In addition, it provides details about the manufacturing process, the production facilities and information to be provided to patients. Supporting data is collected in pre-clinical and clinical trials prior to the application for MA, as outlined below. This registration process can last from a few months to a few years and depends on the nature and proposed use of the drug candidate under review, the quality of the submitted data and the efficiency of the relevant competent authority.

The preclinical and clinical development paths are broadly similar in the EU and in the U.S. At the beginning of the development phase for a new drug, pre-clinical in vitro and in vivo laboratory studies are conducted to evaluate the potential effects of substances and examine chemical-physical properties, toxicological data and other information. Upon successful completion of such pre-clinical studies, a request for a clinical trial authorization

in the EU or an investigational new drug application in the U.S. must be approved by the relevant competent authorities before clinical trials may begin.

Clinical trials are typically conducted sequentially, beginning with Phase I (typically lasting one year), followed by Phase II (typically lasting an additional two to three years) and Phase III (typically lasting an additional two to five years) and continuing to Phase IV studies which are conducted after marketing approval has been received. These phases may be compressed, may overlap or may be omitted in some circumstances, but can generally be described as follows:

- In Phase I, clinical studies are initially conducted in a limited clinical trial population to evaluate the safety profile of a drug candidate and the range of doses that can be administered, including the maximum tolerated dose that can be given to patients. The active ingredient is usually tested on healthy volunteers to determine tolerability as well as to study the effects of pharmacologically active molecules at their tissue sites of action (i.e., pharmacodynamic effects) and to study the absorption, distribution, metabolism and excretion of a pharmacologically active molecule in the body (i.e., pharmacokinetic effects).
- In Phase II, testing takes place on a few hundred voluntary patients. The results in this phase allow evaluation of the efficacy of the drug candidate for specific indications, determination of the drug candidate's optimal dosage and further collection of data to describe the drug candidate's safety profile. Efforts in this phase also aim to determine pharmacokinetic differences between healthy and ill persons.
- Phase III is the most important one in the development of a new drug. In Phase III, the drug candidate is usually tested in randomized trials comparing the drug candidate to an approved form of therapy in an expanded and well-defined patient population, usually recruited from a large number of hospitals and medical practices. When no alternative is available, drug candidates may be tested against a placebo. Stringent criteria of statistical significance apply to Phase III trials. These studies, which are sometimes referred to as "registration" or "pivotal studies," are usually undertaken once Phase II clinical trials suggest that the drug candidate is effective and has an acceptable safety profile, and an effective dosage has been identified. The goal of Phase III studies is to demonstrate evidence of a clinical benefit, usually expressed as a positive benefit-risk assessment for the drug candidate in a patient population with a given disease and stage of illness.
- Phase IV studies close the trial sequence after the approval of a drug has been obtained. They aim to ensure safety for patients based on ongoing and long-term recordings, e.g., to identify rare side effects or side effects attributable to previously unknown outside influences.

Clinical studies are subject to the strict requirements of good clinical practice by the International Council on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use ("ICH") in the U.S., EU and Japan. The same requirements also apply in many other countries in the world that have implemented the guidelines of the ICH, which, among other matters, harmonize and provide technical standards for the design and conduct of clinical trials.

Many countries also regulate the publication of the results of clinical trials. Since January 1, 2014, the joint Principles for Responsible Clinical Trial Data Sharing by the European Federation of Pharmaceutical Industries and Associations and the Pharmaceutical Research and Manufacturers of America must be adhered to in Europe and the U.S. These principles provide that researchers are able to submit applications to receive access to patient level data, protocols, and clinical study reports for new drugs approved in the U.S. and the EU.

In some jurisdictions, clinical data from the actual country in which approval is being sought is required for approval. In Japan, for example, additional clinical studies on Japanese patients are necessary. Such requirements may increase the time required for drug development.

If a drug candidate meets the approval requirements, the relevant competent authority will grant a product license for marketing. In some countries, negotiation on pricing and reimbursement follow the grant of the product license for marketing. The process of developing a pharmaceutical product from discovery through testing, registration and initial product launch can take up to approximately ten years, but the exact duration may vary considerably depending on the type of drug candidate and the countries involved. Once drugs are being marketed, in most countries, pharmaceutical companies are required to monitor adverse reactions and submit periodic reports on such reactions, if any, to the appropriate authorities. Regulatory agencies review the results of such studies and



newly observed signals from post-approval reporting on a continued basis. In addition, safety committees of these regulatory agencies may restrict the marketing authorization, request changes to the labeling, withdraw approval or demand specific public safety communication at any point in time.

To ensure drug safety, many countries have also adopted legislation to combat drug counterfeits, such as European Directive 2011/62/EU<sup>23</sup> amending Directive 2001/83/EC<sup>24</sup>. The directives provide for obligatory safety features on the outer packaging of drugs such as unique identifiers (barcodes) and anti-tampering devices, a common EU-wide logo to identify legal online pharmacies, tougher rules on controls and inspections of producers of active pharmaceutical ingredients and strengthened record-keeping requirements for wholesale distributors.

#### 12.1.1.2 *Regulatory Specifics in the EU*

In the EU, drug approval and manufacturing is comprehensively regulated at both the EU level and the national level in each Member State. The EU legal framework for drug approval and manufacturing has been developed and amended in recent decades on numerous occasions, with a tendency to increasingly shift decision-making and proceedings from a national to the EU level.

In terms of drug approval procedures, four registration procedures with different regional coverages are available in the EU: a European centralized procedure which is mandatory for several therapeutic fields of high medical need such as, for example, oncology, and three different types of national procedures, two of which are based on mutual recognition of either an already existing marketing authorization or an application for marketing being assessed on behalf of all involved countries by one rapporteur country and the third being a purely national procedure. In the European centralized procedure, after the dossier is submitted to the EMA, the Committee for Medicinal Products for Human Use (“**CHMP**”) carries out a scientific evaluation. The CHMP opinion is then transmitted to the European Commission for its opinion, which, if also favorable, results in a binding decision for marketing authorization in all Member States. A company is obliged to use the mutual recognition or decentralized procedure, if it intends to sell a medicinal product in more than one Member State, but not necessarily throughout the entire EU. After MA has been granted for a product in one Member State selected by the company (a so-called reference Member State, “**RMS**”), this RMS has to produce an assessment report. The authorities in the other Member States, where the product is to be approved, receive a copy of the original dossier and a copy of the assessment report. They then “mutually recognize” the decision of the RMS. If a company wishes to license a product in just one Member State, it may proceed to obtain only a national license under applicable national law.

Simplified procedures apply with regard to the approval of European imports and generics, i.e., drugs whose active ingredient and therapeutical efficacy is the same as those of a drug that has already been approved. For the approval of generics, the pharmacological, toxicological and clinical trials which are normally required before a drug may be marketed are replaced by proof of therapeutic equivalence (bio-equivalence) to a drug that has already been approved and which contains the same amount of the active ingredient in a similar form to the generic.

Preparing a dossier for approval in the EU takes specific know-how, considerable investment and a time commitment of several years given that the ultimate approval of a drug is only granted in the final stages of the drug development process. The conditions for MA also include requirements for the manufacturer of the drug to comply with applicable legislation, including good manufacturing practices, related implementing measures and applicable guidelines that involve, among other matters, the ongoing inspection of manufacturing and storage facilities. After MA for a drug has been obtained, the marketed product and its manufacturer continue to be subject to regulations and monitoring. The competent authorities must be notified of changes to the product, responsible parties, manufacturing processes, and, depending on the type of change, the product may be subject to variations to the existing MA or may even have to apply for a new MA. Safety-relevant information is compiled using post-authorization safety studies conducted after approval, the results of which are entered into a registry in compliance with European laws on pharmacovigilance.

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<sup>23</sup> Directive 2011/62/EU of the European Parliament and of the Council of 8 June 2011 amending Directive 2001/83/EC on the Community code relating to medicinal products for human use, as regards the prevention of the entry into the legal supply chain of falsified medicinal products.

<sup>24</sup> Directive 2001/83/EC of the European Parliament and of the Council of 6 November 2001 on the Community code relating to medicinal products for the human use.

#### 12.1.1.3 Regulatory Specifics in the U.S.

In the U.S., pharmaceutical companies and their products are subject to regulation by the FDA and, to a lesser extent, supervision by the authorities of the respective U.S. states. Drug products with new active ingredients and new combinations, indications and administration methods for active ingredients or drugs that have already been registered, must nevertheless be reviewed and approved under the new drug application (“**NDA**”) procedure before they may be distributed in the United States. After completion of the required clinical testing, a NDA is prepared and submitted to the FDA for in-depth review and approval before the product may be marketed in the U.S. The NDA must include the results of all preclinical, clinical, and other testing and a compilation of data relating to the product’s pharmacology, chemistry, manufacture and control. The cost of preparing and submitting a NDA is substantial. The process, beginning with drug discovery and development and continuing through final FDA approval, can take up to ten years or longer. As in Europe, the reason for this is the obligation to submit extensive documentation on the results of pre-clinical and clinical studies, safety, efficacy and manufacturing and quality assurance for the proposed drug.

Generic drug approvals and changes to drugs that have already been approved are subject to a detailed regulatory scheme pursuant to the Hatch-Waxman Act of 1984. Applicants seeking approval of a generic drug, typically do so through the abbreviated new drug application (“**ANDA**”), which is similar to the simplified European procedure. However, if the original drug or its use is covered by patents, generic marketing approval is effective only after patent protection has expired or if the ANDA applicant certifies that the new product will not infringe the patent of the original drug of the branded manufacturer, or that such patents are invalid (paragraph IV certification). Once the ANDA application has been accepted for filing by the FDA, the ANDA applicant must also send notice of the paragraph IV certification to the patent and NDA holders, who may then initiate a patent infringement lawsuit in response to the notice.

Pharmaceutical companies that have received FDA approval under a NDA for a new chemical entity (“**NCE**”) receive a five-year period of marketing exclusivity during which the FDA cannot approve any application seeking approval of a generic version of that drug. A NCE is a drug that contains a drug substance or an active ingredient that has not been previously approved by the FDA. In case a drug does not qualify as a NCE, certain changes to a drug, if supported by clinical studies essential to the approval conducted or sponsored by the applicant, can secure a three-year period of marketing exclusivity, during which the FDA cannot approve an application for a generic drug that includes the same change.

The FDA is also responsible for periodic inspections of production facilities and supervision of products. If the FDA finds that a manufacturer has significantly violated FDA regulations, the FDA may issue a “Warning Letter” to give a drug manufacturer the opportunity to take voluntary and prompt corrective action before initiating an enforcement action. Non-compliance with and breach of official orders can result in fines, product recalls, suspension of production, import or distribution bans, suspension of NDA or ANDA processing, court orders or criminal prosecution. Under certain circumstances, the FDA will revoke approvals that have already been granted. For information on a Warning Letter issued by the FDA in relation to Bayer’s Leverkusen Supply Center, a production site in Leverkusen, Germany, that is engaged in the process of drug manufacturing including solid oral dosages forms, see “*1.1.16 Bayer’s production and procurement activities are exposed to various risks, including in connection with technical failures, natural disasters, regulatory action or legislative changes.*”

#### 12.1.1.4 Biologicals

We market, among others, substances known as “biologicals.” Biologicals are derived from biological sources (e.g., from human plasma or from cell lines genetically engineered to produce a specific protein). In the U.S. and other markets, unique requirements apply specifically to biologicals. For example, in order to minimize the risk of infectious disease transmission, human plasma-derived products require donor screening and plasma testing, as well as multiple manufacturing steps designed to remove viruses and other infectious agents. Biological products are chemically complex, often depending on a precise structure for their effectiveness (e.g., the specific folding of a molecule). Regulations require us to subject these products to rigorous testing to ensure stability throughout their shelf life. Because biological products cannot withstand conventional sterilization techniques, we must use special processes to ensure sterility. Under applicable regulatory requirements, we must submit detailed documentation to demonstrate appropriate controls over our manufacturing facilities, including associated equipment and supporting utilities such as water supply and climate control.

### **12.1.2 Promotional and Pricing Practices, Marketing and Distribution of Drugs**

The promotional and pricing practices of pharmaceutical manufacturers and their interaction with purchasers and prescribers of drugs are subject to various legal restrictions and limitations, including anti-kickback and anti-corruption laws, regulation governing false claims and unfair trade practices and consumer protection laws. Many of the agencies administering these laws and regulations have increased their enforcement activities in the pharmaceutical sector in the past years, in particular in the U.S. Potential investigations and prosecutions in this regard carry the risk of significant civil and criminal penalties.

The marketing and distribution of drugs, including through wholesale and mail order, is also subject to regulation. Different rules generally apply, depending on whether drugs are only available for consumer purchase through a pharmacy, or not. In some countries, with respect to drugs only available through a pharmacy, an additional distinction is drawn between prescription only and non-prescription drugs. Since the allocation of active ingredients to the categories described in the preceding sentences is based on national legislation, the applicable rules differ by jurisdiction. Dispensing and advertising of drugs, in particular, is also typically subject to specific restrictions, in addition to general restrictions on advertising deriving, e.g., from EU and antitrust laws and regulations.

In many countries drugs are generally still distributed to consumers via pharmacies or other legal entities requiring a wholesaler license. In addition, product-specific regulations may prohibit advertising under certain circumstances (e.g., outside professional circles). Advertising for some drugs may even be completely prohibited in certain countries. Irrespective of the product category, health-related representations in product advertising may be subject to regulation. To the extent this is the case, the advertising company must be able to provide scientific proof of the accuracy of relevant representations.

### **12.1.3 Consumer Costs and Reimbursement Regulations**

In a number of countries, prices for drugs are subject to governmental regulation in the form of direct or indirect price controls, including reference pricing, budget allocations or patient contribution requirements. Otherwise or in addition to price regulations, costs for prescribed pharmaceutical therapies may be fully or partially borne by social security or health insurance programs. In addition, governments may impose compulsory licenses or require generic substitution. The different national regulations that apply to the reimbursement or assumption of costs significantly influence the pricing of drugs on the respective markets. The price and reimbursement level for new drugs often depends on the strength of the clinical data set for a particular drug. In most countries, national competent authorities ensure that the prices of registered medicinal products sold in their territory are not excessive, notwithstanding acceptable margins for wholesalers and pharmacies. In making this judgment, competent authorities usually compare the proposed national price to either the prices of existing treatments and/or the prices of the same drug in other countries and taking into account the type of treatment (preventive, curative or symptomatic), the degree of innovation, the therapeutic breakthrough, volume of sales, sales forecast, size of the target population and/or the improvement (including cost savings) over comparable treatments.

In the EU, pricing and reimbursement for drugs are not harmonized and fall within the exclusive jurisdiction of national authorities, provided that basic transparency requirements are met at the European level. As a consequence, reimbursement mechanisms by private and public health insurers vary from country to country. In public health insurance systems, reimbursement is determined by guidelines established by the legislator or a competent national authority. In general, inclusion of a product in reimbursement schemes is dependent upon proof of such product's efficacy, medical necessity, and the economic benefits of the product to patients and to the health care system in general. Acceptance for reimbursement comes with restrictions relating to cost, use and often volume of production and distribution, which also vary from country to country.

In contrast, the price of drugs in the U.S. is largely unregulated. Nevertheless, reimbursements may be available from third party payers, such as government payer programs at the federal or state level like Medicare (a health care program administered by the U.S. government for persons over 65 years of age) and Medicaid (a health care program for low income families and individuals that is funded by the U.S. government and the states, and administered by the states), or from managed care providers, private health insurers or other organizations. The process for determining whether a payer will provide coverage for a drug product may be separate from the process for setting the price or reimbursement rate that the payer will pay for the drug product. Third party payers may limit coverage to specific drug products on an approved list, which might not include all of the FDA-approved drug products for a particular indication. Also, third party payers are increasingly challenging the price and examining

the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy.

In March 2010, the U.S. Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (“**PPACA**”) was enacted. Among other things, the PPACA increased the minimum rebates owed by manufacturers under the Medicaid drug rebate program, extended manufacturers’ Medicaid rebate liability, expanded eligibility for Medicaid, and established annual fees and taxes on manufacturers of certain drugs. However, the current U.S. administration, may make changes or even repeal the PPACA. In addition, the current U.S. administration may make changes to legislation that could affect the amounts federal and state governments or third party payers will pay for health care products or directly or indirectly affect drug prices or drug imports into the U.S. Bayer will closely monitor these legislative proposals. Also, see “*1.1.17 Pharmaceuticals is exposed to pricing pressure resulting from regulation and market conditions, which may negatively impact Bayer’s business and results of operations.*”

## **12.2 Consumer Health**

Our consumer health products are mostly OTC nonprescription products in the dermatology, nutritional supplements, analgesic, digestive health, allergy, cold, sinus and flu, foot care, sun protection and cardiovascular risk prevention categories. Depending on the product and/or market the products are sold as drugs, medical devices, food supplements or cosmetics. OTC drugs and medical devices are subject to regulations similar to the drugs and medical devices marketed by our Pharmaceuticals division with regard to labeling, storage, record keeping, distribution, advertising, promotion and pricing. In some countries, food supplements and cosmetics do not require formal approval, but must meet standards that have been established by the relevant health authorities. In the U.S., the FDA and, in part, the Federal Trade Commission, oversee the marketing, manufacturing, labeling and advertising of consumer health products. Also see “*1.1.6 There can be no assurance that Bayer will identify a sufficient number of research candidates and that Bayer’s products will receive and maintain any necessary regulatory approvals, and any increase in regulatory and legal requirements, including as a result of higher public expectations, could lead to more costly and lengthy registration or approval procedures and could impair or preclude Bayer’s product development and commercialization efforts.*”

## **12.3 Crop Science**

Our Crop Science products are generally subject to approval procedures, manufacturing requirements and environmental protection laws. In tests required by law, Crop Science examines its products during the research and the development phase with regard to their mode of action, their (eco)toxicological properties and the extent of potential remaining trace concentration in plants and the environment. Each new crop protection active ingredient and each new technology must undergo these studies and tests to ensure that the active ingredient can be applied effectively as a product and that its use or that of the relevant technology is safe for people and causes no undue harm to the environment.

The number of countries that have regulatory frameworks concerning plant technology has increased significantly over the past years. Also, the approval procedures have become significantly more complex and regulatory controls have become stricter, which has resulted in materially higher development and maintenance costs and longer approval procedures. Against this background, Bayer has invested on an ongoing basis keeping dossiers up to date in order to continue to be able to meet the standards required to be met by even the most demanding regulatory regimes, including the U.S., Canada, the EU, Brazil and Japan and in order to comply with the standards, codes of practice, guidelines or recommendations pertaining to, among others, the registration process or safety evaluation of genetically modified products, plant protection products or biocidal products, issued by specialized international agencies such as the WHO, the FAO or the Organisation for Economic Cooperation and Development.

### **12.3.1 Regulation on Genetically Modified Organisms**

Seed products that have been genetically modified (“**GM**”) are subject to regulatory approval procedures in certain jurisdictions. Prior to receiving regulatory authorization, permits for release into the environment, interstate movement or importation of the GM seed products may need to be obtained. Once it has been confirmed GM seed products are safe for food, feed and the environment, the regulatory authorization for the respective GM seed product is granted. The GM seed products can then be grown in certain countries. Additionally, national authorizations are needed so that the grain grown from such GM seed products is permitted to be moved freely in

international commerce. The most important jurisdictions for Crop Science due to their production and/or importation of GM seed products, include the U.S., Canada, the EU, Japan, Brazil, Argentina, Mexico, Australia, Korea, Taiwan and China.

Before GM seed products may be sold in a specific country they are subject to an approval procedure for cultivation in the countries where the GM plant is being grown and subject to an import approval procedure in the countries that only import the product of the GM plant. The timeframe for obtaining approvals varies significantly by jurisdiction and even within jurisdictions, depending on resources and political circumstances. The development of a global regulatory dossier that is necessary for preparing a country-specific application takes two to three years. Once a dossier is complete, the regulatory review will typically take another one to two years, in countries such as the U.S., Canada and Japan. In other countries, the review period takes even longer.

Several international agreements are relevant in transnational environmental contexts concerning GM organisms (“**GMOs**”). The most important agreements include, the Convention on Biological Diversity, that entered into force in December 1993 (“**CBD**”) and its subsidiary agreement, the Cartagena Protocol on Biosafety, that entered into force in September 2003 (“**Cartagena Protocol**”). The CBD focuses on the conservation of biological diversity and the management of risks associated with GMOs. The Cartagena Protocol sets out the risk assessment framework for ensuring an adequate level of protection regarding the transfer, handling and use of GMOs. In addition, the Cartagena Protocol includes methods to demonstrate that food and feed from GMOs is as safe as that from traditionally bred, non-GMO counterparts. A supplementary agreement to the Cartagena Protocol that may soon enter into force is the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress. This agreement mainly focuses on administrative rules and procedures regarding liability and redress in the event of GMO-related damages to biological diversity.

#### 12.3.1.1 Regulatory Specifics in the EU

In the EU, GMOs and GM food or feed are topics that have been given a lot of political and legislative attention in the past years. The EU’s legislation and policy on GMOs is based on the precautionary principle enshrined in EU and international legislation and is designed to prevent any adverse effects on the environment, the health and safety of humans and animals. It reflects concerns expressed by certain consumers, farmers, and environmentalists, who are critical of GM technology. Food or feed from GMOs may be marketed in or imported into the EU, provided that they are authorized after passing evaluation and safety assessment requirements. GMOs and GM food or feed consisting of or containing GMOs are assigned a unique identifier and are labeled as such to ensure traceability and enable consumers to make informed choices.

Before GMOs and GM food or feed may be placed on the market, they must obtain an authorization from the European Commission. The risk assessment of GMOs and GM food or feed is carried out by the European Food Safety Authority (“**EFSA**”) in cooperation with the relevant scientific bodies of the respective Member States. Directive 2015/412/EU<sup>25</sup> permits Member States to restrict or prohibit the cultivation of authorized GMOs on their territory for reasons other than the risk to human or animal health and the environment. To complement Directive 2015/412/EU, the European Commission made a parallel proposal in April 2015 with regard to GM food or feed (for which the majority of authorizations are granted in the EU). In both cases, the opt-out applies or would apply to already authorized GMOs and GM food or feed as well as to those to be authorized in the future.

#### 12.3.1.2 Regulatory Specifics in the U.S.

The U.S. does not have federal legislation that specifically addresses GMOs. Instead, the U.S. address GMOs under the Coordinated Framework for Regulation of Biotechnology pursuant to which existing legislation on food, feed, and environmental safety governing conventional products shall apply. Thus, plant GMOs are regulated by the U.S. Department of Agriculture’s (“**USDA**”) Animal and Plant Health Inspection Service under the Plant Protection Act. GMOs in food and drugs are regulated by the FDA under the Federal Food, Drug, and Cosmetic Act and the Public Health Service Act. Pesticides and microorganisms containing GMOs are regulated by the EPA pursuant to the Federal Insecticide, Fungicide and Rodenticide Act and the TSCA. Compared to other countries, approvals for GMOs in the U.S., which is not a party to the Cartagena Protocol on Biosafety, is relatively favorable for the development of GMOs.

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<sup>25</sup> Directive EU 2015/412 of the European Parliament and of the Council of 11 March 2015 amending Directive 2001/18/EC as regards the possibility for the Member States to restrict or prohibit the cultivation of genetically modified organisms (GMOs) in their territory.

### 12.3.1.3 Other Jurisdictions

Over 65 countries around the globe have approval procedures for the cultivation or importation of GM seed products in place. In all of these countries, a rigorous scientific review is performed to show that the GM products are as safe as traditionally bred, non-GMO counterparts for food, feed, and the environment.

### 12.3.2 **Pesticide Regulation**

Pesticides comprise plant protection products such as herbicides, plant growth regulators, fungicides, insecticides, nematicides (i.e., pesticides used to kill roundworms), repellents and pest control substances, and non-plant protection products, also referred to as biocidal products, i.e., chemical substances or microorganisms intended to destroy or control organisms harmful to human or animal health (like pests or bacteria). In virtually all countries, pesticides or the active ingredients in pesticides must obtain regulatory approval prior to marketing. Such approval, is often only valid for a certain amount of time and then must be renewed or reassessed. However, due to different ways of exposure to plant protection products as opposed to non-plant protection products, in many countries the laws and competent authorities for these two categories of pesticides differ.

In addition, the active ingredient in a pesticide can be a chemical element. Therefore, legislation on chemicals regarding, for example, the classification, transportation, manufacturing and other aspects of chemicals is also applicable to pesticides in many countries. For further information on the regulation of chemical substances, see “12.5 Regulation of Chemical Products.”

Notwithstanding the foregoing, the U.S. has pesticide regulation in place that generally does not differentiate between plant and non-plant protection products. Residues from pesticides in food must also be approved both with respect to products grown nationally as well as imported products. The EPA is responsible for registering and overseeing the marketing of pesticides in the U.S. in accordance with the Federal Insecticide, Fungicide and Rodenticide Act, the Federal Food, Drug and Cosmetic Act and the Food Quality Protection Act. In addition, the United States Department of Agriculture and the FDA monitor the levels of pesticide residue that is allowed on or in crops. Existing pesticides must be monitored once placed on the market and, following a data call-in process, must be re-registered every 15 years to ensure they still meet the appropriate safety standards. The criteria for pesticide tolerances are reassessed every ten years. When assessing these risks, the EPA takes into account ecological and human health risks as well as cumulative risks due to multiple sources of exposure.

#### 12.3.2.1 Regulation Specific to Plant Protection Products

In most countries, manufacturers of plant protection products, such as herbicides, fungicides and insecticides must submit a dossier and obtain government regulatory approval prior to marketing with a view to protecting human and animal health and the environment. Strict standards are applied in the U.S., Japan, the EU and many other countries. On average, it takes nine to ten years from discovery of a new plant protection product until the dossier is submitted to the appropriate regulatory authority for product approval. The authorities then need up to five years to evaluate the data submitted in order to decide whether a registration may be granted. Many authorities follow separate procedures, depending on whether they are evaluating active substances or plant protection products. The relatively long evaluation period, which may include new requirements being imposed on a company after it has submitted a dossier for approval, shortens a company's utilizable patent protection period quite considerably. However, in some jurisdictions, part of the patent period lost due to the long regulatory approval process may be compensated by being granted additional data protection in the form of a “supplemental protection certificate” that extends the time of market exclusivity for a product. The approval of a plant protection product may not be valid indefinitely and has to be renewed after certain time intervals, in some countries. In the EU, for example, the maximum duration for an approval granted under Regulation 1107/2009/EC<sup>26</sup> (“**Plant Protection Regulation**”) is five to fifteen years, depending on the type of substance. In addition, legislation requires the submission of updates in case of significant changes such as manufacturing modifications or new uses in other crops.

The EU has one of the strictest regulatory regimes in the world for the assessment and approval of plant protection products. The Plant Protection Regulation requires that every active component of a plant protection product is evaluated for hazard-based safety before it can be placed on the market. In addition, the introduction of new regulations, data requirements or test guidelines is a normal part of enhancing safety assessments for plant protection products. Especially glyphosate-based herbicides, including certain important products of Monsanto,

<sup>26</sup> Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC.

which we are planning to acquire, such as the herbicide Roundup, have been under scrutiny by legislators beyond the regulatory process due to their alleged negative effects on human health (see “1.2.5 *The lack of public understanding and acceptance or perceived public acceptance of Monsanto’s biotechnology and other agricultural products as well as of the merits of the Transaction could harm Bayer’s reputation and, as a consequence, negatively affect Bayer’s business and results of operations.*”). The Committee for Risk Assessment of the European Chemicals Agency concluded that the available scientific evidence did not meet the criteria to classify glyphosate as a carcinogen, as a mutagen or as toxic for reproduction. The Committee did conclude, however, that it is a substance causing serious eye damage and is toxic to aquatic life with long-lasting effects. Considering the pertinent aspects relevant to the European Commission’s proposal to renew the approval of glyphosate, the Member States voted by qualified majority in favor of a renewal of the approval of glyphosate for a period of five years. Following the renewal of approval of glyphosate, Member States are responsible for the authorization of plant protection products containing glyphosate. This may lead to restrictions in some countries within the EU, subject to certain provisions and assessments they have to take into account in their decision making. Honey bee mortality or colony losses observed in some regions have also raised concerns with regulators and legislators and have led them to take a very restrictive approach for neonicotinoids used in certain insecticides, including Bayer products. In the EU, for example, after an assessment by the EFSA, the European Commission restricted the use of three pesticides in 2018, two of which are manufactured by Bayer. The restrictions go beyond some measures already in place since 2013. As a result, all outdoor use of the three substances will be banned and the neonicotinoids in question will only be allowed in permanent greenhouses. The full scope of the ban will come into effect by the end of 2018.

The sustainable use of plant protection pesticides has also been of concern for the European legislator. In accordance with Directive 2009/128/EC<sup>27</sup>, the Member States released national action plans to achieve the sustainable use of pesticides, to reduce the risks and impacts of pesticide use on human health and the environment and to promote the use of integrated pest management and of alternative, including non-chemical, approaches or techniques to pesticides.

Bayer has made a voluntary commitment to market only those plant protection products whose active ingredients are registered in at least one OECD country. In its sale and application of plant protection products and technologies, Crop Science observes the International Code of Conduct on Pesticide Management by the FAO from June 2013 which provides standards of conduct that serve as a point of reference in relation to sound pesticide life cycle management practices.

In addition, Bayer develops and places on the market biologic crop protection agents using living organisms such as bacteria and fungi, which offer highly targeted ways of controlling pests and diseases. Like conventional pesticides, these products are subject to approval procedures, manufacturing requirements and environmental protection laws with the respective guidelines being adapted to the specificities of this particular technology.

#### 12.3.2.2 Regulation Specific to Non-Plant Protection Products

Non-plant protection products, such as rodenticide products or vector control products (particularly in African countries), play a major role in protecting human health worldwide. In most countries, pesticides that are not plant protection products must go through an approval or registration procedure for both active ingredients and related products. In this regard, the standards, guidelines or recommendations issued by the WHO and FAO play a major role in supporting regulators in the adequate registration and evaluation of non-plant protection products. The review period for the registration of non-plant protection products depends on the country and may vary from two to five years for a product containing a new active ingredient. To some extent, regulatory studies developed for plant protection products with the same active ingredients may be used for regulatory purposes in the environmental science area.

In the EU, certain products sold in the professional pest control area, such as insecticides (except for those used for plant protection purposes), insect repellents and rodenticides fall under Regulation 528/2012/EU<sup>28</sup> (the “**Biocidal Products Regulation**”). The Biocidal Products Regulation requires that complete regulatory dossiers for both active ingredients and related products are developed before placing these products on the EU market. Certain forestry, stored grain, vegetation management or industrial (e.g., train track) or turf-related products

<sup>27</sup> Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides.

<sup>28</sup> Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products.



are also governed by the Plant Protection Regulation, which requires authorization before products can be placed on the market (see “12.3.2.1 Regulation Specific to Plant Protection Products”).

## 12.4 Animal Health

Veterinary drugs and other animal products developed and manufactured by Animal Health must be evaluated and approved by regulatory agencies for product quality, safety and efficacy before they may be marketed. In the U.S., the FDA's Center for Veterinary Medicine is responsible for ensuring that animal drugs are safe and effective for their intended uses and that food from treated animals is safe for human consumption. Veterinary products in the U.S. are also regulated by the USDA for biologicals and the EPA for certain ectoparasiticides (i.e., certain antiparasitic drugs).

In the EU, animal health products are subject to regulations similar to those governing the pharmaceutical sector. The EMA is responsible for the scientific evaluation of applications for a centralized marketing authorization. Once granted by the European Commission, the centralized marketing authorization is valid in all Member States as well as Iceland, Norway and Liechtenstein. The EU also provides the option of decentralized and national procedures for obtaining product marketing authorizations.

## 12.5 Regulation of Chemical Products

A comprehensive regulatory framework on the manufacturing, handling and marketing of chemical products, subjects the chemical products manufactured within our Group, to various stipulations and requirements. The regulatory framework in the chemical industry and related industries is subject to constant change. Relevant provisions are continually adjusted in order to keep them aligned with technical progress, increased safety needs and environmental protection efforts. Tightening of the current framework could have a negative impact on the production costs and product portfolio of the Group.

We must comply with relevant statutes and provisions applicable in individual countries, such as provisions on production, processing, registration, labeling, marketing, use and disposal of chemicals, other dangerous substances and biocidal products. In addition, regulations on technical safety, environmental protection, notification requirements, labor law and occupational safety provisions as well as stipulations by emissions laws must be adhered to. Also, the manufacturing, introduction and distribution of chemicals are subject to strict legal requirements, such as the obligation to provide safety data sheets (“**SDS**”). In addition to statutorily required safety information, additional information such as safety summaries within the scope of the global product strategy of the International Council of Chemical Associations (“**ICCA**”) is provided. Since 1994, Bayer has supported the voluntary Responsible Care initiative of the chemical industry and the associated Responsible Care Global Charter. In addition, Bayer supports the global product strategy, a voluntary commitment of the chemical industry initiated by the ICCA, the objective of which is to improve knowledge about chemical products, especially in emerging markets and developing countries.

As a contribution to the safe handling of chemicals, risk assessments are conducted according to recognized scientific principles. In case of a chemical emergency, facilities must notify agencies of chemical releases and provide annual public disclosures regarding toxic and hazardous chemical emissions and usage.

### 12.5.1 Regulatory Specifics in the EU

A major pillar of the regulatory framework for chemical products is Regulation 1907/2006/EC<sup>29</sup> (“**REACH**”), which was adopted to improve the protection of human health and the environment from potential risks posed by chemicals, while enhancing the competitiveness of the EU chemicals industry.

REACH provides for a general registration obligation for substances that are manufactured or imported in quantities of one ton or more. Depending on the quantity involved, the registration obligations include different data requirements, which are intended to permit findings on the physical-chemical, toxicological and eco-toxicological properties of the substance to be registered. In the EU, approximately 30,000 substances are subject to the registration obligation. If a substance is not registered, it may not be manufactured in or imported into the EU.

<sup>29</sup> Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.



Under REACH, an authorization system is applicable to the use or distribution of certain listed substances of very high concern. These substances of very high concern include substances in the “carcinogen, mutagen or reproduction-toxic,” “persistent, bio-accumulative and toxic” and “very persistent and very bio-accumulative” groups. The requirements for the use or distribution of these substances are determined based on the respective risks involved. The applicant must prove that it can adequately control the risks related to the substance or, if not, that the risks are outweighed by the socio-economic benefits. If appropriate alternatives are available, a substitution plan for recommended measures, including an implementation timetable, must be presented and the hazardous chemicals replaced by safe alternatives in due course. See also “1.1.16 Bayer’s production and procurement activities are exposed to various risks, including in connection with technical failures, natural disasters, regulatory action or legislative changes.”

Parallel to REACH, the United Nations introduced a globally harmonized system on the classification and labeling of chemicals (“GHS”). GHS aims to harmonize communication with respect to the transport and labeling of hazardous substances, occupational safety, SDS requirements and provisions concerning hazardous substances as they may affect end consumers. In the EU, the GHS is implemented through Regulation 1272/2008/EC<sup>30</sup> (the “CLP Regulation”). Under the comprehensive information system of the CLP Regulation, for example, if a substance qualifies as hazardous, the recipient of any shipment of the substance must be provided with a label and a SDS that includes information on the hazards and exposures associated with the substance, as well as potential precautionary and remedial measures against those hazards. In addition, all hazardous substances have to be notified into the classification and labeling inventory at the European Chemical Agency.

### **12.5.2 Regulatory Specifics in the U.S.**

The TSCA administered by the EPA regulates pre-manufacture notices for new industrial chemicals and polymers and may also regulate existing chemicals under test rules. Furthermore, the EPA registers biocidal products for use in antimicrobial applications in addition to those for agricultural uses. For industrial chemicals and polymers, in order to ensure proper use and handling, product safety is regulated by the Occupational Safety and Health Administration (“OSHA”). The OSHA Hazard Communication Standard requires information concerning the hazards of chemicals to be transmitted to our workers and customers through SDS and precautionary product labels.

## **12.6 Waste, Environmental Damages, Soil Contamination, Emissions Regulation and Occupational Health and Safety Requirements**

The production and distribution of Bayer products involves the use, storage, transportation, handling and disposal of toxic and hazardous materials. It is our policy to comply with all applicable health, safety and environmental requirements. We track, check and evaluate all environmental regulatory initiatives and laws regarding their potential impact on our current and past activities in order to develop appropriate compliance measures in a timely and effective manner. When necessary, we incur capital expenditures to ensure our compliance with applicable health safety and environmental regulations. While the observance of our compliance obligations has, historically, not adversely affected our competitive position or business, we cannot predict the impact of potential future regulations. We expect Bayer to continue to be subject to increasingly stringent environmental regulations, which address, among other matters:

- the disposal of pharmaceutical and veterinary products, the disposal of waste and wastewater, as well as, recycling;
- environmental damages and soil contamination;
- emissions into the air; and
- occupational health and safety requirements

### **12.6.1 Disposal of Pharmaceutical and Veterinary Products, of Waste and Wastewater, as well as, Recycling**

We are subject to regulations that may require us to remove or mitigate the effects of the disposal or release of human and veterinary pharmaceuticals or chemical substances into the environment. Active

<sup>30</sup> Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

pharmaceutical ingredients can enter the environment through human or animal excreta, through improper disposal or during production. In case of a release, investigations regarding the release and the extent of damage as well as remediation works generally become necessary which are associated with significant costs.

For their own active ingredients, Pharmaceuticals and Consumer Health and Animal Health carry out ecotoxicological investigations of pharmaceutical residues and degradation products to assess the potential environmental impact of these products. In connection with the approval process for human and veterinary pharmaceuticals in the EU and the U.S., an environmental risk assessment takes place for all new active ingredients.

Our goal is to minimize emissions into wastewater and all wastewater is subject to strict controls before it is discharged into the various disposal channels. Recycling and treatment is impossible for a large proportion of our materials, especially pharmaceuticals and crop protection products. However, throughout the Group, we make use of opportunities for recycling within the framework of legal regulations. In accordance with Bayer's corporate policies, all production sites are obliged to prevent, recycle and reduce waste and dispose of it safely and in line with good environmental practices.

### **12.6.2 Environmental Damages and Soil Contamination**

We are subject to environmental liability laws with regard to the prevention and remedying of environmental damage and soil contamination, such as Directive 2004/35/EC<sup>31</sup> on the remediation of damage to water, protected species, natural habitats or of land damage. In certain countries, such as Germany, soil contamination laws hold a current or previous owner or operator of property liable for the costs of remediation on, under, or in the property, regardless of whether it knew of or caused the release of the hazardous substances or the contaminants, regardless of whether the releases or contaminations resulted from common or best practices or practices of third parties and regardless of whether the practices were legal at the time they occurred. As many of our industrial sites have long histories, we cannot predict the full impact of applicable soil contamination regulation.

In the U.S., we are subject to potential liability under the U.S. Federal Comprehensive Environmental Response, Compensation, and Liability Act (commonly known as "**Superfund**"), the U.S. Resource Conservation and Recovery Act and related state laws for investigation and clean-up costs at a number of sites. At many of these sites, companies including Bayer have been notified that the EPA or private individuals consider such companies to potentially be responsible parties under the Superfund or related laws. The proceedings relating to these sites are in various stages. The clean-up process at many sites is ongoing. We regularly review the liabilities for these sites and have made accruals for currently quantifiable costs. Also see "*11.15 Litigation.*"

### **12.6.3 Emissions into the Air**

As a pure life science company, our Group is still affected by air emissions regulation. In the EU, our Group is subject to the emissions trading system. Member States need to meet the carbon dioxide emissions targets set for each Member State under EU legislation based on the Kyoto II Protocol. During 2013-2020 (phase 3 of the EU emissions trading system), the emissions cap decreases each year by a linear reduction factor of 1.74% of the average total quantity of allowances issued annually between 2008-2012. To achieve the target of cutting EU emissions by 40%, by 2030, compared to 1990, the cap will need to be lowered by 2.2% per year from 2021 onwards.

In the U.S., the Clean Air Act, as amended (the "**Clean Air Act**"), regulates emissions of air pollutants. The Clean Air Act establishes national limits for six priority pollutants (carbon monoxide, lead, nitrogen oxides, particulate matter, ozone and sulfur dioxide) and regulates the emission of other designated air pollutants. The Clean Air Act requires emissions sources to obtain permits and to periodically certify compliance with permitted standards. Owners and operators of facilities that handle quantities of listed flammable and toxic substances above certain threshold limits must implement detailed risk management plans, which are filed with and approved by the EPA.

### **12.6.4 Occupational Health and Safety Requirements as well as Transportation Safety**

Occupational health and safety requirements must be adhered to by the Group to keep employees or third-party providers working in hazardous environments safe from physical and/or health hazards. Thresholds for

<sup>31</sup> Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage.

specific hazards and exposures, such as airborne chemical exposure levels must be adhered to and rules of conduct regarding the proper use of equipment and of hazardous substances in the workplace must be observed. Also, facilities and work places must be assessed for the presence of asbestos containing materials and certain notice and work practice requirements must be followed to prevent employee exposure. Furthermore, preparedness trainings for employees and individuals engaged in clean-up operations, facility operations related to the treatment, storage and disposal of hazardous wastes, and emergency responses to uncontrolled releases of hazardous substances must be carried out.

In addition, transportation safety plays a role both in the transportation of our products on public routes and in loading, unloading, classification, labeling and packaging, particularly of hazardous goods. We have independent corporate policies aiming to ensure that materials are handled and transported in line with applicable regulations and the hazards they pose.

## 13. GOVERNING BODIES

### 13.1 Overview

The Company's governing bodies are the Board of Management, the Supervisory Board and the stockholders' meeting. The powers and responsibilities of these governing bodies are governed by the AktG (German Stock Corporation Act), the Articles of Incorporation and respective rules of procedure (*Geschäftsordnungen*) for the Board of Management and Supervisory Board.

The Board of Management is responsible for the management of Bayer's business; the Supervisory Board supervises and advises the Board of Management and appoints its members. The two boards are separate, and no individual may simultaneously be a member of both boards.

Both the members of the Board of Management and the members of the Supervisory Board owe a duty of loyalty and care to Bayer AG. In exercising their duties, the applicable standard of care is that of a diligent and prudent businessperson. Both the members of the Board of Management and the members of the Supervisory Board must take into account a broad range of considerations when making decisions, including the interests of Bayer AG and its stockholders as well as of its employees and creditors.

The members of the Board of Management and the Supervisory Board may be held personally liable to Bayer AG for breaches of their duties of loyalty and care. Bayer AG must bring an action for breach of duty against the Board of Management or Supervisory Board upon a resolution of the stockholders passed at a stockholders' meeting by a simple majority of the votes cast. Furthermore, minority shareholders representing at least 1% of the company's share capital or shares with a nominal value of €100,000 can file an application in court requesting an action to be admitted against members of either of the company's boards on behalf of the company or in their own name.

Under the AktG, neither individual shareholders nor any other person may use its influence on the Company to cause a member of the Board of Management or the Supervisory Board to act in a manner that would be detrimental to the Company. Persons using their influence to cause a member of the Board of Management or the Supervisory Board, an authorized signatory (*Prokuristen*) or an assistant manager (*Handlungsbevollmächtigter*) to act in a manner that causes harm to the Company or its shareholders, are liable to compensate the Company for any resulting losses. Moreover, in this case, the members of the Board of Management and Supervisory Board are jointly and severally liable in addition to the person using its influence if they have acted in breach of their obligations to the Company.

With the exception of stockholders of companies that (unlike Bayer AG) are under the control of another company, individual stockholders of German companies cannot sue directors on behalf of the company in a manner analogous to a stockholder's derivative action under U.S. law. Under German law, directors may be liable for breach of duty to stockholders (as opposed to a duty to the company itself) only where a breach of duty to the company also constitutes a breach of a statutory provision enacted specifically for the protection of stockholders. In practice, stockholders are able to assert liability against directors for breaches of this sort only in unusual circumstances. The German Securities Trading Act (*Wertpapierhandelsgesetz*, "**WpHG**") provides for damage claims of stockholders against the issuer under certain circumstances, if the issuer violates the provisions on publication of inside information with intent or gross negligence.

The Board of Management is responsible for managing the business of Bayer AG in accordance with the AktG and Bayer AG's Articles of Incorporation and its rules of procedure. It also represents Bayer AG in its dealings with third parties and in court. According to the Articles of Incorporation, the Board of Management consists of a minimum of two members. The Supervisory Board determines the number of and appoints the members of the Board of Management. Members of the Board of Management are appointed for a maximum term of five years and are eligible for reappointment after the completion of their term in office.

Bayer AG is legally represented by two members of the Board of Management acting together, or by one member of the Board of Management together with a person possessing a special power of attorney (*Prokura*).

The Board of Management must report regularly to the Supervisory Board, particularly on proposed business policy and strategy, on profitability and on the current business of Bayer AG, as well as on any exceptional matters that may arise from time to time. If not otherwise required by law, the Board of Management makes decisions by a simple majority of the votes cast. In case of deadlock, the chairman has the casting vote.

Under certain circumstances, such as a serious breach of duty or a vote of no confidence by the stockholders at an annual stockholders' meeting, a member of the Board of Management may be removed by the Supervisory Board prior to the expiration of his/her term. A member of the Board of Management may not deal with, or vote on, matters relating to proposals, arrangements or contracts between himself/herself and Bayer AG.

Individual members of the Board of Management serve as representatives with primary responsibility for Bayer's various corporate functions and as representatives for the various geographic regions in which Bayer operates.

Under the AktG, the German Co-Determination Act (*Mitbestimmungsgesetz*) of 1976 and Bayer AG's Articles of Incorporation, the Supervisory Board consists of 20 members. The principal function of the Supervisory Board is to oversee the work of the Board of Management and to appoint its members. The Supervisory Board oversees Bayer's business policy, corporate planning and strategy. It also approves the annual budget as well as the unconsolidated financial statements of Bayer AG and the consolidated financial statements of the Bayer Group. The Supervisory Board may not make management decisions, but the Board of Management's rules of procedure (*Geschäftsordnung*) require the prior consent of the Supervisory Board for specified transactions above specified thresholds, including:

- the acquisition or disposition of assets;
- the acquisition, disposition or encumbrance of real property;
- the acquisition or disposition of shares; and
- the issuance of bonds, conclusion of credit agreements, or grant of guarantee, sureties (*Bürgschaften*) or loans, except to subsidiaries.

Bayer's stockholders elect ten members of the Supervisory Board at the annual stockholders' meeting. Pursuant to the German Co-Determination Act of 1976, Bayer's employees elect the remaining ten members. The term of a Supervisory Board member expires at the end of the annual stockholders' meeting in which the stockholders ratify the actions of the Supervisory Board members for the fourth fiscal year following the year in which the member was elected.

The Supervisory Board endeavors to ensure that its members together possess the necessary expertise, skills and professional experience to properly perform their duties. It strives particularly to ensure that the members of the Supervisory Board possess expertise, skills and professional experience in the following areas: management and leadership of international companies, a business understanding with regard to the company's main areas of activity, research and development, finance, controlling/risk management, human resources and governance/compliance. The Supervisory Board has also resolved to pursue diversity in its composition, for instance with regard to age, gender, education and professional background. With respect to the international business alignment of Bayer AG, the Supervisory Board strives to ensure at all times that several of its members have international business experience or an international background in other respects. Further objectives concerning the composition of the Supervisory Board are that different age groups are suitably represented on the Supervisory Board and that, absent special circumstances, a member should not hold office beyond the end of the next annual stockholders' meeting following his or her 72nd birthday, in accordance with the German Corporate Governance Code (the "**Code**") (*Deutscher Corporate Governance Kodex*). With a view to avoiding potential conflicts of interest and taking into account the ownership structure of the Company and the number of independent Supervisory Board members, the Supervisory Board has set itself the goal that more than half of the stockholder representatives be independent. In addition, the Supervisory Board aims for at least three quarters of its total membership (stockholder and employee representatives) to be independent.

Any member of the Supervisory Board elected by the stockholders at the annual stockholders' meeting may be removed by a vote of at least three quarters of the votes cast by the stockholders in such meeting. Any member elected by the employees may be removed by a majority of three quarters of the votes cast by the employees. Unless otherwise required by law or by the Articles of Incorporation of Bayer AG, resolutions of the Supervisory Board are passed by a simple majority of the votes cast. According to the Articles of Incorporation, in the case of a deadlock, a second vote is held. Should the second vote result in a deadlock as well, the chairman of the Supervisory Board has the casting vote. If, at a meeting of the Supervisory Board, the number of stockholder representatives and the number of employee representatives who participate in voting are not equal, a re-vote shall be taken if so requested by two members of the Supervisory Board. In order to constitute a quorum, at least half of the total members of the Supervisory Board must participate in the voting.

## 13.2 Board of Management

The following table shows the members of Bayer's current Board of Management, their ages and positions and the years in which their current terms expire.

Name and Age	Position	Current Term Expires
Werner Baumann (55) .....	Chairman	2021
Liam Condon (50) .....	Member	2018
Dr. Hartmut Klusik (61) .....	Member	2018
Kemal Malik (55).....	Member	2022
Wolfgang Nickl (49).....	Member	2021
Heiko Schipper (48).....	Member	2021
Dieter Weinand (57).....	Member	2018

*Werner Baumann* became chairman of the Board of Management in May 2016 and has been a member of the Board of Management since January 2010. Prior to joining the Board of Management, Baumann served in various positions with increasing responsibilities in Leverkusen, Barcelona, Spain and Tarrytown, New York. In 2002, Baumann became a member of the executive committee and Head of Central Administration & Organization at Bayer HealthCare. In 2003 he was appointed a member of the management board of the newly formed Bayer HealthCare AG. From December 2006 to September 2009 he also served as member of the management board and labor director of Bayer Pharma AG. From April 2015 to July 2016, Baumann was chairman of the management board of Bayer HealthCare AG.

*Liam Condon* joined the former Schering AG and held various sales and marketing positions in its gynecology business in Germany. He then served five years as head of a business unit in Osaka, Japan. On his return to Germany, Condon became regional marketing and medical director for the Asia-Pacific and Middle East regions at Schering in Berlin. In February 2005, he was appointed managing director of Schering in China. Following Bayer's acquisition of Schering, Condon was named vice president of Bayer HealthCare China in November 2006. Between 2007 and 2009, he was managing director of Bayer HealthCare and general manager of Bayer Pharma in China. In January 2010, Liam Condon was appointed managing director of Bayer Vital GmbH in Germany and country representative for Bayer Schering Pharma in Germany. From December 1, 2012 until May 31, 2017, Condon was chairman of the board of management of Bayer CropScience AG and since December 1, 2012, he has also been chairman of the Crop Science executive committee. Condon is a member of the board of directors of CropLife International, an agricultural industry association. He is further responsible for the Animal Health business unit. He joined the Board of Management in January 2016.

*Dr. Hartmut Klusik* began his professional career at Bayer's Wolff Walsrode AG subsidiary in 1984 as a laboratory manager. He then worked as head of operations in various production areas at Wolff Walsrode. In 1990, he transferred to Bayer AG and was appointed head of the company's crop protection production in Brazil. This was followed by assignments in the United States and Australia. In 1997, Klusik took charge of crop protection active ingredient production in Dormagen and Elberfeld, assuming global responsibility for active ingredient production at Bayer Crop Science in Monheim from 2002. In early 2005, he transferred to Bayer HealthCare as head of the Technical Operations Committee. He was appointed to the Bayer HealthCare executive committee in July 2005 and was responsible for Product Supply. From November 2005 until his appointment to the Board of Management of Bayer AG in January 2016, for which he is also the acting labor director, Klusik was a member of the management board of Bayer HealthCare AG and became labor director as of October 2009. Klusik was further a member of the supervisory board of Bayer Material Science Aktiengesellschaft (now Covestro Deutschland AG) from May 2006 until September 2015. From March 2011 until December 2015 he was also labor director and member of the management board of Bayer Pharma AG.

*Kemal Malik* joined Bayer in 1995 as Head of Metabolism and Oncology Europe in the then Pharmaceuticals Business Group. He subsequently served as Head of Global Medical Development before being appointed Head of Global Development. Kemal Malik was a member of the executive committee of Bayer HealthCare AG from 2007 until his appointment to the Board of Management of Bayer AG in February 2014. He was also Head of Global Development and chief medical officer in the Pharmaceuticals Division. Before joining Bayer, Malik studied medicine at Charing Cross and Westminster Medical School (University of London), graduating as a bachelor of medicine, bachelor of surgery (MBBS) in 1987. Malik subsequently spent several years in clinical medicine at the Northwick Park Clinical Research Centre and at Hammersmith Hospital, London. He then held various positions of increasing responsibility in medical affairs and clinical development at Bristol-Myers Squibb in the United Kingdom. Kemal Malik is also responsible for Innovation and the Latin America region.



*Wolfgang Nickl* completed a Bachelor of Business Administration (BBA) at the University of Cooperative Education Stuttgart in 1992 and obtained a Master of Business Administration (MBA) from the Marshall School of Business at the University of Southern California in Los Angeles, United States, in 2005. Starting in 1992, he acquired his first professional experience as a consultant and controller for German IT service provider SerCon. In 1995, he joined Western Digital Corporation, San José, California, a leading manufacturer of hard disk drives and other data storage products. His first roles at this company were as Business Planning Manager in the Netherlands and then as Director Business Solutions in the United States. In 2000, Nickl was appointed CFO at IT company Converge (a Western Digital joint venture) in the United States. Two years later, he returned to Western Digital where he held a number of finance positions with increasing responsibility, including as executive vice president and chief financial officer. Nickl also headed World Business Operations at this company for a number of years before being promoted to Chief Financial Officer in 2010. From December 2013 to April 2018, Nickl was executive vice president and chief financial officer at ASML in the Netherlands. He joined the Management Board in April 2018 and succeeded Johannes Dietsch as chief financial officer on June 1, 2018. As of June 1, 2018, Nickl is also chairman of the supervisory board of Bayer Business Services GmbH.

*Heiko Schipper* was deputy executive vice president of Nestlé S.A. and a member of its executive board based in Vevey, Switzerland until December 31, 2017. He was appointed to the Board of Management on March 1, 2018. He was also head of Nestlé Nutrition, a global leader in the infant nutrition category. He started his career as an international marketing trainee at Nestlé 21 years ago and held key management positions in Southeast Asia, Switzerland and China. He has held global responsibility for Nestlé's infant nutrition division since 2013. Heiko Schipper completed his master in Business Economics at the Erasmus University in Rotterdam, the Netherlands. Starting in 1994, he acquired his first professional experience at Heineken. He joined Nestlé as an international marketing trainee in 1996, developing his career in sales and marketing management roles in Bangladesh and Indonesia and at the company's global headquarters in Switzerland. He then took up general management roles of increasing importance in the Philippines and, from 2007 to 2013, in the Greater China Region with the aim of developing Nestlé's position in this key market. In 2013, Schipper moved back to Switzerland to lead the global Infant Nutrition Division, a business with both consumer and medical characteristics. He was appointed to the Nestlé Group executive board in October 2014. From 2014 to 2017, Schipper also worked as director at Glycom A/S.

*Dieter Weinand* has held various responsibilities in commercial, operational and strategic areas of the pharmaceutical industry during his career stretching back over 25 years. These positions included heading business operations in markets in the Asia-Pacific region, Europe, the Middle East, Africa, Latin America and the United States for companies including Pfizer and Bristol-Myers Squibb. He has also been in charge of product marketing in various therapeutic areas, including cardiovascular diseases, oncology, dermatology, immunology, and respiratory and inflammatory diseases. Before moving to Bayer HealthCare, he was president of Global Commercialization & Portfolio Management at Otsuka Pharmaceutical Development & Commercialization Inc. in Princeton, New Jersey, U.S.A. From August 1, 2014, until his appointment to the Board of Management of Bayer AG in January 2016, Weinand was a member of the Bayer HealthCare executive committee and head of the Pharmaceuticals Division. From August 1, 2014 until February 10, 2017, Weinand was also chairman of the board of management of Bayer Pharma AG. Additionally, Weinand was a member on the board of directors of HealthPrize Technologies LLC.

### 13.3 Supervisory Board

#### 13.3.1 Current Supervisory Board Members

As of the date of this Offering Memorandum the members of the Supervisory Board were (including other directorships held):

<u>Name</u>	<u>Position</u>	<u>Principal Occupation</u>	<u>First Elected</u>	<u>Membership on other Supervisory Boards</u>
Werner Wenning.....	Chairman	Chairman of the Supervisory Board of Bayer AG	2012	Henkel Management AG, Siemens AG (Vice Chairman), Henkel AG & Co. KGaA (Member of the Shareholders' Committee)
*Oliver Zühlke .....	Vice Chairman	Chairman of the Bayer Central Works Council	2007	

<b>Name</b>	<b>Position</b>	<b>Principal Occupation</b>	<b>First Elected</b>	<b>Membership on other Supervisory Boards</b>
Dr. Paul Achleitner .....	Member	Chairman of the supervisory board of Deutsche Bank AG	2002	Daimler AG, Deutsche Bank AG (Chairman), Henkel AG & Co. KGaA (Member of the Shareholders' Committee)
Dr. rer. nat. Simone Bagel-Trah .....	Member	Chairwoman of the supervisory board of Henkel AG & Co. KGaA and Henkel Management AG and of the Shareholders' Committee of Henkel AG & Co. KGaA	2014	Henkel AG & Co. KGaA (Chairwoman), Henkel Management AG (Chairwoman), Heraeus Holding GmbH, Henkel AG & Co. KGaA (Chairwoman of the Shareholders' Committee)
Dr. Norbert W. Bischofberger .....	Member	Independent Consultant	2017	InCarda Therapeutics, Inc. (Board of Directors)
*André van Broich .....	Member	Chairman of the Bayer Group Works Council and Chairman of the Works Council of the Dormagen site	2012	
Thomas Ebeling .....	Member	Independent Consultant	2012	GfK SE, Cullinan Oncology, LLC (Board of Directors), ClearVAT Aktiengesellschaft, Heilpflanzenwohl AG (Board of Directors), Moonfare GmbH (Board of Directors), Apleona GmbH
*Dr. Thomas Elsner .....	Member	Chairman of the Bayer Group Managerial Employees' Committee and Chairman of the Managerial Employees' Committee of Bayer AG, Leverkusen	2017	
Johanna W. (Hanneke) Faber .....	Member	President Europe at Unilever N.V./plc	2016	
Colleen A. Goggins .....	Member	Independent Consultant	2017	The Toronto-Dominion Bank (Board of Directors), IQVIA Holdings Inc. (formerly QuintilesIMS Holdings, Inc.) (Board of Directors)
*Heike Hausfeld .....	Member	Chairwoman of the Works Council of the Leverkusen site	2017	Bayer Business Services GmbH (Vice Chairwoman)
*Reiner Hoffmann .....	Member	Chairman of the German Trade Union Confederation	2006	
*Frank Löllgen .....	Member	North Rhine District Secretary of the German Mining, Chemical and Energy Industrial Union	2015	Evonik Industries AG, IRR-Innovationsregion Rheinisches Revier GmbH



<b>Name</b>	<b>Position</b>	<b>Principal Occupation</b>	<b>First Elected</b>	<b>Membership on other Supervisory Boards</b>
Prof. Dr. Wolfgang Plischke.....	Member	Independent Consultant	2016	Evotec AG (Chairman)
*Petra Reinbold-Knape ...	Member	Member of the Executive Committee of the German Mining, Chemical and Energy Industrial Union	2012	Lausitz Energie Kraftwerk AG (Vice Chairwoman), Lausitz Energie Bergbau AG (Vice Chairwoman), DGB Rechtsschutz GmbH
*Detlef Rennings.....	Member	Chairman of the Central Works Council of CURRENTA, Chairman of the Works Council of CURRENTA of the Uerdingen site	2017	Currenta Geschäftsführungs-GmbH
*Sabine Schaab .....	Member	Vice Chairwoman of the Works Council of the Elberfeld site	2017	
*Michael Schmidt-Kießling .....	Member	Chairman of the Works Council of the Elberfeld site	2012	
Prof. Dr. Norbert Winkeljohann <sup>(1)</sup> .....	Member	Chairman of the Management Board of PwC	2018	
Prof. Dr. Dr. h.c. Otmar D. Wiestler .....	Member	President of the Helmholtz Association of German Research Centers	2014	

\* Employee representatives

(1) Expert member pursuant to paragraph 5 of Section 100 AktG.

The following description provides summaries of the curricula vitae of the current members of the Supervisory Board and indicates their principal activities outside Bayer to the extent those activities are significant with respect to the Group:

*Werner Wenning* has been chairman of the Supervisory Board of Bayer AG since October 1, 2012. He previously was chairman of the Board of Management of Bayer AG from April 2002 until September 30, 2010, and has worked for Bayer in various capacities since 1966.

Alongside his office as chairman of the Supervisory Board, Wenning is, or has within the last five years been, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Currently: member of the supervisory board of Henkel Management AG; member of the supervisory board of Siemens AG (vice chairman); member of the shareholders' committee of Henkel AG & Co. KGaA.

Previously: member of the supervisory board of Deutsche Bank AG; member of the supervisory board of E.ON SE (chairman), member of the shareholders' committee of Freudenberg & Co.; member of the supervisory board of HDI V.a.G., member of the supervisory board of Talanx AG.

*Oliver Zühlke* has been vice chairman of the Supervisory Board of Bayer AG since July 2015. He previously was vice chairman of the Works Council of the Leverkusen site from 2002 until 2010, and has also been a member of the Economics Committee of Bayer AG.

*Dr. Paul Achleitner* has been a member of the Supervisory Board of Bayer AG since April 2002. He has worked in several positions for Goldman Sachs and was a member of the management board of Allianz SE until 2012.

Alongside his office as member of the Supervisory Board, Achleitner is, or has within the last five years been, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Currently: member of the supervisory board of Daimler AG; member of the supervisory board of Deutsche Bank AG (chairman); member of the shareholders' committee of Henkel AG & Co. KGaA.

Previously: member of the supervisory board of RWE AG.

*Dr. rer. nat. Simone Bagel-Trah* has been a member of the Supervisory Board of Bayer AG since April 2014. She completed her studies in biology at the University of Bonn in 1993 and received her doctorate degree in microbiology in 1998. Additionally, she worked as an independent consultant and project manager for the Association of Applied Microbiology from 1998 until 2000.

Alongside her office as member of the Supervisory Board, Bagel-Trah currently is a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Member of the supervisory board of Henkel AG & Co. KGaA (chairwoman); member of the supervisory board of Henkel Management AG (chairwoman); member of the supervisory board of Heraeus Holding GmbH; member of the shareholders' committee of Henkel AG & Co. KGaA (chairwoman); partner and managing director of Antiinfectives Intelligence GmbH; partner of Siba Vermögensverwaltung GmbH & Co. KG; managing director of Siba Beteiligung GmbH; partner of Friba Vermögensverwaltung GmbH & Co. KG; managing director of Friba Beteiligung GmbH.

*Dr. Norbert W. Bischofberger* has been a member of the Supervisory Board of Bayer AG since April 2017. Dr. Bischofberger completed his studies in chemistry at the University of Innsbruck and received his doctorate degree at the ETH Zurich in 1983. Since 1990, Dr. Bischofberger has worked for Gilead Sciences, Inc. in different management positions and is now a part-time employee since the end of April 2018.

Alongside his office as member of the Supervisory Board, Bischofberger currently is a member of the board of directors of InCarda Therapeutics, Inc. and chief executive officer and president of Kronos Bio, Inc.

Previously: executive vice president research & development and chief scientific officer of Gilead Sciences Inc.

*André van Broich* has been a member of the Supervisory Board of Bayer AG since April 2012. He previously was vice chairman of the Works Council of the Dormagen site from 2006 until 2010. He has been chairman of the Works Council of the Dormagen site since 2010, and a member of the Central Operations Committee and the Bayer European Forum since 2006.

*Thomas Ebeling* has been a member of the Supervisory Board of Bayer AG since April 2012. After receiving his degree in psychology in Hamburg in 1986, Ebeling worked in various roles for Reemtsma, Pepsi-Cola, Novartis and ProSiebenSat1 Media.

Alongside his office as member of the Supervisory Board, Ebeling is, or has within the last five years been, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Currently: member of the supervisory board of GfK SE; member of the board of directors of Cullinan Oncology, LLC; member of the supervisory board of ClearVAT Aktiengesellschaft; member of the board of directors of Heilpflanzenwohl AG; chairman of the management board of TE Convest AG; chairman of the management board of Remagine Ventures LP; member of the board of directors of Moonfare GmbH and member of the supervisory board of Apleona GmbH.

Previously: member of the supervisory board of Lonza Group AG; chairman of the executive board of ProSiebenSat1 Media SE.

*Dr. Thomas Elsner* has been a member of the Supervisory Board of Bayer AG since April 2017. He completed his studies in chemical technology at the University of Dortmund in 1984 and received his doctorate degree in 1987. He has joined Bayer in 1988 and has held various management positions. Additionally, he has been a member of the Group Managerial Employees' Committee since 2010.

*Johanna W. (Hanneke) Faber* has been a member of the Supervisory Board of Bayer AG since April 2016. She received her bachelor of journalism in 1990 and in 1992 completed her master of business administration at the University of Houston. Afterwards, Faber assumed several management positions at Procter & Gamble.

Alongside her office as member of the Supervisory Board, Faber is, or has within the last five years been, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Currently: President Europe at Unilever N.V./plc.

Previously: chief e-commerce and innovation officer and member of the executive committee of Koninklijke Ahold Delhaize N.V.

*Colleen A. Goggins* has been a member of the Supervisory Board of Bayer AG since April 2017. Goggins studied Food Chemistry at the University of Wisconsin-Madison and received a masters in management degree from the Kellogg Business School at Northwestern University. From 1981 until 2011, she worked for Johnson & Johnson in various management positions, and from 2001 to 2011, served as a member of the executive committee.

Alongside her office as member of the Supervisory Board, Goggins is, or has within the last five years been, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Currently: member of the board of directors of The Toronto-Dominion Bank; member of the board of directors of IQVIA Holdings Inc. (formerly QuintilesIMS Holdings, Inc.).

Previously: member of the supervisory board of Krauss Maffei Group GmbH; member of the board of directors of Valeant Pharmaceuticals International, Inc.

*Heike Hausfeld* has been a member of the Supervisory Board of Bayer AG since April 2017. Since 1998, she has been full-time member of the Works Council and since 2015 she has been chairwoman of the Works Council of the Leverkusen site.

*Reiner Hoffmann* has been a member of the Supervisory Board of Bayer AG since October 2006. He received his degree in economics at the University of Wuppertal in 1982 and held various roles at the Hans Böckler Foundation in Dusseldorf from 1984 until 1994. He has also held leading positions in several trade unions and is chairman of the German Trade Union Confederation since 2014.

Alongside his office as member of the Supervisory Board, Hoffmann has previously, within the last five years been, a member of the supervisory board of Evonik Services GmbH (vice chairman) and member of the supervisory board of SASOL Germany GmbH (vice chairman).

*Frank Löllgen* has been a member of the Supervisory Board of Bayer AG since November 2015. He has been the North Rhine District chairman of the German Mining, Chemical and Energy Industrial Union since 2014 and an honorary judge at the Federal Labor Court in Erfurt since 2006.

Alongside his office as member of the Supervisory Board, Löllgen is, or has within the last five years been, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Currently: member of the supervisory board of Evonik Industries AG; member of the supervisory board of IRR- Innovationsregion Rheinisches Revier GmbH.

Previously: member of the supervisory board of AGFA Gevaert AG für Altersversorgung; member of the supervisory board of Abbott Management GmbH.

*Prof. Dr. Wolfgang Plischke* has been a member of the Supervisory Board of Bayer AG since April 2016. He previously was head of the Pharmaceuticals Business at Bayer in North America from 2000 until 2002, head of the Pharmaceuticals Division and member of the executive committee of Bayer HealthCare Aktiengesellschaft from 2003 until 2006, as well as a member of the Board of Management of Bayer AG, responsible for Technology, Innovation and Sustainability and for Asia/Pacific, from 2006 until 2014.

Alongside his office as member of the Supervisory Board, Plischke currently is a member of the supervisory board of Evotec AG (chairman).

*Petra Reinbold-Knape* has been a member of the Supervisory Board of Bayer AG since April 2012. She studied at the Academy of Labor in Frankfurt from 1982 until 1983 and has served as trade union secretary at the German Chemical, Paper and Ceramics Industrial Union in Hesse and North Rhine-Westphalia from 1983 until 1997. Afterwards, she was District Secretary, Deputy District Secretary and Northeast District Secretary of the German Mining, Chemical and Energy Industrial Union.

Alongside her office as member of the Supervisory Board, Reinbold-Knape is, or has within the last five years been, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Currently: member of the supervisory board of Lausitz Energie Kraftwerk AG (vice chairwoman); member of the supervisory board of Lausitz Energie Bergbau AG (vice chairwoman); managing director of BWS Gesellschaft für Bildung, Wissen, Seminar of the IGBCE GmbH, Hanover; member of the supervisory board of DGB Rechtsschutz GmbH.

Previously: member of the supervisory board of envia Mitteldeutsche Energie AG; member of the supervisory board of MDSE Mitteldeutsche Sanierungs- und Entsorgungsgesellschaft mbH.

*Detlef Rennings* has been a member of the Supervisory Board of Bayer AG since June 2017. He has been a member of the IG BCE union since 1983. Since 1990, he has further been a member of the Works Council and from 2002 to 2006 he was a full-time member of the Works Council. In 2006, Rennings became a member of the Group Works Council of Bayer.

Alongside his office as member of the Supervisory Board, Rennings currently is a member of the supervisory board of Currenta Geschäftsführungs-GmbH.

*Sabine Schaab* has been a member of the Supervisory Board of Bayer AG since October 2017. From 1990 to 2013, she worked as a biology laboratory technician at the Bayer site in Wuppertal. In 2006, Schaab received a bachelor degree in molecular biology. She has been a member of the Works Council since 1994 and deputy chairwoman of the Works Council of the Wuppertal site since 2014. Since 2014, Schaab is also a member of the Company's joint Works Council and a member of the economic affairs committee.

*Michael Schmidt-Kießling* has been a member of the Supervisory Board of Bayer AG since April 2012. He has been a member of the Works Council of the Elberfeld site since 1981 and is chairman of the Works Council of the Elberfeld site since 2014.

*Prof. Dr. Norbert Winkeljohann* has been a member of the Supervisory Board of Bayer AG since May 2018. He studied business administration and economics at the University of Münster and later earned his doctorate in economics. Winkeljohann has worked in auditing and has been a member of the management board of PwC since 1999.

Alongside his office as member of the Supervisory Board, Winkeljohann is, or has within the last five years been, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies and partnerships outside Bayer Group:

Currently: chairman of the management board of PwC (until June 30, 2018, at which time Winkeljohann will retire from the company); elected to join the supervisory board of Deutsche Bank Aktiengesellschaft in August 2018.

*Prof. Dr. Dr. h.c. Otmar D. Wiestler* has been a member of the Supervisory Board of Bayer AG since October 2014. He received his doctoral degree from the University of Freiburg in 1984, and holds a habilitation in pathology since 1990. Wiestler has been active in medical research for decades and has been president of the Helmholtz Association of German Research Centers since 2015.

The business address of each member of the Board of Management and the Supervisory Board is Bayer Aktiengesellschaft, Kaiser-Wilhelm-Allee 1, 51373 Leverkusen, Germany.

There are no potential conflicts of interest between any duties of the members of the Board of Management or the Supervisory Board toward Bayer and their respective private interests and/or other duties.

### **13.3.2 Supervisory Board Committees**

Currently, the Supervisory Board has the following committees:

- The Presidial Committee (*Präsidium*) was established pursuant to Section 27 para. 3 of the German Co-Determination Act and consists of the chairman and vice chairman of the Supervisory Board, as well as of one stockholder representative and one employee representative. It serves as Bayer's mediation committee (*Vermittlungsausschuss*) with respect to nominations to the Board of Management. The purpose of this committee is to nominate persons for election to the Board of Management by a simple majority of the votes of the Supervisory Board in the event that the Supervisory Board is unable to appoint members of the Board of Management with the votes of at least a two-thirds majority of the Supervisory Board. The Presidial Committee also prepares the general meetings of the full Supervisory Board. The current members of the Presidial Committee are Wenning (chairman), Achleitner, Reinbold-Knape and Zühlke.
- The Human Resources Committee (*Personalausschuss*) consists of four members of the Supervisory Board. The chairman of the Supervisory Board acts as chairman of the Human Resources Committee. The Human Resources Committee resolves on behalf of the Supervisory Board on the service contracts of the members of the Board of Management. However, it is the task of the full Supervisory Board to resolve on the total compensation of the individual members of the Board of Management and the respective compensation components, as well as to regularly review the compensation system on the basis of recommendations submitted by the Human Resources Committee. Further main responsibilities of the Human Resources Committee include the legal representation of Bayer AG in matters concerning Board of Management members pursuant to Section 112 AktG, the approval of agreements with Supervisory Board members pursuant to Section 114 AktG and the approval of loans granted to Supervisory Board and Board of Management members and other persons pursuant to Section 89 and Section 115 AktG. The current members of the Human Resources Committee are Wenning (chairman), Achleitner, van Broich and Hausfeld.
- The Audit Committee (*Prüfungsausschuss*) consists of six members of the Supervisory Board. The main responsibilities of the Audit Committee are oversight of financial accounting, risk management, the preparation of the resolutions of the Supervisory Board with respect to the annual financial statements, the review of all non-audit services to be performed by the independent auditor, oversight over the independent auditors including scope of services, fees and schedules, the direct receipt of the audit reports, and the direct receipt of reports on any accounting irregularities. The current members of the Audit Committee are Winkeljohann (chairman), Elsner, Wenning, Löllgen, Plischke and Zühlke.
- In 2007, a Nominations Committee (*Nominierungsausschuss*) was established in line with the recommendation in the Code of June 2007 to carry out preparatory work when an election of stockholder representatives to the Supervisory Board is to be held. It suggests suitable candidates for the Supervisory Board to propose to the annual stockholders' meeting for election. The Nominations Committee comprises the chairman of the Supervisory Board and the other stockholder representative on the Presidial Committee. The current members of the Nominations Committee are Wenning (chairman) and Achleitner.
- The Innovation Committee (*Innovationsausschuss*) was established in September 2015. It is primarily concerned with the innovation strategy and innovation management, the strategy for protection of intellectual property, and major R&D projects. Within its area of responsibility, the Innovation Committee advises and oversees the management and prepares any Supervisory Board decisions. The Innovation Committee comprises the chairman of the Supervisory Board and seven other members of the Supervisory Board, with parity of representation between stockholder and employee representatives. The current members of the Innovation Committee are Plischke (chairman), Bischofberger, van Broich, Reinbold-Knape, Schaab, Wenning, Wiestler and Zühlke.

#### **13.4 Certain Information Regarding the Members of Board of Management and Supervisory Board**

In the last five years, no member of the Board of Management or the Supervisory Board has been convicted of fraudulent offences. In the last five years, no member of the Board of Management or the Supervisory Board has been associated with any bankruptcy, receivership or liquidation acting in its capacity as a member of

any administrative, management or supervisory body or as a senior manager. In the last five years, no official public incriminations and/or sanctions have been made by statutory or legal authorities (including designated professional bodies) against the members of the Board of Management or the Supervisory Board, nor have sanctions been imposed by the aforementioned authorities. No court has ever disqualified any of the members of the Board of Management or the Supervisory Board from acting as a member of the administrative, management or supervisory body of an issuer, or from acting in the management or conduct of the affairs of any issuer for at least the previous five years.

As a precaution, attention is drawn to the following in accordance with Section 5.4.1, paragraphs 6 to 8 of the Code: Prof. Dr. Winkeljohann is a partner at PwC, which provides advisory services to Bayer. Prof. Dr. Winkeljohann will cease to be a partner at PricewaterhouseCoopers effective June 30, 2018. Beyond this, the Supervisory Board does not consider there to be any personal or business relationships between Prof. Dr. Winkeljohann on the one hand, and the companies of the Group, the governing bodies of Bayer AG, or any stockholder that directly or indirectly holds more than 10 percent of the voting shares of Bayer AG on the other that are of material significance to the decision of the stockholders' meeting regarding their election.

That stated, there are no conflicts of interest or potential conflicts of interest between the members of the Board of Management and Supervisory Board vis à vis the Company and their private interests, membership in governing bodies of companies, or other obligations.

### **13.5 Stockholders' Meeting**

According to the Articles of Incorporation, the stockholders' meeting of the Company is held at the Company's registered office or in a German city with over 100,000 inhabitants. It is convened by the Board of Management. Each no-par value share confers one vote.

Resolutions of the Company's stockholders' meeting are adopted by a simple majority of the votes cast and, should a majority of the share capital be required, a simple majority of the share capital present at the adoption of the resolution, absent mandatory laws or Articles of Incorporation to the contrary. Under German stock corporation law, certain resolutions of fundamental importance require a majority of at least three quarters of the share capital present at the adoption of a resolution in addition to a majority of the votes cast. Such resolutions include the following in particular:

- amendments changing the business objectives;
- capital increases that exclude subscription rights;
- capital reductions;
- creation of authorized or conditional capital;
- dissolution of the Company;
- actions involving legal conversion such as mergers, spin-offs and changes in legal form;
- transfer of all assets of the Company;
- integration of another company; and
- specific intercompany agreements (in particular, controlling and profit-transfer agreements).

A stockholders' meeting is usually called once a year. The annual stockholders' meeting is held within the first eight months of each fiscal year. In addition, the Board of Management can call an extraordinary stockholders' meeting if such is required in the interest of the Company. Stockholders who have combined shareholdings of at least 5% of the share capital can request the Board of Management to call a stockholders' meeting. Such request must be made in writing and provide details of the purpose and reasons for calling such meeting. Shareholders who are registered with the Company's share register and have registered for the stockholders' meeting in due time are entitled to participate in the respective stockholders' meeting and exercise their voting rights. The registration must be received by the Company at the address specified in the notice calling the meeting in written or electronic form at least six days before the meeting. The day of receipt is not to be counted. The stockholders' meeting must be convened at least 30 days before the end of the day, on which the shareholders are required to register, unless the law provides for a shorter notice period. The notice period does not include the day on which the meeting convenes nor the final day of the registration period.

## 14. GENERAL INFORMATION ON THE ISSUER

### 14.1 General Information

The Issuer was incorporated on July 10, 1980 under the laws of The Netherlands as a Dutch private company with limited liability (*besloten vennootschap met beperkte aansprakelijkheid*).

The Issuer has its corporate seat in Mijdrecht, The Netherlands, and is registered at the commercial register of the Dutch chamber of commerce (*Kamer van koophandel*) under 33160792. The business address of the Issuer is Energieweg 1, 3641 RT Mijdrecht, The Netherlands, telephone numbers: +31 297 280340 and +31 297 280252. The articles of association of Bayer Capital Corp were last amended on February 17, 2016.

Bayer Capital Corp is the Issuer's legal and commercial name. Its fiscal year is the calendar year.

### 14.2 Corporate Business and Business Overview

The Issuer engages in several activities in the field of finance. Bayer Capital Corp serves as an entity for the financing activities of Bayer Group companies including the issuance of bonds and the performance of certain administrative functions. These activities include mostly long-term financing. The corporate object of Bayer Capital Corp (as provided for in article 3 of its articles of association) is: (i) to borrow, lend and raise money (including the issuance of bonds); (ii) to participate in, manage, incorporate and finance companies and enterprises; (iii) to conduct any other activities of, inter alia, a financial nature; and (iv) to undertake anything related to or in furtherance of the foregoing. Bayer Capital Corp does not have any subsidiaries.

Bayer Capital Corp is a finance company exempt from the prohibition (of operating without a banking license) laid down in section 2:11 subsection 1 of the Act on Financial Supervision (*Wet op het financieel toezicht*).

Because of its purely internal purpose, the Issuer does not have any markets in which it competes and, therefore, the Issuer cannot make a statement regarding its competitive position in any markets.

### 14.3 Organisational Structure

The Issuer is part of the Bayer Group, of which the Guarantor is the ultimate parent company. The Guarantor is the sole shareholder of the Issuer.

### 14.4 Administrative, Management and Supervisory Bodies

Managing Director: Cyprianus Hermanus Alphonsus Koersvelt, Head of Finance Bayer Benelux and Managing Director of Bayer B.V., Bayer Global Investments B.V. and Bayer World Investments B.V.

Board of Supervisory Directors: Christine Neuenhahn, Director of Bayer AG, Leverkusen  
Dr. Stephan Semrau, Director of Bayer AG, Leverkusen

The business address of the sole member of the management board is Energieweg 1, 3641 RT Mijdrecht, The Netherlands.

There are no potential conflicts of interest between the duties of the sole member of the management board toward Bayer Capital Corp and his private interests and/or other duties.

No specific rules apply to Bayer Capital Corp under the Dutch corporate governance code because the Dutch corporate governance code applies only to companies whose shares are listed.

### 14.5 Share Capital

Following the amendment to the Articles of Association as of February 19, 2008, the share capital of Bayer Capital Corp consists of ordinary shares of a single class with a par value of €250.00 each. The issued and paid-up share capital consists of 21,816 ordinary shares. The paid-up capital of Bayer Capital Corp amounts to €5,454,000.

The Guarantor is the sole shareholder of the Issuer.

#### 14.6 Investments

It is not the purpose of Bayer Capital Corp to make investments.

#### 14.7 Financial Statements

The audited financial statements of Bayer Capital Corp for the years ended December 31, 2016 and 2017 are incorporated by reference into this Offering Memorandum, see "19.1 Bayer Information". Selected financial information appears in section "14.13 Selected Financial Information for the Issuer".

#### 14.8 Legal and Arbitration Proceedings

Bayer Capital Corp is not, and during the last twelve months has not been, involved (whether as defendant or otherwise) in, nor does it have knowledge of, any governmental, legal or arbitration proceedings or other proceedings or any threat of such proceedings, the result of which, in the event of an adverse determination, could have a significant effect on its financial condition.

#### 14.9 Significant Change in financial or trading position

There has been no significant change in the financial or trading position of Bayer Capital Corp since the end of the last reporting period ended December 31, 2017.

#### 14.10 Material Contracts

Bayer Capital Corp has not entered into any material contracts.

#### 14.11 Recent Developments

Since 31 December 2017, there have been no recent events particular to the Issuer which are to a material extent relevant for the evaluation of the solvency of the Issuer.

#### 14.12 Independent Auditors

The financial statements of Bayer Capital Corp as of and for the years ended December 31, 2016 have been audited by PricewaterhouseCoopers Accountants N.V., Fascinatio Boulevard 350, 3065 WB Rotterdam, The Netherlands and the financial statements as of and for the years ended December 31, 2017 have been audited by Deloitte Accountants B.V., Wilhelminakade 1, 3072 AP Rotterdam, The Netherlands, who have given their unqualified opinion in each case.

#### 14.13 Selected Financial Information for the Issuer

*This Selected Financial Information has been extracted, without material adjustment, from the audited financial statements of Bayer Capital Corp as of and for the year ended December 31, 2017. These financial statements have been prepared in accordance with accounting principles generally accepted in The Netherlands.*

	<u>As of and for the year ended</u>	
	<u>December 31, 2017</u>	<u>December 31, 2016</u>
	in thousand Euro	
Interest income	247,861	74,097
Net result after taxation	1,860	337
Net cash flow from operating activities	-	1,000
Total assets	4,644,897	4,575,226
Shareholders' equity	14,028	12,168



#### **14.14 Trend Information**

There has been no material adverse change in the prospects of Bayer Capital Corp since the end of the last reporting period ended December 31, 2017.

## 15. GENERAL INFORMATION ON THE COMPANY AND THE GROUP

### 15.1 Name, Corporate Identity and Commercial Register Entry

The Company's legal name is "Bayer Aktiengesellschaft." The Company primarily operates under the commercial name "Bayer." It is organized under German law as a stock corporation (*Aktiengesellschaft*) and registered in the commercial register of the district court of Cologne, Germany (*Amtsgericht Köln*), under the number HRB 48248.

The Issuer's legal name is "Bayer Capital Corporation B.V." It is organised under Dutch law as a limited liability company (*besloten vennootschap met beperkte aansprakelijkheid*) and registered in the commercial register of the chamber of commerce (*Kamer van Koophandel*) for Midden-Nederland under the number 33160792.

### 15.2 History of Bayer

The Company was originally founded on August 1, 1863, by dye salesman Friedrich Bayer and master dyer Johann Friedrich Weskott as a general partnership called "Friedr. Bayer et comp." The objective of the company was the manufacturing and selling of synthetic dyestuffs. In 1881, Bayer was transformed into a joint stock company called "Fabrikenfarben vorm. Friedr. Bayer & Co." Subsequently, the Company developed into an increasingly international chemical company. In 1925, the Company and other companies of the German tar dyes industry merged, before "Farbenfabriken Bayer AG" was newly founded after the second world war. The rapid growth in the following years led to the reorganization of the Group in 1971, when a divisional corporate structure replaced the functional organization that had been implemented in the early 1950s. In June 1972, the Company changed its name to "Bayer Aktiengesellschaft." In 2001, a further reorganization established independent operating subsidiaries under the umbrella of a management holding company.

Following the stock market floatation of Covestro AG (formerly Bayer Material Science), a provider of high-tech polymer materials which Bayer carved-out with effect from September 1, 2015, in October 2015, the Bayer Group's business was reorganized effective January 1, 2016, to focus on its Life Science activities. Effective January 1, 2017, Bayer Pharma Aktiengesellschaft and Bayer CropScience Aktiengesellschaft as lessors each concluded a business lease agreement with Bayer AG as lessee. While both entities continue to exist and receive a lease fee from Bayer AG, their operations are now carried out by Bayer AG in its own name and for its own account. In a series of transactions that followed the stock market floatation of Covestro AG, Bayer gradually decreased its direct interest in Covestro AG from 69% to currently 6.8%. As a result of the reductions of the equity stake and the conclusion of a control termination agreement at the end of September 2017, Covestro ceased to be a reportable segment and was deconsolidated from Bayer's financial statements and reported as discontinued operations for the quarters preceding the deconsolidation. As of October 1, 2017, Covestro was classified as an associate due to Bayer's remaining significant influence and accounted for using the equity method until May 2018, when Bayer reduced its interest in Covestro AG to 6.8%, which has since been accounted for as other financial asset measured at fair value through profit or loss.

Following the deconsolidation of Covestro, Bayer's operations are currently managed in three divisions – Pharmaceuticals, Consumer Health and Crop Science – and the Animal Health business unit. The operational business is supported by the corporate functions – including Technology Services, which was integrated into Bayer AG effective July 1, 2016 – Business Services and the service company Currenta. For further information on the reorganization of Bayer, see also "10.2 Recent Reorganizations of the Group."

### 15.3 Registered Office, Fiscal Year, Duration and Purpose of the Company

The Company has its registered office at Kaiser-Wilhelm-Allee 1, 51373 Leverkusen, Germany (telephone: +49-214-30-1).

The Issuer has its registered office at Energieweg 1, 3641 RT Mijdrecht, The Netherlands (telephone: +31-297-280340 and +31-297-280252).

The Company's fiscal year is the calendar year. The duration of the Company is unlimited.

Pursuant to Section 2(1) of the Articles of Incorporation, the purpose of the Company is manufacturing, marketing and other industrial activities or the provision of services in the fields of health care and agriculture. The Company may also perform these activities in the fields of polymers and chemicals. Pursuant to Section 2(2) of the

Articles of Incorporation, the Company is authorized to undertake all business which is related to, or directly or indirectly serves, the object of the Company. To this end, the Company may, in particular, establish branches, acquire or take participating interests in other companies, in particular those whose objects fully or partially cover the aforementioned areas. It may bring companies in which it holds participating interests under its uniform control, or confine itself to the administration thereof. It may transfer their operations in full or in part to newly established or existing subsidiaries.

#### 15.4 Group Structure and Significant Subsidiaries

Bayer AG is the parent company of the Bayer Group. Its subsidiaries are companies over which Bayer AG exercises control because it is exposed, or has rights, to variable returns and has the ability to use its power to affect those companies' returns. As of March 31, 2018, the Bayer Group included 237 consolidated companies worldwide, of which 50 were German companies.

The following table presents an overview of the Group's significant subsidiaries (excluding Monsanto) prior to the completion of the Transaction, determined by quantitative and qualitative criteria, which are held by Bayer AG, either directly or indirectly, as well as key company information relating to these subsidiaries. The figures presented are extracted from the respective financial statements and/or accounts prepared under local GAAP, unless otherwise indicated.

Name and country of incorporation	Company share of capital <sup>(1)</sup> (in %)	Issued capital as of March 31, 2018	Capital reserves as of March 31, 2018	Net	Payables to Bayer AG as of March 31, 2018 <sup>(2)</sup>	Receivables from Bayer AG as of March 31, 2018 <sup>(2)</sup>
				income/loss for the fiscal year ended December 31, 2017		
(unaudited and in € million)						
Bayer HealthCare LLC, U.S.A. <sup>(3)</sup> .....	100	0.0	11,748.6	(67.1)	38.4	5.7
Bayer Pharma Aktiengesellschaft, Germany ..	100	194.0	1,245.9	0.0	110.9	129.2
Bayer U.S. LLC, U.S.A. <sup>(3)</sup> .....	100	0.0	46.3	343.5	0.2	1.9
Bayer Intellectual Property GmbH, Germany .....	100	0.0	0.0	0.3	2.1	196.6
Bayer Oy, Finland .....	100	2.0	2.0	537.6	7.0	54.9
Bayer CropScience Aktiengesellschaft, Germany ..	100	501.0	2,612.3	383.1	30.4	101.8

(1) In %. Directly or indirectly held as of June 5, 2018.

(2) Figures prepared in accordance with IFRS. Figures represent trade accounts payable/receivable.

(3) Figures prepared in accordance with IFRS.

Following completion of the Transaction, Bayer AG's significant subsidiaries further include Monsanto Company, U.S.A. as well as Monsanto Technology LLC, U.S.A.

#### 15.5 Auditors

Deloitte GmbH Wirtschaftsprüfungsgesellschaft, Rosenheimer Platz 4, 81669 Munich, Germany ("**Deloitte Germany**"), has audited the consolidated financial statements of Bayer as of and for the fiscal year ended December 31, 2017, prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315e para. 1 of the HGB (formerly Section 315a para. 1 of the HGB), in accordance with Section 317 of the HGB, the German generally accepted standards for the audit of financial statements promulgated by the German Institute of Public Auditors (*Institut der Wirtschaftsprüfer "IDW"*) and in accordance with the EU Audit Regulation (No. 537/2014) and issued an unqualified audit opinion thereon.

Deloitte Germany has also performed a review in accordance with the German generally accepted standards for the review of financial statements promulgated by the IDW as well as in supplementary compliance with the International Standard on Review Engagements "*Review of Interim Financial Information performed by the Independent Auditor of the Entity Historical Financial Statements*" (ISRE 2410 on the condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018, prepared in accordance with IFRS for interim financial reporting (IAS 34) and issued an unqualified review report (*Bescheinigung*) thereon.

Deloitte Germany is a member of the German Chamber of Public Accountants (*Wirtschaftsprüferkammer*), Rauchstraße 26, 10787 Berlin, Germany.

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (*formerly PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft*), Friedrich-List-Straße 20, 45128 Essen, Germany (“**PwC**”), has audited the consolidated financial statements of Bayer as of and for the fiscal years ended December 31, 2015 and December 31, 2016, each prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315e para. 1 of the HGB (formerly Section 315a para. 1 of the HGB), in accordance with Section 317 of the HGB and German generally accepted standards for the audit of financial statements promulgated by the IDW and, in each case, issued unqualified audit opinions thereon. PwC is a member of the German Chamber of Public Accountants (*Wirtschaftsprüferkammer*).

The auditor’s report of Deloitte Germany for the consolidated financial statements of Bayer as of and for the fiscal year ended December 31, 2017 refers to the combined management report. The auditor’s reports of PwC for the consolidated financial statements of Bayer as of and for the fiscal years ended December 31, 2015 and December 31, 2016 refer to group management reports. The examinations of and the audit reports upon such group management reports are required under German auditing standards. Those examinations were not made in accordance with generally accepted auditing or attestation standards in the United States. Accordingly, Deloitte Germany and PwC do not express any opinion on this information or on the consolidated financial statements included in this Offering Memorandum, in each case in accordance with U.S. generally accepted auditing standards or U.S. attestation standards.

The decision to change auditors was made due to an early adoption of Regulation (EU) No. 537/2014 on specific requirements regarding statutory audit of public-interest entities and repealing Commission Decision 2005/909/EC, which provides for mandatory audit firm rotation. The Company conducted a public tender process, which resulted in the Supervisory Board proposing Deloitte Germany as auditor for the review of the first three months of 2017 at the annual stockholders’ meeting on April 29, 2016. At the annual stockholders’ meeting on April 28, 2017, Deloitte Germany was appointed as auditor for the fiscal year 2017.

With respect to the auditor of the Issuer, see “14.12 Independent Auditors.”

## **15.6 Announcements, Paying Agent and Calculation Agent**

Pursuant to the Company’s Articles of Incorporation, its announcements are published in the German Federal Gazette (*Bundesanzeiger*). To the extent permitted by law, announcements may also be sent by registered mail. Notices concerning the Company’s shares are published in the German Federal Gazette. Stock market announcements are also published in the German Federal Gazette. Pursuant to Article 16(2) of the Luxembourg Prospectus Law, the Offering Memorandum, as well as any supplements to the Offering Memorandum, are published on the Company’s website ([www.investor.bayer.com](http://www.investor.bayer.com)). Printed copies of the Offering Memorandum are available at the Company free of charge during normal business hours at the following addresses: Bayer Aktiengesellschaft, Kaiser-Wilhelm-Allee 1, 51373 Leverkusen, Germany.

The paying agent is Deutsche Bank Aktiengesellschaft, with its address at Taunusanlage 12, 60262 Frankfurt am Main, Germany.

The calculation agent (if required) shall be an independent bank of international standing or an independent financial adviser with relevant expertise, selected by the Issuer and appointed as calculation agent for the purposes of such.

## 16. DESCRIPTION OF THE SHARE CAPITAL

The following is a summary of material information relating to Bayer AG's share capital, including certain provisions of its Articles of Incorporation and relevant German and European law.

### 16.1 Share Capital and Shares

#### 16.1.1 Share Capital

The Company's share capital as of the date of this Offering Memorandum, as recorded in the commercial register, amounts to €2,387,333,027.84 and is divided into 932,551,964 registered shares. The shares of the Company are no-par value shares and each share represents a notional value of €2.56 in Bayer AG's share capital. Bayer AG's share capital is fully paid up. Each share confers one voting right.

Section 5(1) of the Articles of Incorporation stipulates that the shareholders' right to the issuance of share certificates representing their respective shares shall be excluded. The Company is entitled to issue share certificates representing individual shares or multiples of shares. Pursuant to Section 5(2) of the Articles of Incorporation, the Board of Management shall have the right to decide on any issuance of share certificates and all details of such issuance.

The Company's registered share capital was increased to €2,116,986,388.48 and was divided into 826,947,808 registered shares on July 2, 2009. As of April 18, 2018, the Company's registered share capital was increased to €2,196,346,388.48, divided into 857,947,808 registered shares, as a result of the Company's issuance of 31 million new shares out of its authorized capital against cash contributions and excluding the subscription rights of existing Bayer shareholders for subscription by a subsidiary of the investment company Temasek Holdings (Private) Limited, which is wholly-owned by the Government of Singapore.

Following the capital increase for the completion of the current Rights Offering consisting of 74,604,156 new ordinary registered shares representing a notional value of €2.56 each on June 19, 2018, the Company's share capital amounts to €2,387,333,027.84 and is divided into 932,551,964 registered shares representing a notional value of €2.56 each.

#### 16.1.2 Authorized Capital

Bayer AG's authorized capital of €530,000,000.00 was approved by the annual stockholders' meeting on April 29, 2014. It expires on April 28, 2019. It can be used to increase the capital stock by issuing new no-par value registered shares against cash contributions and/or contributions in kind, but capital increases against noncash contributions may not exceed a total of €423,397,120.00 ("**Authorized Capital I**"). Stockholders must generally be granted subscription rights. However, the Board of Management is authorized, with the consent of the Supervisory Board, to exclude stockholders' subscription rights under certain conditions.

Following the capital increase for the completion of the current Rights Offering consisting of 74,604,156 new ordinary registered shares representing a notional value of €2.56 each on June 19, 2018, €339,013,360.64 of the Authorized Capital I remain.

Additional authorized capital of €211,698,560.00 was approved by the annual stockholders' meeting on April 29, 2014 ("**Authorized Capital II**"). It expires on April 28, 2019. The Board of Management was originally authorized, with the consent of the Supervisory Board, to increase the capital stock by up to a total of €211,698,560.00 by issuing new no-par value registered shares against cash contributions. Following partial use of the Authorized Capital II for the capital increase on April 18, 2018 described above (see "*16.1.1 Share Capital*"), €132,338,560.00 that may be used remain. Stockholders must be granted subscription rights. However, the Board of Management is authorized, with the consent of the Supervisory Board, to exclude stockholders' subscription rights.

#### 16.1.3 Conditional Capital

The annual stockholders' meeting on April 29, 2014 approved the creation of conditional capital, authorizing a conditional increase of up to €211,698,560.00 in the capital stock through the issuance of up to 82,694,750 new shares ("**Conditional Capital 2014**"). The conditional capital increase will only be implemented to the extent that the holders of options or conversion rights, or those persons obliged to exercise options or perform conversions under bonds with warrants or convertible bonds, profit participation certificates, or income bonds (or

combinations of these instruments), which will be issued or guaranteed on the basis of the authorization resolved by the annual stockholders' meeting on April 29, 2014, by Bayer or a Group company within the meaning of Section 18 of the AktG in which Bayer has a direct or indirect interest in a minimum of 90% of the votes and capital, exercise their options or conversion rights, or, to the extent that they are obliged to exercise the option or conversion, fulfill their obligation to exercise the option or perform the conversion and to the extent that no other forms of settlement are employed. The new shares will be issued at the option premium or conversion price to be determined in accordance with the authorizing resolution preferred to above. The authorization of the Board of Management to issue, with the consent of the Supervisory Board, such debt instruments is limited to an aggregate principal amount of €6,000,000,000.00 on one or more occasions in the period up to April 28, 2019.

In principle, stockholders have a statutory right to be granted subscription rights to such instruments. However, the Board of Management is authorized, with the consent of the Supervisory Board, to exclude subscription rights under certain conditions.

On November 22, 2016, Bayer partially utilized the Conditional Capital 2014, by issuing mandatory convertible bonds in the amount of €4,000 million without granting subscription rights to existing shareholders of the Company. The bonds, denominated in units of €100,000, were issued by Bayer Capital Corporation B.V. under the subordinated guarantee of Bayer AG. At maturity in November 2019, the outstanding amount of the bonds will be mandatorily converted into registered no-par value shares of Bayer AG (unless converted or redeemed before).

#### **16.1.4 Authorization to Purchase and Sell Treasury Shares**

Bayer does currently not hold any treasury shares, nor does a third party on behalf or for account of the Company. Section 71 para. 1 number 8 AktG gives stock corporations the possibility to acquire treasury shares of up to a total of 10% of their share capital on the basis of an authorization by the annual stockholders' meeting. A resolution specifying the conditions for the acquisition and disposal of treasury shares was adopted at the annual stockholders' meeting on April 29, 2014.

Pursuant to the resolution, the purchase of treasury shares on the basis of this authorization may also be effected by using put or call options. In this case, the trading in options has to be settled by an independent credit institution or a company acting pursuant to Section 53 para. 1 clause 1 or Section 53b para. 1 clause 1 or para. 7 of the German Banking Act (*Gesetz über das Kreditwesen*) provided that the relevant financial institution, upon the exercise of the relevant option, will only deliver shares which it previously acquired on the stock exchange, subject to compliance with the principle of equal treatment, at a market-driven price.

### **16.2 General Provisions Relating to Profit Allocation and Dividend Payments**

Distributions of dividends on shares for a given fiscal year are generally determined by a process in which a management board and a supervisory board of a stock corporation submit a proposal to the annual stockholders' meeting held in the subsequent fiscal year and such annual stockholders' meeting adopts a resolution on the distribution of dividends. German law provides that a resolution concerning dividends and distributions thereof may be adopted only if the Company's unconsolidated financial statements prepared in accordance with HGB show a net retained profit (*Bilanzgewinn*). In determining the profit available for distribution, the result for the relevant fiscal year must be adjusted for profits and losses carried forward from the previous fiscal year and for withdrawals from or transfers to reserves. Certain reserves are required by law, and must be deducted to a certain extent when calculating the profit available for distribution.

Dividends on shares resolved by the annual stockholders' meeting are paid annually, three business days after the annual stockholders' meeting, unless provided otherwise in the dividend resolution, in compliance with the rules of the respective clearing system. Details concerning any dividends resolved by the annual stockholders' meeting and the respective paying agent(s) will be published in the German Federal Gazette (*Bundesanzeiger*).

### **16.3 General Provisions Governing a Liquidation of Bayer AG**

Apart from liquidation as a result of insolvency proceedings, the Company may be liquidated only with a vote of 75% or more of the share capital represented when the shareholders' resolution is passed. Pursuant to the AktG, in the event of the Company's liquidation, any assets remaining after all of the Company's liabilities have been settled will be distributed pro rata among its shareholders. The AktG further stipulates certain protections for creditors which must be observed in the event of liquidation.

#### **16.4 General Provisions Relating to a Change in the Share Capital**

In the event of a capital increase, the AktG provides that the share capital of a stock corporation may be increased by a resolution adopted at the annual stockholders' meeting. Such resolution must be adopted by a majority of at least 75% of the share capital represented when the resolution is passed, unless the stock corporation's articles of association provide for a different majority. The Articles of Incorporation provide in Section 17 para. 2 that the resolutions of the stockholders' meeting are adopted by a simple majority of the votes cast and, where a capital majority is required in addition, resolutions may be adopted by a simple majority of the share capital represented at the meeting, except as otherwise provided by law or the Articles of Incorporation. The dividend entitlement of the new shares may be determined in deviation from Section 60 AktG according to Section 4(5) of the Articles of Incorporation. Section 60 para. 2 AktG provides that, if contributions to share capital have not been made in the same proportion for all shares, shareholders shall first be paid from the distributable profit an amount of 4% of the contributions made, and, if the profit is insufficient to make such payment, the amount to be paid shall be determined on the basis of an appropriately lower percentage (contributions which have been made during the course of the fiscal year shall be taken into account in proportion to the time which has elapsed since the date of such contributions).

In addition, shareholders may resolve to issue authorized capital, upon a vote of 75% of the share capital represented at the passing of the resolution authorizing the Board of Management to issue shares, up to a specific amount within a period not exceeding five years. The nominal amount of such issuance may not exceed 50% of the share capital in existence at the time the resolution of the annual stockholders' meeting is registered with the commercial register.

Additionally, shareholders may resolve to create conditional capital for the purpose of issuing shares (i) to holders of convertible bonds or other securities convertible into shares, (ii) as consideration in connection with a merger with another company or (iii) to executives and employees. A resolution to create conditional capital must be adopted by at least 75% of the share capital represented at the passing of the resolution.



## 17. SHAREHOLDER STRUCTURE

The Company's currently issued and outstanding share capital as of the date of this Offering Memorandum amounts to €2,196,346,388.48 divided into 857,947,808 ordinary registered shares with no par value (*Stückaktien*), each representing a notional value of €2.56. An analysis of the Company's ownership structure carried out in the second quarter of 2018 covered approximately 91% of its issued and outstanding share capital at the time (i.e., 777,118,164), including those held by 1,486 institutional investors. The highest proportion of the Company's outstanding shares, almost 30.6%, was held by investors in the United States and Canada, followed by Germany with 20.7%. The remaining amount of the Company's outstanding shares was held by investors in various other countries.<sup>32</sup> From a regional perspective, Bayer has a stable ownership structure that has altered only slightly in recent years. At the end of 2017, approximately 343,000 stockholders were listed in the Company's share register. The Company has a 100% free float as defined by Deutsche Börse AG, the operator of the Frankfurt Stock Exchange.

The WpHG requires holders of voting rights in a listed stock corporation to notify the respective corporation and the BaFin without undue delay of the level of their holdings if they reach, exceed or fall below certain threshold. To our knowledge, and based on the notifications received by the Company as of the date of this Offering Memorandum in accordance with the WpHG and on information provided by shareholders, the following shareholders held an interest (direct or indirect) of at least 3% in the Company's ordinary shares as of the date of this Offering Memorandum. The percentage values shown in the table below are the shares of voting rights last notified to the Company in relation to the Company's share capital as of the date of the respective notification. It should be noted that the number and share of voting rights last notified may have changed since the respective notification was submitted to the Company given that there is no obligation to notify unless notifiable thresholds were reached or crossed:

<b>Shareholders</b>	<b>Stake/Share of Voting Rights<sup>(1)</sup></b>
BlackRock, Inc. <sup>(2)</sup>	7.17%
.....	
Government of Singapore <sup>(3)</sup>	3.97%
.....	

(1) The percentage of voting rights has been calculated on the basis of the Company's registered share capital on the date of the respective shareholding notification.

(2) Indirect shareholdings of BlackRock, Inc. as notified for March 26, 2018. BlackRock, Inc. is the ultimate controlling entity of the following other companies listed in its group notification: Trident Merger, LLC; BlackRock Investment Management, LLC; BlackRock Holdco 2, Inc.; BlackRock Financial Management, Inc.; BlackRock Holdco 4, LLC; BlackRock Holdco 6, LLC; BlackRock Delaware Holdings Inc.; BlackRock Institutional Trust Company, National Association; BlackRock Fund Advisors; BlackRock Capital Holdings, Inc.; BlackRock Advisors, LLC; BlackRock International Holdings, Inc.; BR Jersey International Holdings L.P.; BlackRock (Singapore) Holdco Pte. Ltd.; BlackRock (Singapore) Limited; BlackRock HK Holdco Limited; BlackRock Asset Management North Asia Limited; BlackRock Lux Finco S.à.r.l.; BlackRock Trident Holding Company Limited; BlackRock Japan Holdings GK; BlackRock Japan Co., Ltd.; BlackRock Australia Holdco Pty. Ltd.; BlackRock Investment Management (Australia) Limited; BlackRock Holdco 3, LLC; BlackRock Canada Holdings LP; BlackRock Canada Holdings ULC; BlackRock Asset Management Canada Limited; BlackRock Group Limited; BlackRock Advisors (UK) Limited; BlackRock Luxembourg Holdco S.à r.l.; BlackRock UK Holdco Limited; BlackRock Asset Management Schweiz AG; BlackRock (Luxembourg) S.A.; BlackRock Investment Management Ireland Holdings Limited; BlackRock Asset Management Ireland Limited; BlackRock International Limited; BlackRock Life Limited; BlackRock (Netherlands) B.V.; BlackRock Investment Management (UK) Limited; BlackRock Asset Management Deutschland AG; iShares (DE) I Investmentaktiengesellschaft mit Teilgesellschaftsvermögen; and BlackRock Fund Managers Limited. None of these companies directly held 3.0% or more of the voting rights in the Company at that date.

(3) Indirect shareholdings of the Government of Singapore, as notified for April 18, 2018. The Government of Singapore is the ultimate controlling shareholder of the following companies listed in its group notification: Temasek Holdings (Private) Limited; Tembusu Capital Pte. Ltd.; Bartley Investments Pte. Ltd.; Ellington Investments Pte. Ltd.; SeaTown Holdings Pte. Ltd.; SeaTown GP Pte. Ltd.; SeaTown Singapore Feeder Fund LP; SeaTown Master Fund; SeaTown Capital Pte. Ltd.; SeaTown Holdings International Pte. Ltd.; Pilatus Investments Pte. Ltd.; Temasek Capital (Private) Limited; Seletar Investments Pte. Ltd.; and Aranda Investments Pte. Ltd. Out of these companies, only Ellington Investments Pte. Ltd. directly held 3.0% or more of the voting rights in the Company, namely 3.96%, at that date.

Each share of the Company confers one vote at the stockholders' meeting. Voting rights are the same for all of the Company's shareholders. The Company is neither directly nor indirectly owned or controlled by any other company or person. There are no arrangements known to the Company, the operation of which may at a subsequent date result in a change of control of the Company.

<sup>32</sup> Cmi2i Survey



## 18. TAXATION

The following is a general discussion of certain German, Dutch and Luxembourg tax consequences of the acquisition, ownership and disposal of the Notes offered by the Issuer. This discussion does not purport to be a comprehensive description of all tax considerations that may be relevant to a decision to purchase these Notes. In particular, this discussion does not consider any specific facts or circumstances that may apply to a particular purchaser. This summary is based on the laws of the Federal Republic of Germany, the Kingdom of the Netherlands and the Grand Duchy of Luxembourg (“**Luxembourg**”) currently in force and as applied on the date of this Offering Memorandum, which are subject to change, possibly with retroactive or retrospective effect.

**Prospective purchasers of the Notes are advised to consult their own tax advisors as to the tax consequences of the purchase, ownership and disposition of the securities, including the effect of any state or local taxes, under the tax laws applicable in Germany, in The Netherlands, in Luxembourg and in each country of which they are residents.**

### 18.1 Taxation in Germany

#### 18.1.1 Income Tax

##### 18.1.1.1 Notes Held by German Tax Residents as Private Assets

###### 18.1.1.1.1 Taxation of Interest

Payments of interest on the Notes to its Holders who are tax residents of Germany (*i.e.*, persons whose residence or habitual abode is located in Germany) are subject to German income tax (*Einkommensteuer*). In each case where German income tax arises, a solidarity surcharge (*Solidarit tszuschlag*) is levied in addition to such tax. Furthermore, church tax may be levied, where applicable. If coupons or interest claims are disposed of separately (*i.e.*, without the securities), the proceeds from the disposition are subject to income tax. The same applies to proceeds from the redemption of coupons or interest claims if the securities are disposed of separately.

On payments of interest on the Notes to individual tax residents of Germany, income tax is generally levied as a flat income tax at a rate of 25% (plus the solidarity surcharge in an amount of 5.5% of such tax resulting in a total tax charge of 26.375%, and, if applicable, church tax), subject to the proposed abolition of the flat income tax for interest income, see “18.5 *The Proposed Abolition of the Flat Income Tax for Interest Income*”. The total investment income of an individual will be decreased by a lump sum deduction (*Sparer-Pauschbetrag*) of EUR 801 (EUR 1,602 for married couples and registered partners filing jointly). A deduction of expenses actually incurred is excluded.

If the Notes are kept or administrated in a custodial account which the Holder of the Notes maintains with a German branch of a German or non-German credit institute (*Kreditinstitut*) or financial services institution (*Finanzdienstleistungsinstitut*) or with a securities trading business (*Wertpapierhandelsunternehmen*) or with a securities trading bank (*Wertpapierhandelsbank*) (each within the meaning of the German Banking Act (*Kreditwesengesetz (KWG)*) in Germany (each a “**Disbursing Agent**”), the flat income tax will generally be levied by way of withholding at the aforementioned rate (including the solidarity surcharge and, if applicable, church tax) from the gross interest payment to be made by the Disbursing Agent. For Holders who are subject to church tax, an electronic information system for church withholding tax purposes applies in relation to investment income, with the effect that church tax will be collected by the Disbursing Agent by way of withholding unless the investor has filed a blocking notice (*Sperrvermerk*) with the German Federal Central Tax Office (*Bundeszentralamt f r Steuern*) in which case the investor will be assessed to church tax.

In general, no withholding tax will be levied if the Holder of the Notes filed a withholding exemption certificate (*Freistellungsauftrag*) with the Disbursing Agent, but only to the extent the interest income derived from the Notes, together with other investment income, does not exceed the maximum exemption amount shown on the withholding exemption certificate. Similarly, no withholding tax will be deducted if the Holder of the Notes has submitted to the Disbursing Agent a certificate of non-assessment (*Nichtveranlagungsbescheinigung*) issued by the relevant local tax office.

In computing the withholding tax, the Disbursing Agent generally deducts from the basis of the withholding tax negative investment income realised by a Holder via the Disbursing Agent. The Disbursing Agent also deducts accrued interest on the Notes or other securities paid separately upon the acquisition of the respective security by

a private Holder via the Disbursing Agent. In addition, subject to certain requirements and restrictions, the Disbursing Agent credits foreign withholding taxes levied on investment income in a given year regarding securities held by a private Holder in the custodial account with the Disbursing Agent.

If the Notes are kept or administrated in a custodial account abroad or if no Disbursing Agent is involved in the payment process, the Holder of the Notes will have to include its income on the Notes in its tax return and the flat income tax of 25% (plus the solidarity surcharge and, if applicable, church tax) will be collected by way of assessment.

Payment of the flat income tax by way of withholding will generally satisfy any income tax liability (including the solidarity surcharge and, if applicable, church tax) of the Holder of the Notes with respect to such investment income. Holders of the Notes may apply for a tax assessment on the basis of general rules applicable to them if the resulting income tax burden is lower than 25% (*Günstigerprüfung*).

#### 18.1.1.1.2 *Taxation of Capital Gains.*

Capital gains realized by individual tax residents of Germany from the disposition or redemption of Notes are subject to the flat income tax on investment income at a rate of 25% (plus the solidarity surcharge in an amount of 5.5% of such tax, resulting in a total tax charge of 26.375%, and, if applicable, church tax), irrespective of any holding period.

If the Issuer exercises the right to substitute the debtor of the Notes, the substitution might, for German tax purposes, be treated as an exchange of the Notes for new notes issued by the Substitute Debtor and subject to similar taxation rules as the Notes. In particular, such a substitution could result in the recognition of a taxable gain or loss for any Holder of a Note. The Substitute Debtor is obligated to indemnify each Holder for any tax incurred by such Holder as a result of a substitution of the Issuer pursuant to the section “2 *Terms and Conditions of the Notes—§ 10 Substitution*”. The indemnities to be paid may constitute taxable income.

If the Notes are kept or administrated in a custodial account which the Holder of the Notes maintains with a Disbursing Agent, the flat income tax will generally be levied by way of withholding from the difference between the redemption amount (or the proceeds from the disposition) after deduction of expenses directly related to the redemption (or disposition) and the issue price (or the purchase price) of the Notes. If Notes kept or administrated in the same custodial account were acquired at different points in time, the Notes first acquired will be deemed to have been sold first for the purposes of determining the capital gains (FIFO method). The FIFO method is applied on the level of the individual custodial account. Where Notes are acquired and/or sold in a currency other than Euro, the sales price and the acquisition costs have to be converted into Euro on the basis of the foreign exchange rates prevailing on the sale date and the acquisition date respectively with the result that any currency gains or losses are part of the capital gains. If interest claims are disposed of separately (i.e. without the Notes), the proceeds from the disposition are subject to taxation. The same applies to proceeds from the payment of interest claims if the Notes have been disposed of separately.

If the Notes have been transferred to the custodial account of the Disbursing Agent only after their acquisition, and no evidence on the acquisition data has been provided to the new Disbursing Agent by the Disbursing Agent which previously held the Notes in its custodial account, withholding tax will be levied on 30% of the proceeds from the disposition or redemption of the Notes. The transfer of the Notes to the custodial account of another person is considered as a disposition of the Notes and withholding tax will be levied from the difference between the stock market price and the issue price of the Notes, minus the costs of transfer. If a stock market price is not available, withholding tax will be levied on 30% of the issue price. The Holder of the Notes can avoid the levy of withholding tax by informing the Disbursing Agent that the Notes were transferred free of charge.

If no Disbursing Agent is involved in the payment process, the Holder of the Notes will be required to include capital gains from the disposition or redemption of the Notes in its tax return and the flat income tax of 25% (plus the solidarity surcharge and, if applicable, church tax) will be collected by way of assessment. The same applies if the withholding tax on a disposition or redemption has been calculated from 30% of the disposal proceeds and the capital gain calculated on the basis of the actual acquisition costs of the Notes is higher than the basis for the withholding tax.

Payment of the flat income tax by way of withholding will generally satisfy any income tax liability (including the solidarity surcharge and, if applicable, church tax) of the Holder of the Notes with respect to such investment income. Holders of the Notes may apply for a tax assessment on the basis of general rules applicable to them if the resulting income tax burden is lower than 25%.

#### 18.1.1.2 Notes Held by German Tax Residents as Business Assets

Payments of interest on the Notes and capital gains from the disposition or redemption of Notes held as business assets by German tax resident individuals or corporations (including via a partnership, as the case may be), are generally subject to German income tax or corporate income tax (*Körperschaftsteuer*) (in each case, plus the solidarity surcharge and, if applicable, church tax in case of individuals). The interest and capital gain will also be subject to trade tax (*Gewerbesteuer*) if the Notes form part of the property of a German trade or business. The trade tax rate depends on the municipal multiplier of the respective municipality.

If the Notes are kept or administrated in a custodial account which the Holder of the Notes maintains with a Disbursing Agent, tax at a rate of 25% (plus the solidarity surcharge and, if applicable, church tax in case of individuals) will also be withheld from interest payments on Notes held as business assets. In these cases, the withholding tax does not satisfy the income tax liability of the Holder of the Notes, as in the case of the Notes held by tax residents as private assets, but will be credited as advance payment against the income or corporate income tax liability (plus the solidarity surcharge and, if applicable, church tax in case of individuals) of the Holder of the Notes.

Generally and subject to further requirements, no withholding will be required with regard to capital gains deriving from Notes held by corporations resident in Germany, provided that, regarding certain legal entities, the legal form of the corporation has been evidenced by a certificate of the competent tax office. Upon application, the same applies to Notes, held as business assets by individuals or partnerships.

#### 18.1.1.3 Notes Held by Non-German Tax Residents

Interest and capital gains are not subject to German taxation for non-residents (i.e., persons having neither their residence nor their habitual abode nor legal domicile nor place of effective management in Germany), unless the Notes form part of the business property of a permanent establishment (*Betriebsstätte*) or business for which a permanent representative (*ständiger Vertreter*) in Germany has been appointed. Interest or capital gains may, however, be subject to German income tax if the capital investments are paid against handing over coupons, or if they otherwise constitute taxable income in Germany.

Non-German tax residents are, in general, exempt from German withholding tax on interest and capital gains and from any solidarity surcharge thereon. However, if the interest or capital gain is subject to German taxation, as set forth in the preceding paragraph, and the Notes are kept or administrated in a custodial account with a Disbursing Agent, withholding tax will be levied as explained above under “—Notes Held by German Tax Residents as Private Assets” or under “—Notes Held by German Tax Residents as Business Assets”, respectively.

#### **18.1.2 Inheritance and Gift Tax**

No inheritance or gift taxes with respect to any securities will generally arise under the laws of Germany, if, in the case of inheritance tax, neither the decedent nor the beneficiary, or in the case of gift tax, neither the donor nor the donee, is a resident of Germany and such securities are not attributable to a German trade or business for which a permanent establishment is maintained, or a permanent representative has been appointed, in Germany. Exceptions to this rule apply to certain German citizens who previously maintained a residence in Germany.

#### **18.1.3 Other Taxes**

No stamp, issue, registration or similar taxes or duties will be payable in Germany in connection with the issuance, delivery or execution of the Notes. Currently, neither a net assets tax (*Vermögensteuer*) nor a financial transfer tax is levied in Germany.

#### **18.2 Withholding Tax in the Netherlands**

This taxation overview solely addresses the Dutch withholding tax consequences of the acquisition, ownership and disposal of Notes issued by the Issuer on or after the date of this Offering Memorandum. It does not describe any other Dutch tax consequences. It does therefore not consider every aspect of taxation that may be relevant to a particular holder of Notes. Any potential investor should consult his/her tax adviser for more information about the tax consequences of acquiring, owning and disposing of Notes in his/her particular circumstances.

Where in this taxation overview English terms and expressions are used to refer to Dutch concepts, the meaning to be attributed to such terms and expressions shall be the meaning to be attributed to the equivalent Dutch concepts under Dutch tax law. Where in this Dutch taxation overview the terms "the Netherlands" and "Dutch" are used, these refer solely to the European part of the Kingdom of the Netherlands.

This taxation overview is based on the tax law of the Netherlands (unpublished case law not included) as it stands at the date of this Offering Memorandum. The law upon which this overview is based is subject to change, perhaps with retroactive effect. Any such change may invalidate the contents of this overview, which will not be updated to reflect such change. This overview assumes that each transaction with respect to Notes is at arm's length.

All payments under Notes may be made free from withholding or deduction of or for any taxes of whatever nature imposed, levied, withheld or assessed by The Netherlands or any political subdivision or taxing authority of or in the Netherlands, except where Notes are issued under such terms and conditions that such Notes are capable of being classified as equity of the Issuer for Dutch tax purposes or actually function as equity of the Issuer within the meaning of article 10, paragraph 1, letter d of the Dutch Corporation Tax Act 1969 (*Wet op de vennootschapsbelasting 1969*) and where Notes are issued that are redeemable in exchange for, convertible into or linked to shares or other equity instruments issued or to be issued by the Issuer or by any entity related to the Issuer.

### **18.3 Taxation in Luxembourg**

The following information is of a general nature only and is based on the laws presently in force in Luxembourg, though it is not intended to be, nor should it be construed to be, legal or tax advice. The information contained within this section is limited to Luxembourg withholding tax issues, and prospective investors in the Notes should therefore consult their own professional advisers as to the effects of state, local or foreign laws, including Luxembourg tax law, to which they may be subject.

Please be aware that the residence concept used under the respective headings below applies for Luxembourg income tax assessment purposes only. Any reference in the present section to a withholding tax or a tax of a similar nature, or to any other concepts, refers to Luxembourg tax law and/or concepts only.

#### **18.3.1 Tax residency**

Noteholders will not become resident nor be deemed to be resident in Luxembourg by reason only of the holding of the Notes or the execution, performance, delivery and/or enforcement of their rights thereunder.

#### **18.3.2 Non-resident holders of Notes**

Under Luxembourg general tax laws currently in force, there is no withholding tax on payments of principal, premium or interest made to non-resident holders of Notes, nor on accrued but unpaid interest in respect of the Notes, nor is any Luxembourg withholding tax payable upon redemption or repurchase of the Notes held by non-resident holders of Notes.

#### **18.3.3 Resident holders of Notes**

Under Luxembourg general tax laws currently in force and subject to the law of December 23, 2005, as amended (the "**Relibi Law**"), there is no withholding tax on payments of principal, premium or interest made to Luxembourg resident holders of Notes, nor on accrued but unpaid interest in respect of Notes, nor is any Luxembourg withholding tax payable upon redemption or repurchase of Notes held by Luxembourg resident holders of Notes.

Under the Relibi Law, payments of interest or similar income made or ascribed by a paying agent established in Luxembourg to or for the immediate benefit an individual beneficial owner who is a resident of Luxembourg will be subject to a withholding tax of 20%. This withholding tax also applies on accrued interest received upon disposal, redemption or repurchase of the Notes. Such withholding tax will be in full discharge of income tax if the beneficial owner is an individual acting in the course of the management of his/her private wealth. Responsibility for the withholding of the tax will be assumed by the Luxembourg paying agent. Payments of interest under the Notes coming within the scope of the Relibi Law will be subject to a withholding tax at a rate of 20%.

Under the Relibi Law, Luxembourg resident individuals, acting in the course of their private wealth who are the beneficial owners of interest payments and other similar income, can opt to self-declare and pay a 20%

levy on interest payments made after January 1, 2017 by paying agents located in a member state of the European Union (“**EU Member State**”) other than Luxembourg or in a EEA member state who is not a EU Member State. In such case, the 20% levy is calculated on the same amounts as for the payments made by Luxembourg paying agents. The Luxembourg resident individual who is the beneficial owner of interest is responsible for the declaration and the payment of the 20% final levy. The option for the 20% levy must cover all interest payments made by paying agents to the beneficial owner during the entire civil year.

#### **18.4 The Proposed Financial Transactions Tax**

The European Commission and certain EU Member States (including Germany) currently intent to introduce an FTT. On February 14, 2013, the Commission published a proposal for a Council Directive that focusses on levying an FTT of 0.1% (0.01% for derivatives) on secondary market transactions in securities involving at least one financial intermediary.

The FTT proposal is still subject to negotiation between the participating EU Member States and full details are not available. Therefore, it is currently uncertain whether and when the proposed FTT will be enacted by the Participating Member States and when it will take effect with regard to dealings in the Notes. The proposal may be altered prior to any implementation and other EU Member States may decide to participate. Prospective holders of the Notes are advised to seek their own professional advice in relation to the FTT.

#### **18.5 The Proposed Abolition of the Flat Income Tax for Interest Income**

The government of the Federal Republic of Germany intends to abolish the flat income taxation for interest income as soon as the automatic data exchange between the Member States of the European Union and numerous OECD countries is established. As a consequence, individuals who are tax residents of Germany will be taxed at their personal (progressive) income tax rate that can be higher or lower than the flat tax rate of 25% (plus solidarity surcharge (*Solidaritätszuschlag*) and church tax thereon). It is currently uncertain whether and when the proposed abolition of the flat income tax for interest income will be enacted.

#### **18.6 Responsibility of the Issuer for the Withholding of Taxes at Source**

The Issuer does not assume any responsibility for the withholding of taxes at source.

## 19. DOCUMENTS INCORPORATED BY REFERENCE

### 19.1 Bayer Information

The pages set out below, which refer to the Guarantor's Annual Report 2017, Annual Report 2016 and Annual Report 2015 and Interim Report First Quarter 2018, and the pages set out below, which refer to the Issuer's Annual Report 2017 and Annual Report 2016, shall be deemed to be incorporated by reference in, and to form part of, this Offering Memorandum.

Bayer AG's audited consolidated financial statements as of and for the fiscal years ended December 31, 2017, December 31, 2016 and December 31, 2015, respectively, incorporated by reference were prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315e para. 1 HGB (formerly Section 315a para. 1 of the HGB). The audit opinions (*Bestätigungsvermerke*) with respect to the Bayer AG's consolidated financial statements as of and for the fiscal years ended December 31, 2017, December 31, 2016, and December 31, 2015, respectively, incorporated by reference refer to the consolidated financial statements and the respective report on the position of the Bayer, in each case as a whole, and not solely to the consolidated financial statements incorporated by reference herein.

The unaudited condensed consolidated interim financial statements of Bayer as of and for the three months ended March 31, 2018 incorporated by reference were prepared in accordance with IFRS for interim financial reporting (IAS 34).

The Issuer's audited financial statements as of and for the fiscal years ended December 31, 2017 and December 31, 2016 were prepared in accordance with the Netherlands Civil Code.

Any information not incorporated by reference in this Offering Memorandum but contained in one of the documents mentioned as source documents in the cross-reference list below is either not relevant for the investor or covered in another part of this Offering Memorandum. Upon written or oral request, the Issuer and/or Guarantor will provide a copy of any or all of the documents incorporated by reference free of charge. Requests for such documents should be directed to the Issuer and/or the Guarantor at its registered office as set out at the end of this Offering Memorandum.

The documents incorporated by reference into this Offering Memorandum have been published, in case of the Guarantor's Annual Reports, on the Guarantor's website ([www.bayer.com](http://www.bayer.com)) and, in case of both the Issuer's and the Guarantor's Annual Reports, will be published on the website of the Luxembourg Stock Exchange ([www.bourse.lu](http://www.bourse.lu)).

#### (1) **Audited consolidated financial statements of Bayer AG as of and for the year ended December 31, 2017 (IFRS)**

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#### (2) **Audited consolidated financial statements of Bayer AG as of and for the year ended December 31, 2016 (IFRS)**

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<sup>34</sup> The auditor's report (*Bestätigungsvermerk*) has been issued in accordance with Section 322 German Commercial Code (*Handelsgesetzbuch*) in German language on the German version on the consolidated financial statements and the combined management report (*zusammengefasster Lagebericht*) of Bayer Aktiengesellschaft as of and for the fiscal year ended December 31, 2017. The combined management report is neither included nor incorporated by reference in this Offering Memorandum.



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<b>(3) Audited consolidated financial statements of Bayer AG as of and for the year ended December 31, 2015 (IFRS)</b>	
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35 The review report (*Bescheinigung nach prüferischer Durchsicht*) thereon has been issued in accordance with the German generally accepted standards for the review of financial statements promulgated by the Institut der Wirtschaftsprüfer (*IDW*) as well as in supplementary compliance with the International Standard on Review Engagements "Review of Interim Financial Information performed by the Independent Auditor of the Entity" (ISRE 2410) in German language on the German version on the condensed consolidated interim financial statements and the interim group management report (*Konzernzwischenlagebericht*) of Bayer Aktiengesellschaft as of and for the three months period ended March 31, 2018. The interim group management report is neither included nor incorporated by reference in this Offering Memorandum.

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## 19.2 Monsanto Information

The sections, which refer to certain parts of Monsanto Company's annual report on Form 10-K for the fiscal year ended August 31, 2017 filed by Monsanto Company with the U.S. Securities and Exchange Commission (the "SEC") on October 27, 2017 (the "Monsanto 10-K") and Monsanto Company's quarterly report on Form 10-Q for the quarterly period ended February 28, 2018 filed by Monsanto Company with the SEC on April 5, 2018 (the "Monsanto Q2 10-Q"), shall be deemed to be incorporated by reference in, and to form part of, this Offering Memorandum.

Monsanto Company's consolidated financial statements as of and for the fiscal years ended fiscal years ended August 31, 2015, August 31, 2016 and August 31, 2017, respectively, Monsanto Company's unaudited consolidated financial statements as of and for the three months ended February 28, 2018, in each case incorporated by reference herein, were prepared in accordance with generally accepted accounting principles in the United States (U.S. GAAP).

The documents incorporated by reference into this Offering Memorandum will be published on the website of the Luxembourg Stock Exchange ([www.bourse.lu](http://www.bourse.lu)).

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## 20. RECENT DEVELOPMENTS AND OUTLOOK

### 20.1 Recent Developments

In April 2018, a subsidiary of the investment company Temasek Holdings (Private) Limited, which is wholly-owned by the Government of Singapore, subscribed to 31 million new shares of Bayer AG issued from the Company's authorized capital against cash contributions and excluding the subscription rights of existing Bayer shareholders, corresponding to approximately 3.6% of Bayer AG's increased share capital, for total gross proceeds of €3.0 billion. The net proceeds from the Temasek Investment were used to reduce the commitments under the Loan Facilities Agreement by US\$ 3.7 billion to US\$46.0 billion.

On May 3, 2018, Bayer sold 28.81 million Covestro Shares, representing a 14.2% interest in Covestro AG at a price of €75.50 per share to institutional investors. The net proceeds of the sale amounted to €2.2 billion and were used to reduce the commitments under the Loan Facilities Agreement. Following the acquisition of Covestro Shares from Bayer Pension Trust in May 2018, Bayer now holds 6.8% of Covestro Shares, which it intends to use to repay the Exchangeable Bonds that mature in 2020. Following this transaction, Bayer's remaining interest in Covestro is being accounted as other financial assets measured for at fair value through profit and loss.

On June 5, 2018, Bayer launched a rights offering, pursuant to which it is currently offering 74,604,156 new ordinary registered shares, each such share representing a notional value of €2.56 and carrying full dividend rights from January 1, 2018, which are offered to Bayer's shareholders for subscription at a ratio of 23:2 (i.e., 23 existing shares of Bayer entitle their holder to subscribe for two new shares) at a subscription price of €81.00 per new share. The rights offering is expected to close on June 22, 2018.

On June 7, 2018, the Transaction, which was subject to customary closing conditions, including the receipt of required antitrust and other regulatory approvals, was completed after all required closing conditions were satisfied or waived. In connection with obtaining required antitrust approvals to complete the Transaction, Bayer has entered into the Transaction-related Divestments, including the Second BASF Divestiture Package in April 2018. For more information see "6. *The Acquisition of Monsanto*" and "7. *Pro Forma Financial Information – Effects of the Covestro Divestments and the Acquisition of Monsanto on the Consolidated Financial Information of Bayer for the Fiscal Year Ended December 31, 2017, and as of and for the Three Months Ended March 31, 2018.*"

On June 12, 2018, Bayer launched an offer to exchange new senior unsecured notes to be issued by Bayer US Finance II LLC, a wholly owned subsidiary of Bayer AG, and unconditionally and irrevocably guaranteed by Bayer AG (the "**Bayer Notes**") in an aggregate principal amount of approximately US\$ 6.9 billion for certain series of notes issued by Monsanto (the "**Exchange Offer**") and assumed by Bayer in connection with the acquisition of Monsanto (the "**Monsanto Notes**"). The Bayer Notes will have the same principal amounts, interest rates, maturity dates and interest payment dates as the corresponding series of Monsanto Notes for which they are being offered. The offer period is expected to expire on July 10, 2018, unless extended.

In order to refinance further amounts drawn down under the Loan Facilities Agreement, Bayer has engaged in the Bond Offerings, which include the offering of the Notes.

Except as described above, between March 31, 2018 and the date of this Offering Memorandum, there have been no material changes to Bayer's financial position, financial performance or cash flows, or Bayer's trading position.

### 20.2 Economic Outlook

The global economy should continue to grow in 2018. Although Bayer estimates that the risks for the world economy have increased in view of growing political tensions, the recent tax cuts in the United States should stimulate growth, and Bayer also anticipates robust growth in Europe in 2018. As for the Emerging Markets, Bayer expects growth in economic output to match the pace of the prior year, while for China, Bayer anticipates continuing strong growth at a slightly slower rate.<sup>36</sup>

Bayer anticipates that the pharmaceuticals market will post slightly higher growth in 2018 (+4%) than in 2017 (+3%). The main growth drivers are likely to be new product launches. The expiration of patents is expected to have a negative impact as it could result in increased competition from generics. Bayer expects a positive

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<sup>36</sup> IHS Markit – Global Executive Summary; Global Insight – Comparative World Overview

development in the United States, Europe, Latin America and Asia, but slower growth in the Japanese pharmaceuticals market.

As regards the consumer health market, Bayer anticipates growth of 3% to 4% in 2018, the same as in 2017. Bayer believes the market is likely to remain tight as a result of rising price pressure from e-commerce and consolidation of the retail sector.

Bayer estimates that the global seed and crop protection market should develop positively in 2018 (+3%), also compared to 2017 (+1%). In Bayer's view, the principal growth momentum will come from Latin America, mainly due to the expected normalization of inventories of crop protection products in Brazil and a further increase soybean acreages. Bayer also expects the market to grow in the Asia / Pacific region and in Eastern Europe. The persistently low price of agricultural commodities in North America and Western Europe is likely to be reflected in sluggish growth, which will lag behind the overall global development.

Following a slight upturn in the animal health market at the end of 2017, Bayer expects growth to pick up in 2018 (+4%) compared with 2017 (+2%). The main factors here in Bayer's view are likely to be an improvement in market conditions in the farm animals sector, along with further robust demand in the companion animals business.

The market growth forecast for 2018 is represented on a currency-adjusted basis and is based on Bayer's own estimate except the growth forecast for the Pharmaceuticals market which is taken from CBI – IQVIA Market Prognosis.

### **20.3 Outlook for Bayer's Business**

Following completion of the Transaction on June 7, 2018, which has had a material impact on Crop Science, the outlook for the Bayer Group (excluding Monsanto) published by Bayer in its annual report as of and for the fiscal year ended December 31, 2017 and confirmed in its interim report as of and for the three months ended March 31, 2018, which was published on May 3, 2018, is no longer meaningful.

For its segments with the exception of Crop Science, taking into account the potential risks and opportunities, Bayer confirms the currency-adjusted segment forecasts for its operating performance published in its annual report as of and for the fiscal year ended December 31, 2017 on February 28, 2018 and confirmed on May 3, 2018 in its interim report as of and for the three months ended March 31, 2018, which are based on current business developments and the Bayer Group's internal planning (excluding Monsanto). The forecasts are based on the exchange rates as of March 31, 2018. To enhance the comparability of operating performance, the forecasts are also adjusted for currency effects applying the average monthly exchange rates for 2017. A 1% appreciation (depreciation) of the euro against all other currencies would decrease (increase) sales on an annual basis by some €250 million and EBITDA before special items by about €70 million:

- For Pharmaceuticals, Bayer plans to generate sales of more than €16.5 billion, taking into account product supply constraints out of the Leverkusen Supply Center. This corresponds to a low-single-digit percentage increase on a currency- and portfolio-adjusted basis. Bayer aims to raise sales of its key growth products Xarelto™, Eylea™, Stivarga™, Xofigo™ and Adempas™ towards €7 billion. Bayer expects EBITDA before special items to decline by a low-single-digit percentage (currency-adjusted: increase by a low-single-digit percentage), and anticipate a slight decline in the EBITDA margin before special items.
- For Consumer Health, Bayer expects sales of more than €5.5 billion, which would be at the prior-year level on a currency- and portfolio adjusted basis. Bayer expects EBITDA before special items to decline by a low-single-digit percentage (currency-adjusted: increase by a low-single-digit percentage).
- For Animal Health, Bayer expects a currency- and portfolio-adjusted increase in sales by a low-single-digit percentage. Bayer expects EBITDA before special items to decline by a mid-single-digit percentage (currency-adjusted: at the prior-year level). Both sales and EBITDA before special items are negatively impacted by revised financial reporting standards (IFRS 15).

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