



**INTERNATIONAL BANK FOR RECONSTRUCTION AND
DEVELOPMENT**

Global Debt Issuance Facility

No. 100600

**USD 25,000,000 Notes linked to UYU/USD FX and the Allocator
Selections Dynamic Allocation Index (Series 1) due 2028**

JPMorgan

The date of these Final Terms is November 28, 2018

This document sets out the Final Terms (the “**Final Terms**”) of the International Bank for Reconstruction and Development (“**Issuer**” or “**IBRD**”) USD 25,000,000 Notes linked to UYU/USD FX and the Allocator Selections Dynamic Allocation Index (Series 1) due 2028 (the “**Notes**”) and the Schedules to the Final Terms. Prospective investors should read the Final Terms and the Schedules to the Final Terms together with the Issuer’s Prospectus dated May 28, 2008 (the “**Prospectus**”), in order to obtain a full understanding of the specific terms and conditions of the Notes.

The Final Terms of the Notes are set out on pages 28 to 44. Capitalized terms used herein are defined in the Final Terms, the Prospectus or the Schedules to the Final Terms.

Investing in the Notes involves risks. See “Additional Risk Factors” beginning on page 9 of the Final Terms, and “Risk Factors” beginning on page 14 of the Prospectus.

The return on, and the value of, the Notes is based on the performance of the Index and on the exchange rate of Uruguayan Peso (“UYU”) to United States Dollars (“USD”). The performance of the Index, in turn, will be based primarily on the Index Allocation Agent's periodic selections of the Component Underlyings (as defined in the Index Rules) comprising the Index. Subject to the limitations contained in the Index Rules, the Index Allocation Agent will have complete discretion as to the timing and frequency of Index rebalancings and as to the Component Underlyings chosen and weights allocated to those Component Underlyings. Therefore, the Notes are intended to be purchased and held by the Index Allocation Agent and by discretionary accounts managed by the Index Allocation Agent only.

Investors should note that the Final Terms of the Notes are separate from, and do not incorporate by reference, the Index Rules or any descriptions of such Index Rules that are set out in the Schedules to the Final Terms of the Notes. The Index Rules can be modified from time to time without requiring an amendment of the Final Terms of the Notes. In the event of the occurrence of any Mandatory Amendment Event relating to the Index, the fall-back provisions set out in the Final Terms of the Notes, not the Index Rules, will determine the relevant action to be taken with respect to the Notes. The Index Rules and the descriptions of such Index Rules that are set out in the Schedules to the Final Terms of the Notes are attached for informational purposes only and should not be relied upon by the Noteholder or any prospective investor in the Notes. The Issuer has derived all information contained in the Final Terms regarding the Index from the Index Rules, and the Issuer has not participated in the preparation of, or verified, such Index Rules. Neither IBRD nor the Global Agent will have any responsibility for the contents of the Index Rules and the Index Allocation Agreement, and none of IBRD and the Global Agent shall have any responsibility or liability for the choices and allocations made by the Index Allocation Agent thereunder with respect to the Index.

Although the return on the Notes is based on the performance of the Index, a Note will not represent a claim against the Index Allocation Agent, the Index Sponsor or the Index Calculation Agent, and a Noteholder will not have recourse under the terms of the Notes to any asset comprising the Index. The exposure to the Index is notional and an investment in the Notes is not an investment in the Index or any asset comprising the Index from time to time.

In Uruguay the Notes are being placed relying on a private placement exemption (“oferta privada”) pursuant to Section 2 of Law N° 18,627. The Notes are not and will not be registered with the Financial Services Superintendency of the Central Bank of Uruguay to be publicly offered in Uruguay.

TABLE OF CONTENTS

Executive summary.....	5
Additional risk factors.....	9
Final terms.....	29
Schedule 1: Index Summary Description - The Allocator Selections Dynamic Allocation Index (Series 1)	
Schedule 2: The Allocator Selections Dynamic Allocation Index (Series 1) Index Rules (as of the date of these Final Terms)	
Schedule 3: Description of Certain Component Underlyings of the Index	

EXECUTIVE SUMMARY

The following is an executive summary of the provisions of the Notes only and is qualified in its entirety by reference to the more detailed information contained elsewhere in the Final Terms and the Prospectus. Capitalized terms used in this summary have the meanings set forth elsewhere in the Final Terms or the Schedules to the Final Terms.

Issuer:	International Bank for Reconstruction and Development
Securities:	USD 25,000,000 Notes linked to UYU/USD FX and the Allocator Selections Dynamic Allocation Index (Series 1) due 2028 (the “Notes”). Issued under the Issuer’s Global Debt Issuance Facility.
Credit Rating:	The Notes are expected to be rated AAA by Standard and Poor’s, a division of the McGraw-Hill Companies, Inc., upon issuance.
Aggregate Nominal Amount:	USD 25,000,000 (equivalent of UYU 812,000,000 at the UYU/USD exchange rate on the Trade Date of UYU 32.48 per USD 1.00).
Issue Price:	100% (USD 25,000,000)
Denomination:	USD 1,000,000 and integral multiples of USD 10,000 in excess thereof
Issue Date:	4 December 2018
Trade Date:	19 November 2018
Scheduled Maturity Date:	4 December 2028
Maturity Date:	The Scheduled Maturity Date, subject to postponement if either the Scheduled UYU Valuation Date is postponed pursuant to Term 18 of the Final Terms and/or the Scheduled Final Index Determination Date is postponed pursuant to Term 19 of the Final Terms.
Interest Basis:	Zero Coupon
Business Day:	London, New York and Montevideo
Calculation Amount:	USD 10,000
Participation Rate:	557%
Final Redemption Amount:	<p>If no Mandatory Amendment Event has occurred prior to the Maturity Date, the Final Redemption Amount, calculated per Calculation Amount, payable on the Maturity Date will be an amount in USD equal to the sum of (i) the UYU Linked Principal Amount and (ii) the Supplemental Payment Amount, if any, as set forth under Term 17 of the Final Terms (“Final Redemption Amount of each Note (Condition 6)”).</p> <p>If a Mandatory Amendment Event has occurred prior to the Maturity Date, the Final Redemption Amount, calculated per Calculation Amount, due on the Maturity Date will be an amount in USD equal to the UYU Linked Principal Amount.</p>

UYU Linked Principal Amount:	An amount in USD equal to the UYU Amount divided by the USD/UYU FX Rate.
Supplemental Payment Amount:	An amount in USD, calculated per Calculation Amount, equal to the greater of (i) the product of the Calculation Amount, the Index Return and the Participation Rate, and (ii) zero.
Mandatory Amendment Event:	<p>In the event of the occurrence of the events described in Term 22 of the Final Terms (“Mandatory Amendment Event”), the Calculation Agent or the Issuer, as the case may be, will give notice to the beneficial owners of the occurrence of the Mandatory Amendment Event and the Issuer will be required to make a payment in respect of each Calculation Amount (which may be zero) as soon as practicable after the Mandatory Amendment Date. Such amount shall be referred to as the Early Contingent Payment Amount (as defined in Term 22 of the Final Terms (“Mandatory Amendment Event”)) and such Early Contingent Payment Amount shall be calculated as of the Accelerated Final Index Determination Date.</p> <p>For the avoidance of doubt, the occurrence of a Mandatory Amendment Event shall not affect the Issuer’s obligation to pay the UYU Linked Principal Amount per Calculation Amount due on the Maturity Date.</p> <p>In the event of the occurrence of a Mandatory Amendment Event, the Issuer shall pay the UYU Linked Principal Amount on the later of the (i) the time the Early Contingent Payment Amount is paid and (ii) the Maturity Date.</p> <p>A Mandatory Amendment Event includes an Index Cancellation, an Index Modification, an Index Allocation Agreement Termination or a termination of the Associated Swap Transaction (including as a result of an Additional Disruption Event), each as described in Term 22 of the Final Terms (“Mandatory Amendment Event”).</p>
USD/UYU FX Rate:	The UYU/USD exchange rate, expressed as the amount of UYU per one USD as determined on the UYU Valuation Date.
UYU Amount:	UYU 812,000,000 (equivalent to USD 25,000,000 at the UYU/USD exchange rate on the Trade Date of UYU 32.48 per USD 1.00)
Index Return:	<p>The performance of the Index from the Initial Index Level to the Final Index Level expressed as a percentage and calculated as follows:</p> $(\text{Final Index Level} - \text{Initial Index Level}) / \text{Initial Index Level}$
Index:	<p>The Allocator Selections Dynamic Allocation Index (Series 1) (Bloomberg Ticker Symbol: JPZMUYU9 <Index>).</p> <p>The Index will track, with certain adjustments described herein, a basket of reference components chosen and rebalanced periodically by the Index Allocation Agent. As a result, the return on the Index will be dependent in large part on the allocation selections made by the Index Allocation Agent.</p>
Index Allocation Agent:	An entity not affiliated with the Issuer or the Index Sponsor and party to an Index Allocation Agreement between it and the Index Sponsor.

Index Sponsor:	J.P. Morgan Securities LLC
Index Calculation Agent:	Solactive A.G.
UYU Valuation Date:	27 November 2028 (the “ Scheduled UYU Valuation Date ”), subject to postponement in accordance with the provisions set forth under Term 18 of the Final Terms (“UYU Related Disruption Events and Fallbacks”).
Initial Index Level:	100 (namely, the Index’s published Closing Level on the Initial Index Determination Date).
Initial Index Determination Date:	19 November 2018 (the “ Trade Date ”)
Final Index Level:	<p>Index’s Closing Level on the Final Index Determination Date, as determined by the Calculation Agent.</p> <p>In the event that the Index’s Closing Level on the Final Index Determination Date is corrected by the Calculation Agent within three New York Business Days of the Final Index Determination Date, such corrected value will be the Final Index Level.</p>
Final Index Determination Date:	27 November 2028 (the “ Scheduled Final Index Determination Date ”), subject to postponement pursuant to the provisions set forth under Term 19 of the Final Terms (“Index Disruption Events”) and Term 21 of the Final Terms (“Additional Definitions with regard to the Index”).
Index Disruption Event:	If on the Final Index Determination Date, the Calculation Agent is prevented from observing the Closing Level for the Index because either the Index is not published by the Index Calculation Agent or the Index Sponsor, or such date is not a Trading Day, an Index Disruption Event will be deemed to have occurred on such date and the Calculation Agent will delay calculating the Index Return as set forth in Term 19 of the Final Term (“Index Disruption Events”).
Dealer:	J.P. Morgan Securities plc
Calculation Agent:	JPMorgan Chase Bank, N.A.
Clearing Systems:	Euroclear/Clearstream
Rank:	The Notes constitute direct, unsecured obligations of the Issuer ranking <i>pari passu</i> , without any preference among themselves, with all its other obligations that are unsecured and unsubordinated. The Notes are not obligations of any government.
Applicable law:	English law
Notes intended to be held by Index Allocation Agent or accounts managed by Index Allocation Agent; Purchaser Acknowledgement:	The amount of the Supplemental Payment Amount, if any, or the Early Contingent Payment Amount, if any, to be payable in respect of the Notes will be based on the performance of the Index. The performance of the Index, in turn, will be based on the periodic selections of the Index Allocation Agent made under the terms of the Index Allocation Agreement (as defined in the Final Terms). Therefore, the Notes are intended to be purchased and held by the Index Allocation Agent and by discretionary accounts managed by the Index Allocation Agent only. Each initial investor and subsequent beneficial

	<p>owner in the Notes from time to time, through such investor's acquisition of the Notes, will be deemed to have acknowledged that the Notes are intended to be instruments held only by the Index Allocation Agent and by discretionary accounts managed by the Index Allocation Agent.</p> <p>Neither IBRD nor the Global Agent will have any responsibility for the contents of the rules governing the Index ("Index Rules") and the Index Allocation Agreement, and none of IBRD and the Global Agent shall have any responsibility or liability for the choices and allocations made by the Index Allocation Agent thereunder.</p>
Risk factors:	<p>Noteholders should consider carefully the factors set out under "Additional Risk Factors" in this document and under "Risk Factors" in the Prospectus before reaching a decision to buy the Notes.</p>

ADDITIONAL RISK FACTORS

An investment in the Notes is subject to the risks described below, as well as the risks described under “Risk Factors” in the Prospectus. The Notes are a riskier investment than ordinary fixed rate notes or floating rate notes. Prospective investors should carefully consider whether the Notes are suited to their particular circumstances. Accordingly, prospective investors should consult their financial and legal advisers as to the risks entailed by an investment in the Notes and the suitability of the Notes in light of their particular circumstances.

The performance of the Index is based on the periodic selections of the Index Allocation Agent made under the terms of the Index Allocation Agreement. Therefore, the Notes are intended to be purchased and held by the Index Allocation Agent and by discretionary accounts managed by the Index Allocation Agent only. Neither IBRD nor the Global Agent will have any responsibility for the contents of the Index Allocation Agreement, and none of IBRD and the Global Agent shall have any responsibility or liability for the choices and allocations made by the Index Allocation Agent thereunder.

Terms used in this section and not otherwise defined shall have the meanings set forth elsewhere in the Final Terms or the Schedules to the Final Terms.

The following list of risk factors does not purport to be a complete enumeration or explanation of all the risks associated with the Notes, the Index and/or the Component Underlyings of the Index.

No tax gross-up on payments

Repayment of all or any part of the Notes and payment at maturity of any additional amount due under the terms of the Notes will be made subject to applicable withholding taxes (if any). Consequently, the Issuer will not be required to pay any further amounts in respect of the Notes in the event that any taxes are levied on such repayment or payment.

Non-U.S. investors - additional tax consideration

For purposes of the Notes, the following discussion supersedes in its entirety the discussion in the Prospectus under “Tax Matters.”

The Notes are only being offered to, and only intended to be held by, the Index Allocation Agent and accounts managed by the Index Allocation Agent. The Notes may not be beneficially owned by U.S. persons or persons subject to net income taxation in the United States, and the discussion does not address the consequences of direct or indirect investment by U.S. persons or persons subject to net income taxation in the United States.

Section 871(m) of the Code and final Treasury regulations promulgated thereunder (“**Section 871(m)**”) generally impose a 30% withholding tax (unless an income tax treaty applies) on dividend equivalent amounts paid or deemed paid to non-U.S. beneficial owners with respect to certain financial instruments linked to U.S. equities or indices that include U.S. equities. Section 871(m) provides certain exceptions to this withholding regime, in particular for instruments linked to certain broad-based indices that meet requirements set forth in the applicable Treasury regulations (such as an index, a “**Qualified Index**”).

As of the Issue Date of the Notes, none of the Component Underlyings contained within the synthetic portfolio referenced by the Index are “Underlying Securities” as defined in the Section 871(m) regulations and thus, as of the Issue Date, the Issuer (relying upon certain determinations made by J.P.

Morgan Securities plc in its role as Dealer in the Notes) has determined that the Section 871(m) regulations do not apply to the Notes. However, because the Notes are expected to be considered redeemed and re-issued for U.S. tax purposes each time there is a change in the Index allocations (each occurrence, a "deemed reissuance"), the Index rules further specifically prohibit the Index Allocation Agent from making allocations to any Component Underlying within the synthetic portfolio referenced by the Index in the event that such Component Underlying is treated as an 'Underlying Security' at the time of allocation, as such an allocation would cause the securities to become subject to the regulations.

Therefore, the Issuer (relying upon certain determinations made by J.P. Morgan Securities plc in its role as Dealer in the Notes) believes, without regard to any other transactions entered into by an investor, that the Section 871(m) regulations will not apply to the Notes at any point in time. The Issuer's and Dealer's determinations are not binding on the Internal Revenue Service ("IRS"), and the IRS may disagree with their determinations. If, against the Issuer's and Dealer's determinations, the IRS determines that the Section 871(m) regulations apply to the Notes, a withholding agent may withhold a 30% withholding tax on any dividend equivalent amounts paid or deemed paid to non-U.S. beneficial owners with respect to the Notes. However, neither the Issuer nor any other person will be required to pay any additional amounts with respect to any amounts that may be withheld pursuant to the Section 871(m) regulations. Section 871(m) is complex and its application may depend on an investor's particular circumstances, including whether an investor enters into other transactions with respect to an Underlying Security. Investors should consult with their own tax advisers regarding the potential application of Section 871(m) to the Securities.

UYU related disruption events and Index Disruption Events may postpone the Maturity Date

In the event that the UYU Valuation Date is postponed beyond the Scheduled UYU Valuation Date or the Final Index Determination Date is postponed beyond the Scheduled Final Index Determination Date as set forth in the Final Terms, the Maturity Date of the Notes will be postponed by one Business Day for each Business Day that the UYU Valuation Date is postponed beyond the Scheduled UYU Valuation Date or that the Final Index Determination Date is postponed beyond the Scheduled Final Index Determination Date. Therefore, the Maturity Date may be postponed by a number of Business Days occurring during the period of 30 calendar days after the Scheduled UYU Valuation Date (in respect of UYU-related disruption) or five Business Days after the Scheduled Final Index Determination Date (in respect of an Index Disruption Event). No interest or other payment will be payable because of any such postponement of the Maturity Date.

Possible Mandatory Amendment Event

As set out in Term 22 of the Final Terms ("Mandatory Amendment Event"), in the event of the occurrence of the events described in Term 22, the Issuer will be required to make a payment (which may be zero) as soon as practicable after the Mandatory Amendment Date. In respect of each Calculation Amount, such payment will be equal to the Early Contingent Payment Amount as of the Accelerated Final Index Determination Date, and no Supplemental Payment Amount will be payable on the Maturity Date. As a result, the Noteholders will not benefit from any appreciation in the Index after the Accelerated Final Index Determination Date.

A Mandatory Amendment Event includes an Index Cancellation, an Index Modification, an Index Allocation Agreement Termination or a termination of the Associated Swap Transaction by the Swap Counterparty (including as a result of an Additional Disruption Event) or the Issuer. An Index

Cancellation, an Index Modification, an Index Allocation Agreement Termination may occur due to a broad range of events beyond the control of the Issuer, including by a decision of the Index Sponsor and/or the Index Allocation Agent. A Change in Law could occur in response to the enactment of new laws or regulations, changes in laws or regulations or changes in the interpretation of laws or regulations, (including, without limitation, laws and regulations relating to taxation and financial market and financial institution regulation, including, without limitation, the "Volcker Rule"). A Hedging Disruption could occur if the Swap Counterparty was unable, after using commercially reasonable efforts, to (i) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transactions or assets that it deems necessary to hedge the price risk of entering into and performing its obligations with respect to the Associated Swap Transaction or (ii) realise, recover or remit the proceeds of any such transactions or assets. An Increased Cost of Hedging could occur if the Swap Counterparty would incur a materially increased amount of taxes or costs in dealing in any transactions it deems necessary to hedge the price risk of performing its obligations under the Associated Swap Transaction. These could occur due to changes in legal or tax regimes.

Payment subject to Uruguayan peso exchange risk

The amount of any payment of principal in USD under the Notes will be affected by the exchange rate of UYU to USD, since the amounts payable in USD in respect of the principal of the Notes will be linked to or dependent on, the change of the UYU/USD exchange rate between the Trade Date and the UYU Valuation Date. The exchange rate between UYU and USD will fluctuate during the term of the Notes. In recent years, the rate of exchange between UYU and USD has been volatile and such volatility may occur in the future and could significantly affect the returns of Noteholders. In addition, for investors whose investment currency is USD, the movement of the currency exchange rate could result in any amount due under the Notes being less than the initial USD amount paid for the Notes. As a result, a Noteholder could lose a substantial portion of its investment in the Notes, in USD terms.

The Notes are not principal protected in USD

The UYU Amount used to determine the UYU Linked Principal Amount is fixed on the Trade Date. However, the purchase price of the Notes is payable in USD and amounts received upon maturity will be payable in USD, and therefore amounts payable in USD on the Notes may be less than the amount initially invested if the value of UYU were to decline in USD terms between the Trade Date and the UYU Valuation Date.

Payment at maturity depends on interplay of the UYU/USD exchange rate and the performance of the Index

The payment that the Noteholder will receive at maturity will depend on both the change in the rate of exchange between UYU and USD and the Index Return. The interplay of these two factors means that the Notes are a more complex investment than an instrument linked to a single underlying factor. It is not possible to predict how the two factors to which the Note's performance payout is tied may perform. A relatively positive Index Return may be offset by a decline in the value of UYU in USD terms. UYU may appreciate relative to USD without any appreciation in the Index. There can be no assurance that either factor's performance will correlate with the other's performance.

The Notes are subject to market risks

The price at which Noteholders will be able to sell their Notes prior to maturity may be at a substantial discount from the nominal amount of the Notes, even in cases where the level of the Index has increased since the Trade Date. Embedded costs, including expected profit and costs of hedging, in the original Issue Price will likely be reflected in any repurchase price of the Notes being lower than their original Issue Price. Assuming no change in market conditions or any other relevant factors, that price will likely be lower than the original Issue Price, because the original Issue Price included the estimated cost of hedging the Swap Counterparty's obligations, which includes an estimated profit component. IBRD's Swap Counterparty is JPMorgan Chase Bank, N.A., an affiliate of the Dealer. Noteholders should not expect the price at which the Issuer or the Dealer is willing to repurchase the Notes to vary predictably in any particular proportion to changes in the level of the Index. Noteholders will not have any claim to any amounts that the Swap Counterparty may pay to IBRD due to changes in the level of the Index.

Prior to maturity, the value of the Notes will be affected by a number of economic and market factors that may either offset or magnify each other. It is expected that, generally, the level of the Index on any day will affect the value of the Notes more than any other single factor. Other relevant factors include: the expected volatility of the Index; the time to maturity of the Notes; the dividend or distribution rates on the exchange-traded funds ("ETFs") held in the synthetic portfolio tracked by the Index from time to time; the interest and yield rates in the market; the economic, financial, political, regulatory or judicial events that may affect the various components represented by the Index from time to time or that may affect stock, commodity, bond and futures markets generally and in any case that may affect the Closing Level for the Index on the Final Index Determination Date; and the creditworthiness of the Issuer. The UYU/USD exchange rate as well as the illiquidity of the instruments used to hedge the Issuer into USD will also have an effect on secondary market valuations.

The Notes are intended to be a hold-to-maturity instrument. Noteholders will receive at least 100% of the nominal amount of the Notes (when expressed in UYU only) if they hold their Notes to maturity (though, as discussed under "*The Notes are not principal protected in USD*", if the value of UYU were to decline in USD terms between the Trade Date and the UYU Valuation Date, the amounts payable in USD on the Notes may be less than the amount initially invested, and, therefore, a Noteholder may lose a substantial amount of its USD investment). If Noteholders sell their Notes prior to maturity, however, they will not receive principal protection (expressed in UYU) or any minimum total return on the portion of their Notes sold. Noteholders should be willing to hold their Notes until maturity.

The future performance of the Index cannot be predicted based on the historical performance of the Index. Past performance is not an indication of future results.

The Notes are not liquid instruments

The Notes will not be actively traded in any financial market and there may exist at times only a very limited, if any, market for the Notes, resulting in low or non-existent volumes of trading in the Notes. Therefore, an investment in the Notes will be characterized by a lack of liquidity and price volatility. Although the Issuer or the Dealer, at its respective sole discretion, may provide a repurchase bid price for the Notes if requested, neither the Issuer nor the Dealer is under any obligation to do so and, in any event, as a result of market conditions may be unwilling or unable to provide a repurchase bid price if requested. Because liquidity in the Notes may be effectively limited to Issuer repurchase, an investment in the Notes is intended for Noteholders that intend to hold the Notes to maturity.

The Index Sponsor and Index Calculation Agent will make determinations under the Index Rules and may make adjustments to the Index and its Component Underlyings in ways that affect its level, and the Index Sponsor and Index Calculation Agent have no obligation to consider the interests of the beneficial owners of the Notes when doing so

The Index Sponsor and the Index Calculation Agent will be responsible for making determinations regarding the Index's constitution and calculation during the term of the Notes. As of the date of the Final Terms, the Index Sponsor has appointed Solactive A.G. as the Index Calculation Agent.

The Index Calculation Agent is responsible for (i) calculating the Closing Level of the Index in accordance with the Index Rules, (ii) determining (among other things and subject to the prior agreement of the Index Sponsor or at the direction of the Index Sponsor) if a Market Disruption Event (as described more fully in Schedule 1 to the Final Terms) or certain dilutive events has occurred, whether any input necessary to perform any calculations under the Index Rules is not published or otherwise made available by the relevant exchange or input sponsor to the Index Calculation Agent, and any related consequences or adjustments in accordance with the Index Rules and (iii) determining whether certain corrections to the Closing Level of the Index should be made.

The Index Sponsor is responsible for, among other matters, (i) determining the sufficiency of requests made by the Index Allocation Agent to rebalance the Index, or to add or substitute Component Underlyings of the Index, (ii) determining if a Market Disruption Event or Extraordinary Event (as described more fully in Schedule 1 to the Final Terms) has occurred, whether any input necessary to perform any calculations under the Index Rules is not published or otherwise made available by the relevant exchange or input sponsor to the Index Calculation Agent, and any related consequences or adjustments in accordance with the Index Rules and (iii) whether certain corrections to the Index Level should be made.

Changes in the published Closing Level of the Index will affect the Final Index Level for purposes of the Notes, and, in turn, the Supplemental Payment Amount, if any, (or the Early Contingent Payment Amount, if any) payable on the Notes. Policies and judgments for which the Index Sponsor and Index Calculation Agent are responsible could have an impact, positive or negative, on the Closing Level of the Index and thus the Final Index Level and thus, the return (if any) on, and value of, the Notes. The Index Sponsor may also amend the Index Rules in its discretion. Although judgments, policies and determinations concerning the Index are made by the Index Sponsor and the Index Calculation Agent, these entities have no obligation to consider the interests of the Noteholders in taking any actions that might affect the return on, and value of, the Notes.

Furthermore, the inclusion of the Component Underlyings (as defined in the Index Rules and described more fully in Schedule 1 to the Final Terms) in the Index is not an investment recommendation by any person of any of: those Component Underlyings; any index, commodity or security referenced, or tracked by a Component Underlying; any securities owned by or contained in a Component Underlying; or, any futures contract underlying a Component Underlying, or any futures contract tracking any index, commodity or security referenced, or tracked by a Component Underlying.

The selections of the Index Allocation Agent will be the most important factor influencing the return on the Index

The initial selection among the Component Underlyings to be included in the Index, and their relative

weightings, will be made by the Index Allocation Agent (as defined above in the Final Terms) on a discretionary basis, and the Index Allocation Agent will be responsible for revising these selections and weights on a discretionary basis on rebalancing dates chosen on a discretionary basis by the Index Allocation Agent. The Index Allocation Agent will have total discretion over its selections and weightings, and the timing thereof, subject to the limitations set forth in the Index Rules. Selections that run counter to market trends will result in the Index level declining or not increasing in line with the market or market benchmarks. The Index allows the Index Allocation Agent to select components for the synthetic portfolio tracked by the Index from an extensive and diverse set of Component Underlyings. The Index allows the Index Allocation Agent to select the timing of the selections and weightings, within certain constraints. The Index Allocation Agent may select a bullish position on a few market sectors and concentrate synthetic investments in those sectors. Such concentrations may run counter to market trends and result in losses.

The Index Rules permit extensive periodic rebalancings, but do not require any minimum number of rebalancings. A strategy that involves multiple rebalancings could incur synthetic trading costs against the performance of the synthetic portfolio that act as a drag on performance, without accruing gains related to tracking market trends. A strategy that involves few rebalancings could fail to react to or capitalize on market trends and lead to underperformance.

As a result, the success of the Index will depend largely upon the abilities of the Index Allocation Agent and certain key individuals employed by the Index Allocation Agent. There can be no assurance that the Index Allocation Agent will be successful in the rebalancing of the Index and the loss of one or more such key individuals may have a material adverse impact on the performance of the Index. The Notes are therefore intended to be held only by the Index Allocation Agent and by discretionary accounts managed by the Index Allocation Agent.

The Index Allocation Agent will have no duties under the Notes to any third parties

The Index Allocation Agent does not have any obligations or duties to the beneficial owners of the Notes under the terms of the Notes. The Notes are therefore intended to be held only by the Index Allocation Agent and by discretionary accounts managed by the Index Allocation Agent, to whom the Index Allocation Agent may have duties under law or contract. It is also not expected that any instrument, other than the Notes, will reference the performance of the Index. The Index is intended to be personal to the selections and expertise of the Index Allocation Agent.

The termination of the Index Allocation Agent could adversely affect the Notes

Upon the termination of the Index Allocation Agent in accordance with the provisions of the Index Allocation Agreement, no successor Index Allocation Agent will be appointed and the Index shall cease to exist. This may have an adverse effect on anyone who has taken economic exposure to the Index by investing in any product that references it. In addition, in the event the Index ceases to exist, a Mandatory Amendment Event shall be deemed to exist, with the risks set forth above under “Possible Mandatory Early Amendment”.

The Index Allocation Agent would cease to serve as such in the event of the termination of the Index Allocation Agreement. A termination could occur for a variety of reasons, including by discretionary choice of the Index Allocation Agent or the Index Sponsor, as well as due to events that could bear negatively on the reputation of either party, due to non-performance by either party or due to a change

in business on the part of the Index Allocation Agent. See “Schedule 1 – Index Summary Description - Allocator Selections Dynamic Allocation Index (Series 1)” attached to the Final Terms.

The Index may not achieve its target volatility, which could adversely affect the performance of the Index

Although the Index is calculated based on a formula that potentially reduces exposure to the selected synthetic portfolio of Component Underlyings in order to conform to a retrospectively-based 10% target volatility observation constraint, there can be no assurance that the Index’s actual volatility will not exceed the target level. The Index’s volatility constraint mechanism is based on an analysis of backward-looking data over a finite period, and such data may understate or overstate current or future volatility and will likely be unable to avoid exposure to severe volatility in the event of brief, pronounced market swings. Higher than expected volatility exposes the Index to potentially large losses and lower than expected volatility could limit gains by limiting the Index’s exposure to the synthetic portfolio during periods of market upswings.

The Index is subject to two key volatility control mechanisms, either or both of which could reduce the Index’s exposure to the selected synthetic portfolio of Component Underlyings

The Index’s calculation formula employs an exposure limitation formula containing two key volatility control mechanisms: one that reviews the simulated historical volatility of the synthetic portfolio tracked by the Index, and one that reviews the actual observed volatility of the Index itself. These mechanisms could have the effect of substantially limiting, or even eliminating the Index’s exposure to the synthetic portfolio, including for an extended period of time, possibly for the remaining duration of the Notes.

The Index’s calculation formula employs a two stage volatility constraint mechanism in the form of an "exposure" variable, which is calculated as the product of two factors, corresponding to the two stages in the mechanism.

The first factor – corresponding to the first stage in the volatility control mechanism - modulates daily the Index’s exposure to the synthetic portfolio of Component Underlyings selected by the Index Allocation Agent based on simulated historical volatility of the synthetic portfolio tracked by the Index. This first stage factor could range from 0 to 150% based on the Index formula’s review of simulated volatility experienced by the weighted components of the synthetic portfolio, relative to the 10% volatility target.

The Index calculation formula also contains a second factor – corresponding to the second stage volatility control mechanism - which daily monitors the realized volatility of the Index itself (i.e., without regard to the simulated observed volatility of the particular synthetic portfolio then tracked by the Index) over the period since the Index Base Date (i.e., the date of the initial launch of the Index on or about the original issuance date of the Notes) to such day. This mechanism works by comparing the rate at which the Index is realizing volatility to the rate at which it would be expected to realize volatility were it delivering the exact target volatility of 10%. This second stage adjustment term is called the ‘volatility adjustment factor’ and is capped at 100%.

This second stage volatility control function could limit the Index’s exposure to the synthetic portfolio slightly or substantially. For example, if the Index experienced severe and consistent volatility above the target rate early in its life, the second stage limitation would reduce the exposure of the Index to the synthetic portfolio for an extended time, potentially even for the remaining term of the Notes. Note that

this second mechanism (unlike the first) will not serve to increase volatility if the realized volatility of the Index is lower than the target volatility, it can serve only to reduce the Index's exposure to the synthetic portfolio. However, whether or not this second factor does in fact modulate the volatility of the Index will depend on the realized volatility of the Index over the entire period since the Index Base Date, there may be periods in which the realized volatility of the Index substantially exceeds its target without the second stage factor triggering an exposure reduction. For example, if the Index experienced volatility consistently below the target rate early in its life, the second stage limitation would not serve to reduce the exposure of the Index to the synthetic portfolio later in the term of the Notes, even if the Index was then realizing an interval of volatility above its target, so long as the longitudinal experienced volatility of the Index did not exceed the 10% target over its full term.

Due to the exposure constraints describe above, the selections of the Index Allocation Agent may not be fully reflected by the Index's performance. Substantial or complete allocation to the cash component could occur for an extended period and/or for multiple intervals. Volatility implies substantial market movements. Such movements can be positive or negative. The volatility control mechanisms described above could prevent gains as well as losses in the level of the Index. If and to the extent that the Index's exposure to the synthetic portfolio is reduced or eliminated, the Noteholders will effectively receive less or none of the potential benefit of the Index Allocation Agent's investment strategy and the return on the Notes will be limited, potentially to the return of principal in USD terms at maturity without the potential for a market-based premium.

Even if the market value of the Component Underlyings changes, the market value of the Index or the Notes may not change in the same manner

Owning the Notes is not the same as owning each of the Component Underlyings composing the Index. Accordingly, changes in the market value of the Component Underlyings may not result in a comparable change in the market value of the Index or the Notes.

Index Rules allow for short positions against Government Bond Trackers

The Index Rules permit the Index Allocation Agent to allocate negative (*i.e.*, "short") weights to each Component Underlying that is in the Weight Category "Government Bond Tracker." Short allocations to a single Government Bond Tracker may be equal up to -75% and short allocations to Government Bond Trackers, collectively, can be up to -100%. Short positions are intended to perform inversely to asset values, meaning that an increase in the value of a reference asset will lead to a loss in a short position, and vice versa. Because there is no theoretical limit to the value of a given asset, potential losses on a short position are theoretically infinite. Losses in short positions can occur rapidly, and any such losses could reduce the level of the Index and thus the return on and value of the Notes.

The Index comprises notional assets and liabilities

The exposures to the Component Underlyings are purely notional and will exist solely in the records maintained by the Index Calculation Agent. There is no actual portfolio of assets to which any person is entitled or in which any person has any ownership interest. Consequently, a Noteholder will not have any claim against any of the reference assets which comprise the Index. The strategy tracks the return of a notional dynamic basket of assets. The basket return is calculated on an "excess return" basis by subtracting the performance of a cash investment from the performance of deemed 'funded' Component Underlyings (generally exchange traded funds). As a result, any portion of the synthetic portfolio of

Component Underlyings allocated to the J.P. Morgan Three-Month USD Cash Index under the terms of the Index Rules will result in that portion of the portfolio effectively not being invested for purposes of performance calculations.

The Index is new and will perform based on the selections of the Index Allocation Agent, and thus its performance cannot be anticipated

The Index has no performance history, and thus there is no historical record available to evaluate its past performance. Moreover, the Index will be weighted and rebalanced based on the Index Allocation Agent's discretionary choices over time. No assurance can be given that the selection methodologies employed by the Index Allocation Agent in relation to selecting the Weights to the Component Underlyings will result in the Index matching or outperforming any market benchmark, and the Index could lag such benchmarks, including by experiencing long-term declines.

The Index level will be reduced due to subtractions in respect of embedded cost factors and partial recognition of distributions received from ETFs

The formula for the calculation of the daily Index level includes subtractions that will reduce the calculated level of the Index. These subtractions include the effect of the Index's "excess return" nature, and also represent charges and deemed synthetic costs associated with the carrying and rebalancing a notional portfolio of the Component Underlyings, which include synthetic carry costs and synthetic transaction costs. The Index calculation formula also includes a deduction from distributions deemed received on exchange traded fund Component Underlyings corresponding to an assumed withholding tax rate.

The Index employs an "excess return" mechanism within its calculation formula for each Component Underlying that represents a hypothetical "funded investment". For each such "funded" Component Underlying -- generally exchange traded funds -- this mechanism acts to subtract an assumed cash return from the Component Underlying's return to derive a cash-excess figure. To the extent that a Component Underlying is not a foreign currency or bond futures tracker, it is associated with an assumed cash component, the performance of which will be used as the basis for the subtraction.

The Index calculation formula includes a daily carry cost deduction assessed at a per annum rate of 0.75% with respect to exchange traded fund Component Underlyings, 0.35% with respect to government bond or currency futures tracker Component Underlyings and 0.25% with respect to the Cash Component (as defined in the Index Summary Description). The magnitude of the carry cost will be a function of the change in exposure to the Component Underlyings included in the synthetic portfolio tracked by the Index on the relevant Index Calculation Day (as defined in the Index Rules). In a very low interest rate environment, the carry cost could overwhelm the return of the Cash Component and lead to a negative return on that portion of the synthetic portfolio that is deemed un-invested or invested in cash, thus reducing the level of the Index to the extent of that negative return. The strategy of the Index Allocation Agent and/or the effect of the volatility control mechanisms described below could result in the Index being deemed invested substantially or largely in cash for extended periods.

The Index Rules calculation formula also deducts a deemed Transaction Cost of 0.02% for synthetic purchases and sales of each Component Underlying (other than the Cash Component) in the synthetic portfolio tracked by the Index in connection with both (i) the removal or inclusion of each Component Underlying as part of a rebalancing and (ii) the adjustment of the Index's day-to-day exposure to the synthetic portfolio via the "volatility control" process described above. Because exposure variations

will be automatic based on the algorithmic volatility control features of the Index, such synthetic transaction costs may be incurred even if the Index Allocation Agent pursues a strategy of infrequent rebalancings. The magnitude of the transaction costs will be a function of (i) the change in exposure to the Component Underlyings included in the synthetic portfolio tracked by the Index on the relevant Index Calculation Day (as defined in the Index Rules) and (ii) the Specified Weight (as defined in the Index Rules) assigned to each such Component Underlying within the selected synthetic portfolio of Component Underlyings tracked by the Index.

The Index Return will be further reduced because the Index calculation formula takes into account for a deduction of 30% of the value of distributions, if any, made by ETFs held in the synthetic portfolio tracked by the Index, which simulates the application of an assumed withholding tax.

These subtractions described above will reduce the performance of the Index, relative to that which would have been realized if they had not been made. The subtractions that correspond to assumed costs are set by the Index calculation formula and will not be reduced if actual observed costs are less than the assumed costs incorporate in to the Index calculation formula. The aggregate amount of the reductions cannot be predicted in advance but will depend on the selections made by the Index Allocation Agent because, among other factors, carry costs vary by Component Underlying category, greater cumulative transaction costs will be incurred if rebalancings occur frequently, and because selections of Component Underlyings that are exchange traded funds that make distributions will be subject to larger potential reductions through the Index calculation formula's deduction of simulated withholding taxes at the assumed rate.

The Notes linked to the Index incur risks associated with leveraged investments

The Index level calculation formula includes an "exposure" factor that modulates exposure to the synthetic portfolio tracked by the Index. The exposure cap is 150%, implying a maximum leveraged exposure to the synthetic portfolio of 1.5. If and when the exposure factor is set at a level greater than 100%, the Index can be considered as having leveraged exposure to the synthetic portfolio. Leveraged exposure will magnify the effect of gains and losses on the synthetic portfolio on the Index level, particularly during periods of sharply increased losses incurred during periods of sharply increased volatility.

The exposure factor will be adjusted daily based on observed volatility relative to the 10% volatility target. At any given time, exposure to the synthetic portfolio could be substantially less than 100%.

The Notes themselves provide leveraged exposure to the Index through the Participation Rate of 557% (or 5.57-to-1). Such leveraged exposure through the Participation Rate will magnify the effect of the Index's performance on the Notes' return. Such leveraged exposure will also generally imply a lower initial secondary market value for the Notes relative to a similar instrument without such leveraged exposure.

The Index Allocation Agent may add and substitute the Component Underlyings comprising the Index, and Component Underlyings may be removed or replaced in the event of the occurrence of certain extraordinary events

The Index Allocation Agent, subject to the restrictions contained in the Index Rules may add or substitute the Component Underlyings of the Index. The Index Allocation Agent will have complete discretion regarding the timing and nature of any such additions and substitutions, subject to constraints

set forth in the Index Rules. It is likely to be the case that the Index Allocation Agent would make an addition or substitution with a view to allocating a portion of the synthetic portfolio tracked by the Index to the new Component Underlying. Therefore, the performance of the Index will likely be affected materially by any such additions and substitutions.

Following the occurrence of certain extraordinary events with respect to a Component Underlying as provided in the Rules, the affected Component Underlying may be either replaced by a substitute or removed from the Index. A replacement Component Underlying would be chosen by the Index Sponsor, exercising discretion. If no replacement is deemed available, the Index may continue without the removed Component Underlying or any replacement.

The addition or removal of a Component Underlying may affect the performance of the Index, and therefore, the return on the Notes, as the replacement Component Underlying may perform significantly better or worse than the affected Component Underlying. Circumstances in which such a replacement may occur include the replacement by a Component Underlying by a successor, a failure by the relevant sponsor of the Component Underlying to calculate its value for an extended period, the cancellation of a Component Underlying, a material change in the composition or calculation of a Component Underlying or a change in law. See “Schedule 1 – Index Summary Description - Allocator Selections Dynamic Allocation Index (Series 1)” attached to the Final Terms. No assurance can be provided that such an event will not occur to one or more of the initial Component Underlyings.

Component Underlyings that are exchange traded funds tracking U.S. equity indices may be removed if the tracked indices cease to qualify for an exemption from U.S. regulations regarding withholding taxes on dividend equivalent payments

As of the Issue Date of the Notes, none of the Component Underlyings selected by the Index Allocation Agent for inclusion within the synthetic portfolio referenced by the Index are “Underlying Securities” as defined in the regulations of the United States Treasury promulgated under Section 871(m) of the United States Internal Revenue Code of 1986, as amended. However, certain of the Component Underlyings are exchange traded funds that are intended to track broad-based U.S. stock indices. Such indices are currently deemed to be qualified indices under such regulations, which has the effect of exempting the related exchange traded funds from the scope of such U.S. Treasury regulations. In the future, these indices could lose such status. In that event, the Index Sponsor may remove the related exchange traded fund from the Component Underlyings. The Index Sponsor may select a substitute for such Component Underlying, if a substitute is available or the Index Sponsor may remove the affected exchange traded fund without replacement. In such event, the Index Allocation Agent would be unable to include in the Index exposures to the broad based U.S. stock indices tracked by such exchange traded funds, potentially limiting or eliminating U.S. equity representation within the Index.

Limitations on rebalancings may prevent the Index Allocation Agent from fully implementing its strategy

The Index Rules place limits on the ability of the Index Allocation Agent to rebalance the synthetic portfolio tracked by the Index. Rebalancings are limited to 35 in each 12-month period commencing on the Index Base Date and each anniversary thereof. Rebalancings also may not occur on consecutive Index Calculation Days. These limits could prevent the Index Allocation Agent from rebalancing the synthetic portfolio tracked by the Index in response to changes in market conditions or to changes in its investment outlook. The limitations on rebalancings may also incentivize the Index Allocation Agent to alter its selections

relative to those it would make if rebalancings were not subject to limits and it could make selections in view of a shorter time horizon between rebalancings. These limitations could adversely affect the performance of the Index, and thus the return on the Notes.

The Index formula's "rebalance lag" may prevent the selections of the Index Allocation Agent from becoming effective immediately or concurrently, and could introduce exposure risk

Rebalancing selections made by the Index Allocation Agent to rebalance the synthetic portfolio among the Component Underlyings will become effective (i.e., implemented as part of the synthetic portfolio through deemed purchase or sale) on a timing basis set under the Index Rules. For certain of the Component Underlyings which are traded in jurisdictions other than the U.S., the relevant market for such Component Underlying may be closed during the regular trading day in the U.S and thus such Component Underlying cannot be rebalanced in the Index on the current date in the United States on which the Index Allocation Agent submits its rebalance selections. Consequently, the closing prices at which the various Component Underlyings are rebalanced may be derived from different market times and on different calendar days.

For example, if the Index Allocation Agent were to submit a timely and valid rebalance request on a day eligible for a rebalancing under the Index Rules, the Component Underlyings that are listed on United States exchanges would be deemed to be purchased or sold (as applicable) at the Closing Prices for such Component Underlyings on that day. However, any Component Underlyings deemed purchased or sold, as applicable, that trade primarily outside the United States would be deemed rebalanced at the close of the relevant primary trading market on the next good trading day, which could be the next following New York trading day, and could be significantly later (due to the occurrence of weekends, market holidays or disrupted days in the relevant non-U.S. market). The Index formula contains a 'Rebalance Lag Adjustment' to account for market moves between the calendar day on which a rebalancing commences and that on which it is completed. The market price of Component Underlyings trading outside the United States could drop substantially during a "lag" period, and the risk of market drops would be exacerbated if a lag period is of extended duration or coincides with a period of market volatility. Note that the "lag" period could be a period during which the synthetic portfolio effectively has weightings above (and perhaps substantially above) the various weight maximums, pending synthetic sales of Component Underlyings subject to lag.

The timing lag and related adjustments could adversely affect the performance of the Index, and thus the return on the Notes, through delays in the implementation of the Index Allocation Agent's strategy and exposure to market risks during lag periods.

The Index's exposure to exchange traded funds will be subject to liquidity, market capitalization and volatility constraints which may reduce the ability of the Index Allocation Agent to fully-implement its strategy

The Index Allocation Agent's ability to allocate the synthetic portfolio tracked by the Index to exchange traded funds may be limited by liquidity criteria that could limit or eliminate the potential to notionally allocate the synthetic portfolio, in connection with rebalancings, to exchange traded funds that have low average daily trading values. All exchange traded funds proposed to be included in the synthetic portfolio upon a rebalancing will be tested against liquidity-based criteria (using average daily trading value as a liquidity proxy). Exchange traded fund weightings will be limited, potentially to zero, if sufficient liquidity is not observed. The liquidity-based criteria will be applied to all exchange traded

funds proposed to be included in the synthetic portfolio upon a rebalancing, without exception for those exchange traded funds already included in the synthetic portfolio, which could effectively require that any rebalancing involve an allocation away from relatively illiquid exchange traded funds incumbent to the synthetic portfolio.

In addition, an exchange traded fund may be removed from the synthetic portfolio tracked by the Index and eliminated as a potential Component Underlying for future selection, if certain liquidity, market capitalization or volatility limits are triggered. Such circumstances could reduce the ability of the Index Allocation Agent to gain exposure to particular equity or bond markets through the Index, with this risk potentially highest in smaller markets and emerging markets. To the extent such markets experience appreciation, the inability to gain the full level of desired exposure to them could harm the performance of the Index and thus reduce the return on the Notes.

Correlation of performances among the Component Underlyings may reduce the performance of the Notes

Performances amongst the Component Underlyings may become highly correlated from time to time during the term of the Notes, including, but not limited to, a period in which there is a substantial decline in a particular sector or asset type represented by the selected synthetic portfolio of Component Underlyings tracked by the Index and which has a higher weighting in the Index relative to any of the other sectors or asset types, as determined by the Index Allocation Agent's selection. High correlation during periods of negative returns among Component Underlyings representing any one sector or asset type which have a substantial percentage weighting in the Index could limit any return on the Notes.

The Index is an excess return index that tracks the return of the synthetic portfolio of Component Underlyings over the return from a short-term cash investment

The Index is an "excess return" index that tracks the return of the synthetic portfolio of Component Underlyings on an excess return basis. This means that, with respect to Component Underlyings in the synthetic portfolio that are deemed 'funded' (generally exchange traded funds), the performance of an investment in the Cash Component (the JPMorgan Cash Index USD 3 Month) is subtracted from the performance of such Component Underlyings. As a result, any portion of the synthetic portfolio of Component Underlyings allocated to the J.P. Morgan Three-Month USD Cash Index under the terms of the Index Rules will result in that portion of the portfolio effectively not being invested for purposes of performance calculations. Accordingly, the Index will underperform another index that tracks the return of the same synthetic portfolio but does not deduct the return of a short-term cash investment from any component returns.

The excess return subtraction described above will not apply to Component Underlyings that are deemed "unfunded", generally consisting of foreign exchange futures trackers and bond futures trackers.

The Notes will be subject to currency exchange risk

Most of the equity and bond exchange traded funds that are initial Component Underlyings are intended to track equity or debt securities that trade or are denominated in non-U.S. currencies. The exchange traded funds that track these securities, however, trade in USD, and changes in the relative value of currencies will likely affect the USD trading price of the relevant exchange traded funds.

Nine of the initial Component Underlyings are foreign exchange or foreign exchange futures trackers that are intended to track the relative value of currencies. These Component Underlyings are directly exposed to currency exchange rate risk.

An investor's net exposure to non-U.S. currencies will depend on the relative weight of the component securities in the relevant Component Underlyings that are denominated in or exposed to each such currency or to changes in the relative value of each such currency. If, taking into account such weighting, the USD strengthens against such currencies, the value of the relevant Component Underlyings will be adversely affected and the Supplemental Payment Amount, if any, due under the Notes may be reduced. Conversely, the Index Allocation Agent may select Component Underlyings as part of a strategy to capitalize on positive movements in the USD against non-U.S. currencies, which would expose the Index to losses should the USD decline in value against selected non-U.S. currencies.

Higher future prices of the futures contracts that are a direct or indirect reference asset of a Component Underlying (the "Futures Based Component Underlyings") relative to their current prices may decrease the amount payable at maturity

The Futures Based Component Underlyings directly or indirectly reference futures contracts on various underlyings such as government bonds. Unlike equities, which typically entitle the investors to a continuing stake in a corporation, futures contracts normally specify a certain date for delivery of the referenced underlying asset. As the exchange traded futures contracts that compose the Futures Based Component Underlyings approach expiration, they are replaced pursuant to the methodology of the Futures Based Component Underlying by futures contracts that have a later expiration. Thus, for example, a futures contract purchased and held in August may specify a September expiration. As time passes, the contract expiring in September is replaced by a contract with a December expiration. This process is referred to as "rolling." If the market for these contracts is (putting aside other considerations) in "backwardation," that is where the prices are lower in the distant delivery months than in the nearer delivery months, the sale of the September contract would take place at a price that is higher than the price of the December contract, thereby creating a "roll yield." While some futures contracts have historically exhibited consistent periods of backwardation, backwardation will most likely not exist at all times. Moreover, certain futures, including bond futures, have historically traded in "contango" markets. Contango markets are those in which the prices of contracts are higher in the distant delivery months than in the nearer delivery months. The presence of contango could result in negative "roll yields," which could adversely affect the level of the bond futures Component Underlyings and, therefore, the level of the Index and the return on, and value of, the Notes.

The Futures Based Component Underlyings may underperform a cash purchase of the reference underlyings, potentially by a significant amount.

Because the Futures Based Component Underlyings are made up of futures contracts, there will be a cost to "rolling" the contracts forward as the index sells the current contracts and then adds the next quarter's contracts. As some futures contracts tend to have positively sloping forward curves, commonly known as "contango," the Futures Based Component Underlyings' returns experience a negative drag when they sell cheaper contracts and purchases more expensive contracts. As a result, it is likely that the Futures Based Component Underlyings will underperform a direct investment in a similarly weighted basket of reference underlyings over the life of the Notes.

Index sponsors, such as the sponsor of the Cash Component and the sponsors of the indices tracked

by exchange traded funds may adjust sponsored indices in ways that adversely affects their levels, and such index sponsors have no obligation to consider the interests of the beneficial owners of the Notes in taking such actions

Index sponsors are responsible for calculating and maintaining their sponsored indices. Index sponsors can add, remove or substitute the securities underlying their sponsored indices or make other methodological changes that could change the level or performance of their sponsored indices. The Component Underlyings generally track reference indices, or are themselves indices. Noteholders should realize that changes made to these indices may affect the performance of the related Component Underlyings. An index sponsor could also alter, discontinue or suspend calculation or dissemination of its sponsored index. Any of these actions could adversely affect the return on, and value of, the Notes. Index sponsors have no obligation to consider the interests of Noteholders in calculating or revising their sponsored indices.

The Notes are subject to significant risks associated with fixed-income securities, including interest rate-related risks and credit risks

Fifteen of the initial Component Underlyings are underlyings that attempt to track the performance of indices composed of fixed income securities or are indices that track the performance of futures on fixed income securities. Investing in the Notes linked indirectly to these Component Underlyings (identified under the "DM Bond" and "Government Bond Tracker" Weight Categories) differs significantly from investing directly in bonds to be held to maturity as the values of such Component Underlyings change, at times significantly, during each trading day based upon the current market prices of the relevant bonds. The market prices of these bonds are volatile and significantly influenced by a number of factors, particularly the yields on these bonds as compared to current market interest rates and the actual or perceived credit quality of the issuer of these bonds.

The prices of fixed-income linked Component Underlyings may be significantly influenced by the creditworthiness of the issuers of the bonds included or referenced in such indices. The bonds underlying the fixed-income linked Component Underlyings may have their credit ratings downgraded, including a downgrade from investment grade to non-investment grade status, or have their credit spreads widen significantly. Following a ratings downgrade or the widening of credit spreads, some or all of the underlying bonds may suffer significant and rapid price declines. These events may affect only a few or a large number of the underlying bonds. Fixed-income linked Component Underlyings linked to high yield bonds (commonly known as "junk bonds") may be more volatile than higher-rated securities of similar maturity. High yield securities may also be subject to greater levels of credit or default risk than higher-rated securities.

Fixed-income linked Component Underlyings linked to government bonds will be subject to risks inherent in investments in such bonds, including sovereign defaults or restructurings and the deterioration of sovereign credit. Government bonds may also be subject to currency risks and risks related to inflation in local currency terms.

The Notes are subject to significant risks associated with investments in currency exchange markets

The Index's Component Underlyings include nine categorized as FX G10 Trackers, as so identified under the "Weight Category" column in the table listing the initial Component Underlyings included in Schedule 1 attached to the Final Terms. The levels of these Component Underlyings will fluctuate based on market movements in currency foreign exchange markets. Such markets can experience

pronounced volatility which could lead to losses in the associated Component Underlyings resulting in a decline in the level of the Index.

The price of gold is volatile and is affected by numerous factors

The value of the SPDR® Gold Shares US (which is one of the Component Underlyings available for selection within the Index) is closely related to the price of gold. A decrease in the price of gold may have a material adverse effect on the value of the Notes and the return on investment in the Notes. Gold is subject to the effect of numerous factors. The following describes some of the factors affecting gold.

The price of gold is primarily affected by the global demand for and supply of gold. The market for gold bullion is global, and gold prices are subject to volatile price movements over short periods of time and are affected by numerous factors, including macroeconomic factors such as the structure of and confidence in the global monetary system, expectations regarding the future rate of inflation, the relative strength of, and confidence in, USD (the currency in which the price of gold is usually quoted), interest rates, gold borrowing and lending rates, and global or regional economic, financial, political, regulatory, judicial or other events. Gold prices may be affected by industry factors such as industrial and jewelry demand as well as lending, sales and purchases of gold by the official sector, including central banks and other governmental agencies and multilateral institutions that hold gold. Additionally, gold prices may be affected by levels of gold production, production costs and short-term changes in supply and demand due to trading activities in the gold market. It is not possible to predict the aggregate effect of all or any combination of these factors.

The price of silver is volatile and is affected by numerous factors

The value of the iShares Silver Trust exchange traded fund (which is one of the Component Underlyings available for selection within the Index) is closely related to the price of silver. A decrease in the price of silver may have a material adverse effect on the value of the Notes and the return on investment in the Notes. Silver is subject to the effect of numerous factors. The following describes some of the factors affecting silver.

The price of silver is primarily affected by global demand for and supply of silver. Silver prices can fluctuate widely and may be affected by numerous factors. These include general economic trends, technical developments, substitution issues and regulation, as well as specific factors including industrial and jewelry demand, expectations with respect to the rate of inflation, the relative strength of USD (the currency in which the price of silver is generally quoted) and other currencies, interest rates, central bank sales, forward sales by producers, global or regional political or economic events, and production costs and disruptions in major silver producing countries such as the United Mexican States, the Republic of Peru and China. The demand for and supply of silver affect silver prices, but not necessarily in the same manner as supply and demand affect the prices of other commodities. The supply of silver consists of a combination of new mine production and existing stocks of bullion and fabricated silver held by governments, public and private financial institutions, industrial organizations and private individuals. In addition, the price of silver has on occasion been subject to very rapid short-term changes due to speculative activities. From time-to-time, above-ground inventories of silver may also influence the market. The major end uses for silver include industrial applications, photography and jewelry and silverware. It is not possible to predict the aggregate effect of all or any combination of these factors.

An investment in the Notes is subject to risks associated with non-U.S. securities markets, including emerging markets

Several of the Reference Indices (as defined in the Index Rules) in respect of the Exchange-Traded Components (as defined in the Index Rules) are comprised of non-U.S. stocks, including emerging markets stocks. Investments in securities linked to the value of non-U.S. securities involve risks associated with the securities markets in those countries, including risks of volatility in those markets, governmental intervention in those markets and cross shareholdings in companies in certain countries. There is generally less publicly available information about companies in some of these jurisdictions than about U.S. companies that are subject to the reporting requirements of the Securities and Exchange Commission (the “SEC”), and generally non-U.S. companies are subject to accounting, auditing and financial reporting standards and requirements and securities trading rules different from those applicable to U.S. reporting companies.

Many of the Reference Indices in respect of Exchange-Traded Components are indices that focus on a single developed or emerging market, which also associates the Reference Index to single country risk. Several of the Reference Indices in respect of Exchange-Traded Components are indices that focus on single countries that have experienced pronounced economic and political instability. The equity markets of such countries can be subject to substantial volatility and losses in value.

The prices of equity securities in non-U.S. markets may be affected by political, economic, financial and social factors in such markets, including changes in a country’s government, economic and fiscal policies, currency exchange laws or other laws or restrictions. Moreover, the economies of these countries may differ favorably or unfavorably from the economy of the United States in such respects as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency. These countries may be subjected to different and, in some cases, more adverse economic environments.

The economies of emerging market countries in particular face several concerns, including relatively unstable governments that may present the risks of nationalization of businesses, restrictions on foreign ownership and prohibitions on the repatriation of assets, and which may have less protection of property rights than more developed countries. These economies may also be based on only a few industries, be highly vulnerable to changes in local and global trade conditions and may suffer from extreme and volatile debt burdens or inflation rates. In addition, local securities markets may trade a small number of securities and may be unable to respond effectively to increases in trading volume, potentially making prompt liquidation of holdings difficult or impossible at times.

Certain of the “developed market” equity markets represented by the Component Underlyings, including Italy and Spain, also carry risks relating to the European Union’s current monetary and economic instability, which could adversely affect the values of the represented equities.

Some or all of these factors may influence the value of the relevant Component Underlyings, and therefore, the Index. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. The future performance of such Component Underlyings cannot be predicted based on their historical performance. The value of any such Component Underlying may decrease, resulting in a decrease in the level of the Index, which may adversely affect the value of the Notes.

An investment in the Notes is subject to risks associated with sovereign bonds

Several of the Component Underlyings reference the value of sovereign bonds. Investments in such securities involve risks associated with the securities markets in government bonds, including risks of volatility, credit downgrades, negative interest rates, inflation, restructuring and default.

The prices of such securities markets may be affected by political, economic, financial and social factors in such markets, including changes in a country's government, economic and fiscal policies, currency exchange laws or other laws or restrictions.

Some or all of these factors may influence the value of the relevant Component Underlyings, and therefore, the Index. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. The future performance of such Component Underlyings cannot be predicted based on their historical performance. The value of any such Component Underlying may decrease, resulting in a decrease in the level of the Index, which may adversely affect the value of the Notes.

Risks relating to Component Underlyings that are Exchange-Traded Components

The Component Underlyings consist primarily of ETFs. The policies of the investment advisor of each ETF concerning the calculation of the applicable ETF's net asset value, additions, deletions or substitutions of securities in the applicable ETF and manner in which changes affecting the applicable index tracked by the applicable ETF are reflected in such ETF could affect the trading price of the ETF's shares, and therefore, the level of the Index. The share prices of for an ETF could also be affected if the ETF's investment advisor were to change its policies, for example, by changing the manner in which it calculates net asset value, or by discontinuing or suspending calculation or publication of net asset value

The investment objective of an ETF may be to provide investment results that, before expenses, correspond generally to the price and yield performance of a target index. However, an ETF will not generally achieve perfect correlation to index returns because, for example, an ETF may hold assets other than the securities comprising the applicable index and because the share price of an ETF reflects the reduction of fund assets resulting from the accrual of fees and expenses and the payment of distributions, if any. Furthermore, there is the risk that the investment strategy of any of an ETF's investment advisor, the implementation of which is subject to a number of constraints, may not produce the intended results.

Potential conflicts of interest

There is a potential for conflicts of interest in the structure and operation of the Index and by virtue of the normal business activities of the Index Sponsor, Index Calculation Agent, the Index Allocation Agent and any of their affiliates or any of its or its affiliates' respective directors, officers, employees or agents.

The Index Allocation Agent, the Index Calculation Agent, Index Sponsor and their respective affiliates are acting or may act in a number of capacities in connection with the Index. The Index Allocation Agent, the Index Calculation Agent and the Index Sponsor (and, as applicable, their respective affiliates) acting in such capacities each shall have only the duties and responsibilities expressly set out in the Index Rules in respect of the relevant capacity and shall not, by virtue of its or any of its respective

affiliates acting in any other capacity, be deemed to have other duties or responsibilities or be deemed to hold a standard of care other than as expressly provided with respect to each such capacity.

Various potential and actual conflicts of interest may arise from the overall investment activity of the Index Allocation Agent, the Index Calculation Agent, the Index Sponsor and their respective affiliates. The Index Allocation Agent, the Index Calculation Agent, the Index Sponsor and their respective affiliates and/or their directors, officers and employees may each have, or may each have had, interests or positions, or may buy, sell or otherwise trade positions, in or relating to the Index and/or Component Underlyings, or may have invested, or may engage in transactions relating to any Component Underlyings, either for its own account or the account of others, may publish research reports or otherwise express views with respect to such transactions or regarding expected movements in price or volatility of the Component Underlyings (which may or may not be consistent with any decision by the Index Allocation Agent to include a particular Component Underlying in the Index). The Index Allocation Agent, the Index Calculation Agent, Index Sponsor and their respective affiliates may act with respect to such transactions in the same manner as if the Index did not exist and without regard to whether any such action might have an adverse effect on the Index. Such transactions may or may not be different from the transactions referenced by the Index and may involve events or circumstances which result in a need for the Index Calculation Agent or Index Sponsor to exercise its discretion under the Index Rules, for example, in relation to Extraordinary Events. Such activity may, or may not, affect the value of the Component Underlyings, but those considering taking any economic exposure by reference to the Index should be aware that a conflict may arise.

The Index has been developed with the possibility of any entity affiliated with the Index Sponsor issuing, entering into, promoting, offering or selling transactions or investments (structured or otherwise) linked, in whole or in part, to the Index and hedging such transactions or investments in any manner that they see fit. Accordingly, it should be assumed that the Index Rules will be analyzed from this point of view.

Additionally, the Index Allocation Agent, the Index Calculation Agent, Index Sponsor and their respective affiliates may serve as agent or underwriter for other issuances of potential Component Underlyings and are or may be engaged in trading, brokerage and financing activities, as well as providing investment banking and financial advisory services.

Affiliates of the Index Sponsor and the Dealer serve as the sponsor and calculate the level of the initial cash component of the Index and several of the foreign exchange and bond futures Component Underlyings. Such affiliates will have no obligation to take into account the interests of the beneficial owners of the Notes in making decisions that affect the value of such Component Underlyings (and thus, potentially, the level of the Index), and their interests may be adverse to those of the beneficial owners of the Notes because an affiliate of the Index Sponsor and Dealer will enter into a swap transaction with the Issuer which will generally require such affiliate to pay to the Issuer an amount calculated by reference to the performance of the Index to hedge the Issuer's payment obligations under the Notes.

Final Terms dated November 28, 2018

International Bank for Reconstruction and Development Issue of USD 25,000,000 Notes linked to UYU/USD FX and the Allocator Selections Dynamic Allocation Index (Series 1) due 2028 under the Global Debt Issuance Facility

Terms used herein shall be deemed to be defined as such for the purposes of the terms and conditions (the “**Conditions**”) set forth in the Prospectus dated May 28, 2008. This document constitutes the Final Terms of the Notes described herein and must be read in conjunction with such Prospectus. Certain additional investment considerations are set forth under “Additional Risk Factors” above.

SUMMARY OF THE NOTES

1. Issuer: International Bank for Reconstruction and Development (“**IBRD**”)
2. (i) Series Number: 100600
(ii) Tranche Number: 1
3. Specified Currency or Currencies (Condition 1(d)): United States Dollars (“**USD**”)
4. Aggregate Nominal Amount:
(i) Series: USD 25,000,000
(ii) Tranche: USD 25,000,000
5. Issue Price: 100 per cent. (%) of the Aggregate Nominal Amount (USD 25,000,000)
6. (i) Specified Denominations (Condition 1(b)): USD 1,000,000 and integral multiples of USD 10,000 in excess thereof
(ii) Calculation Amount (Condition 5(j)): USD 10,000
7. Issue Date: 4 December 2018
8. Maturity Date (Condition 6(a)): 4 December 2028 (the “**Scheduled Maturity Date**”), unless either the UYU Valuation Date is postponed beyond the Scheduled UYU Valuation Date pursuant to Term 18 and/or the Final Index Determination Date is postponed beyond the Scheduled Final Index Determination Date pursuant to Term 19, in which case the Maturity Date shall be postponed as described therein.

For the avoidance of doubt, no additional amounts shall be payable by IBRD in the event that the Maturity Date is postponed beyond the Scheduled Maturity Date due to the postponement of the UYU Valuation Date beyond the Scheduled UYU Valuation Date due to the operation of Term 18 or the postponement of the Final Index Determination Date beyond the Scheduled Final Index Determination Date due to the operation of Term 19.

- | | |
|---|--|
| 9. Interest Basis (Condition 5): | Zero Coupon (further particulars specified below) |
| 10. Redemption/Payment Basis (Condition 6): | Currency-linked Redemption and Index-linked Redemption as set out in Term 17 |
| 11. Change of Interest or Redemption/Payment Basis: | As set out in Term 22 upon the occurrence of a Mandatory Amendment Event |
| 12. Call/Put Options (Condition 6): | Not Applicable |
| 13. Status of the Notes (Condition 3): | Unsecured and unsubordinated |
| 14. Listing: | Luxembourg Stock Exchange |
| 15. Method of distribution: | Non-syndicated |

PROVISIONS RELATING TO INTEREST (IF ANY) PAYABLE

- | | |
|--|---|
| 16. Zero Coupon Note Provisions (Condition 5(c)): | Applicable for the purposes of Condition 5(c) only, provided that the Early Redemption Amount of the Notes shall be calculated as set out in Term 23 |
| (i) Amortization Yield (Condition 6(c)(ii)): | Solely for the purposes of calculating the Rate of Interest for any overdue principal under Condition 5(c), the Amortization Yield shall equal 7.5% per annum |
| (ii) Day Count Fraction (Condition 5(l)): | Solely for the purposes of calculating the Rate of Interest for any overdue principal under Condition 5(c), the Day Count Fraction shall be 30/360 |
| (iii) Any other formula/basis of determining amount payable: | Not Applicable |

PROVISIONS RELATING TO REDEMPTION

- | | |
|---|---|
| 17. Final Redemption Amount of each Note (Condition 6): | If no Mandatory Amendment Event has occurred, the Final Redemption Amount, calculated per Calculation Amount, payable on the Maturity |
|---|---|

Date shall be an amount in USD calculated by the Calculation Agent in accordance with the following:

UYU Linked Principal Amount + Supplemental Payment Amount

If a Mandatory Amendment Event has occurred, the Final Redemption Amount per Calculation Amount payable on the Maturity Date will be an amount in USD equal to the UYU Linked Principal Amount.

Whereby,

“**Mandatory Amendment Event**” has the meaning given to it in Term 22;

“**UYU Linked Principal Amount**” means an amount in USD, calculated per Calculation Amount, equal to the UYU Amount divided by the USD/UYU FX Rate;

“**Supplemental Payment Amount**” means an amount in USD equal to the greater of (i) the product of the Calculation Amount, the Index Return and the Participation Rate, and, (ii) zero;

“**Index**” means the Allocator Selections Dynamic Allocation Index (Series 1) (Bloomberg Ticker Symbol: JPZMUYU9 <Index>);

“**Index Return**” means the performance of the Underlying Index from the Initial Index Level to the Final Index Level expressed as a percentage and calculated as follows:

$$(\text{Final Index Level} - \text{Initial Index Level}) / \text{Initial Index Level};$$

“**Participation Rate**” means 557%; and

“**UYU**” means Uruguayan Peso.

(See Terms 20 and 21 for additional definitions)

18. UYU Related Disruption Events and Fallbacks:

In the event of the occurrence of an Unscheduled Holiday or a Disruption Event on any Scheduled UYU Valuation Date, the Calculation Agent shall apply each of the following paragraphs (each a “**Disruption Fallback**”) for the determination of the USD/UYU FX Rate, in the order set forth below, until the USD/UYU FX Rate can be determined in accordance with this Term 18.

- (1) *Valuation Postponement*: the USD/UYU FX Rate will be determined on the first Business Day that is not an Unscheduled Holiday, or on the Business Day first following the day on which the Disruption Event ceases to exist, as applicable, unless the UYU Valuation Date has not occurred on or before the 30th consecutive calendar day after the Scheduled UYU Valuation Date (any such

period being a “**Deferral Period**”). In such event, the USD/UYU FX Rate will be determined in accordance with the next applicable Disruption Fallback on the next day after the Deferral Period that would have been a Business Day but for the occurrence of an Unscheduled Holiday, or on the next day after the Deferral Period that is a Business Day in the event of a continuing Disruption Event (the “**Postponed UYU Valuation Date**”).

- (2) *Fallback Reference Price (BEVSA)*: the USD/UYU FX Rate will be determined by the Calculation Agent on the relevant Postponed UYU Valuation Date by reference to the Electronic Stock Exchange Corporation (BEVSA). If the USD/UYU FX Rate for such UYU Valuation Date cannot be determined by reference to the Electronic Stock Exchange Corporation (BEVSA) Rate, then the USD/UYU FX Rate for such UYU Valuation Date will be determined in accordance with the next applicable Disruption Fallback.
- (3) *Fallback Reference Price (Dealer Poll)*: the USD/UYU FX Rate will be determined by the Calculation Agent on the relevant Postponed UYU Valuation Date pursuant to the Dealer Poll. If the USD/UYU FX Rate for such UYU Valuation Date cannot be determined pursuant to the Dealer Poll then the USD/UYU FX Rate for such UYU Valuation Date will be determined in accordance with the next applicable Disruption Fallback.
- (4) *Calculation Agent Determination*: the USD/UYU FX Rate (or a method for determining the USD/UYU FX Rate) will be determined by the Calculation Agent on the Postponed UYU Valuation Date in its sole and absolute discretion.

The Calculation Agent shall notify the Issuer as soon as reasonably practicable if the USD/UYU FX Rate for such UYU Valuation Date is to be determined as specified in this Term 18.

In the event the UYU Valuation Date is postponed beyond the Scheduled UYU Valuation Date as set forth above, then the Maturity Date shall be postponed beyond the Scheduled Maturity Date by one Business Day for each day that the Scheduled UYU Valuation Date is postponed as set forth above, provided that (i) any such postponement will be concurrent with any postponement of the Maturity Date caused by operation of Term 19, and (ii) the Maturity Date shall be the later of such dates as postponed by operation of Terms 18 and 19.

For the avoidance of doubt, no additional amounts shall be payable by IBRD in the event that the Maturity Date is postponed beyond the Scheduled Maturity Date due to postponement of the UYU Valuation Date beyond the Scheduled UYU Valuation Date due to the operation of this Term 18.

19. Index Disruption Events:

If the Final Index Determination Date occurs on a day on which the Calculation Agent has determined that an Index Disruption Event (as defined below in Term 21) has occurred or is continuing, then the Final Index Determination Date will be postponed beyond the Scheduled Final Index Determination Date until the next succeeding Trading Day on which the Calculation Agent determines that an Index Disruption Event has neither occurred nor is continuing; provided that if the Final Index Determination Date has not occurred on or before the fifth Business Day

following the Scheduled Final Index Determination Date, (the “**Valuation Cut-off Date**”), the Final Index Level will be determined by the Calculation Agent in its sole and absolute discretion on the next Trading Day after the Valuation Cut-off Date (such Trading Day being the “**Postponed Final Index Determination Date**”).

In the event the Final Index Determination Date is postponed beyond the Scheduled Final Index Determination Date as set forth above, then the Maturity Date shall be postponed beyond the Scheduled Maturity Date by one Business Day for each day that the Final Index Determination Date is postponed as set forth above, provided that (i) any such postponement will be concurrent with any postponement of the Maturity Date caused by operation of Term 18, and (ii) the Maturity Date shall be the later of such dates as postponed by operation of Terms 18 and 19.

For the avoidance of doubt, no additional amounts shall be payable by IBRD in the event that the Maturity Date is postponed beyond the Scheduled Maturity Date due to postponement of the Final Index Determination Date beyond the Scheduled Final Index Determination Date by operation of this Term 19.

20. Additional Definitions -
General:

“**Bloomberg Screen**” means, when used in connection with any designated page, the display page so designated on Bloomberg service, or (i) any successor display page, other published source, information vendor or provider that has been officially designated by the sponsor of the original page or source; or (ii) if the sponsor has not officially designated a successor display page, another published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from the sponsor).

“**Business Day**” means a day (other than a Saturday or a Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in London, New York and Montevideo.

“**Calculation Agent**” means JPMorgan Chase Bank, N.A. (“**JPMorgan**”). For the avoidance of doubt, the Calculation Agent shall make determinations in respect of the Notes in good faith.

“**Dealer Poll**” means that the USD/UYU FX Rate in respect of a certain date will be the UYU/USD exchange rate for USD, expressed as the amount of UYU per one USD, for settlement on the same day, as determined by the Calculation Agent on the basis of quotations provided by Reference Dealers on such date. The Calculation Agent will request each Reference Dealer to provide a firm quotation of the specified rate as of 4:00 p.m., Montevideo time. If four (4) quotations are provided, the USD/UYU FX Rate for such UYU Valuation Date will be the arithmetic mean of the specified rates without regard to the specified rates having the highest and lowest value. For this purpose, if more than

one quotation has the same highest and lowest value, then the specified rate of only one of such quotations shall be disregarded. If two (2) or three (3) quotations are provided, the USD/UYU FX Rate for such date will be the arithmetic mean of the specified rates provided. If fewer than two (2) quotations are provided, it will be deemed that the USD/UYU FX Rate for such date cannot be determined pursuant to the Dealer Poll.

“Deferral Period” has the meaning as set forth in Term 18 above.

“Disruption Event” means in the sole and absolute determination of the Calculation Agent any action, event or circumstance whatsoever which from a legal or practical perspective makes it impossible for the Calculation Agent to obtain the USD/UYU FX Rate on a UYU Valuation Date.

"Electronic Stock Exchange Corporation (BEVSA) Rate" means the USD/UYU exchange rate, expressed as the amount of UYU per one USD, published by BEVSA (www.bevsa.com.uy) appearing under the heading "CIERRE BEVSA" and sub-heading "Promedio" at approximately 4:00 p.m., Montevideo time, on the Postponed UYU Valuation Date. As of the date of these Final Terms, the Electronic Stock Exchange Corporation (BEVSA) is also available at <https://web.bevsa.com.uy/Mercado/MercadoCambios/Dolar.aspx> appearing under the heading "CIERRE A LA FECHA" and sub-heading "Cierre BCU Fondo (Promedio BEVSA)".

“Montevideo Business Day” means a day (other than a Saturday or a Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in Montevideo.

“Postponed UYU Valuation Date” has the meaning as set forth in Term 18 above.

“Reference Dealers” means the Montevideo office of each of HSBC, Citibank, Banco Itau and Banco Santander. In the event that any of the Reference Dealers shall cease to operate in Uruguay, such Reference Dealer shall be substituted by the Calculation Agent (acting in its sole and absolute discretion) for purposes of completing the Dealer Poll.

“Supplemental Payment Amount” has the meaning set forth in Term 17.

“Unscheduled Holiday” means a day that is not a Montevideo Business Day and the market was not aware of such fact (by means of a public announcement or by reference to other publicly available information) until a time later than 9:00 a.m. Montevideo time two Montevideo Business Days prior to the Scheduled UYU Valuation Date.

“UYU Amount” means UYU 812,000,000 (equivalent to USD 25,000,000 at the UYU/USD exchange rate on the Trade Date of UYU 32.48 per USD 1.00).

“UYU Linked Principal Amount” has the meaning set forth in Term 17.

“USD/UYU FX Rate” means, in respect of the UYU Valuation Date, the USD/UYU exchange rate, expressed as the amount of UYU per one USD, reported by the Banco Central de Uruguay (“Central Bank of Uruguay”) (www.bcu.gub.uy) as its “U.S. \$Fdo” rate, as it appears on Bloomberg Screen FIXI page appearing under the heading “Emerging Markets Fixings” at approximately 4:00 p.m., Montevideo time, on such UYU Valuation Date. If, on such UYU Valuation Date, the Bloomberg Screen FIXI page no longer reports such rate or such rate is no longer available and has not been replaced by any other page or service, the Calculation Agent shall be entitled to obtain such USD/UYU exchange rate as reported by Central Bank of Uruguay from any other screen or information source that it deems appropriate in good faith and in a commercially reasonable manner. If the USD/UYU FX Rate cannot be obtained in the manner referenced in the prior paragraphs on such UYU Valuation Date because of a Disruption Event, then the USD/UYU FX Rate on such UYU Valuation Date shall be determined by the Calculation Agent in accordance with the provisions set forth above under Term 18 “UYU Related Disruption Events and Fallbacks.”

“UYU Valuation Date” means 27 November 2028 (the **“Scheduled UYU Valuation Date”**), provided however, that, in the event of an Unscheduled Holiday or there has occurred or is subsisting on such date a Disruption Event, the UYU Valuation Date shall be determined by the Calculation Agent in accordance with the provision set forth under Term 18 “UYU Related Disruption Events and Fallbacks”.

21. Additional Definitions with regard to the Index:

“Closing Level” on any Trading Day will equal the official closing level of the Index published by the Index Sponsor at the regular weekday close of trading on that Trading Day.

“Final Index Level” means the Index’s Closing Level observed for the Final Index Determination Date, as determined by the Calculation Agent. In the event that the Index’s Closing Level for the Final Index Determination Date is corrected by the Index Calculation Agent within three New York Business Days of the Final Index Determination Date, such corrected value will be the Final Index Level.

“Final Index Determination Date” means, in respect of the Maturity Date, 6 April 2027 (the **“Scheduled Final Index Determination Date”**), subject to postponement pursuant to the provisions set forth under Term 19 “Index Disruption Events”.

“Index Calculation Agent” means Solactive A.G., or any successor thereto designated as such pursuant to the Index Rules.

“Index Disruption Event” as determined by the Calculation Agent in its sole and absolute discretion, means with respect to the Final Index Determination Date, either that the Closing Level for the Index for such day was not published by the Index Calculation Agent or the Index Sponsor or such date is not a Trading Day.

“Index Rules” means the Allocator Selections Dynamic Allocation Index (Series 1) Index Rules, as in effect from time to time. A copy of the Index Rules as currently constituted is attached hereto as Schedule 2.

“Index Sponsor” means J.P. Morgan Securities LLC. or any successor corporation or other entity that (a) is responsible, as Index Sponsor under the Index, for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to the Index and (b) announces (directly or through an agent, including the Index Calculation Agent) the level of the Index on a regular basis for each Trading Day.

“Initial Index Level” means 100 (namely, the Index’s Closing Level on the Initial Index Determination Date).

“Initial Index Determination Date” means 19 November 2018.

“New York Business Day” means a day (other than a Saturday or a Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in New York.

“Trading Day” means each day on which each of the following exchanges are scheduled to open for trading in their regular trading session: (i) the Nasdaq, and (ii) the New York Stock Exchange.

“Trade Date” 19 November 2018.

22. Mandatory Amendment Event:

In the event of the occurrence of a Mandatory Amendment Event, the Issuer shall be required to pay an amount (which may be zero) as soon as practicable after the Mandatory Amendment Date, calculated per Calculation Amount, equal to the Early Contingent Payment Amount calculated as of the Accelerated Final Index Determination Date. For the avoidance of doubt, the occurrence of a Mandatory Amendment Event

shall not alter the Issuer's obligation to pay the UYU Linked Principal Amount per Calculation Amount on the Maturity Date.

The term “**Mandatory Amendment Event**” means the occurrence of any of the following events on or before the Final Index Determination Date:

- (i) an Index Cancellation;
- (ii) an Index Modification;
- (iii) an Index Allocation Agreement Termination;
- (iv) the Associated Swap Transaction is terminated under the terms of the ISDA Master Agreement pursuant to which such Associated Swap Transaction was entered into as the result of the occurrence of an “Event of Default” or “Credit Event Upon Merger” or “Additional Termination Event” thereunder with respect to which the Swap Counterparty is the sole “Defaulting Party” or “Affected Party”, as applicable;
- (v) the Associated Swap Transaction is terminated by the Swap Counterparty as a result of an Additional Disruption Event; or
- (vi) the Associated Swap Transaction is terminated under the terms of the ISDA Master Agreement pursuant to which such Associated Swap Transaction was entered into, other than under the circumstances set forth in paragraph (iv) or (v) above.

Upon the occurrence of a Mandatory Amendment Event:

- (i) in the event that the relevant Mandatory Amendment Event is an event described in paragraph (i), (ii), (iii), (v) or (vi) thereof, the Calculation Agent; or
- (ii) in the event that the Mandatory Amendment Event is an event described in paragraph (iv) thereof, the Issuer,

shall forthwith give a notice (the “**Mandatory Amendment Notice**”) to the Issuer (where applicable), the Global Agent and the Noteholders of the occurrence of a Mandatory Amendment Event and the Early Contingent Payment Amount shall be determined as set out below.

The “**Early Contingent Payment Amount**” per Calculation Amount shall be an amount in USD, equal to the greater of (i) the value of the equity option embedded in each Note (the “**Equity Component**”) per Calculated Amount of the Notes expressed in USD, as determined by the Valuation Agent, and (ii) zero. For the calculation of the value of the Equity Component, the Valuation Agent: (i) will take into account (a) the observed Index Level as of the Accelerated Final Index Determination Date or the most recent Trading Day preceding such date, (b) the Initial Index Level, and (c) an implied volatility equal to the Volatility Component, an implied dividend yield of 0.25% and interest rates of 0% and (ii) may take into account prevailing market prices and/or proprietary pricing models (including the cost to the Issuer of unwinding any hedging arrangements related to such embedded equity option, as determined by the Valuation Agent in its sole and absolute discretion) as

of the Accelerated Final Index Determination Date, or where these pricing models may not yield a commercially reasonable result, such estimates as at which it may arrive in a commercially reasonable manner and the Associated Costs as of the Accelerated Final Index Determination Date

The Valuation Agent will make the determinations set forth in the previous paragraphs in good faith and in a commercially reasonable manner.

Where "Volatility Component" means the product of (x) 10% and (y) the Volatility Adjustment Factor (as defined in the Index Rules) as of the Accelerated Final Index Determination Date or, if such date is not a Trading Day, the most recent Trading Day.

In addition, the following terms shall have the following meanings:

“Accelerated Final Index Determination Date” means in the event that the relevant Mandatory Amendment Event consists of an event set forth in:

- (A) paragraphs (i), (ii) and (iii) of the definition of Mandatory Amendment Event, the date on which such Mandatory Amendment Event occurred, as determined by the Valuation Agent;
- (B) paragraphs (v) and (vi) of the definition of Mandatory Amendment Event, the date on which such Mandatory Amendment Event is effective; and
- (C) paragraph (iv) of the definition of Mandatory Amendment Event, the last Business Day of the month that precedes the month in which such Mandatory Amendment Event occurs.

“Additional Disruption Event” means each of a Change in Law, a Hedging Disruption or an Increased Cost of Hedging.

“Associated Cost” means an amount determined by the Calculation Agent in its reasonable discretion equal to the sum of (without duplication) all costs (including, without limitation, cost of funding), losses, expenses, tax and duties incurred by the Issuer in connection with the termination and liquidation of any hedging arrangements related to the Equity Component.

“Associated Swap Transaction” means the swap transaction entered into in connection with the issue of the Notes between the Issuer and the Swap Counterparty and documented under the ISDA Master Agreement dated as of March 10, 2010 (as amended from time to time) between the Swap Counterparty and the Issuer (the **“ISDA Master Agreement”**).

“Change in Law” means that, the Calculation Agent determines in good faith that on or after the Trade Date (A) due to the adoption of or any change in any applicable law, regulation or rule (including, without limitation, any tax law), or (B) due to the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with

competent jurisdiction of any applicable law, regulation, rule or order (including, without limitation, as implemented by the U.S. Commodity Futures Trading Commission or exchange or any exchange or trading facility or any action taken by a taxing authority), it is (or will be prior to the Maturity Date) contrary to such law, rule, regulation or order for the Swap Counterparty or any affiliate thereof (individually or collectively, and including their respective successors) to hold, acquire or dispose of any relevant asset it deems necessary to hedge the price risk associated with the Associated Swap Transaction (in whole or in part).

“Hedging Disruption” means that the Calculation Agent determines that the Swap Counterparty or any affiliate thereof is unable, after using commercially reasonable efforts, to (A) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) that it deems necessary to hedge the price risk of entering into and performing its obligations with respect to the Associated Swap Transaction, or (B) realize, recover or remit the proceeds of any such transaction(s) or asset(s).

“Increased Cost of Hedging” means that the Calculation Agent determines that the Swap Counterparty or any affiliate thereof would incur a materially increased (as compared with circumstances existing on the Trade Date) amount of tax, duty, expense or fee (other than brokerage commissions) to (A) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge the price risk of entering into and performing its obligations with respect to the Associated Swap Transaction, or (B) realize, recover or remit the proceeds of any such transaction(s) or asset(s), provided that any such materially increased amount that is incurred solely due to the deterioration of the creditworthiness of the Swap Counterparty or such affiliate shall not be deemed an Increased Cost of Hedging.

“Index Allocation Agent” means the entity designated as such under the Index Rules. The initial Index Allocation Agent is party to the Index Allocation Agreement, and is not affiliated with the Issuer or the Index Sponsor.

“Index Allocation Agreement” means the agreement between the Index Allocation Agent and J.P. Morgan Securities LLC, dated as of 19 November 2018, under the terms of which the Index Allocation Agent independently provides certain selections in accordance with the terms of the Index Rules in connection with the Index Allocation Agent’s investment management activities and strategy for itself or for certain accounts managed by it.

“Index Allocation Agreement Termination” means the Index Allocation Agreement is terminated for any reason.

“Index Cancellation” means the Index Sponsor discontinues publication of the Index because the Index is terminated, including, without

limitation, due to the termination of the Index Allocation Agreement between the Index Allocation Agent and the Index Sponsor.

“Index Modification” means (i) a material change is made to the formula for, or the method of, calculating the Index or any other material modification is made to the Index, other than a modification prescribed in the Index Rules for the purpose of maintaining the Index in the event of changes in constituent Component Underlyings (as defined in the Index Rules) and other routine events; and (ii) the Associated Swap Transaction is terminated due to such material change or modification.

“Mandatory Amendment Date” means either:

- (i) if the Mandatory Amendment Event consists of a termination of the Associated Swap Transaction set forth in paragraph (iv) of the definition of Mandatory Amendment Event, the 5th Business Day after the date upon which the Mandatory Amendment Event is effective; or
- (ii) if the Mandatory Amendment Event consists of any other Mandatory Amendment Event, the 10th Business Day after the date on which the Mandatory Amendment Notice (as defined above) is received or deemed received by the Issuer and Global Agent (whichever date is later).

“Swap Counterparty” means JPMorgan Chase Bank, National Association.

“Valuation Agent” means (x) in respect of a Mandatory Amendment Event that consists of a termination of the Associated Swap Transaction set forth in paragraph (iv) of the definition of Mandatory Amendment Event, the Issuer, and (y) in respect of any other Mandatory Amendment Event, the Calculation Agent.

23. Early Redemption Amount
(Condition 6(c)):

The Early Redemption Amount payable in respect of each Note, upon it becoming due and payable as provided in Condition 9, shall be determined by the Calculation Agent taking into account the value of the zero coupon portion thereof and the value of the Equity Component thereof (except where the Notes become due and payable, as provided in Condition 9 after the occurrence of a Mandatory Amendment Event). The value of the zero-coupon component of the Notes shall be UYU Linked Principal Amount, taking into account the prevailing UYU/USD exchange rate and discounted at a rate per annum equal to the Amortization Yield specified under Term 16(i). The value of the Equity Component of the Notes will be determined based on the methodology specified under the definition of “Early Contingent Payment Amount” in Term 22, except that the residual value of the Equity Component shall be based on relevant prevailing rates as of the last Business Day of the month that precedes the month in which the relevant default occurs.

GENERAL PROVISIONS APPLICABLE TO THE NOTES

- | | |
|---|--|
| 24. Form of Notes (Condition 1(a)): | Registered Notes:

Global Registered Certificate available on Issue Date |
| 25. New Global Note: | No |
| 26. Financial Centre(s) or other special provisions relating to payment dates (Condition 7(h)): | London, New York and Montevideo |
| 27. Governing law (Condition 14): | English |
| 28. Other final terms: Disclaimer of Liabilities and Representations by Prospective Investors of the Notes: | <p>(i) A description of the Index is attached to these Final Terms as Schedule 1. A full copy of the Index Rules is attached to these Final Terms as Schedule 2. A description of the Component Underlyings of the Index is set forth in Schedule 3. All information contained in these Final Terms as well as all information set forth in Schedules 1, 2 and 3, regarding the Index, its make-up, method of calculation and changes in its components, is derived from, and based solely upon, information provided by the Index Sponsor and is for informational purposes only and should not be relied upon by the Noteholder or any prospective investor. As such, neither the Issuer nor the Global Agent assumes any responsibility for the accuracy or completeness of such information, or for such information being up to date. In addition, neither Issuer nor the Global Agent accepts responsibility for the calculation or other maintenance of, or any adjustments to, the Index. Neither IBRD nor the Global Agent will have any responsibility for errors or omissions in calculating or disseminating information regarding the Index or as to modifications, adjustments or calculations by the Index Sponsor, Index Calculation Agent or Index Allocation Agent in order to arrive at the value of the Index. The most recent version of the Index Rules will be available upon request from the Index Sponsor.</p> <p>(ii) Neither IBRD nor the Global Agent will have any responsibility for the contents of the Index Allocation Agreement or for the choices and allocations made by the Index Allocation Agent thereunder.</p> <p>(iii) The Index is the exclusive property of J.P. Morgan Securities LLC. IBRD has a non-exclusive right to use the Index as an underlying for the Notes and the Associated Swap Transaction.</p> <p>(iv) By investing in the Notes each investor of the Notes represents that:</p> <p>(a) it has made its own independent decision to invest in the Notes based upon its own judgment and upon advice from such advisers as it has deemed necessary. It is not relying on any communication (written or oral) of the Issuer, the Index Sponsor, the Calculation Agent, or the Dealer as investment advice or as a recommendation to invest in the Notes, it being understood</p> |

that information and explanations related to the terms and conditions of the Notes shall not be considered to be investment advice or a recommendation to invest in the Notes. No communication (written or oral) received from the Issuer, the Calculation Agent, the Index Sponsor or the Dealer shall be deemed to be an assurance or guarantee as to the expected results of the investment in the Notes;

- (b) it is capable of assessing the merits of and understanding (on its own behalf or through independent professional advice), and understands and accepts the terms and conditions and the risks of the investment in the Notes, including but not limited to the risks set out in “Additional Risk Factors” above (which are not, and do not intend to be, exhaustive). It is also capable of assuming, and assumes, the risks of the investment in the Notes;
- (c) it has fully considered the market risk associated with an investment linked to the Index. Each Noteholder understands that none of the Issuer, the Calculation Agent, the Dealer, the Index Sponsor or the Index Calculation Agent purports to be a source of information on market risks with respect to the Index. Each Noteholder confirms that it has read and understood the information relating to the Index contained in the Schedules to these Final Terms, which have been provided for information purposes only and are not to be used or reproduced for any other purpose or used or considered as any advice or recommendation with respect to such Index;
- (d) it understands and acknowledges that the performance of the Index is based on the periodic selections of the Index Allocation Agent and hence the Notes are intended to be purchased and held by the Index Allocation Agent and by discretionary accounts managed by the Index Allocation Agent only; and
- (e) it understands that the information relating to the Index contained in the Schedules to these Final Terms are only up to date as of the date of these Final Terms, and that such information in the Index Rules may be amended from time to time.

DISTRIBUTION

- | | |
|--|----------------------------|
| 29. (i) If syndicated, names of Managers and underwriting commitments: | Not Applicable |
| (ii) Stabilizing Manager(s) (if any): | Not Applicable |
| 30. If non-syndicated, name of Dealer: | J.P. Morgan Securities plc |

OPERATIONAL INFORMATION

- | | |
|------------------|--------------|
| 31. ISIN Code: | XS1915153669 |
| 32. Common Code: | 191515366 |

- | | |
|---|-------------------------------|
| 33. Any clearing system(s) other than Euroclear Bank S.A./N.V., Clearstream Banking, <i>société anonyme</i> and The Depository Trust Company and the relevant identification number(s): | Not Applicable |
| 34. Delivery: | Delivery against payment |
| 35. Registrar and Transfer Agent (if any): | Citibank, N.A., London Branch |
| 36. Additional Paying Agent(s) (if any): | Not Applicable |
| 37. Intended to be held in a manner which would allow Eurosystem eligibility: | No |

GENERAL INFORMATION

IBRD's most recent Information Statement was issued on 17 September 2018.

USE OF PROCEEDS

Supporting sustainable development in IBRD's member countries

The net proceeds from the sale of the Notes will be used by IBRD to finance sustainable development projects and programs in IBRD's member countries (without being committed or earmarked for lending to, or financing of, any particular projects or programs). IBRD's financing is made available solely to middle-income and creditworthy lower-income member countries who are working in partnership with IBRD to eliminate extreme poverty and boost shared prosperity, so that they can achieve equitable and sustainable economic growth in their national economies and find sustainable solutions to pressing regional and global economic and environmental problems. Projects and programs supported by IBRD are designed to achieve a positive social impact and undergo a rigorous review and internal approval process aimed at safeguarding equitable and sustainable economic growth.

IBRD integrates five cross cutting themes into its lending activities helping its borrowing members create sustainable development solutions: climate change; gender; jobs; public-private partnerships; and fragility, conflict and violence.

IBRD's administrative and operating expenses are covered entirely by IBRD's various sources of revenue (net income) consisting primarily of interest margin, equity contribution and investment income (as more fully described in the Information Statement).

CONFLICT OF INTEREST

J.P. Morgan Securities LLC will serve as the Index Sponsor of the Index. As a result, the determinations made by J.P. Morgan Securities LLC in its discretion as Index Sponsor may affect the level of the Index and, in turn, amounts payable under the Notes. J.P. Morgan Securities LLC and certain of its affiliates

are also the sponsors or calculation agents under certain indices included as potential components of the basket referenced by the Index. In all such cases, neither J.P. Morgan LLC nor any of its affiliates has any obligation to consider the Noteholders' interests in taking any action or making any determination that might adversely affect the level of the Index or the Notes.

JPMorgan, the parent company of J.P. Morgan Securities LLC, will be Calculation Agent under the Notes and will also be IBRD's counterparty in a related swap transaction entered into by IBRD in order to hedge its obligations under the Notes. The existence of such multiple roles and responsibilities for JPMorgan creates possible conflicts of interest. For example, the amounts payable by JPMorgan to IBRD under the related swap transaction are expected, as of the Issue Date, to be calculated on the same basis as the amounts payable by IBRD under the Notes. As a result, the determinations made by JPMorgan in its discretion as Calculation Agent for the Notes may affect the amounts payable by JPMorgan under the related swap transaction, and, in making such determinations, JPMorgan may have economic interests adverse to those of the Noteholders. The Noteholder understands that although IBRD will enter into the related swap transaction with JPMorgan as swap counterparty in order to hedge its obligations under the Notes, IBRD's rights and obligations under the related swap transaction will be independent of its rights and obligations under the Notes, and Noteholders will have no interest in the related swap transaction or any payment to which IBRD may be entitled thereunder.

LISTING APPLICATION

These Final Terms comprise the final terms required for the admission to the Official List of the Luxembourg Stock Exchange and to trading on the Luxembourg Stock Exchange's regulated market of the Notes described herein issued pursuant to the Global Debt Issuance Facility of International Bank for Reconstruction and Development.

RESPONSIBILITY

IBRD accepts responsibility for the information contained in these Final Terms.

Signed on behalf of IBRD:

By:

.....

Name:

Title:

Duly authorized

SCHEDULE 1

INDEX SUMMARY DESCRIPTION -

ALLOCATOR SELECTIONS DYNAMIC ALLOCATION INDEX (SERIES 1)

Set out below is a summary description of Allocator Selections Dynamic Allocation Index (Series 1) (the “Index”). This summary description is by its nature limited and an overview for informational purposes only and should not be relied upon by the Noteholder or any prospective investor in the Notes. This summary description is qualified in all respects by reference to the full text of The Allocator Selections Dynamic Allocation Index (Series 1) Index Rules, which are published by the Index Sponsor and available from the Index Sponsor upon request (the “Index Rules”). The Index Rules, as published by the Index Sponsor from time to time, and not this summary description, will govern the operation and calculation of the Index. Potential purchasers of the Notes are urged to read carefully the Index Rules in their entirety. All disclosure contained in this document or referred to in this document, regarding the Index, including, without limitation, the Index Rules, its make-up, method of calculation and changes in its components, is derived from, and based solely upon, information provided by the Index Sponsor. As such, the Issuer does not assume any responsibility for the accuracy or completeness of such information or any duty to update such information. In addition, the Issuer accepts no responsibility for the calculation or other maintenance of, or any adjustments to, the Index.

Capitalised terms used and not defined in this Schedule 1 or in the Final Terms have the meanings given to them in the Index Rules.

The Index; Constitution and Governance

The Allocator Selections Dynamic Allocation Index (Series 1) (the “**Index**”) was developed by J.P. Morgan Securities LLC, which acts as Index Sponsor for the Index (in such capacity the “**Index Sponsor**”). The Index is rules-based, meaning that the operation and calculation of the Index is governed by the terms of the Index Rules. Under the Index Rules, various responsibilities are accorded to the Index Sponsor, the Index Calculation Agent and the Index Allocation Agent.

The Index is the intellectual property of J.P. Morgan Securities LLC (the “**Index Sponsor**”), and J.P. Morgan Securities LLC reserves all rights with respect to its ownership of the Index. The Issuer has been granted a license for the use of the Index for the purposes of the Notes.

The Index Sponsor has certain key responsibilities and rights with respect to the Index. These responsibilities and rights include:

- documentation of the Index Rules,
- certain rights to make determinations regarding the occurrence and continuation of Market Disruption Events and Extraordinary Events (as defined below) with respect to Component Underlyings eligible for inclusion in the synthetic portfolio tracked by the Index;
- determination of whether rebalancing requests, including Proposed Synthetic Allocations, are timely submitted and comply with the Allocation Restrictions, and may thus be implemented in connection with requested Index component rebalancings;

- determination of whether corrections to the level of the Index may be made;
- determination of whether proposed additional Component Underlyings and proposed Component Underlying substitutions comply with the Index Rules as they relate to Component Underlying additions and substitutions, respectively;
- the right to terminate and replace the Index Calculation Agent;
- the right to amend the Index Rules in accordance with the amendment provisions of the Index Rules; and
- the right to remove (and the ability to replace) Component Underlyings in the event of the occurrence of a Component Continuing Disruption Event, material change or change in law affecting a Component Underlying.

The Index Sponsor is obliged to act in good faith and in a commercially reasonable manner in making determinations under the Index Rules.

Solactive A.G. will be the initial calculation agent for the Index (the “**Index Calculation Agent**”). The Rules require the Index Calculation Agent to calculate the Index Level in respect of each Index Calculation Day. The Index Calculation Agent is also responsible for determining (i) subject to the prior agreement of the Index Sponsor or at the direction of the Index Sponsor, if a Market Disruption Event or certain dilutive events have occurred, (ii) whether any input necessary to perform any calculations under the Index Rules is not published or otherwise made available by the relevant exchange or input sponsor to the Index Calculation Agent, and any related consequences or adjustments in accordance with the Index Rules, and (iii) subject to the prior agreement of the Index Sponsor, whether certain corrections to the Index Level should be made. The Index Sponsor may terminate and replace the Index Calculation Agent.

The Index Sponsor and Index Calculation Agent shall act in good faith and in a commercially reasonable manner in making determinations, interpretations and calculations pursuant to the Index Rules.

The Index Allocation Agent is appointed pursuant to the Index Rules (in such capacity, the “**Index Allocation Agent**”). The initial The Index Allocation Agent will act under an Index Allocation Agreement with the Index Sponsor pursuant to which the Index Allocation Agent has the right and obligation to make choices with respect to the composition of the Index. The initial Index Allocation Agent is not affiliated with the Issuer or the Index Sponsor.

The Index is Notional; Excess Return-Based; and Exposure Modulated

Notional Concept. The Index is a notional, dynamic basket that tracks the performance, on an "excess return" basis, of a synthetic portfolio consisting, initially, of exchange traded funds ("ETFs") and currency and government bond futures trackers, as well as a cash index (each, a “**Component Underlying**” and, collectively, the “**Component Underlyings**”). The initial 59 Component Underlyings span a diverse range of asset classes and geographic region exposures. A table listing each of the initial Component Underlyings is provided below, and a description of the Component Underlyings is provided in Schedule 3. Each Component Underlying falls under a particular Component Type, consisting of ETFs; Government Bond Trackers; FX G10 Trackers;

and the Cash Tracker Index (the "**Cash Component**"). Component Types also include Equity Index and Commodity Index, which are not used as of the Index Base Date, and may not be added by request of the Index Allocation Agent, but which could be added as a replacement to a Component Underlying in the event of the occurrence of certain events affecting the initial Component Underlyings.

The universe of Component Underlyings is subject to additions, substitutions and removals as described below.

The Index is described as "notional" and as tracking a "synthetic" portfolio because no actual shares, positions or other assets are held for the benefit of the Noteholder in respect of the Index. Rather, calculations are made based on a hypothetical investment in the relevant Component Underlyings.

Excess Return-Based. The Index employs an "excess return" mechanism within its calculation formula for each Component Underlying that represents a hypothetical "funded investment". For each such "funded" Component Underlying -- generally exchange traded funds -- this mechanism acts to subtract an assumed cash return from the Component Underlying's return to derive a cash-excess figure. To the extent that a Component Underlying is not a foreign currency or bond futures tracker, it is associated with an assumed cash component (the JPMorgan Cash Index USD 3 Month, or the "**Cash Component**"), which will be used as the basis for the subtraction. Component Underlyings that are futures trackers are not subject to a subtraction to arrive at an excess return figure.

Exposure Modulation. The Index is subject to a "volatility review" feature. This feature has the effect of increasing or reducing the Index's day-to-day exposure to the synthetic portfolio. On each Index Calculation Day, the Index Calculation Agent will determine the Index's "Exposure" to the synthetic portfolio. The Exposure will range from 0% to 150%, modulated to align the formula-recognized volatility of the selected synthetic portfolio with the target volatility for the Index of 10%. This volatility review mechanism is implemented by means of a formula based on the assumption that the recent realized volatility is a good indicator of current and future volatility, however, future volatility could always diverge from observed historical volatility, and thus the Index's volatility could exceed 10%, even when the Exposure function has the effect of reducing the extent to which the Index tracks the synthetic portfolio.

The Index's calculation formula employs an exposure limitation formula containing two key volatility control mechanisms: one that reviews the simulated historical volatility of the synthetic portfolio tracked by the Index, and one that reviews the actual observed volatility of the Index itself.

The first factor -- corresponding to the first stage in the volatility control mechanism - modulates daily the Index's exposure to the synthetic portfolio of Component Underlyings selected by the Index Allocation Agent based on simulated historical volatility of the synthetic portfolio tracked by the Index. This first stage factor could range from 0 to 150% based on the Index formula's review of simulated volatility experienced by the weighted components of the synthetic portfolio, relative to the 10% volatility target.

The Index calculation formula also contains a second factor -- corresponding to the second stage volatility control mechanism - which daily monitors the realized volatility of the Index itself (i.e., without regard to the simulated observed volatility of the particular synthetic portfolio then tracked by the Index) over the period since the Index Base Date to such day. This mechanism works by comparing the rate at which the Index is realizing volatility to the rate at which it would be expected to realize

volatility were it delivering the exact target volatility of 10%. This second stage adjustment term is called the ‘volatility adjustment factor’ and is capped at 100%.

This second stage volatility control function could limit the Index's exposure to the synthetic portfolio slightly or substantially. For example, if the Index experienced severe and consistent volatility above the target rate early in its life, the second stage limitation would reduce the exposure of the Index to the synthetic portfolio for an extended time, potentially even for the remaining term of the Notes. Note that this second mechanism (unlike the first) will not serve to increase volatility if the realized volatility of the Index is lower than the target volatility, it can serve only to reduce the Index's exposure to the synthetic portfolio. However whether or not this second factor does in fact modulate the volatility of the Index will depend on the realized volatility of the Index over the entire period since the Index Base Date, there may be periods in which the realized volatility of the Index substantially exceeds its target without the second stage factor triggering an exposure reduction. For example, if the Index experienced volatility consistently below the target rate early in its life, the second stage limitation would not serve to reduce the exposure of the Index to the synthetic portfolio later in the term of the Notes, even if the Index was then realizing an interval of volatility above its target, so long as the longitudinal experienced volatility of the Index did not exceed the 10% target over its full term.

Due to the exposure constraints describe above, the selections of the Index Allocation Agent may not be fully reflected by the Index’s performance. Substantial or complete allocation to the cash component could occur for an extended period and/or for multiple intervals.

The level of the Index (the “**Index Level**”) will be calculated by the Index Calculation Agent on each Index Calculation Day, based on the weighted excess returns of the Component Underlyings contained in the synthetic portfolio, multiplied by the Exposure fraction, and reduced by the Adjustment Costs (as described below).

Deductions to the Index Level through Adjustment Costs and Subtractions from Exchange-Traded Fund Distributions

The Index Level will be reduced each day by application of an “Adjustment Cost” subtraction included in the calculation formula. This Adjustment Cost will be based on (i) the change in exposure to the Component Underlyings included in the synthetic portfolio tracked by the Index on the relevant Index Calculation Day; (ii) the Weight assigned to each such Component Underlying within the synthetic portfolio; (iii) the Carry Cost and Transaction Cost associated with that Component Underlying; and (iv) the Index Level. The Adjustment Cost will be calculated and deducted on a daily basis from the Index Level. The Index Rules impose a Carry Cost on each Component Underlying of either 0.75% (for ETFs) or 0.35% (for government bond or currency futures trackers). The Index Rules also deduct a 0.02% Transaction Cost applied to any change in the exposure of the Index to a Component Underlying (either via (i) the removal or inclusion of each Component Underlying (other than amounts deemed allocated to cash) as part of a Rebalancing or (ii) due to the adjustment of the Index’s day-to-day exposure to the synthetic portfolio via the “Exposure Modulation” process described above). The Index Return will be further reduced because the Index calculation formula takes into account for synthetic

reinvestment 70%, rather than 100%, of the value of distributions made by exchange-traded funds held in the synthetic portfolio tracked by the Index.

The Index Allocation Agent and Rebalancings

The Index Allocation Agent will select from time to time, from the list of Component Underlyings, such Component Underlyings as it wishes to comprise the synthetic basket tracked by the Index, as well as the relative weights (“**Weights**”) within the synthetic basket of the selected Component Underlyings. The Index Allocation Agent will select the initial Component Underlyings. The Index Allocation Agent will from time to time add and remove Component Underlyings from the list of potential selections. The Index Allocation Agent will from time to time adjust proposed weights on a Rebalancing Date. As a result, the Index Allocation Agent’s selections will be the most important variable in determining the performance of the Index. The Index Allocation Agent will act with complete discretion, subject to the Allocation Restrictions contained in the Index Rules. The Notes are intended to be held only by the Index Allocation Agent and by discretionary accounts managed by the Index Allocation Agent, and by no other person.

Subject to the restrictions described below, the timing and number of rebalancings will be in the sole discretion of the Index Allocation Agent, subject to constraints on the timing and number of rebalancings set forth in the Index Rules. The Index Allocation Agent may, on any NYSE Business Day, trigger a rebalancing by providing its Proposed Synthetic Allocations (i.e., the composition and relative weights of Component Underlyings to comprise the entire newly reformulated synthetic portfolio) to the Index Sponsor and Index Calculation Agent. Proposed Synthetic Allocations received prior to 2 p.m., New York time, on a NYSE Business Day will be deemed to be provided on that NYSE Business Day, and Proposed Synthetic Allocations received at or after 2 p.m. on a NYSE Business Day will be deemed to be received on the next following NYSE Business Day. The day that Proposed Synthetic Allocations are deemed received by the Index Sponsor and Index Calculation Agent is referred to as the “**Rebalancing Notification Date**”.

If the Index Sponsor determines that the Proposed Synthetic Allocations satisfy the Allocation Restrictions, then the synthetic portfolio will be rebalanced as on the associated Rebalancing Date. If the Rebalancing Notification Date is a Rebalance Eligible Day, the Rebalancing Notification Date will be the “Rebalancing Date”. If the Rebalancing Notification Date is not a Rebalance Eligible Day, the Rebalance Eligible Day immediately following such Rebalancing Notification Date will be the “Rebalancing Date”.

The term “**Rebalance Eligible Day**” means a day that is both (x) an Index Calculation Day and (y) a Component Valuation Day (as defined in the Index Rules) for each Component Underlying with a non-zero weight in the Proposed Synthetic Allocations. In other words, a Rebalance Eligible Day must be a “Component Valuation Day” (i.e., a non-disrupted, or “good” trading day) for any Component Underlying having a non-zero weight in the then-current synthetic portfolio or in the synthetic portfolio as proposed per the rebalancing request. A Component Valuation Day generally means a day on which it is possible to trade a given Component Underlying at the closing price of the primary market for such Component Underlying.

So long as the Proposed Synthetic Allocations adhere to the Allocation Restrictions (described below), as confirmed by the Index Sponsor, the Index shall be rebalanced in a process that could take one or multiple days, commencing on the relevant Rebalancing Date, with each Component Underlying being

deemed purchased or sold, as applicable, in accordance with the rebalancing request, as of the next good closing price for that Component Underlying in its relevant primary market after the time at which valid Proposed Synthetic Allocations are received.

The Allocation Restrictions

The following restrictions (the "**Allocation Restrictions**") will apply to the Weight that the Index Allocation Agent may allocate to each Component Underlying on a Rebalancing Date:

- a Component Underlying that is an Exchange-Traded Component may only have (x) a Same Way Directional Linkage and (y) a Specified Weight that does not exceed the lesser of
 - the Positive Weight Cap for such Component Underlying identified in the Index Rules (from 25% to 100%); and
 - the ADTV Weight Limit applicable to such Component Underlying described in the ADTV Weight Limit Table below;
- a Component Underlying that is not an Exchange-Traded Component may either have:
 - a Same Way Directional Linkage and a Specified Weight equal to or greater than zero percent (that is, 0%) and less than or equal to the Positive Weight Cap identified for such Component Underlying in the Index Rules (from 25% to 100%); or
 - an Opposite Way Directional Linkage and a Specified Weight equal to or greater than the Negative Weight Floor identified for such Component Underlying in the Index Rules (from 0% to -50%) and less than or equal to zero percent (that is, 0%);
- the sum of the Specified Weights of all Component Underlyings in a single Weight Category shall be no greater than the Maximum Weight indicated for such Weight Category in the Weight Category Restrictions Table below;
- the sum of the absolute values of the Specified Weights of all Component Underlyings in a single Weight Category shall be no greater than the Maximum Weight indicated for such Weight Category in the Weight Category Restrictions Table below; and
- in respect of all the Component Underlyings, the sum of the absolute values of the Specified Weights of all Component Underlyings shall be equal to one hundred percent (that is, +100%).

Where:

- (1) A "**Same Way Directional Linkage**" denotes an economic 'long' position in the applicable Component Underlying (*i.e.*, a position that will benefit from appreciation in the price or level of that Component Underlying); and
- (2) An "**Opposite Way Directional Linkage**" denotes an economic 'short' position in the applicable Component Underlying (*i.e.*, a position designed to benefit from depreciation in the price or level of that Component Underlying).

ADTV Weight Limits

The Allocation Restrictions limit exposure upon a rebalancing to the Component Underlyings that are

ETFs based on observed Average Daily Trading Value (ADTV). Average Daily Trading Value for an ETF will be determined as of the most recent Index Calculation Day, by taking the product of (a) the average volume of trading in the shares of such Exchange-Traded Component on all U.S. exchanges over the preceding three-month period prior to that on that Index Calculation Day and (b) the closing share price of the ETF on that Index Calculation Day.

The relevant ADTV-based weight limits applicable to Component Underlyings that are ETFs are set forth in the ADTV Weight Limit Table below.

Average Daily Trading Value (ADTV)	Weight Limit
Less than USD 5 million	0%
Greater than or equal to USD 5 million and less than USD 15 million	25%
Greater than or equal to USD 15 million and less than USD 50 million	50%
Greater than or equal to USD 50 million and less than USD 100 million	75%
Greater than or equal to USD 100 million	100%

Weight Category Restrictions Table

The Allocation Restrictions limit concentration exposure upon a rebalancing to Component Underlyings included in the same Weight Category. The Weight Category concentration limits are set forth in the table below.

Weight Category	Maximum Weight*
DM Equity	+100%
EM Equity	+100%
DM Bond	+100%
Commodity	+50%
FX G10 Tracker	+50%
Government Bond Tracker	+100%
Cash	+100%

* *i.e.*, the sum of the absolute value of the weight of each Component Underlying within the specified Weight Category.

The number and timing of rebalancings will be driven by the discretionary decisions of the Index Allocation Agent, subject to the restrictions on the number and timing of rebalancings set forth in the Index Rules.

Note that the Index's exposure to the synthetic portfolio will be potentially reduced or increased, relative to 100%, by the Exposure mechanisms described above as such mechanism is applied on a day-to-day basis, even though a selected portfolio complies with the Allocation Restrictions.

Component Underlyings Other than Government Bond Trackers: Economically "Long" Positions

The Allocation Restrictions effectively limit Proposed Synthetic Allocations to economically "long" positions in Component Underlyings that are Exchange-Traded Components. The Proposed Synthetic Allocations for Component Underlyings that are not Exchange-Traded Components may contain (i) a positive weight of (x) up to +75% with respect to a Component Underlying in the Component Type "FX G10 Tracker" or (y) up to +100% with respect to a Component Underlying in the Component Type "Government Bond Tracker" or (z) up to +100% for a Component Underlying in the Component Type "Cash", (ii) a zero weight (that is, 0%), or (iii) a negative weight of (x) down to -75% with respect to a Component Underlying in the Component Type "FX G10 Tracker", or (y) down to -100% with respect to a Component Underlying in the Component Type "Government Bond Tracker".

A negative weight with respect to a Government Bond Tracker Index is a traditional economically "short" position against that Government Bond Tracker Index. Each FX G10 Tracker Index can be viewed as a position in the value of the specified non-USD currency against the U.S. dollar. Therefore, a "negative" weight accorded to an FX Tracker Index can be viewed as a position that will increase in value if the specified currency depreciates against the USD.

Index Rules Allow for Short Positions against Government Bond Trackers

The Allocations Restrictions permit the Index Allocation Agent to allocate negative (*i.e.*, "short") weights to each Component Underlying that is in the Weight Category "Government Bond Tracker." Short allocations to a single Government Bond Tracker may be equal up to -75% and short allocations to Government Bond Trackers, collectively, can be up to -100%. Short positions are intended to perform inversely to asset values, meaning that an increase in the value of a reference asset will lead to a loss in a short position, and vice versa. Because there is no theoretical limit to the value of a given asset, potential losses on a short position are theoretically infinite.

Limitations on Number and Timing of Rebalancings

The Index Allocation Agent will be able to trigger synthetic portfolio rebalancings a maximum of 35 times during each annual period (as measured from the Index Base Date of 19 November 2018 to the anniversary thereof, and each subsequent annual period). In addition the Index Allocation Agent may not trigger a synthetic portfolio rebalancing prior to the second Index Calculation Day immediately following the most recent Rebalancing Date.

The Component Underlyings of the Index

The initial Component Underlyings of the Index are set out in the Table below. The Table also contains the Bloomberg ticker for each Component Underlying for ease of identification, and identifies the Component Sponsor and Weight Category of each initial Component Underlying. The initial Component Underlyings Table, attached as Annex 1 to the Index Rules has further details with respect to each Component Underlying.

As described below, the Index Allocation Agent will have the right to add and to substitute Component Underlyings, subject to the restrictions set forth in the Index Rules. The composition of the universe of

Component Underlyings will also be subject to the occurrence of certain extraordinary events the occurrence of which permit the Index Sponsor to remove and replace Component Underlyings.

Initial Component Underlyings

	Component Underlying	Component Sponsor	Bloomberg Code	Weight Category
1	SPDR S&P 500 ETF Trust	State Street Global Advisors Trust Company	SPY	DM Equity
2	iShares Russell 2000 ETF	BlackRock Fund Advisors	IWM	DM Equity
3	Invesco QQQ Trust Series 1	Invesco Capital Management	QQQ	DM Equity
4	SPDR EURO STOXX 50 ETF	SSGA Funds Management, Inc.	FEZ	DM Equity
5	iShares MSCI Japan ETF	BlackRock Fund Advisors	EWJ	DM Equity
6	iShares MSCI United Kingdom ETF	BlackRock Fund Advisors	EWU	DM Equity
7	iShares MSCI Germany ETF	BlackRock Fund Advisors	EWG	DM Equity
8	iShares MSCI France ETF	BlackRock Fund Advisors	EWQ	DM Equity
9	iShares MSCI Switzerland ETF	BlackRock Fund Advisors	EWL	DM Equity
10	iShares MSCI Spain ETF	BlackRock Fund Advisors	EWP	DM Equity
11	iShares MSCI Italy ETF	BlackRock Fund Advisors	EWI	DM Equity
12	iShares MSCI Sweden ETF	BlackRock Fund Advisors	EWD	DM Equity
13	iShares MSCI Turkey ETF	BlackRock Fund Advisors	TUR	EM Equity
14	iShares MSCI Canada ETF	BlackRock Fund Advisors	EWC	DM Equity
15	iShares MSCI Australia ETF	BlackRock Fund Advisors	EWA	DM Equity
16	iShares MSCI India ETF	BlackRock Fund Advisors	INDA	EM Equity
17	VanEck Vectors Russia ETF	Van Eck Associates Corporation	RSX	EM Equity
18	iShares China Large-Cap ETF	BlackRock Fund Advisors	FXI	EM Equity
19	iShares MSCI South Africa ETF	BlackRock Fund Advisors	EZA	EM Equity
20	iShares MSCI South Korea ETF	BlackRock Fund Advisors	EWY	EM Equity
21	iShares MSCI Malaysia ETF	BlackRock Fund Advisors	EWM	EM Equity
22	iShares MSCI Thailand ETF	BlackRock Fund Advisors	THD	EM Equity

23	iShares MSCI Singapore ETF	BlackRock Fund Advisors	EWS	EM Equity
24	iShares MSCI Taiwan ETF	BlackRock Fund Advisors	EWT	EM Equity
25	iShares MSCI Mexico ETF	BlackRock Fund Advisors	EWX	EM Equity
26	iShares MSCI Brazil ETF	BlackRock Fund Advisors	EWZ	EM Equity
27	iShares MSCI Chile ETF	BlackRock Fund Advisors	ECH	EM Equity
28	iShares MSCI Peru ETF	BlackRock Fund Advisors	EPU	EM Equity
29	WisdomTree Europe Hedged Equity Fund	WisdomTree Asset Management, Inc.	HEDJ	DM Equity
30	WisdomTree Japan Hedged Equity Fund	WisdomTree Asset Management, Inc.	DXJ	DM Equity
31	iShares Currency Hedged MSCI Eurozone ETF	BlackRock Fund Advisors	HEZU	DM Equity
32	iShares Currency Hedged MSCI Germany ETF	BlackRock Fund Advisors	HEWG	DM Equity
33	iShares 1-3 Year Treasury Bond ETF	BlackRock Fund Advisors	SHY	DM Bond
34	iShares 7-10 Year Treasury Bond ETF	BlackRock Fund Advisors	IEF	DM Bond
35	iShares 20+ Year Treasury Bond ETF	BlackRock Fund Advisors	TLT	DM Bond
36	iShares TIPS Bond ETF	BlackRock Fund Advisors	TIP	DM Bond
37	iShares iBoxx \$ Investment Grade Corporate Bond ETF	BlackRock Fund Advisors	LQD	DM Bond
38	iShares iBoxx High Yield Corporate Bond ETF	BlackRock Fund Advisors	HYG	DM Bond
39	SPDR Bloomberg Barclays International Treasury Bond ETF	SSGA Funds Management, Inc.	BWX	DM Bond
40	SPDR Bloomberg Barclays Short Term International Treasury Bond ETF	SSGA Funds Management, Inc.	BWZ	DM Bond
41	J.P. Morgan German Long Bond Futures Tracker Index (USD)	J.P. Morgan	JFBERXUS	Government Bond Tracker

42	J.P. Morgan German Short Bond Futures Tracker Index (USD)	J.P. Morgan	JFBEDUUS	Government Bond Tracker
43	J.P. Morgan Japanese Long Bond Futures Tracker Index (USD)	J.P. Morgan	J10EUSJP	Government Bond Tracker
44	J.P. Morgan U.K. Long Bond Futures Tracker Index (USD)	J.P. Morgan	JFBG10US	Government Bond Tracker
45	The J.P. Morgan US Treasury Note Futures Tracker	J.P. Morgan	RFJPUSBE	Government Bond Tracker
46	The J.P. Morgan 2-Year US Treasury Note Futures Tracker	J.P. Morgan	FTJPUS2E	Government Bond Tracker
47	J.P. Morgan 30-Year US Treasury bond Futures Tracker (net)	J.P. Morgan	FTJTMUTBE	Government Bond Tracker
48	iShares Gold Trust	BlackRock Fund Advisors	IAU	Commodity
49	iShares Silver Trust	BlackRock Fund Advisors	SLV	Commodity
50	J.P. Morgan AUD FX Tracker Index	J.P. Morgan	JPFCTAUD	FX G10 Tracker
51	J.P. Morgan NZD FX Tracker Index	J.P. Morgan	JPFCTNZD	FX G10 Tracker
52	J.P. Morgan EUR FX Tracker Index	J.P. Morgan	JPFCTEUR	FX G10 Tracker
53	J.P. Morgan GBP FX Tracker Index	J.P. Morgan	JPFCTGBP	FX G10 Tracker
54	J.P. Morgan JPY FX Tracker Index	J.P. Morgan	JPFCTJPY	FX G10 Tracker
55	J.P. Morgan CAD FX Tracker Index	J.P. Morgan	JPFCTCAD	FX G10 Tracker
56	J.P. Morgan CHF FX Tracker Index	J.P. Morgan	JPFCTCHF	FX G10 Tracker
57	J.P. Morgan NOK FX Tracker Index	J.P. Morgan	JPFCTNOK	FX G10 Tracker
58	J.P. Morgan SEK FX Tracker Index	J.P. Morgan	JPFCTSEK	FX G10 Tracker

60	Materials Select Sector SPDR Fund	State Street Bank & Trust Company	XLB	ETF
61	Energy Select Sector SPDR Fund	State Street Bank & Trust Company	XLE	ETF
62	Financial Select Sector SPDR Fund	State Street Bank & Trust Company	XLF	ETF
63	Industrial Select Sector SPDR Fund	State Street Bank & Trust Company	XLI	ETF
64	Technology Select Sector SPDR Fund	State Street Bank & Trust Company	XLK	ETF
65	Consumer Staples Select Sector SPDR Fund	State Street Bank & Trust Company	XLP	ETF
66	Real Estate Select Sector SPDR Fund	State Street Bank & Trust Company	XLRE	ETF
67	Utilities Select Sector SPDR Fund	State Street Bank & Trust Company	XLU	ETF
68	Health Care Select Sector SPDR Fund	State Street Bank & Trust Company	XLV	ETF
69	Consumer Discretionary Select Sector SPDR Fund	State Street Bank & Trust Company	XLY	ETF
70	iShares MSCI ACWI ETF	BlackRock Fund Advisors	ACWI	ETF
71	iShares MSCI EAFE ETF	BlackRock Fund Advisors	EFA	ETF
72	iShares MSCI ACWI ex U.S. ETF	BlackRock Fund Advisors	ACWX	ETF
73	iShares MSCI Eurozone ETF	BlackRock Fund Advisors	EZU	ETF
74	iShares MSCI All Country Asia ex Japan ETF	BlackRock Fund Advisors	AAXJ	ETF
75	iShares MSCI Emerging Markets ETF	BlackRock Fund Advisors	EEM	ETF
76	Vanguard FTSE Emerging Markets ETF	The Vanguard Group	VWO	ETF
77	SPDR S&P Emerging Asia Pacific ETF	State Street Bank & Trust Company	GMF	ETF
78	iShares Latin America 40 ETF	BlackRock Fund Advisors	ILF	ETF

79	J.P. MORGAN CASH INDEX USD 3 MONTH	J.P. Morgan	JPCAUS3M	Cash
----	---------------------------------------	-------------	----------	------

Additions and Substitutions to the Universe of Component Underlyings

Under the circumstances and subject to the restrictions described below, the Index Allocation Agent may make additions and substitutions with respect to the universe of Component Underlyings that may be included in the basket tracked by the Index. The Index Sponsor will maintain and revise the official list of Component Underlyings and distribute the same to the Index Allocation Agent and Index Calculation Agent.

Index Allocation Agent May Add Additional ETFs as Component Underlyings

The Index Allocation Agent may add exchange traded funds to the list of Component Underlyings. Added exchange traded funds must be index tracker funds that track a single country's stock market. The Index Allocation Agent may, on any NYSE Business Day (as defined in the Index Rules) following the Index Base Date, trigger the addition process by delivering an Addition Request to the Index Sponsor and the Index Calculation Agent to propose the addition (a “**Proposed Component Underlying**”). An Addition Request received by the Index Allocation Agent prior to 2:00 p.m., New York time, on a NYSE Business Day, shall be deemed received on such NYSE Business Day. An Addition Request received by the Index Allocation Agent at or after 2:00 p.m., New York time, on a NYSE Business Day (or at any time on any date that is not a NYSE Business Day), shall be deemed received by the Index Allocation Agent on the next NYSE Business Day. The NYSE Business Day on which the Addition Request is deemed to be received is referred to as the “**Addition Request Date**”.

The Index Sponsor shall review each Addition Request to determine whether the Proposed Component Underlying is a Qualified Additional ETF. On or before the fifth NYSE Business Day following the Addition Request Date (the “**Proposed Addition Determination Date**”), the Index Sponsor shall notify the Index Allocation Agent and the Index Calculation Agent of its determination regarding whether the Proposed Component Underlying is a Qualified Additional ETF. If the Index Sponsor determines that the Proposed Component Underlying is a Qualified Additional ETF, then the Proposed Component Underlying shall be a Component Underlying with effect as of the Index Calculation Day that is ten (10) NYSE Business Days after the Addition Request Date.

An ETF will be a Qualified Additional ETF if the ETF:

- (i) is an Eligible ETF (as defined in the Index Rules)
- (ii) is an Index Tracker ETF;
- (iii) the Reference Index with respect to such Exchange-Traded Component is a Single Country Market Cap Index;
- (iv) the investment adviser of such Exchange-Traded Component is a Designated ETF Sponsor;

- (v) has an ETF Initial Listing Date (as defined in the Index Rules) that falls at least two calendar years prior to such Proposed Addition Determination Date;
- (vi) meets all of the Qualified Additional ETF Trading Criteria; and
- (vii) no Extraordinary Event has occurred or is continuing in respect of such Exchange Traded Fund in the 24-month period ending on the Addition Request Date or Substitution Request Date, as applicable.

Where:

"Designated ETF Sponsor" means each of the following (including their respective successors in interest and affiliates under common control): SSGA Fundas Management, Inc.; State Street Global Advisors Trust Company; BlackRock Fund Advisors; WisdomTree Asset Management, Inc.; Invesco Capital Management LLC; and The Vanguard Group, Inc.

"Index Tracker ETF" means an Exchange Traded Fund, the publicly announced investment strategy of which is to generally track the performance of an unleveraged long investment in the Reference Index with respect to such Exchange Traded Fund by means of a passive sampling or passive replication investment strategy.

"Reference Index" means with respect to an Exchange Traded Fund, the index tracked by such Exchange Traded Fund, as announced by such Exchange Traded Fund.

"Single Country Market Cap Index" means an index (i) that is intended to track the performance of common equities focused in a single country (the **"Reference Country"**) other than the United States, (ii) the name of which includes the name of the Reference Country; (iii) the Reference Country of which is not named in the Component Underlyings Table, as amended from time to time, under the column titled "Country Focus"; (iv) is calculated on a market capitalization basis (i.e., not on a price-weighted or equal-weighted basis, but which may employ generally accepted variations on market capitalization measures, including, without limitation, limiting recognized market capitalization by free float or concentration caps); (v) contains not less than 20 issuers. For the avoidance of doubt, the term "performance of common equities" in clause of (i) of the preceding sentence means the performance of an unleveraged "long" investment in such equities.

And where:

"Qualified Additional ETF Trading Criteria" means, with respect to any Exchange Traded Fund:

- (i) an Average Daily Trading Value (as defined in the Index Rules) of not less than USD 10,000,000;
- (ii) a Market Capitalization (as defined in the Index Rules) of not less than USD250,000,000; and
- (iii) an Observed Volatility (as defined in the Index Rules) equal to or less than 40%.

Index Allocation Agent May Substitute ETF Component Underlyings

The Index Allocation Agent may substitute Component Underlyings that are exchange traded funds that track the performance of developed market bonds with substitute exchange traded funds that track similar underlying instruments. The Index Allocation Agent may trigger the substitution process on

any NYSE Business Day by delivering a Substitution Request to the Index Sponsor and Index Calculation Agent to request the substitution (the "**Proposed Substitution**").

A Substitution Request received by the Index Allocation Agent prior to 2:00 p.m., New York time, on a NYSE Business Day, shall be deemed received on such NYSE Business Day. A Substitution Request received by the Index Allocation Agent at or after 2:00 p.m., New York time, on a NYSE Business Day (or at any time on any date that is not a NYSE Business Day), shall be deemed received by the Index Allocation Agent on the next NYSE Business Day. The NYSE Business Day on which the Substitution Request is deemed to be received in accordance with this paragraph is referred to as the "**Substitution Request Date**".

The Index Sponsor shall review each Substitution Request to determine whether the Proposed Substitution is a Qualifying Substitution, as of the Substitution Request Date. On or before the fifth NYSE Business Day following the Substitution Request Date (the "**Proposed Substitution Determination Date**"), the Index Sponsor shall notify in writing (by electronic mail or such other method as selected by the Index Sponsor) the Index Allocation Agent and the Index Calculation Agent of its determination regarding whether the Proposed Substitution is a Qualifying Substitution.

If the Index Sponsor determines that the Proposed Substitution is a Qualifying Substitution, then the Proposed Removed Component Underlying shall immediately be removed from the Component Underlyings Table and may not be selected as a Component Underlying in any Rebalancing Notice, and the Proposed Substitute shall be a Component Underlying with effect as of the Index Calculation Day that is ten (10) NYSE Business Days after the Substitution Request Date.

A Proposed Substitution will be a "**Qualifying Substitution**" if (i) the Proposed Substitute is a Qualified Substitute ETF; (ii) the Proposed Removed Component is an ETF that tracks a developed market bond index; and (iii) the Proposed Removed Component is not be then included in the synthetic portfolio tracked by the Index.

Where:

"**Qualified Substitute ETF**" means an investment fund meeting all of the following criteria as of the date of the Proposed Substitution Determination Date:

- (i) must be an Eligible ETF (as defined in the Index Rules);
- (ii) the investment adviser of such Exchange-Traded Component must be a Designated ETF Sponsor;
- (iii) the Reference Index (as defined above) with respect to such Proposed Substitute must be the same Reference Index as the Reference Index for the Proposed Removed Component;
- (iv) must have an ETF Initial Listing Date (as defined in the Index Rules) that falls at least two calendar years prior to such Proposed Substitution Determination Date;
- (v) must meet all of the Qualified Additional ETF Trading Criteria (as described above); and

- (vi) no Extraordinary Event shall have occurred or be continuing in respect of such Exchange Traded Fund.

Publication of Index Levels

Subject to the occurrence of a Market Disruption Event, the Index Calculation Agent will calculate and publish the Index Level in respect of each Index Calculation Day at or before approximately 8:00 a.m., New York time, on the NYSE Business Day following such Index Calculation Day on Bloomberg page JPZMUYU7<Index>, or any successor page or another recognized financial information provider should the need arise. All Index Levels that are published shall be rounded to two decimal places, although the Index Calculation Agent shall retain a higher precision for the purposes of ongoing calculation. The Index Calculation Agent may publish the Index Level on any alternative or successor publication source if the Bloomberg page becomes unavailable from time to time for any reason.

The term "Index Calculation Day" means each calendar day:

- (i) on which each of the following exchanges is scheduled to be open for trading and does in fact open for its regular trading session for such calendar day: (i) the New York Stock Exchange and (ii) Nasdaq;
- (ii) that is a Component Valuation Day (as defined in the Index Rules) for each Component Underlying then contained in the synthetic portfolio tracked by the Index; and
- (iii) that is not a Component Disrupted Day (as defined in the Index Rules) for the Cash Component.

Provisions Relating to Market Disruptions and Corrections

Calculation of the level of the Index and implementation of synthetic portfolio rebalancings will be suspended in the event of the occurrence of a Market Disruption Event. However, if a Component Continuing Disruption Event occurs for any Component Underlying, then the next Component Dealing Day, notwithstanding the existence of any Market Disruption in respect of such Component Underlying on such Component Dealing Day, will be a Component Valuation Day for such Component Underlying (the "**Final Disruption Determination Date**").

A "**Component Dealing Day**" is defined as (a) in respect of a Component Underlying that is an index, including the Cash Component, a day on which the Closing Level for that Component Underlying is (or, but for the occurrence of a Market Disruption Event, would have been) scheduled to be calculated and published by the relevant sponsor of such Component Underlying; and (b) in respect of a Component Underlying that is an Exchange-Traded Component, a day on which the primary exchange in the United States on which such Exchange-Traded Component is listed is scheduled to be open for trading for its regular trading session.

On a Final Disruption Determination Date in respect of a Component Underlying, the Index Sponsor or the Index Calculation Agent with the approval of the Index Sponsor (the "**Determining Person**") will calculate its good faith estimate of the Closing Level of such Component Underlying for that Component Dealing Day and thereafter calculate its good faith estimate of the Index Level of the Index as of such Final Disruption Determination Date (notwithstanding the fact that such Final Disruption Determination Date is a Component Disrupted Day for at least one Component Underlying) using a good faith estimate. Any such estimate of the Index Level of the Index or any precursor calculation may be subject to

correction on the first day on which the market disruption ceases. The Final Disruption Determination Date will be an Index Calculation Day for the purposes of the Index Rules.

The following terms used in this section have the following meanings:

- **“Component Disrupted Day”** means, in respect of a Component Underlying, a Component Dealing Day on which a Market Disruption Event occurs or is continuing in respect of such Component Underlying or the Relevant Index in respect thereof.
- **“Component Continuing Disruption Event”** means, in respect of a Component Underlying or the Relevant Index in respect thereof, the occurrence of the fifth consecutive Component Dealing Day that is Component Disrupted Day.
- A **“Market Disruption Event”** occurs, in respect of a Component Underlying, if the Determining Person determines in its sole discretion that on a Component Dealing Day there has been:
 - (i) in respect of the Relevant Index for such Component Underlying (if any), (a) a failure by the index sponsor of such Relevant Index or its agent to calculate and publish the Closing Level for such Relevant Index on such Component Dealing Day, (b) if such Relevant Index is an Equity Index, the occurrence of Equity Index Disruption Event with respect to such Relevant Index, (c) if such Relevant Index is a Commodity Index, the occurrence of a Commodity Disruption Event with respect to such Relevant Index, or (d) any event that, in the determination of the Determining Person, disrupts or impairs the ability of market participants to effect transactions in or obtain levels or market values for the Relevant Index; or
 - (ii) in respect of an Exchange-Traded Component, an Exchange-Traded Product Disruption Event.
- **“Relevant Index”** means (i) in respect of a Component Underlying that is an index (including any Component Underlying in the Component Type "FX G10 Tracker", "Government Bond Tracker", "Equity Index" or "Commodity Index"), such Component Underlying, and (ii) in respect of an Exchange Traded Component, the Reference Index with respect to such Exchange Traded Component.

An **“Equity Index Disruption Event”** means, in each case as determined by the Determining Person in its sole discretion, subject to the Determination Guidelines described below:

- (i) the occurrence or existence of a suspension, absence or material limitation of trading of securities then constituting 20% or more of the level of the Equity Index on the relevant primary exchanges for such securities for more than two hours of trading during, or during the last one-half hour period preceding the close of, the principal trading session on such relevant primary exchanges; or
- (ii) if applicable, the occurrence or existence of a suspension, absence or material limitation of trading on the primary exchange or market for trading in futures or options contracts related to the Equity Index for more than two hours of trading during, or during the last one-half hour period preceding the close of, the principal trading session on such applicable exchange or market.

A **“Commodity Disruption Event”** means, in each case as determined by the Determining Person in its sole discretion:

- (i) A material limitation, suspension, discontinuation or disruption of trading in one or more of the relevant Commodities or Reference Commodities;

- (ii) A material limitation, suspension, discontinuation or disruption of trading in one or more options or futures contracts on (x) a relevant commodity or commodities related to the relevant Commodity or Commodity Index or (y) any of the relevant Commodities or Reference Commodities, which results in failure by the relevant exchange on which any such option(s) and/or futures contract(s) is/are traded to report an official settlement price for such option(s) and/or futures contract(s) on the day on which such event occurs or any succeeding day on which it continues;
- (iii) a limitation, suspension or disruption of trading in one or more options or futures contracts on (x) a relevant commodity or commodities related to the relevant Commodity or Commodity Index or (y) any of the relevant Reference Commodities, by reason of movements exceeding “limit up” or “limit down” levels permitted by the relevant exchange and which the Determining Person determines is material to trading volume or market conditions in such option(s) and/or futures contract(s) for the relevant day;
- (iv) publication by the relevant exchange of a “limit price” as the official settlement price for one or more futures contracts on (x) a relevant commodity or commodities related to the relevant Commodity or Commodity Index or (y) any of the relevant Commodities or Reference Commodities, by reason of movements exceeding “limit up” or “limit down” levels permitted by the relevant exchange;
- (v) the occurrence of a Commodity Index Non-Publication Event (as defined in the Index Rules);
- (vi) the relevant exchange for any options or futures contracts on (x) the relevant commodity or commodities related to the relevant Commodity or Commodity Index or (y) any of the relevant Commodities or Reference Commodities, is not open for trading during its regular trading session as scheduled for the relevant day; or
- (vii) the relevant market for any of the relevant Commodities or Reference Commodities is not open for trading during its regular trading session as scheduled for the relevant day.

Corrections

If (i) the Closing Level of any Component Underlying as of any date which is published or otherwise made available in respect of the relevant Component Underlying is subsequently corrected and such correction is published or otherwise made available in respect of such Component Underlying; or (ii) the Index Calculation Agent identifies an error or omission in any of its calculations, determinations or interpretations in respect of the Index, then the Index Calculation Agent may, if practicable and if the Index Calculation Agent determines in good faith that such correction, error or omission (as the case may be) is material, adjust or correct the relevant calculation, determination or interpretation and/or the Index Level as of any Index Calculation Day to take into account any such correction, subject to the prior agreement of the Index Sponsor. If the Index Sponsor identifies an error or omission in any calculations, determinations or interpretations in respect of the Index, then the Index Sponsor may, if practicable and if the Index Sponsor determines in good faith that such correction, error or omission (as the case may be) is material, adjust or correct the relevant calculation, determination or interpretation and inform the Index Calculation Agent of such correction so that the Index Calculation may correct the Index Level as of any Index Calculation Day to take into account any such correction.

Events Relating to Component Underlyings Removals, Replacements and Modifications

The occurrence of certain extraordinary events may cause the removal of Component Underlyings from the Index, either with or without substitution or may cause modifications to the valuation or other determinations with respect to the Component Underlyings.

Successor Component Underlyings

- (a) For an Exchange-Traded Component, (x) if any of the following is calculated or announced in the ordinary course, but is not calculated or is not announced by or on behalf of the relevant sponsor or issuer for the Exchange-Traded Component or the relevant calculation agent or information provider that such sponsor or issuer designates: its intraday or closing net asset value or another value or level that indicates or affects the approximate intrinsic economic value of the Exchange-Traded Component or the amount of any payment in respect of the Exchange-Traded Component, (y) yet such value or level is calculated and announced by or on behalf of a successor sponsor or issuer acceptable to the Index Sponsor or a calculation agent or information agent (in either case, that such successor sponsor or issuer designates) acceptable to the Index Sponsor;
- (b) for a Component Underlying that is an index (including the Cash Component) or for the Reference Index of an Exchange-Traded Component, (x) if the relevant index is replaced by a successor index, (y) yet such successor index uses, in the determination of the Index Sponsor, the same or a substantially similar formula for and method of calculation as used in the calculation of the relevant index or such successor index is otherwise acceptable to the Index Sponsor;
- (c) for a Component Underlying that is an index (including, for the avoidance of doubt, the Cash Component) or for the Reference Index of an Exchange-Traded Component, (x) if the relevant index sponsor makes a material change in the formula for or the method of calculating that index or in any other way materially modifies that index (other than a modification prescribed in that formula or method to maintain that index in routine circumstances), (y) yet such change or modification is acceptable to the Index Sponsor;
- (d) for an Exchange-Traded Component that has one or more Reference Commodities, (x) if it is replaced by a successor ETF, (y) yet any Reference Commodities of such successor ETF are the same as that of the replaced Exchange-Traded Component or such successor ETF is otherwise acceptable to the Index Sponsor; or
- (e) for an Exchange-Traded Component, (x) if it is replaced by a successor Exchange-Traded Component, (y) yet (1) the Reference Index of such successor Exchange-Traded Component is either the same as that of the replaced Exchange-Traded Component or is an index using, in the determination of the Index Sponsor, the same or a substantially similar formula for and method of calculation as used in the calculation of the replaced Exchange-Traded Component's Reference Index or (2) such successor Exchange-Traded Component is otherwise acceptable to the Index Sponsor,

then, in each case, that Component Underlying, that Reference Index or the relevant sponsor, issuer, calculation agent or information provider will thereafter be deemed to be the successor Component Underlying, successor Reference Index or the successor sponsor, issuer, calculation agent or information provider described in the relevant clause above, with effect from a date determined by the Index Sponsor, which may make such adjustments to the Index Rules as it determines in good faith are appropriate to account for such change (including, without limitation, adjustments to market disruption provisions in respect of an index that includes securities or components that are bonds or loans).

For the avoidance of doubt, the Index Sponsor shall not accept a particular successor ETF or successor index if the Index Sponsor determines, in its sole discretion, that doing so would immediately result in the occurrence of an Extraordinary Event.

Extraordinary Events; Removal and Potential Substitution of Component Underlyings

If an Extraordinary Event occurs in respect of a Component Underlying, the Index Sponsor, acting in good faith and a commercially reasonable manner, shall select as a substitute for such Component Underlying:

- an ETF that has a Reference Index;
- an ETF that has one or more Reference Commodities; or
- an index,

(such substitute ETF or index being referred to herein as a “substitute ETF” or “substitute index,” respectively) that, in any case, the Index Sponsor determines, in its sole discretion, possesses substantially similar characteristics or provides a substantially similar exposure (as considered prior to the occurrence of such Extraordinary Event, with the understanding that (1) a substitute ETF or a substitute index can be substantially similar to an Exchange-Traded Component and (2) a substitute ETF or a substitute index can be substantially similar to an index that is a Component Underlying) as compared to the Component Underlying that is being replaced, *provided that*, if the Index Sponsor determines that no such substitute is available, the Index Sponsor shall instead select an appropriate substitute by considering the context of the Index.

In such a case, the Index Sponsor shall, in good faith, make such adjustments that it determines to be appropriate to any variable, calculation methodology, valuation terms or any other rule in relation to the Index to account for such substitution (including, without limitation, adjustments to market disruption provisions in respect of an index that includes securities or components that are bonds or loans); *provided that*:

- (i) the Index Sponsor shall not select a substitute ETF for the Cash Component, but may select a substitute index for the Cash Component;
- (ii) for any Component Underlying other than the Cash Component, if the Index Sponsor determines, in its sole discretion, that no such substitute ETF or substitute index is available, then the Index Sponsor will, in its sole discretion, (x) determine its good faith estimate of the closing price of such Component Underlying as of a date on or prior to the occurrence of such Extraordinary Event and use such estimate of the closing price (without modification over time) in respect of such Component Underlying in subsequent calculations of the Index Level of the Index, (y) replace such Component Underlying with the Cash Component as of the next Index Calculation Day following the date of the occurrence of such Extraordinary Event and (z) in good faith, make such adjustments that it determines to be appropriate to any variable, calculation methodology, valuation terms or any other rule in relation to the Index to account for such substitution. *provided further that*, for the Cash Component, if the Index Sponsor

determines, in its sole discretion, that no such substitute index is available, then the Index Sponsor will, in its sole discretion, calculate the level of the Cash Component using, in lieu of a published level for the Cash Component, the level for the Cash Component as of any future Component Dealing Day as determined by the Index Sponsor in accordance with the formula for and method of calculating the Cash Component last in effect prior to the occurrence of such Extraordinary Event, but using only the types of components that composed the Cash Component immediately prior to such Extraordinary Event (and in the case of components with an expiration or maturity, any components required to roll any expiring positions in accordance with the formula for and method of calculating the Cash Component shall be permitted).

(iii) in the event of an Index Disqualification Event in respect of any Exchange-Traded Component that is a Qualified Index Linked ETF, any substitute ETF must reference a Qualified Index (as defined in the Index Rules and generally meaning an index the exchange traded funds linked to which are exempt from certain U.S. tax withholding on dividend equivalent payments);

(iv) the Index Sponsor shall not select a particular substitute ETF or index if the Index Sponsor determines, in its sole discretion, that doing so would immediately result in the occurrence of an Extraordinary Event.

An “**Extraordinary Event**” occurs if the Index Sponsor determines in its sole discretion that one or more of the following events has occurred in respect of a Component Underlying and the event materially interferes with the ability of market participants to transact in positions with respect to the Index (including, positions in a Component Underlying or the index or commodity referenced by the Component Underlying):

- (1) if, for any Component Underlying that is an ETF, the issuer of the ETF becomes, for any reason, subject to a bankruptcy or analogous proceeding;
- (2) for any Exchange-Traded Component or its issuer, all the securities of the Exchange-Traded Component or its issuer or all or substantially all of the assets of the Exchange-Traded Component or its issuer are nationalized, expropriated or otherwise required to be transferred to any governmental agency, authority, entity or instrumentality thereof;
- (3) the Component Underlying is canceled and no successor exists, or the Component Underlying’s level, net asset value or indicative value is not calculated or announced by its sponsor or issuer or by a successor;
- (4) for any Component Underlying, if an event specified in clause (x) of paragraphs (a) - (e) under *Successor Component Underlyings* above occurs, but the relevant event specified in clause (y) of such triggered paragraph does not occur;
- (5) for a Component Underlying that is an index, a failure by the relevant sponsor to calculate and publish its closing level for five (5) consecutive Component Dealing Days;
- (6) for a Component Underlying that is an ETF, the ETF is de-listed from its primary stock exchange and is not concurrently listed on a U.S. securities exchange acceptable to the Index Sponsor;
- (7) for a Component Underlying that is an ETF, the occurrence of an ETF Material Event;
- (8) for a Component Underlying that is a Qualified Index Linked ETF, an Index Disqualification Event occurs;

- (9) a Market Disruption Event for a Component Underlying occurs for 10 consecutive Component Dealing Days, and the Index Sponsor determines that such Market Disruption Event is reasonably likely to continue for a period of an indeterminate duration;
- (10) in respect of a Component Underlying, (x) a suspension or limitation on trading in respect of a Relevant Underlying is announced or imposed for 10 consecutive relevant days or for a period of indeterminate duration that the Index Sponsor determines is reasonably likely to include 10 consecutive relevant days or (y) any other event occurs or condition exists that causes trading to cease in respect of a Relevant Underlying for 10 consecutive relevant days;
- (11) the Index Sponsor determines that its right to use a Component Underlying in the Index has become impaired or has ceased (for any reason); or
- (12) the occurrence or continuation of a Change in Law.

An “**ETF Material Event**” consists of each of the following events, where the Index Sponsor determines in its sole discretion that such event or combination of events is material:

- (a) there is an amendment, variation or modification to the constitutional documents or offering documents of the Exchange-Traded Component, that the Index Sponsor determines has or is reasonably likely to have an adverse impact on the ability of market participants to trade in securities of the Exchange-Traded Component;
- (b) there is an amendment, variation or modification to the terms of the Exchange-Traded Component or the obligations of the issuer in respect of the Exchange-Traded Component, in any case and by any means, that the Index Sponsor determines has or is reasonably likely to have an adverse impact on the value, redeemability or liquidity of the securities of the Exchange-Traded Component;
- (c) an ETF Regulatory Action occurs in respect of the Exchange-Traded Component. The term “ETF Regulatory Action” is defined in the Index Rules and generally encompasses adverse regulatory events affecting an Exchange-Traded Component or its issuer, sponsor or adviser;
- (d) its Average Daily Trading Value (as defined in the Index Rules) declines below (x) an amount equal to 20 percent of its Average Daily Trading Value as of 19 November 2018 or (y) \$7.5 million;
- (e) its Market Capitalization (as defined in the Index Rules) declines below (x) an amount equal to 20 percent of its Market Capitalization as of 19 November 2018 or (y) \$500 million;
- (f) an announcement of the delisting of the Exchange-Traded Component from its primary exchange;
- (g) if any of the following is calculated or announced in the ordinary course, but, for a period of five (5) consecutive Component Dealing Days, is not calculated or is not announced by or on behalf of the relevant sponsor or issuer of the Exchange-Traded Component or the relevant calculation agent or information provider that the relevant sponsor or issuer of the Exchange-Traded Component designates: the intraday net asset value of the Exchange-Traded Component, the intraday indicative value of a Reference Index or a Reference Commodity of the Exchange-Traded Component, or any intraday value or level that indicates or affects the approximate intrinsic economic value of the Exchange-Traded Component or the amount of any payment in respect of the Exchange-Traded Component;

(h) if any of the following is calculated or announced in the ordinary course, but, for a period of five (5) consecutive Component Dealing Days, is not calculated or is not announced by or on behalf of the relevant sponsor or issuer of the Exchange-Traded Component or the relevant calculation agent or information provider that the relevant sponsor or issuer of the Exchange-Traded Component designates: the closing net asset value of the Exchange-Traded Component, the closing indicative value of a Reference Index or a Reference Commodity of the Exchange-Traded Component, or any closing value or level or other value or level that indicates or affects the approximate intrinsic economic value of the Exchange-Traded Component or the amount of any payment in respect of the Exchange-Traded Component;

(i) if any of the following is calculated or announced in the ordinary course, but, for a period of five (5) consecutive Component Dealing Days, the Closing Level of the Exchange-Traded Component reflects a premium greater than 5% or a discount greater than 5% as compared to the closing net asset value of the Exchange-Traded Component, the closing indicative value of a Reference Index or a Reference Commodity of the Exchange-Traded Component, or any closing value or level or other value or level that indicates or affects the approximate intrinsic economic value of the Exchange-Traded Component or the amount of any payment in respect of the Exchange-Traded Component;

(j) the relevant sponsor of the Reference Index of the Exchange-Traded Component fails to calculate and publish the Closing Level for such index for five consecutive Component Dealing Days; or

(k) the relevant sponsor of the Exchange-Traded Component suspends new issuances, creations or redemptions of securities of such Exchange-Traded Component for five consecutive Component Dealing Days or announces a suspension of unlimited duration of such creations or redemptions.

An "**Index Disqualification Event**" shall occur with respect to a Qualified Index Linked ETF if the Index Sponsor determines that the equity index tracked by such Qualified Index Linked ETF does not meet the requirements for classification as a "qualified index" (a "**Qualified Index**") under the regulations of the United States Treasury relating to the imposition of withholding taxes on dividend equivalent payments promulgated under Section 871(m) of the United States Internal Revenue Code of 1986, as amended, as such regulations may be amended or interpreted from time to time.

A "**Change in Law**" occurs when, due to either:

(a) the adoption of, or any change in, any applicable law, regulation or rule (including, without limitation, (x) any tax law or (y) adoption or promulgation of new regulations authorized or mandated by existing statute); or

(b) the promulgation of, or any change in, the announcement or statement of a formal or informal interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law, rule, regulation or order (including, without limitation, as implemented by the U.S. Commodity Futures Trading Commission, the U.S. Securities and Exchange Commission or any exchange or trading facility), and

the Index Sponsor determines in good faith that (x) it is contrary to such law, rule, regulation or order for any market participants that are brokers or financial intermediaries (individually or collectively) to hold, acquire or dispose of (in whole or in part) a position in or a transaction referencing or relating to (1) a Component Underlying, (2) a component of a Component Underlying that is an index, (3) a component of a Reference Index of an Exchange-Traded Component or (4) a Reference Commodity of

an Exchange-Traded Component (each such underlying described in any of the immediately preceding clauses (1), (2), (3) and (4), being a “**Relevant Underlying**”) or (y) holding a position in or a transaction referencing or relating to a Relevant Underlying is (or, but for the consequent disposal or termination thereof, would otherwise be) in excess of any allowable position limit(s) applicable to any market participants that are brokers or financial intermediaries (individually or collectively) under any such law, rule or regulation in relation to a Relevant Underlying, including in any case traded on any exchange(s), market or other trading facility.

The Index Sponsor has no obligation to monitor actively whether or not an ETF Material Event has occurred.

Upon the selection of a substitute ETF or index due to the successor or extraordinary event provisions described above, such substitute shall take the place of the relevant Component Underlying. The substitute's prior performance (if available) will be used in determining simulated historical volatility used in modulating the Index's exposure to synthetic portfolio.

Anti-Dilution Adjustments

With respect to each Exchange-Traded Component (or successor or substitute), the Determining Person will make anti-dilution adjustments to the Closing Level of such Exchange-Traded Component only (a) if the securities of such Exchange-Traded Component are subject to a split or reverse split, once such split has become effective, and (b) if such Exchange-Traded Component is subject to (i) an issuance of additional securities of such Exchange-Traded Component that is given ratably to all or substantially all holders of securities of such Exchange-Traded Component or (ii) a distribution of securities of such Exchange-Traded Component as a result of the triggering of any provision of the corporate charter of such Exchange-Traded Component or its issuer, as applicable, once the dividend or distribution has become effective and the securities of such Exchange-Traded Component are trading ex-distribution.

Amendments to the Index Rules

The Index Sponsor may, acting reasonably and in good faith, amend the Index Rules where it considers such amendment necessary (i) to comply with applicable law or regulation, including any changes in applicable law or regulation or in the interpretation thereof, and/or (ii) to correct any errors, omissions or ambiguities identified by the Index Calculation Agent or Index Sponsor as the case may be. To the extent permitted by applicable law, rules and regulations and internal policies, the Index Sponsor shall use commercially reasonable efforts to provide notice to the Index Allocation Agent fifteen calendar days immediately preceding such a proposed amendment and shall consider input, if any, from the Index Allocation Agent in good faith and in a commercially reasonable manner, but shall not be obligated to alter such proposed amendment. The Index Sponsor may also vary the Component Underlyings in accordance with the Index Rules in the event of the occurrence of certain Component Underlying Adjustment Events.

Changes made to the Index Rules annex that lists the Component Underlyings to account for additions, substitutions or removals in accordance with the Index Rules will not constitute amendments to the

Index Rules to the extent made in accordance with the provisions of the Index Rules but not pursuant to Section 3 of the Index Rules (Amendments).

Termination of the Index

The Index will be terminated in the event that the Index Allocation Agreement under which the Index Allocation Agent serves as such is terminated. A termination can occur under the following circumstances:

- Upon 60 days' notice of either the Index Allocation Agent or the Index Sponsor;
- Upon the occurrence of certain bankruptcy-related events with respect to either the Index Allocation Agent or the Index Sponsor;
- Either the Index Allocation Agent or the Index Sponsor determines that the other is involved in regulatory or legal proceedings that materially affect its ability to perform its obligations under the Index Allocation Agreement, or such regulatory or legal proceedings would result in the continued performance of the terminating party's obligations under the Index Allocation Agreement being materially adverse to the reputation of the terminating party;
- The Index Sponsor may terminate the Index Allocation Agreement if at any time the Index Allocation Agent no longer holds all necessary licences, approvals, registrations, authorizations and permissions required to fulfill its obligations under the Index Allocation Agreement or to hold the Notes, or if the ability of the Index Allocation Agent to fulfill its obligations under the Agreement is substantially curtailed by any competent legal or regulatory authority;
- The Index Allocation Agreement may be terminated by the Index Allocation Agent or the Index Sponsor with immediate effect should the other party fail to comply with any material obligation under the Index Allocation Agreement; provided that such other party has not remedied such breach within 15 calendar days after receiving notice from such terminating party requiring the breach to be remedied; and
- The Index Allocation Agreement would terminate immediately if the Index Allocation Agent announces that it intends to cease to be engaged in the business of investment management services.

Disclosures Concerning Certain Factors Affecting the Index

No assurance can be given that the investment strategy used to construct the Index will be successful or that the Index will outperform any alternative basket or strategy that might be constructed from the Component Underlyings.

The rebalancing of the Component Underlyings of the Index will be made under the direction of the Index Allocation Agent at times chosen by the Index Allocation Agent. The Index Allocation Agent may also add or substitute Component Underlyings and thereby materially alter the universe of Component Underlyings potentially comprising the synthetic portfolio tracked by the Index. As a result, both the composition and success of the Index will depend largely upon the decisions and abilities of the Index Allocation Agent and certain key individuals employed by the Index Allocation Agent. There can be no assurance that the Index Allocation Agent will be successful in the rebalancing of the Index and the loss of one or more such key individuals may have a material adverse impact on the performance of the Index.

Furthermore, no assurance can be given that the Index will achieve its volatility target of 10%. The actual realized volatility of the Index may be greater or less than 10%.

The Index is described as a “notional” or synthetic portfolio or basket of assets because there is no actual portfolio of assets to which any person is entitled or in which any person has any ownership interest. The Index merely references certain assets, the performance of which will be used as a reference point for calculating the Index Level.

Schedule 2

The Allocator Selections Dynamic Allocation Index (Series 1) Index Rules

[Available from J.P. Morgan Securities LLC upon request]

Schedule 3

Summary Description of ETF Component Underlyings

SPDR S&P 500 ETF Trust

The SPDR S&P 500 ETF Trust (the "**ETF**") is sponsored by PDR Services LLC, a registered investment company. State Street Global Markets, LLC is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P 500 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "SPY".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a capitalization-weighted index of 500 stocks. The Underlying Index is designed to measure performance of the broad U.S. economy through changes in the aggregate market value of 500 stocks representing all major industries. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

PDR Services LLC files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 33-46080 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares Russell 2000 ETF

The iShares Russell 2000 ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Russell 2000 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "IWM".

The Underlying Index is sponsored by Frank Russell Company. The Underlying Index measures the performance of the small-capitalization sector of the U.S. equity market. The Underlying Index includes issuers representing approximately 9% of the total market capitalization of all publicly-traded U.S. equity securities. The Underlying Index is a float-adjusted capitalization-weighted index of equity securities issued by the approximately 2,000 smallest issuers in the Russell 3000 Index. Total market capitalization reflects all equity shares outstanding, while total market value reflects float-adjusted capitalizations based on equity shares available for general investment. Components primarily include consumer discretionary, financials, healthcare and information technology companies. Components of the Underlying Index primarily include energy, financials and utilities companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

Invesco QQQ Trust, Series 1

The Invesco QQQ (the "**ETF**") is issued by Invesco QQQ Trust, Series 1. Invesco Capital Management LLC is the sponsor and investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the NASDAQ-100 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NASDAQ Global Select Market under the trading symbol "QQQ".

The Underlying Index is sponsored by The NASDAQ OMX Group, Inc. The Underlying Index includes 100 of the largest domestic and international non-financial securities listed on The NASDAQ Stock Market based on market capitalization. The Underlying Index reflects companies across major industry groups including computer hardware and software, telecommunications, retail/wholesale trade and biotechnology. The Underlying Index may include large-, mid- or small-capitalization companies, and components primarily include consumer staples, energy, financials and materials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

Invesco QQQ Trust, Series 1 files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-8947 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

SPDR EURO STOXX 50 ETF

The SPDR EURO STOXX 50 ETF (the "**ETF**") is issued by SPDR Index Shares Funds, a registered investment company. SSGA Funds Management is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the EURO STOXX 50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "FEZ".

The Underlying Index is sponsored by STOXX Limited. The Underlying Index is a market capitalization weighted index designed to represent the performance of some of the largest companies across components of the 19 EURO STOXX Supersector Indexes. The EURO STOXX Supersector Indexes are subsets of the EURO STOXX Index. The EURO STOXX Index is a broad yet liquid subset of the STOXX Europe 600 Index, which covers the 600 largest companies in Europe. The Underlying Index captures approximately 60% of the free-float market capitalization of the EURO STOXX Total Market Index, which in turn covers approximately 95% of the free float market capitalization of the represented countries. Index composition is reviewed annually and weights are reviewed quarterly. Countries covered in the Underlying Index have historically included, among others, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands and Spain. The 50 companies in the Underlying Index are selected by first identifying the companies that equal approximately 60% of the free-float market capitalization of each corresponding EURO STOXX Total Market Index Supersector Index. In addition, any stocks that are currently components of the Underlying Index are added to the list. From that list, the 40 largest stocks are selected to be components of the Underlying Index. In addition, any stocks that are current components of the Underlying Index (and ranked 41-60 on the list) are included as components. If there are still less than 50 component stocks, the applicable number of the largest remaining stocks on the list ranked 41 or higher are included as components of the Underlying Index. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

SPDR Index Shares Funds files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-21145 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly

disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Japan ETF

The iShares MSCI Japan ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Japan Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWJ".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Tokyo Stock Exchange. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer discretionary, financials and industrials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI United Kingdom ETF

The iShares MSCI United Kingdom ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI United Kingdom Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWU".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the London Stock Exchange. The Underlying Index may include large, mid or small capitalization companies, and components primarily include consumer staples, energy and financials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Germany ETF

The iShares MSCI Germany ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Germany Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWG".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Frankfurt Stock Exchange. The Underlying Index may include large, mid or small capitalization companies, and components primarily include consumer discretionary, financials and materials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI France ETF

The iShares MSCI France ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI France Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWQ".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Paris Stock Exchange. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer discretionary, financials and industrials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares MSCI Switzerland ETF

The iShares MSCI Switzerland ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Switzerland 25/50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWL".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Zurich Stock Exchange. The Underlying Index is a free float-adjusted market capitalization-weighted index with a capping methodology applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not cumulatively exceed 50% of the Underlying Index weight. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer staples, financials and healthcare companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares MSCI Spain ETF

The iShares MSCI Spain ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Spain 25/50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWP".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Madrid Stock Exchange. The Underlying Index is a free-float adjusted market capitalization-weighted index with a capping methodology applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not exceed 50% of the Underlying Index weight. The Underlying Index may include large-, mid- or small-capitalization companies, and components primarily include financials, industrials, telecommunications and utilities companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Italy ETF

The iShares MSCI Italy ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Italy 25/50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWI".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Milan Stock Exchange. The Underlying Index is a free float-adjusted market capitalization-weighted index with a capping methodology applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not cumulatively exceed 50% of the Underlying Index weight. The Underlying Index may include

large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include energy, financials and utilities companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Sweden ETF

The iShares MSCI Sweden ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Sweden Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWD".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Stockholm Stock Exchange. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer discretionary, financials and industrials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares MSCI Turkey ETF

The iShares MSCI Turkey ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Turkey Investable Market Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "TUR".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index is a free float-adjusted market capitalization index designed to measure broad-based equity market performance in Turkey. The Underlying Index consists of stocks traded primarily on the Istanbul Stock Exchange. The Underlying Index may include large-, mid- or small- capitalization companies. Components of the Underlying Index primarily include consumer staples, financials and industrials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF

may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares MSCI Canada ETF

The iShares MSCI Canada ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Canada Custom Capped Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWC".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index is designed to measure the performance of the large and mid-cap segments of the Canadian market. The Underlying Index uses a variation of MSCI 25/50 Indexes methodology, where the weight of any single group index will be constrained at 22.5% of the Underlying Index weight, and the sum of the weights of all group entities representing more than 5% weight will be constrained at 24.5% of the Underlying Index weight. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Australia ETF

The iShares MSCI Australia ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Australia Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWA".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Australian Stock Exchange. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer staples, financials and materials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI India ETF

The iShares MSCI India ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI India Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the BATS Exchange in the United States under the trading symbol "INDA".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index is designed to measure the performance of equity securities of companies whose market capitalization, as calculated by the index provider, represents the top 85% of companies in the Indian securities market. Components of the Underlying Index primarily include consumer staples, financials, healthcare and information technology companies. The component companies include large-and mid-capitalization companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

VanEck Vectors Russia ETF

The Market Vectors Russia ETF (the "**ETF**") is issued by Market Vectors ETF Trust, a registered investment company. Van Eck Associates Corporation is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MVIS Russia Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "RSX".

The Underlying Index is sponsored by Market Vectors Index Solutions GmbH. The Underlying Index is comprised of securities of Russian companies. A company is generally considered to be a Russian company if it is incorporated in Russia or is incorporated outside of Russia but generates at least 50% of its revenues (or, in certain circumstances, has at least 50% of its assets) in Russia. Such companies may include medium-capitalization companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

Market Vectors ETF Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-10325 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares China Large-Cap ETF

The iShares China Large-Cap ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the FTSE China 50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "FXI".

The Underlying Index is sponsored by FTSE International Limited. The Underlying Index is designed to track the performance of the largest companies in the Chinese equity market that are available to international investors. The Underlying Index consists of 50 of the largest and most liquid Chinese companies. Securities in the Underlying Index are weighted based on the total market value of their shares, so that securities with higher total market values generally have a higher representation in the Underlying Index. Each security in the Underlying Index is a current constituent of the FTSE All World Index and all of the securities in the Underlying Index currently trade on the Hong Kong Stock Exchange. Components primarily include financials, oil and gas and telecommunications companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI South Africa ETF

The iShares MSCI South Africa ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI South Africa 25/50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EZA".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Johannesburg Stock Exchange. The Underlying Index may include large- and mid-capitalization companies. The Underlying Index applies certain investment limits that are imposed on regulated investment companies under the current US Internal Revenue Code. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares MSCI South Korea Capped ETF

The iShares MSCI South Korea Capped ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Korea 25/50 Index (the "**Underlying Index**"). There is no assurance

that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWY".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Stock Market Division of the Korea Exchange. The Underlying Index is a free float-adjusted market capitalization-weighted index with a capping methodology applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not cumulatively exceed 50% of the Underlying Index weight. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer discretionary, financials and information technology companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Malaysia ETF

The iShares MSCI Malaysia ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Malaysia Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWM".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Kuala Lumpur Stock Exchange. The Underlying Index may include large-, mid- or small- capitalization companies. Components of the Underlying Index primarily include financials, industrials and utilities companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares MSCI Thailand Capped ETF

The iShares MSCI Thailand Capped ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Thailand IMI 25/50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "THD".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index is a free float-adjusted market capitalization index designed to measure broad-based equity market performance in Thailand. The Underlying Index consists of stocks traded

primarily on the Stock Exchange of Thailand. A capping methodology is applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not cumulatively exceed 50% of the Underlying Index weight. The Underlying Index may include large-, mid- or small- capitalization companies. Components of the Underlying Index primarily include energy, financials, industrials, materials and telecommunications companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares MSCI Singapore ETF

The iShares MSCI Singapore ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Singapore 25/50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWS".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Singapore Stock Exchange. The Underlying Index may include large- and mid-capitalization companies. A capping methodology is applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not cumulatively exceed 50% of the Underlying Index weight. Components of the Underlying Index primarily include financials, industrials and telecommunications companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares MSCI Taiwan ETF

The iShares MSCI Taiwan ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Taiwan Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWT".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Taiwan Stock Exchange. The Underlying Index may include large, mid or small capitalization companies, and components primarily include financials, information technology and materials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Mexico ETF

The iShares MSCI Mexico ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Mexico Investable Market Index (IMI) 25/50 (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWW".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Mexican Stock Exchange. The Underlying Index is a free float-adjusted market capitalization-weighted index with a capping methodology applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not cumulatively exceed 50% of the Underlying Index weight. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer staples, financials and telecommunications companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Brazil ETF

The iShares MSCI Brazil ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Brazil 25/50 Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EWZ".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the BM&FBOVESPA (the Brazilian exchange). The Underlying Index is a free float-adjusted market capitalization-weighted index with a capping methodology applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not cumulatively exceed 50% of the Underlying Index weight. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer staples, energy and financials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be

located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Chile ETF

The iShares MSCI Chile ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Chile Investable Market Index (IMI) 25/50 (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "ECH".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Santiago Stock Exchange. The Underlying Index is a free float-adjusted market capitalization index that is designed to measure broad-based equity market performance in Chile. A capping methodology is applied to issuer weights so that no single issuer of a component exceeds 25% of the Underlying Index weight, and all issuers with weight above 5% do not cumulatively exceed 50% of the Underlying Index weight. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer staples, financials, materials and utilities companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Peru ETF

The iShares MSCI Peru ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI All Peru Capped Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EPU".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index is an index designed to measure the performance of Peruvian equity securities as well as securities of companies that are headquartered in Peru or have the majority of their operations based in Peru. The Underlying Index may include large-, mid- or small- capitalization companies. Components of the Underlying Index primarily include consumer staples, financials and materials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should

undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

WisdomTree Europe Hedged Equity Fund

The WisdomTree Europe Hedged Equity Fund (the "**ETF**") is issued by WisdomTree Trust, a registered investment company. WisdomTree Asset Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the WisdomTree Europe Hedged Equity Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "HEDJ".

The Underlying Index is sponsored by WisdomTree Investments, Inc. The Underlying Index is a dividend weighted index designed to provide exposure to European equity securities, particularly shares of European exporters, while at the same time neutralizing exposure to fluctuations between the value of the U.S. dollar and the euro. Shares of European exporters stand to benefit from weakness in the value of the euro as this decreases the relative cost of the goods and services they are exporting. The Underlying Index consists of those dividend-paying companies within the WisdomTree International Equity Index, which defines the dividend-paying universe of companies in the industrialized world, excluding Canada and the United States, that are organized under the laws of a European country, trade in euros, have at least USD 1 billion in market capitalization, and derive at least 50% of their revenue from countries outside of Europe. Countries historically represented in the Underlying Index include: Germany, France, the Netherlands, Spain, Belgium, Finland, Italy, Portugal, Austria and Ireland. To be eligible for inclusion in the Underlying Index, a company must meet the following criteria: (i) payment of at least USD 5 million in cash dividends on shares of common stock in the annual cycle prior to the annual Underlying Index screening date; (ii) average daily dollar trading volume of at least USD 200,000 for three months preceding the Underlying Index screening date; and (iii) trading of at least 250,000 shares per month for each of the six months preceding the Underlying Index screening date. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

WisdomTree Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-21864 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

WisdomTree Japan Hedged Equity Fund

The WisdomTree Japan Hedged Equity Fund (the "**ETF**") is issued by WisdomTree Trust, a registered investment company. WisdomTree Asset Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the WisdomTree Japan Hedged Equity Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "DXJ".

The Underlying Index is sponsored by WisdomTree Investments, Inc. The Underlying Index is designed to provide exposure to Japanese equity markets while at the same time neutralizing exposure to fluctuations of the Japanese yen relative to the U.S. dollar. The Underlying Index consists of dividend-paying companies incorporated in Japan and traded on the Tokyo Stock Exchange that derive less than 80% of their revenue from sources in Japan. By excluding companies that derive 80% or more of their revenue from Japan, the Underlying Index is tilted towards companies with a more significant global revenue base. The companies included in the Underlying Index typically have greater exposure to the value of global currencies and, in many cases, their business prospects historically have improved when the value of the yen has declined and have weakened when the value of

the yen has increased. To be eligible for inclusion in the Underlying Index, a company must meet the following criteria: (i) payment of at least USD 5 million in cash dividends on common shares in the annual cycle prior to the annual Underlying Index screening date; (ii) market capitalization of at least USD 100 million as of the Underlying Index screening date; (iii) average daily dollar trading volume of at least USD 100,000 for the three months preceding the Underlying Index screening date; and (iv) trading of at least 250,000 shares per month for each of the six months preceding the Underlying Index screening date. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

WisdomTree Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-21864 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares Currency Hedged MSCI Eurozone ETF

The iShares Currency Hedged MSCI Eurozone ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI EMU 100% Hedged to USD Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "HEZU".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index has been developed by MSCI Inc. as an equity benchmark for the European Monetary Union countries with the currency risk inherent in the Notes included in the Underlying Index hedged to the U.S. dollar on a monthly basis. As of September 28, 2018, the Underlying Index consists of stocks from the following 10 developed market countries: Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal and Spain. The Underlying Index may include large- or mid-capitalization companies. Components of the Underlying Index primarily include consumer discretionary, financials and industrials companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares Currency Hedged MSCI Germany ETF

The iShares Currency Hedged MSCI Germany ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Germany 100% Hedged to USD Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "HEWG".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index consists of stocks traded primarily on the Frankfurt Stock Exchange with the currency risk inherent in the Notes included in the Underlying Index hedged to the U.S. dollar on a monthly basis. The Underlying Index may include large- or mid-capitalization companies. Components of the Underlying Index primarily include consumer discretionary, financials and healthcare companies. The components of the Underlying Index, and the degree to which these components represent certain industries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares 1-3 Year Treasury Bond ETF

The iShares 1-3 Year Treasury Bond ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the ICE U.S. Treasury 1-3 Year Bond Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "SHY".

The Underlying Index is sponsored by Interactive Data Pricing and Reference Data LLC. The Underlying Index measures the performance of public obligations of the U.S. Treasury that have a remaining maturity of greater than or equal to one year and less than three years. The Underlying Index includes publicly-issued U.S. Treasury securities that have a remaining maturity of greater than or equal to one year and less than three years and have \$300 million or more of outstanding face value, excluding amounts held by the Federal Reserve. In addition, the securities in the Underlying Index must be fixed rate and denominated in U.S. dollars. Excluded from the Underlying Index are inflation-linked securities, Treasury bills, cash management bills, any government agency debt issued with or without a government guarantee and zero-coupon issues that have been stripped from coupon-paying bonds. The Underlying Index is weighted by market capitalization excluding amounts held by the Federal Reserve and the securities in the Underlying Index are updated on the last business day of each month.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares 7-10 Year Treasury Bond ETF

The iShares 7-10 Year Treasury Bond ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the ICE U.S. Treasury 7-10 Year Bond Index (the "**Underlying Index**"). There is

no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "IEF".

The Underlying Index is sponsored by Interactive Data Pricing and Reference Data LLC. The Underlying Index measures the performance of public obligations of the U.S. Treasury that have a remaining maturity of greater than or equal to twenty years. The Underlying Index includes publicly-issued U.S. Treasury securities that have a remaining maturity of greater than or equal to twenty years and have \$300 million or more of outstanding face value, excluding amounts held by the Federal Reserve. In addition, the securities in the Underlying Index must be fixed rate and denominated in U.S. dollars. Excluded from the Underlying Index are inflation-linked securities, Treasury bills, cash management bills, any government agency debt issued with or without a government guarantee and zero-coupon issues that have been stripped from coupon-paying bonds. The Underlying Index is weighted by market capitalization excluding amounts held by the Federal Reserve and the securities in the Underlying Index are updated on the last business day of each month.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "SEC") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares 20+ Year Treasury Bond ETF

The iShares 20+ Year Treasury Bond ETF (the "ETF") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the ICE U.S. Treasury 20+ Year Bond Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the Nasdaq under the trading symbol "TLT".

The Underlying Index is sponsored by Interactive Data Pricing and Reference Data LLC. The Underlying Index measures the performance of public obligations of the U.S. Treasury that have a remaining maturity of greater than or equal to seven years and less than ten years. The Underlying Index includes publicly- issued U.S. Treasury securities that have a remaining maturity of greater than or equal to seven years and less than ten years and have \$300 million or more of outstanding face value, excluding amounts held by the Federal Reserve. In addition, the securities in the Underlying Index must be fixed rate and denominated in U.S. dollars. Excluded from the Underlying Index are inflation-linked securities, Treasury bills, cash management bills, any government agency debt issued with or without a government guarantee and zero-coupon issues that have been stripped from coupon-paying bonds. The Underlying Index is weighted by market capitalization excluding amounts held by the Federal Reserve and the securities in the Underlying Index are updated on the last business day of each month.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "SEC") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares TIPS Bond ETF

The iShares TIPS Bond ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Bloomberg Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index (Series-L) (the "Underlying Index"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "TIP".

The Underlying Index is sponsored by Bloomberg Barclays Indices. The Underlying Index measures the performance of the inflation-protected public obligations of the U.S. Treasury, commonly known as "TIPS." TIPS are securities issued by the U.S. Treasury that are designed to provide inflation protection to investors. TIPS are income-generating instruments whose interest and principal payments are adjusted for inflation — a sustained increase in prices that erodes the purchasing power of money. The inflation adjustment, which is typically applied monthly to the principal of the bond, follows a designated inflation index, the consumer price index ("CPI"), and TIPS' principal payments are adjusted according to changes in the CPI. A fixed coupon rate is applied to the inflation-adjusted principal so that as inflation rises, both the principal value and the interest payments increase. This can provide investors with a hedge against inflation, as it helps preserve the purchasing power of an investment. Because of this inflation adjustment feature, inflation-protected bonds typically have lower yields than conventional fixed-rate bonds. The Underlying Index includes all publicly-issued U.S. Treasury inflation-protected securities that have at least one year remaining to maturity, are rated investment-grade and have \$250 million or more of outstanding face value. In addition, the securities in the Underlying Index must be denominated in U.S. dollars and must be fixed-rate and non-convertible. The Underlying Index is market capitalization-weighted and the securities in the Underlying Index are updated on the last calendar day of each month.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "SEC") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares iBoxx \$ Investment Grade Corporate Bond ETF

The iShares iBoxx \$ Investment Grade Corporate Bond ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Markit iBoxx USD Liquid Investment Grade Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "LQD".

The Underlying Index is sponsored by Markit Indices Limited. The Underlying Index, which is a rules based index consisting of liquid, U.S. dollar-denominated, investment-grade corporate bonds for sale in the United States, as determined by Markit Indices Limited. The Underlying Index is designed to provide a broad representation of the U.S. dollar denominated liquid investment-grade corporate bond market. The Underlying Index is a modified market-value weighted index with a cap on each issuer of 3%. The Underlying Index may include large-, mid- or small-capitalization companies. Components of the Underlying Index primarily include consumer services, consumer staples, energy, financials, oil & gas and telecommunications companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time. The Underlying Index is a subset of the Markit iBoxx USD Corporate Bond Index. Bonds in the Underlying Index are selected from the universe of eligible bonds in the Markit iBoxx USD Corporate Bond Index using defined rules. Currently, the bonds eligible for inclusion in the Underlying Index include U.S. dollar-denominated corporate bonds that: (i) are issued by companies domiciled in countries classified as developed markets by Markit Indices Limited; (ii) have an average rating of investment grade. Ratings from Fitch Ratings, Inc., Moody's Investors Services or Standard & Poor's Ratings Services are considered. If more than one agency provides a rating, the average rating is attached to the bond; (iii) are from issuers with at least USD 2 billion outstanding face value; (iv) have at least USD 750 million of outstanding face value; and (v) have at least three years to maturity.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares iBoxx \$ High Yield Corporate Bond ETF

The iShares iBoxx \$ High Yield Corporate Bond ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Markit iBoxx USD Liquid High Yield Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "HYG".

The Underlying Index is sponsored by Markit Indices Limited. The Underlying Index, which is a rules-based index consisting of liquid U.S. dollar-denominated, high yield corporate bonds for sale in the United States, as determined by Markit Indices Limited. The Underlying Index is designed to provide a broad representation of the U.S. dollar-denominated liquid high yield corporate bond market. The Underlying Index is a modified market-value weighted index with a cap on each issuer of 3%. Bonds in the Underlying Index are selected using a rules-based criteria, as defined by Markit Indices Limited. The Underlying Index may include large-, mid- or small- capitalization companies. Components of the Underlying Index primarily include consumer cyclical, consumer discretionary, consumer services, consumer staples, energy, financials, industrials, oil & gas and telecommunications companies. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time. Currently, the bonds eligible for inclusion in the Underlying Index include U.S. dollar-denominated high yield corporate bonds that: (i) are issued by companies domiciled in countries classified as developed markets by Markit Indices Limited; (ii) have an average rating of sub-investment grade. Ratings from Fitch Ratings, Inc., Moody's Investors Services and Standard & Poor's Ratings Services are considered. If more than one agency provides a rating, the average rating is attached to the bond; (iii) are from issuers with at least USD 1 billion outstanding face value; (iv) have at least USD 400 million of outstanding face value; (v) have an original maturity date of less than 15 years; and (vi) have at least one year to maturity. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

SPDR Bloomberg Barclays International Treasury Bond ETF

The SPDR Bloomberg Barclays International Treasury Bond ETF (the "**ETF**") is issued by SPDR Series Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Bloomberg Barclays Global Treasury Ex-US Capped Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "BWX".

The Underlying Index is sponsored by Bloomberg Barclays Indices. The Underlying Index is designed to track the fixed-rate local currency sovereign debt of investment grade countries outside the United States. The Index includes government bonds issued by investment grade countries outside the United States, in local currencies, that have a remaining maturity of one year or more and are rated investment grade (Baa3/BBB-/BBB- or higher using the middle rating of Moody's Investors Service, Inc., Standard & Poor's Financial Services, LLC and Fitch Inc., respectively). Each of the component securities in the Underlying Index is a constituent of the Barclays Global Treasury ex-US Index, screened such that the following countries are included: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Latvia, Luxembourg, Malaysia, Malta, Mexico, Netherlands, New Zealand, Norway, Poland, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, Turkey and the United Kingdom. In addition, the securities in the Underlying Index must be fixed-rate and have certain minimum amounts outstanding, depending upon the currency in which the bonds are denominated. The Underlying Index is calculated by Barclays using a modified "market capitalization" methodology. This design ensures that each constituent country within the Underlying Index is represented in a proportion consistent with its percentage with respect to the total market capitalization of the Index. Component securities in each constituent country are represented in a proportion consistent with their percentage relative to the other component securities in the constituent country. Under certain conditions, however, the par amount of a component security within the Underlying Index may be adjusted to conform to requirements under the Internal Revenue Code of 1986, as amended. As of September 30, 2015, there were approximately 690 securities in the Underlying Index and the modified adjusted duration of securities in the Underlying Index was approximately 7.78 years.

SPDR Series Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08839 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

SPDR Bloomberg Barclays Short Term International Treasury Bond ETF

The SPDR Bloomberg Barclays Short Term International Treasury Bond ETF (the "**ETF**") is issued by SPDR Series Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Bloomberg Barclays 1-3 Year Global Treasury Ex-US Capped Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "BWZ".

The Underlying Index is sponsored by Bloomberg Barclays Indices. The Underlying Index is designed to measure the performance of fixed-rate local currency sovereign debt of investment grade countries outside the United States that have remaining maturities of one to three years. The Underlying Index includes government bonds issued by investment grade countries outside the United States, in local currencies, that have remaining maturities of one to three years and are rated investment grade (Baa3/BBB-/BBB- or higher using the middle rating of Moody's Investors Service, Inc., Standard & Poor's, Financial Services, LLC and Fitch Inc., respectively). Each of the component securities in the Underlying Index is a constituent of the Barclays Global Treasury ex-US Index, screened such that the following countries are included: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Latvia, Luxembourg, Malaysia, Malta, Mexico, Netherlands, New Zealand, Norway, Poland, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, Turkey and the United Kingdom. In addition, the securities in the Underlying Index must be fixed-rate and have certain minimum amounts outstanding, depending upon the currency in which the bonds are denominated. The Underlying Index is calculated by Barclays using a modified "market capitalization" methodology. This design ensures that each constituent country within the Underlying Index is represented in a proportion consistent with its percentage with respect to the total market capitalization of the Underlying Index. Component securities in each constituent country are represented in a proportion consistent with their percentage relative to the other component securities in the constituent country. Under certain conditions, however, the par amount of a component security within the

Underlying Index may be adjusted to conform to requirements under the Internal Revenue Code of 1986, as amended. The securities in the Underlying Index are updated monthly, on the last business day of each month. As of September 30, 2015, there were approximately 192 securities in the Underlying Index and the modified adjusted duration of securities in the Index was approximately 1.77 years.

SPDR Series Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08839 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares Gold Trust

The purpose of the iShares Gold Trust (the "ETF") is to own gold transferred to it in exchange for shares that it issues. The sponsor of the ETF is iShares Delaware Trust Sponsor LLC. The Bank of New York Mellon is the trustee of the ETF.

The ETF seeks to reflect generally the performance of the price of gold. The ETF seeks to reflect such performance before payment of the Trust's expenses and liabilities. There is no assurance that the performance of gold can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "IAU".

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended. Such information can be located by reference to SEC file number 001-32418 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Notes linked to the performance of the ETF.

iShares Silver Trust

The iShares Silver Trust (the "ETF") is sponsored by iShares Delaware Trust Sponsor LLC, an indirect subsidiary of BlackRock, Inc. The ETF seeks to reflect generally the performance, before fees and expenses, of the price of silver. There is no assurance that the performance of the price of silver can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "SLV".

The ETF files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 001-32863 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Materials Select Sector SPDR Fund

The Materials Select Sector SPDR Fund (the "**ETF**") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Materials Select Sector Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLB".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500[®] Index. All components of the S&P 500[®] Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Materials Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Energy Select Sector SPDR Fund

The Energy Select Sector SPDR Fund (the "**ETF**") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Energy Select Sector Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLE".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500[®] Index. All components of the S&P 500[®] Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Energy Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Financial Select Sector SPDR Fund

The Financial Select Sector SPDR Fund (the "**ETF**") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Financial Select Sector Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLF".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500® Index. All components of the S&P 500® Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Financials Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "SEC") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Industrial Select Sector SPDR Fund

The Industrial Select Sector SPDR Fund (the "ETF") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Industrial Select Sector Index (the "Underlying Index"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLI".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500® Index. All components of the S&P 500® Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Industrial Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "SEC") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Technology Select Sector SPDR Fund

The Technology Select Sector SPDR Fund (the "ETF") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Technology Select Sector Index (the "Underlying Index"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLK".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500® Index. All components of the S&P 500® Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Technology Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Consumer Staples Select Sector SPDR Fund

The Consumer Staples Select Sector SPDR Fund (the "**ETF**") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Consumer Staples Select Sector Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLP".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500® Index. All components of the S&P 500® Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Consumer Staples Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Real Estate Select Sector SPDR Fund

The Real Estate Select Sector SPDR Fund (the "**ETF**") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Real Estate Select Sector Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLRE".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500® Index. All components of the S&P 500® Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Real Estate Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent

investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Utilities Select Sector SPDR Fund

The Utilities Select Sector SPDR Fund (the "**ETF**") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Utilities Select Sector Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLU".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500® Index. All components of the S&P 500® Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Utilities Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Health Care Select Sector SPDR Fund

The Health Care Select Sector SPDR Fund (the "**ETF**") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Health Care Select Sector Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLV".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500® Index. All components of the S&P 500® Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Health Care Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Consumer Discretionary Select Sector SPDR Fund

The Consumer Discretionary Select Sector SPDR Fund (the "**ETF**") is issued by The Select Sector SPDR Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Consumer Discretionary Select Sector Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "XLY".

The Underlying Index is sponsored by S&P Dow Jones Indices LLC. The Underlying Index is a subindex of the S&P 500[®] Index. All components of the S&P 500[®] Index are assigned to one of the eleven Select Sector Indices. Stock classifications are based on the Global Industry Classification Standard. The components of the Underlying Index are from the Consumer Discretionary Select Sector. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

The Select Sector SPDR Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-08837 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI ACWI ETF

The iShares MSCI ACWI ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI ACWI Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on NASDAQ Global Market under the trading symbol "ACWI".

The Underlying Index is a free float-adjusted market capitalization weighted index designed to measure the combined equity market performance of developed and emerging markets countries. The Underlying Index may include large- and mid-capitalization companies. The components of the Underlying Index, and the degree to which these components represent certain industries and/or countries, are likely to change over time. As of September 28, 2018, the Underlying Index consisted of securities from the following countries or regions: Australia, Austria, Belgium, Brazil, Canada, Chile, China, Colombia, the Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Pakistan, Peru, the Philippines, Poland, Portugal, Qatar, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, the United Arab Emirates, the United Kingdom and the United States.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI EAFE ETF

The iShares MSCI EAFE ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI EAFE Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EFA".

The Underlying Index is sponsored by MSCI Inc. The Underlying Index is a free float-adjusted market capitalization index intended to measure the equity market performance of certain developed markets. The Underlying Index may include large- and mid-capitalization companies across 21 developed markets countries around the world, excluding Canada and the United States. The components of the Underlying Index, and the degree to which these components represent certain industries, may change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI ACWI ex U.S. ETF

The iShares MSCI ACWI ex U.S. ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI ACWI ex USA Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on NASDAQ Global Market under the trading symbol "ACWX".

The Underlying Index is a free float-adjusted market capitalization weighted index designed to measure the combined equity market performance of developed and emerging markets countries, excluding the U.S. The Underlying Index may include large- and mid-capitalization companies. As of July 31, 2017, a significant portion of the Underlying Index is represented by securities of financials companies. The components of the Underlying Index, and the degree to which these components represent certain industries and/or countries, are likely to change over time. As of July 31, 2017, the Underlying Index consisted of securities from the following countries or regions: Australia, Austria, Belgium, Brazil, Canada, Chile, China, Colombia, the Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Pakistan, Peru, the Philippines, Poland, Portugal, Qatar, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, the United Arab Emirates and the United Kingdom.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Eurozone ETF

The iShares MSCI Eurozone ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI EMU Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the CBOE BZX under the trading symbol "EZU".

The Underlying Index consists of stocks from the following 10 developed market countries: Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal and Spain. The Underlying Index may include large or mid-capitalization companies. As of August 31, 2017, a significant portion of the Underlying Index is represented by securities of financials and industrials companies. The components of the Underlying Index, and the degree to which these components represent certain industries and/or countries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI All Country Asia ex Japan ETF

The iShares MSCI All Country Asia ex Japan ETF (the "**ETF**") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI AC Asia ex Japan Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on NASDAQ Global Market under the trading symbol "AAXJ".

The Underlying Index, as of July 31, 2017, is a free float adjusted market capitalization index designed to measure equity market performance of securities from the following 11 developed, emerging and frontier market countries or regions: China, Hong Kong, India, Indonesia, Malaysia, Pakistan, the Philippines, Singapore, South Korea, Taiwan and Thailand. The Underlying Index may include large- or mid-capitalization companies. As of July 31, 2017, a significant portion of the Underlying Index is represented by securities of financials and information technology companies. The components of the Underlying Index, and the degree to which these components represent certain industries and/or countries, are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares MSCI Emerging Markets ETF

The iShares MSCI Emerging Markets ETF (the "**ETF**") is issued by iShares, Inc., a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Emerging Markets Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "EEM".

As of August 31, 2017, the Underlying Index consisted of securities from the following 24 emerging market countries: Brazil, Chile, China, Colombia, the Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Malaysia, Mexico, Pakistan, Peru, the Philippines, Poland, Qatar, Russia, South Africa, South Korea, Taiwan, Thailand, Turkey and the United Arab Emirates. The Underlying Index may include large- and mid-capitalization companies. As of August 31, 2017, a significant portion of the Underlying Index is represented by securities of financials and information technology companies. The components of the Underlying Index, and the degree to which these components represent certain industries and/or countries, are likely to change over time.

iShares, Inc. files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09102 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the

ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Vanguard FTSE Emerging Markets ETF

The Vanguard FTSE Emerging Markets ETF (the "**ETF**") is issued by the Vanguard International Equity Index Funds, a registered investment company. The Vanguard Group, Inc. is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the FTSE Emerging Markets All Cap China A Inclusion Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "VWO".

The Underlying Index is a market-capitalization-weighted index representing large-, mid-, and small-cap stocks of companies located in emerging markets around the world. The index is part of the FTSE China A Inclusion indexes, which contain FTSE China A All Cap Index securities adjusted for the aggregate approved QFII and RQFII quotas available to foreign investors. Brazil, Russia, India, Taiwan, China, and South Africa are among the markets included in the index.

Vanguard International Equity Index Funds files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-05972 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Issuer, the Guarantor or the Dealer makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Securities should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

SPDR S&P Emerging Asia Pacific ETF

The SPDR S&P Emerging Market Asia Pacific ETF (the "**ETF**") is issued by SPDR Series Trust, a registered investment company. SSGA Funds Management, Inc. is the investment advisor to the ETF. The ETF seeks to provide investment results that, before fees and expenses, correspond generally to the total return performance of the S&P Asia Pacific Emerging BMI Index (the "**Underlying Index**"). There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "GMF".

The Underlying Index is a market capitalization weighted index designed to define and measure the investable universe of publicly traded companies domiciled in emerging Asian Pacific markets. The Underlying Index is "float-adjusted," meaning that only those shares publicly available to investors are included in the Index calculation. The Underlying Index component securities are a subset, based on region, of component securities included in the S&P Global BMI (Broad Market Index). The S&P Global BMI is a comprehensive, floatweighted, rules-based benchmark that is readily divisible and customizable. A country will be eligible for inclusion in the S&P Global BMI if it is classified as either a developed or emerging market by the S&P Global Equity Index Committee. Country classification is reviewed annually and determined based on quantitative criteria and feedback from market participants via a publicly available market consultation. All publicly listed companies with float-adjusted market capitalizations of at least \$100 million and sufficient liquidity based on 12-month median value traded ratio and 6-month median daily value traded are included for each country. Once included, all current constituents with float-adjusted market capitalizations of at least \$75 million and sufficient liquidity will remain in the S&P Global BMI for each country. The Underlying Index is "float-adjusted," meaning that only those shares publicly available to investors are included in the Underlying Index calculation. All stocks are weighted proportionally to their float-adjusted market capitalization and the Index is reconstituted annually in September. In addition, the Index rebalances quarterly to allow for changes in shares outstanding and the inclusion of eligible initial public offerings. As of November 30, 2017, a significant portion of the Underlying Index comprised companies in the financial and technology sectors, although this may change from time to time. As of November 30, 2017, countries represented in the ETF included China, Hong Kong, India, Indonesia, Malaysia, Pakistan, the Philippines, Singapore, Taiwan and Thailand. As of November 30, 2017, a significant portion of the ETF comprised companies located in China, India and Taiwan, although this may change from time to time. As of November 30, 2017, the Underlying Index comprised 2,454 securities.

SPDR Series Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-21145 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly

disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

iShares Latin America 40 ETF

The iShares Latin America 40 ETF (the "ETF") is issued by iShares Trust, a registered investment company. BlackRock Fund Advisors is the investment advisor to the ETF. The ETF seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P Latin America 40 (the "**Underlying Index**"), which is comprised of selected equities trading on the exchanges of five Latin American countries. There is no assurance that the price and yield performance of the Underlying Index can be fully matched. The shares of the ETF are listed on the NYSE Arca under the trading symbol "ILF".

The Underlying Index includes securities that S&P Dow Jones Indices LLC Inc., considers to be highly liquid from major economic sectors of the Mexican and South American equity markets. Companies from Brazil, Chile, Colombia, Mexico and Peru are represented in the Underlying Index. The Underlying Index includes large blue-chip companies. As of March 31, 2018, a significant portion of the Underlying Index is represented by securities of companies in the financials and materials industries or sectors. The components of the Underlying Index are likely to change over time.

iShares Trust files information with the U.S. Securities and Exchange Commission (the "**SEC**") pursuant to the U.S. Securities Exchange Act of 1934, as amended, and the U.S. Investment Company Act of 1940, as amended. Such information can be located by reference to SEC file number 811-09729 through the SEC's website at www.sec.gov. Information regarding the ETF may also be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. None of the Index Sponsor, the Issuer of the Notes or their respective affiliates makes any representation or warranty as to the accuracy or completeness of such information. Potential investors in the Notes should undertake an independent investigation of the ETF as in their judgment is appropriate to make an informed decision with respect to an investment in the Securities linked to the performance of the ETF.

Disclosure Supplement for the J.P. Morgan Bond Futures Tracker Index Family (USD)
(dated February 19, 2016)

About this Disclosure Supplement

This Disclosure Supplement dated February 19, 2016 (the “**Disclosure Supplement**”) for the J.P. Morgan Bond Futures Tracker Index Family (USD) (each, an “**Index**”), when read in conjunction with the materials described below, is intended to constitute a summary of the strategy and methodology employed by the Index. This Disclosure Supplement is being provided to you pursuant to 17 CFR Part 23 (*Business Conduct Standards for Swap Dealers and Major Swap Participants*) and constitutes our disclosure to you of the material economic terms, material risks and potential conflicts of interests associated with entering into a transaction (a “**Transaction**”) that references the Index. Any terms not defined herein shall have the meaning ascribed thereto in the Index Rules (as defined below).

The terms of a Transaction may incorporate standard definitions, annexes thereto and other market standard terms. Such terms may in turn be amended or customized pursuant to the terms of the Transaction and its governing documentation. Before entering into a Transaction, you should obtain and review carefully any such materials incorporated by reference as their content could materially affect your rights and obligations under a Transaction, its value and its appropriateness for your particular objectives.

Disclosure Documents Incorporated by Reference

This Disclosure Supplement supplements and should be read in conjunction with the General Disclosure Statement (the “**General Disclosure Statement**”) and the Disclosure Annex for Interest Rate Transactions (the “**Interest Rate Disclosure Annex**”), each dated April 26, 2013, and published by the International Swaps & Derivatives Association Inc. The General Disclosure Statement and the Interest Rate Disclosure Annex are available via the following hyperlink:

<http://www2.isda.org/functional-areas/legal-and-documentation/disclosures/>

NOTHING IN THIS DISCLOSURE SUPPLEMENT AMENDS OR SUPERSEDES THE EXPRESS TERMS OF ANY TRANSACTION BETWEEN YOU AND US OR ANY RELATED GOVERNING DOCUMENTATION. Accordingly, descriptions in this Disclosure Supplement of the operation of the Index and of any Transactions referencing the Index, and the consequences of various events described herein, are in all cases subject to the actual terms of any Transaction executed between you and us and its governing documentation.

Index Summary

Each Index in the J.P. Morgan Bond Futures Tracker Index Family (USD) is a synthetic, rules-based proprietary index developed and maintained by J.P. Morgan Securities plc (“**JPMS plc**” or the “**Index Calculation Agent**”). The relevant Index Level is published under the Bloomberg ticker as per the table below. The Index was first published as per relevant Index Live Date as specified in each of the rules of each index (the “Index Rules”) available via the hyperlinks set forth in the table below, and therefore has limited historical performance.

Index Name	Bloomberg Ticker	Index Rules
JPM US 2 year Treasury Note Futures Tracker	JFBU2USD	http://www.jpmorgan.com/directdoc/JFBU2USD
JPM US 5 year Treasury Note Futures Tracker	JFBU5USD	http://www.jpmorgan.com/directdoc/JFBU5USD
JPM US 10 year Treasury Note Futures Tracker	JFBU10US	http://www.jpmorgan.com/directdoc/JFBU10US
JPM US Long Treasury Note Futures Tracker	JFBULBUS	http://www.jpmorgan.com/directdoc/JFBULBUS
JPM US Ultra Long Treasury Note Futures Tracker	JFBUSBUS	http://www.jpmorgan.com/directdoc/JFBUSBUS
JPM 2 Year Schatz Futures Tracker in USD	JFBEDUUS	http://www.jpmorgan.com/directdoc/JFBEDUUS
JPM 5 Year Bobl Futures Tracker in USD	JFBEBLUS	http://www.jpmorgan.com/directdoc/JFBEBLUS
JPM 10 year Bund Futures Tracker in USD	JFBERXUS	http://www.jpmorgan.com/directdoc/JFBERXUS
JPM 25 year Buxl Futures Tracker in USD	JFBE BXUS	http://www.jpmorgan.com/directdoc/JFBE BXUS
JPM 10 year Italy Futures Tracker in USD	JFBE BPUS	http://www.jpmorgan.com/directdoc/JFBE BPUS
JPM 10 year France Futures Tracker in USD	JFBE OTUS	http://www.jpmorgan.com/directdoc/JFBE OTUS
JPM 10 year JGB Futures Tracker in USD	J10EUSJP	http://www.jpmorgan.com/directdoc/J10EUSJP
JPM 10 year Gilt Futures Tracker in USD	JFBG10US	http://www.jpmorgan.com/directdoc/JFBG10US
JPM 3 Year Australian Futures Tracker in USD	JFBA3USD	http://www.jpmorgan.com/directdoc/JFBA3USD
JPM 10 Year Australian Futures Tracker in USD	JFBA10US	http://www.jpmorgan.com/directdoc/JFBA10US
JPM 10 year Canadian Futures Tracker in USD	JFBC10US	http://www.jpmorgan.com/directdoc/JFBC10US

Each Index is a notional rules-based proprietary index that aims to replicate the returns of a long position in near listed futures contracts that reference certain government bonds (the “**Futures Contracts**”), as specified in the Index Rules in respect of each Index.

Rolling Futures Contracts

On each quarterly Roll Date as specified in the Index Rules with respect to each Index, the Index Calculation Agent will calculate the Index Level based on the official settlement price of the current second near month Futures Contract (instead of the current first near month Futures Contract), as published by the Relevant Exchange as specified in the Index Rules with respect to each Index, thereby rolling the synthetic exposure of the Index from the current First Near Futures Contract to the current

second near month Futures Contract, subject to the market disruption provisions set forth in the Index rules. The Index only tracks the applicable price of the relevant futures contract and does not include any returns associated with rolling one futures contract to another futures contract.

RISK FACTORS

*The following risk factors relate solely to the J.P. Morgan Bond Futures Tracker Index Family (USD) and supplements the other disclosures relating to risks set forth in the accompanying General Disclosure Statement and Interest Rate Disclosure Annex. These risk factors should be read together with the risk factors set forth in the General Disclosure Statement, the Interest Rate Disclosure Annex and any other disclosure annex. **You should carefully review these risk factors (including the risk factors relating to potential conflicts of interest) prior to making your investment decision to enter into any Transaction referencing the Index.***

Proprietary and rules-based Index

The Index follows a notional rules-based proprietary trading strategy that operates on the basis of pre-defined rules. Accordingly, potential investors in Transactions linked to the performance of the Index should determine whether the applicable rules-based proprietary trading strategy (as described in the Index Rules) is appropriate in light of their individual circumstances and investment objectives.

No assurance can be given that any synthetic investment strategy on which the Index is based will be successful or that the Index will outperform any alternative strategy that might be employed in respect of the Futures Contracts referenced therein.

Notional Exposure

The Index is constructed on a “notional” synthetic portfolio that references certain Futures Contracts. There is no actual portfolio to which any person is entitled or in which any person has any ownership interest. The Index merely defines certain Futures Contracts as well as a notional rules-based proprietary trading strategy, the performances of which are used as a reference point for the purposes of calculating the Index Level. Consequently, investment in Transactions that are linked to the performance of the Index will not have any claim against any of the Futures Contracts referenced by the Index.

Lack of Operating History

The Index is only recently established and therefore there is limited history to evaluate its past performance. Any back-testing or similar analysis performed by any person in respect of the Index must be considered illustrative only and may be based on estimates or assumptions not used by the Index Calculation Agent when determining the Index Level. Past performance should not be considered indicative of future performance.

The Index may not perform as expected

The Index may not perform in the manner that is expected. Various market factors and circumstances at any time and/or over any period could cause the Index to perform differently than how it is expected to perform. Neither the Index Sponsor nor the Index Calculation Agent provides any assurance as to the expected results of the Index over any period of time.

Index Level

The Index Level can be volatile and move dramatically over short periods of time. There can be no assurance that the relevant synthetic exposures will not be subject to substantial negative returns. Positive returns on the Index may therefore be reduced or eliminated entirely due to movements in any market parameters negatively affecting the relevant synthetic exposures.

Market risks

The performance of the Index is dependent in part on the Futures Contracts referenced by the Index and the relevant notional rules-based proprietary trading strategy. As a consequence, investors in Transactions linked to the Index should appreciate that their investment is exposed to the performance of each of the Futures Contracts and such rules-based strategy. In particular, the Index Level depends significantly on changes in current interest rates.

The Index is subject to significant risks associated with fixed-income securities, including interest rate-related risks.

The Index tracks the performance of fixed-income securities by referencing the Futures Contracts. The market prices of these bonds are volatile and significantly influenced by a number of factors, particularly the yields on these bonds as compared to current market interest rates and the actual or perceived credit quality of the issuer of these bonds.

In general, fixed-income securities are significantly affected by changes in current market interest rates. As interest rates rise, the price of fixed-income securities is likely to decrease. Securities with longer durations tend to be more sensitive to interest rate changes, usually making them more volatile than securities with shorter durations. The eligibility criteria for the securities included in the fixed-income securities that underlie the Futures Contracts referenced by the Index mandate that each security must have a minimum term remaining to maturity for continued eligibility. This means that, at any time, only longer-term securities underlie the Index, which thereby increases the risk of price volatility in the underlying securities and, consequently, the volatility in the value of the Index. As a result, rising interest rates may cause the value of the securities underlying the Index to decline, possibly significantly. Interest rates are subject to volatility due to a variety of factors, including:

- sentiment regarding underlying strength of the economy of the country issuing the securities;
- expectations regarding the level of price inflation;
- sentiment regarding credit quality of the country issuing the securities;
- central bank policies regarding interest rates; and
- the performance of the U.S. and international capital markets.

The Index is subject to significant risks associated with fixed-income securities, including credit risk.

The prices of the bonds underlying the Index are significantly influenced by the creditworthiness of the issuers of the bonds. The bonds underlying the Futures Contracts referenced by the Index may have their credit ratings downgraded, or have their credit spreads widen significantly. Following a ratings downgrade or the widening of credit spreads, the bonds underlying the Futures Contracts may suffer significant and rapid price declines. These events may affect only a few or a large number of the underlying bonds. For example, during the recent credit crisis in the United States, credit spreads widened significantly as the market demanded very high yields on corporate bonds and, as a result, the prices of the bonds underlying Futures Contracts referenced by the Index dropped significantly. There can be no assurance that some or all of the factors that contributed to this credit crisis will not continue or return and, consequently, depress the price, perhaps significantly, of the underlying bonds and therefore the value of the Index.

Continued publication of constituent data

The publication of the Index Level may depend on the maintenance of requisite index licenses, the continued publication and determination of the Futures Contracts. Any disturbance or discontinuation

of any of these actions may adversely affect the ability of the Index Calculation Agent to continue with the calculation and publication of the Index Level.

Index Calculation Agent Discretion

The Index Rules confer on the Index Calculation Agent discretion in making certain determinations and calculations from time to time. The exercise of such discretion in the making of calculations and determinations may adversely affect the performance of the Index.

Potential Conflicts of Interest

Potential conflicts of interest may exist in the structure and operation of the Index and the course of the normal business activities of the Index Sponsor, the Index Calculation Agent and any of their affiliates or subsidiaries or their respective directors, officers, employees, representatives or agents (each a “**Relevant Person**”).

During the course of their normal business, the Index Sponsor, the Index Calculation Agent and each Relevant Person may enter into or promote, offer or sell transactions or investments (structured or otherwise) linked to the Index. In addition, the Index Sponsor, the Index Calculation Agent and any Relevant Person may have, or may have had, interests or positions, or may buy, sell or otherwise trade positions in or relating to the Index, or may invest or engage in transactions with other persons, or on behalf of such persons relating to any of these items. Such activity may or may not have an impact on the Index Level but all persons reading this document should be aware that a conflict of interest could arise where anyone is acting in more than one capacity, and such conflict may have an impact, positive or negative, on the Index Level. None of the Index Sponsor, the Index Calculation Agent or any Relevant Person has any duty to consider the circumstances of any person when participating in such transactions or to conduct themselves in a manner that is favorable to anyone with exposure to the Index.

Market Disruption Events

The publication and/or determination of the Index Level may be affected by the occurrence of certain market disruption events with respect to the Futures Contracts, including the failure of the Relevant Exchange to publish an official settlement price in respect of the Futures Contract, or any event that disrupts or impairs the ability of market participants generally to effect transactions in or obtain market values for the Futures Contract. Such events are set out more fully in the Index Rules and are referred to as Market Disruption Events. If a Market Disruption Event occurs, the Index Calculation Agent will not calculate the Index Level for such Index Calculation Day and will suspend the calculation and publication of the Index Level until the first succeeding Index Calculation Day that is not a Disrupted Index Calculation Day, provided that the Index Calculation Agent may determine the value of a Futures Contract for purposes of calculating the Index Level following eleven consecutive Calculation Days that are Disrupted Index Calculation Days.

Extraordinary Events

The calculation of the Index Level depends on, amongst other things, the continued existence of any Futures Contract. As a result, any discontinuation of any such Futures Contract may adversely affect the ability of the Index Calculation Agent to continue with the calculation and publication of the Index Level. In addition, amongst other things, a change in law that makes it contrary to law to hold, acquire or dispose of any transaction or interest in or relating to a Futures Contract may also result in the Index Calculation Agent excluding or substituting an affected Futures Contract. All such events are set out more fully in the Index Rules under the heading “Extraordinary Events” and in the related definitions.

The occurrence of certain Extraordinary Events (other than a Change in Law) with respect to a Futures Contract may result in the affected Futures Contract being replaced by a substitute Futures Contract having similar characteristics to the affected Futures Contract or the Index Calculation Agent may cease publishing the Index.

In respect of a Change in Law, the Index Calculation Agent may exclude or substitute any Futures Contract following such Change in Law and, if it excludes or substitutes such affected Futures Contract, then the Index Calculation Agent may adjust the Index Rules as it determines in good faith to be appropriate to account for such exclusion or substitution.

Amendments

The Index Rules for an Index may be amended from time to time at the discretion of the Index Sponsor and will be re-published (in a manner determined by the Index Sponsor from time to time) no later than one calendar month following such amendment. Although the Index Rules are intended to be comprehensive, ambiguities may arise. If ambiguities arise, the Index Calculation Agent (if necessary, in consultation with the Index Sponsor) will resolve such ambiguities in its discretion and, if necessary, the Index Sponsor will amend the Index Rules to reflect such resolution.

The J.P. Morgan Futures Tracker Series

J.P.Morgan

16 November 2009 (as amended and restated 18 June 2010 and 21 June 2013)

© All Rights Reserved

THE J.P. MORGAN FUTURES TRACKER SERIES RULES

PART A

1. Introduction

This document comprises the rules (the “**Rules**”) of the J.P. Morgan Futures Tracker Series, a family of notional rule-based strategies (each such strategy a “**Futures Tracker**” and together, the “**Futures Trackers**”). The Rules may be amended from time to time at the discretion of J.P. Morgan Securities plc (“**JPMS**”) in its capacity as Calculation Agent. The Rules will be re-published no later than one calendar month following amendment to reflect any such changes. Copies of the current Rules are available from JPMS upon request.

Part A of the Rules sets out general information applicable to each Futures Tracker, such as the calculation algorithms which are applicable to all Futures Trackers. Specific information pertaining to each Futures Tracker, including, for example, the name of the Base Underlying, Futures Tracker Currency, Tracker Business Days are set out in the appendices of Part B.

This document is published by JPMS of 25 Bank Street, Canary Wharf, London E14 5JP, UK in its capacity as Calculation Agent.

ALL PERSONS READING THIS DOCUMENT SHOULD REFER TO THE RISK FACTORS, DISCLAIMERS AND CONFLICTS SECTIONS BELOW AND CONSIDER THE INFORMATION CONTAINED IN THIS DOCUMENT IN LIGHT OF SUCH RISK FACTORS, DISCLAIMERS AND CONFLICTS.

NOTHING IN THESE RULES CONSTITUTES AN OFFER TO BUY OR SELL ANY SECURITIES, PARTICIPATE IN ANY TRANSACTION OR ADOPT ANY INVESTMENT STRATEGY OR LEGAL, TAX, REGULATORY OR ACCOUNTING ADVICE.

2. General Notes on each Futures Tracker

Each Futures Tracker is a notional dynamic strategy that aims to replicate the returns of a long position in the near month listed futures contract on a specific underlying (the “**Base Underlying**”) traded on the Relevant Exchange (each futures contract on the Base Underlying traded on the Relevant Exchange being a “**Futures Contract**”). A futures contract is a standardized contract traded on an exchange to buy or sell a standard quantity of an asset at a specific date in the future (such date being its expiry date), at a price specified today. Each Futures Contract is identified by its expiry date.

On each Tracker Business Day, each Futures Tracker shall be notionally invested in the nearest listed expiry Futures Contract (the “**Near Futures Contract**”). It shall maintain this exposure until a day that is a specified number of Dealing Days before the expiry date of such Near Futures Contract or before such other date specified in Part B (such day, as set out in Part B, being the “**Re-weighting Date**” and the number of Dealing Days specified in the definition of Re-Weighting Date set out in Part B). After the Re-weighting Date, it shall then be notionally invested in the Futures Contract expiring next after the Near Futures Contract expiry date (the “**Far Futures Contract**”). For the avoidance of doubt, on any Tracker Business Day after the Near Futures Contract expiry date, the Far Futures Contract becomes the Near Futures Contract.

No assurance can be given that the investment strategy used to construct the Futures Tracker will be successful or that the Futures Tracker will outperform any alternative basket or strategy that might be constructed from the Futures Contracts.

Subject to the occurrence of Market Disruption Events, the level of the Futures Tracker (the “**Tracker Level**”) will be calculated by the Calculation Agent on each Tracker Business Day to an accuracy of two decimal places, or more where so specified in the relevant Appendix. The Tracker Level is calculated in its relevant currency (the “**Futures Tracker Currency**”) in accordance with the methodology set out in Section 7 (*the Futures Tracker Level*).

The Futures Tracker is described as a notional basket of assets because there is no actual portfolio of assets to which any person is entitled or in which any person has any ownership interest. The Futures Tracker merely

references certain assets, the performance of which will be used as a reference point for calculating the Tracker Level.

3. Calculation Agent

JPMS or any affiliate or subsidiary designated by it will act as calculation agent (the “**Calculation Agent**”) for the Futures Tracker. The Calculation Agent’s determinations in respect of the Futures Tracker and interpretation of these Rules are final. Further information is contained in the statement of responsibility set out in Section 11 (*Responsibility*) below.

4. The Futures Contracts

In respect of each Futures Tracker, there are typically 4 listed Futures Contracts per calendar year over the Base Underlying. The exact number of Futures Contracts per calendar year (the “**Number of Contracts p.a.**”) is specified in Part B of the Rules.

Each Futures Contracts has a specific expiry date (the “**Expiry Date**” and together, the “**Expiry Dates**”) specified in Part B.

5. Initial Composition of the Futures Tracker

Each Futures Tracker has a base date (the “**Base Date**”) which is the date on which the Futures Tracker comprised a notional investment of one contract in the relevant Near Futures Contract in respect of such date.

The composition of each of the Futures Trackers has been and will be adjusted in accordance with the methodology described in the remainder of these Rules.

6. Futures Tracker Rebalancing

Unless a Market Disruption Event has occurred and is continuing, the Futures Tracker will be rebalanced on the relevant Re-weighting Date.

7. Futures Tracker Level

Unless a Market Disruption Event has occurred and is continuing, the Tracker Level will be calculated by the Calculation Agent on each Tracker Business Day.

On the Base Date, the Tracker Level was equal to the initial tracker level as specified in Part B (the “**Initial Tracker Level**”) and the Exposure (E_0) was set at 1. Re-weighting Date k is the Re-weighting Date immediately preceding Tracker Business Day t . Re-weighting Date $k+1$ is the Re-weighting Date immediately following Re-weighting Date k . On each Tracker Business Day t from, but excluding, Re-weighting Date k to, and including, the next following Re-weighting Date $k+1$, the Tracker Level is calculated by the Calculation Agent in accordance with the following formula:

$$\text{Tracker}_{k,t} = E_k \times \text{Future}_{k+1,t}$$

where:

$\text{Tracker}_{k,t}$ means the Tracker Level for Tracker Business Day t ;

$\text{Future}_{k+1,t}$ means the Closing Price for Tracker Business Day t of the Futures Contract that expires on the first Expiry Date to occur following Re-weighting Date $k+1$; and

E_k means the Exposure of the Futures Tracker for Re-weighting Date k immediately preceding Tracker Business Day t calculated as:

$$E_k = E_{k-1} \times \frac{\text{Future}_k - A}{\text{Future}_{k+1}}$$

where:

- Future_k* means the Closing Price for Re-weighting Date k of the Futures Contract that expires on the first Expiry Date to occur following Re-weighting Date k;
- Future_{k+1}* means the Closing Price for Re-weighting Date k of the Futures Contract that expires on the first Expiry Date to occur following Re-weighting Date k+1; and
- A* is the Adjustment Factor (as specified in Part B)

Unless a Market Disruption Event has occurred and is continuing, the Tracker Level will be published in respect of each Tracker Business Day by the Calculation Agent on the relevant Price Source.

8. Market Disruption

8.1 On a Re-weighting Date

If any Re-weighting Date is a Disrupted Day in respect of any relevant Futures Contract (each such Futures Contract for these purposes, an “**Affected Futures Contract**”), then the relevant Re-weighting Date for the Affected Futures Contract shall be deemed to be the first following Dealing Day for the Affected Futures Contract which is not a Disrupted Day (and, if such first following Dealing Day occurs on or after the day on which a relevant Futures Contract effectively settles, the level of the Futures Tracker for such first following Dealing Day will be calculated using the settlement price at which the relevant Futures Contract effectively settles in place of the Closing Price), unless the four Dealing Days for an Affected Futures Contract immediately following the day originally scheduled to be the Re-weighting Date are Disrupted Days for such Affected Futures Contract, in which case the fourth Dealing Day following the day originally scheduled to be the relevant Re-weighting Date shall be deemed to be the relevant Re-weighting Date (notwithstanding that it is a Disrupted Day in respect of the Affected Futures Contract), and the Calculation Agent shall re-weight the Futures Tracker acting in good faith using such information and/or methods as it determines, in its reasonable discretion, are appropriate (and, if such fourth Dealing Day occurs on or after the day on which a relevant Futures Contract effectively settles, using the settlement price at which the relevant Futures Contract effectively settles in place of the Closing Price).

8.2 On a Tracker Business Day

Notwithstanding Section 8.1, if any Tracker Business Day is a Disrupted Day for any relevant Futures Contract, the Calculation Agent may either:

- (a) calculate its good faith estimate of the Tracker Level for such Tracker Business Day, using its good faith estimate of the level of the Affected Futures Contract. Any such estimated level may be subject to correction on the first succeeding Tracker Business Day which is not a Disrupted Day in respect of any Affected Futures Contract; or
- (b) suspend the calculation and publication of the Tracker Level until the first succeeding Tracker Business Day which is not a Disrupted Day in respect of any relevant Futures Contract.

9. Extraordinary Events

9.1 Successor Futures Contract

If any Futures Contract is:

- (a) not calculated and quoted by the Relevant Exchange but by a successor exchange acceptable to the Calculation Agent; or

- (b) replaced by a successor futures contract using, in the determination of the Calculation Agent, the same or substantially similar formula and method of calculation as used in the calculation of the relevant Futures Contract,

then in each case that successor futures contract (the “**Successor Futures Contract**”) shall replace the relevant Futures Contract with effect from a date determined by the Calculation Agent who may make such adjustment to these Rules, as it determines in good faith is appropriate, to account for such change.

9.2 *Material change to Futures Contracts*

Without prejudice to the ability of the Calculation Agent to amend the Rules (see Section 1), the Calculation Agent may, acting in good faith and in a commercially reasonable manner:

- (a) exclude; or
- (b) substitute,

any Futures Contract following the occurrence (and/or continuation) of a Change in Law or in circumstances where it considers it reasonably necessary to do so to reflect the intention of the Futures Tracker, including (without prejudice to the generality of the foregoing) changes announced by the Relevant Exchange relating to the modification, exclusion, inclusion or substitution of any one Futures Contract or any perception among market participants generally that the published price of the relevant Futures Contract is inaccurate (and the Relevant Exchange fails to correct such level), and if it so excludes or substitutes for any Futures Contract, then the Calculation Agent may adjust the Rules as it determines in good faith to be appropriate to account for such exclusion or substitution on such date(s) selected by the Calculation Agent. The Calculation Agent is under no obligation to continue the calculation and publication of any Futures Tracker upon the occurrence or existence of a Change in Law; and the Calculation Agent may decide to cancel any Futures Tracker if it determines, acting in good faith, that the objective of the relevant Futures Tracker can no longer be achieved.

9.3 *Cancellation or non-publication*

If, at any time, any Relevant Exchange:

- (a) announces that it will make a material change in the definition of any Futures Contract or in any other way materially modifies such contract (other than a modification prescribed in the definition of such contract); or
- (b) (i) permanently cancels any Futures Contract and no Successor Futures Contract exists or (ii) is otherwise unable or unwilling to publish levels of the Futures Contract,

then the Calculation Agent may remove such futures contract from the Futures Tracker and may adjust the Rules as it determines in good faith to be appropriate to account for such change(s) (including, without limitation, selecting (a) a replacement underlying futures contract traded on an equivalent exchange and having similar characteristics to the Affected Futures Contract; and (b) the date of such replacement) on such date(s) as selected by the Calculation Agent.

10. **Corrections**

If (i) the Closing Price of any Futures Contract as of any date which is published or otherwise made available by or on behalf of the Relevant Exchange is subsequently corrected and such correction is published or otherwise made available by or on behalf of such Relevant Exchange; or (ii) the Calculation Agent identifies an error or omission in any of its calculations or determinations in respect of the Futures Tracker, then the Calculation Agent may, if practicable and the Calculation Agent determines acting in good faith that such correction, error or omission (as the case may be) is material, adjust or correct the relevant calculation or determination and/or the Tracker Level as of any Tracker Business Day to take into account such correction, if such correction is practicable.

11. **Responsibility**

The Calculation Agent shall act in good faith and in a commercially reasonable manner with respect to the performance of its obligations and the exercise of its discretions pursuant to these Rules.

Whilst these Rules are intended to be comprehensive, ambiguities may arise. In such circumstances, the Calculation Agent will resolve such ambiguities in a reasonable manner and, if necessary, amend these Rules to reflect such resolution.

Neither the Calculation Agent nor any of its affiliates or subsidiaries or any of their respective directors, officers, employees, representatives, delegates or agents (each a “**Relevant Person**”) shall have any responsibility to any person (whether as a result of negligence or otherwise) for any determinations made or anything done (or omitted to be determined or done) in respect of the Futures Tracker and any use to which any person may put the Futures Tracker or the Tracker Level. All determinations of the Calculation Agent in respect of the Futures Tracker shall be final, conclusive and binding and no person shall be entitled to make any claim against any of the Relevant Persons in respect thereof. Once a determination or calculation is made or action taken by the Calculation Agent in respect of the Futures Tracker, neither the Calculation Agent nor any other Relevant Person shall be under any obligation to revise any determination or calculation made or action taken for any reason.

12. Information specified in Part B

In respect of each Futures Tracker, the following items are listed in Part B:

- Tracker Name
- Additional Risk Factors, if applicable
- The Adjustment Factor
- The Base Date
- The Expiry Date for each Futures Contract (and table)
- The Futures Tracker Currency
- The Initial Tracker Level
- The name of the Base Underlying
- The Number of Contracts p.a.
- The Official Settlement Price
- The Price Source
- The Relevant Exchange
- The Re-weighting Date
- Futures Contract

[REST OF THIS PAGE LEFT INTENTIONALLY BLANK]

Definitions

Terms not otherwise defined herein, shall have the following meanings:

“Adjustment Factor” see Part B;

“Base Date” see Part B;

“Base Underlying” see Part B;

“Calculation Agent” see Section 3;

“Change in Law” means:

(a) due to:

- (i) the adoption of, or any change in, any applicable law, regulation or rule (including, without limitation, any tax law); or
- (ii) the promulgation of, or any change in, the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law, rule, regulation or order (including, without limitation, as implemented by the U.S. Commodity and Futures Trading Commission or exchange or trading facility),

in each case, the Calculation Agent determines in good faith that (x) it is contrary to such law, rule, regulation or order for any market participants that are brokers or financial intermediaries (individually or collectively) to hold, acquire or dispose of (in whole or in part) any Futures Contract or any transaction referencing any Futures Contract or, (y) holding a position in any Futures Contract or any transaction referencing any Futures Contract is (or, but for the consequent disposal or termination thereof, would otherwise be) in excess of any allowable position limit(s) applicable to any market participants that are brokers or financial intermediaries (individually or collectively) under any such law, rule, regulation in relation to such Futures Contract traded on any exchange(s) or other trading facility (including, without limitation, any relevant Exchange); or

(b) the occurrence or existence of any:

- (i) suspension or limitation imposed on trading commodities futures contracts (including, without limitation the Futures Contracts); or
- (ii) any other event that causes trading in commodity futures contracts (including, without limitation, the Futures Contracts) to cease;

“Closing Price” means, in respect of a Futures Contract and a Dealing Day, the Official Settlement Price;

“Dealing Day” means, in respect of a Futures Contract, a day upon which the Official Settlement Price for such Futures Contract is, or but for the occurrence of a Market Disruption Event would have been, scheduled to be calculated and published by the Relevant Exchange;

“Disrupted Day”	means, in respect of a Futures Contract, a Dealing Day on which a Market Disruption Event occurs or exists;
“Early Closure”	means the closure on any Tracker Business Day of the Relevant Exchange prior to its scheduled closing time unless such earlier closing time is announced by such exchange(s) at least one hour prior to the actual closing time for the regular trading session on such exchange(s) on such Tracker Business Day;
“Exchange Disruption”	means any event (other than an Early Closure) that disrupts or impairs (as determined by the Calculation Agent) the ability of market participants in general to effect transactions in, or obtain market values for, futures (including, without limitation, the Futures Contracts) or options contracts relating to the Base Underlying on any Relevant Exchange;
“Expiry Date”	see Part B;
“Far Futures Contracts”	see Section 2;
“Futures Contracts”	see Part B;
“Futures Tracker Currency”	means, in respect of a Futures Contract, the currency in which such Futures Contract is reported, as specified in respect of such Futures Contract in Part B;
“JPMS”	means J.P. Morgan Securities plc;
“Market Disruption Event”	means, in respect of a Futures Contract and a Dealing Day, a failure by the Relevant Exchange to calculate and publish the Closing Price for the Futures Contract on such Dealing Day, or any event that, in the determination of the Calculation Agent, disrupts or impairs the ability of market participants generally to effect transactions in or obtain market values for such Futures Contract. Such events may include, but not be limited to, the occurrence of any of a Trading Disruption, Exchange Disruption or Early Closure;
“Near Futures Contract”	see Section 2;
“Number of Contracts p.a.”	see Part B;
“Official Settlement Price”	see Part B;
“Price Source”	see Part B;
“Relevant Exchange”	see Part B;
“Re-weighting Date”	see Part B;
“Rules”	means this document, as may be supplemented, amended or restated from time to time;
“Successor Futures Contract”	see Section 9.1;
“Tracker Business Day”	means a day on which the Relevant Exchange is open for trading during its regular trading session;
“Tracker Level”	see Sections 2 and 7; and
“Trading Disruption”	means any suspension of or limitation imposed on trading by the Relevant Exchange or otherwise and whether by reason of movements in price exceeding limits permitted by the Relevant Exchange or otherwise in futures (including,

without limitation, the Futures Contracts) or options contracts relating to the Base Underlying on any Relevant Exchange.

[REST OF THIS PAGE LEFT INTENTIONALLY BLANK]

Risk Factors

The following list of risk factors does not purport to be a complete enumeration or explanation of all the risks associated with each of the Futures Trackers.

(a) Proprietary and Rules-Based Trading Strategy

The Futures Tracker follows a notional rules-based proprietary trading strategy that operates on the basis of pre-determined rules. Accordingly, potential investors in financial products which are linked to the performance of the Futures Tracker should determine whether those rules as described in the Rules of the Futures Tracker are appropriate in light of their individual circumstances and investment objectives.

No assurance can be given that the investment strategy on which the Futures Tracker is based will be successful or that the Futures Tracker will outperform any alternative strategy that might be employed in respect of the Futures Contracts.

(b) Notional Exposures

The Futures Tracker comprises notional assets and liabilities. The exposures to the Futures Contracts are purely notional and will exist solely in the records maintained by or on behalf of the Calculation Agent. Consequently, investors in financial products which are linked to the performance of the Futures Tracker will not have any claim against any of the reference assets which comprise the Futures Tracker. The Futures Tracker tracks returns of a Futures Contract and as such constitutes an unfunded investment.

(c) Lack of Operating History

The Futures Tracker is only recently established and therefore has no history to evaluate its likely performance. Any back-testing or similar analysis performed by any person in respect of the Futures Tracker must be considered illustrative only and may be based on estimates or assumptions not used by the Calculation Agent when determining the Tracker Level of the Futures Tracker.

Past performance should not be considered indicative of future performance.

(d) Market Risks

The performance of the Futures Tracker is dependent on the performance of the relevant Futures Contract. As a consequence, investors in financial products the return of which is linked to the Futures Tracker should appreciate that their investment is exposed to the price performance of the Futures Contracts.

A futures contract often displays on any given day considerably higher volatility than an index comprising equities such as the Base Underlying and investors should be willing to accept additional risks such as increased volatility, futures contract liquidity and supply and demand factors. These factors are likely to influence the Tracker Level, whereas such factors may not be relevant in respect of the level or volatility of the Base Underlying. The exposure of the Futures Tracker to the relevant Futures Contract is affected by the roll return. Additionally, the Tracker Level is affected by the magnitude of the Adjustment Factor.

Generally, futures contracts are often less liquid than the Base Underlying.

(e) Extraordinary Events

Following the occurrence of certain extraordinary events as described in Section 9 of the Rules, with respect to a Futures Contract, the affected Futures Contract may be replaced by a substitute Futures Contract. Such substitution may have a material effect on the economics of the Futures Tracker.

(f) Calculation Agent Discretion

The Rules of the Futures Tracker confer on the Calculation Agent discretion in making certain determinations and calculations from time to time. The exercise of such discretion in the making of calculations and determinations

may adversely affect the performance of the Futures Tracker. Without limitation to the generality of the foregoing, the Calculation Agent has a discretion in relation to the calculation of the Tracker Level in the event of a Market Disruption Event.

(g) Potential Conflicts of Interest

Potential conflicts of interest may exist in the structure and operation of the Futures Tracker and in the course of the normal business activities of JPMS or any of its affiliates or subsidiaries or their respective directors, officers, employees, representatives, delegates or agents. Further information is set out in the disclaimer below.

The foregoing list of risk factors is not intended to be exhaustive. All persons should seek such advice as they consider necessary from their professional advisors, legal, tax or otherwise, without reliance on the Calculation Agent or any of its affiliates or subsidiaries or any of their respective directors, officers, employees, representatives, delegates or agents.

Notices, Disclaimers and Conflicts of Interest

These Rules have been prepared solely for informational purposes and nothing in these Rules constitutes an offer to buy or sell any securities, participate in any transaction or adopt any investment Index or as legal, tax, regulatory, financial or accounting advice. These Rules may change at any time without prior notice.

Neither the Calculation Agent nor any of its affiliates or subsidiaries or their respective directors, officers, employees, representatives, delegates or agents (each a "**Relevant Person**") make any representation or warranty, whatsoever, express or implied, as to the results that may be obtained through the use of this document or the Futures Tracker. Each Relevant Person hereby expressly disclaims, to the fullest extent permitted by law, all warranties of accuracy, completeness, merchantability, or fitness for a particular purpose with respect to any information contained in this document and no Relevant Person shall have any liability (direct or indirect, special, punitive, consequential or otherwise) to any person even if notified of the possibility of any such damages.

The Calculation Agent is under no obligation to continue the calculation, publication and dissemination of the Futures Tracker or the Tracker Level.

During the course of their normal business, the Calculation Agent or any of the other Relevant Persons may (i) enter into or promote, offer or sell transactions or investments (structured or otherwise) linked to the Futures Tracker. In addition, any Relevant Person may have, or may have had, interests or positions, or may buy, sell or otherwise trade positions in or relating to the Futures Tracker, or may invest or engage in transactions with other persons, or on behalf of such persons relating to such contracts. Such activity may or may not have an impact on the Tracker Level but all persons reading this document should be aware that a conflict of interest could arise where anyone is acting in more than one capacity, and such conflict may have an impact, positive or negative on the Tracker Level. Neither the Calculation Agent nor any other Relevant Person has any duty to consider the circumstances of any person when participating in such transactions or to conduct themselves in a manner that is favourable to anyone with exposure to the Futures Tracker.

The Rules have been developed with the possibility of the Calculation Agent or any of the other Relevant Persons entering into or promoting, offering or selling transactions or investments (structured or otherwise) linked to the Futures Tracker and hedging such transactions or investments in any manner that they see fit.

As mentioned above, the Futures Tracker is synthetic index because there is no actual portfolio of assets to which any person is entitled or in which any person has any ownership interest. The Futures Tracker merely identifies certain reference assets, the performance of which will be used as a reference point calculating the Tracker Level.

No one may reproduce or disseminate the information contained in this document or the Tracker Level of the Futures Tracker without the prior written consent of the Calculation Agent. This document is not intended for distribution to, or use by any person in, a jurisdiction where such distribution is prohibited by law or regulation.

The Rules shall be governed by and construed in accordance with the laws of England.

Copyright JPMorgan Chase & Co. 2013. All rights reserved. J. P. Morgan is the marketing name for JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide. J.P. Morgan Securities plc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority and is a member of the London Stock Exchange. The Calculation Agent owns all intellectual property rights in: the development of and methodology for

producing the J.P. Morgan Futures Tracker Series; the Futures Trackers within the J.P. Morgan Futures Tracker Series; the Tracker Levels in respect of such Futures Trackers; and these Rules. Such intellectual property rights must not be used without the prior written consent of the Calculation Agent (including in situations where a third party performs certain functions in relation to the Futures Trackers).

**Disclosures Related to the FX Tracker Indices
(dated October 19, 2015)**

This Disclosure Supplement for the J.P. Morgan FX Tracker Indices, dated October 19, 2015 (the “**Disclosure Supplement**”), supplements and should be read in conjunction with the General Disclosure Statement (“**General Disclosure Statement**”) and the Interest Rate Disclosure Annex (the “**Interest Rate Annex**”), dated April 26, 2013 and April 26, 2013, respectively, published by the International Swaps & Derivatives Association Inc. NOTHING IN THIS SUPPLEMENT AMENDS OR SUPERSEDES THE EXPRESS TERMS OF THE NOTES OR THE INDEX RULES. Accordingly, descriptions in this Disclosure Supplement of the operation of Transactions (as defined below) and the consequences of various events are in all cases subject to the actual terms of a Transaction executed between you and us and its governing documentation. Any terms not defined herein shall have the meaning ascribed thereto in the Index Rules (as defined below). The General Disclosure Statement and the Commodities Disclosure Annex are each available via the following hyperlink:

www2.isda.org/functional-areas/legal-and-documentation/disclosures/

When we refer to a “Transaction”, we are referring to Transactions in which the underlying(s) is/are or may include exposure to the Index (as defined herein). The terms of a Transaction may be customized pursuant to the terms of the Transaction and its governing documentation. Before entering into a Transaction, you should obtain and review carefully all governing documentation and disclosures, as their content could materially affect your rights and obligations under the Transaction, its value and its appropriateness for your particular objectives.

To the extent you enter into a Transaction that references the J.P. Morgan FX Tracker Indices, in whole or in part, you should carefully review the disclosure set forth herein. This Disclosure Supplement, together with the Index Rules (as defined below), the documents governing your Transaction, the disclosure annexes referenced above and any other disclosure delivered by us to you related to your specific Transaction, constitute our disclosure to you of the material economic terms, the material risks and potential conflicts of interests associated with your specific Transaction. You should carefully consider all of these documents prior to entering into a Transaction.

Index Summary

The J.P. Morgan FX Tracker Indices (the “**Index Family**”) are a family of synthetic, rules-based proprietary indices developed and maintained by J.P. Morgan Securities plc (“**JPMS plc**” or the “**Index Calculation Index**”). The Index Level is published under the Bloomberg tickers specified in Table 1 below with respect to each index in the Index Family (each such index, an “**Index**”). The Index Family has an Index Live Date of November 26, 2015, and therefore has limited historical performance. The rules of the Index (the “**Index Rules**”) are available via the following hyperlink:

www.jpmmorgan.com/directdoc/FX_Tracker_Indices.pdf

The Index aims to replicate the returns of a notional rolling portfolio of synthetic forwards transactions that have a scheduled term of twenty (20) Calculation Days and reference a single Currency pair as specified in Table 1 below with respect to each Index. The Index implements this idea by initiating synthetic FX forward positions in the applicable Currency Pairs set out in Table 1 below with respect to each Index.

Table 1: Indices

Index Name	Bloomberg Page	Index Base Date	Currency Pair_i
J.P. Morgan EUR FX Tracker Index	JPFCTEUR <Index>	1 January 1999	EUR/USD
J.P. Morgan GBP FX Tracker Index	JPFCTGBP <Index>	1 January 1999	GBP/USD
J.P. Morgan CHF FX Tracker Index	JPFCTCHF <Index>	1 January 1999	USD/CHF
J.P. Morgan NOK FX Tracker Index	JPFCTNOK <Index>	1 January 1999	USD/NOK
J.P. Morgan SEK FX Tracker Index	JPFCTSEK <Index>	1 January 1999	USD/SEK
J.P. Morgan AUD FX Tracker Index	JPFCTAUD <Index>	1 January 1999	AUD/USD
J.P. Morgan NZD FX Tracker Index	JPFCTNZD <Index>	1 January 1999	NZD/USD
J.P. Morgan CAD FX Tracker Index	JPFCTCAD <Index>	1 January 1999	USD/CAD
J.P. Morgan JPY FX Tracker Index	JPFCTJPY <Index>	1 January 1999	USD/JPY
J.P. Morgan DKK FX Tracker Index	JPFCTDKK <Index>	1 January 1999	USD/DKK
J.P. Morgan SGD FX Tracker Index	JPFCTSGD <Index>	1 January 1999	USD/SGD
J.P. Morgan MXN FX Tracker Index	JPFCTMXN <Index>	1 January 1999	USD/MXN
J.P. Morgan CZK FX Tracker Index	JPFCTCZK <Index>	1 January 1999	USD/CZK
J.P. Morgan HUF FX Tracker Index	JPFCTHUF <Index>	1 January 1999	USD/HUF
J.P. Morgan ILS FX Tracker Index	JPFCTILS <Index>	1 July 2004	USD/ILS
J.P. Morgan PLN FX Tracker Index	JPFCTPLN <Index>	11 February 2002	USD/PLN
J.P. Morgan TRY FX Tracker Index	JPFCTTRY <Index>	2 January 2002	USD/TRY
J.P. Morgan ZAR FX Tracker Index	JPFCTZAR <Index>	1 January 1999	USD/ZAR
J.P. Morgan RUB FX Tracker Index	JPFCTRUB <Index>	1 July 2004	USD/RUB
J.P. Morgan RON FX Tracker Index	JPFCTRON <Index>	1 July 2005	USD/RON

Index Summary

The J.P. Morgan FX Tracker Indices are a family of rules based proprietary indices. The family of indices currently includes twenty (20) reference currencies, each of which are expressed in a base currency and are described in greater detail in the Index Rules.

Each Index seeks to track the performance of a notional portfolio of synthetic forwards transactions that have a scheduled term of twenty (20) Calculation Days and reference a single Currency Pair. In respect of each Calculation Day that is not a Disrupted Day, each Index will synthetically initiate a new synthetic forward transaction on its applicable Currency Pair, and that synthetic forward transaction will have an initial notional amount equal to 1/20th of the Index Level of such Index on the immediately preceding Calculation Day that was not a Disrupted Day.

Index Methodology Overview

As of the Index Base Date, the notional portfolio of each Index initially held no synthetic forwards transaction, and on such Index Base Date and each subsequent Calculation Day that is not a Disrupted Day, each Index initiate a new synthetic forward transaction. As of the twentieth (20th) Calculation Day from the Index Base Date, the notional portfolio of each Index is generally composed of twenty (20) synthetic forwards transactions.

The Index Calculation Agent will calculate the Index Level in respect of each Index on any Calculation Day that is not a Disrupted Day. In respect of each Calculation Day that is not a Disrupted Day, the Index Level for each Index is a valuation of its notional portfolio of synthetic forward transactions as of such Calculation Day and will be based on (a) the Index Level as of the immediately preceding Calculation Day that was not a Disrupted Day, (b) the change in the mark-to-market value of the portfolio of synthetic forward transactions on such Calculation Day that is not a Disrupted Day and (c) the settlement amount of any synthetic forward transaction referenced by that Index, which terminated in the period from and excluding the previous Calculation Day that was not a Disrupted Day to and including such Calculation Day, each as further described in the Index Rules. **If, in respect of a Calculation Day, the calculations referenced in Step 4 would result in an Index Level that is less than or equal to zero, the Index Level for that Calculation Day and each subsequent Calculation Day shall be deemed to be zero.**

The Index Level of each Index is a mathematical calculation only and the Indices do not actually buy, sell or hold any assets.

In respect of each Calculation Day that is not a Disrupted Day, the Index Calculation Agent will determine and publish the Index Level as described in these Index Rules. Notwithstanding anything to the contrary, the Index Calculation Agent will not publish the Index Level in respect of any Calculation Day that is a Disrupted Day.

RISK FACTORS

*The following risk factors relate solely to the J.P. Morgan FX Tracker Indices and supplements the other risk factors set forth in the accompanying disclosures related to any Transaction between you and us. These risk factors should be read together with the risk factors set forth in the General Disclosure Statement, the Interest Rate Disclosure Annex and any other disclosure annex. **You should carefully review these risk factors (including the risk factors relating to potential conflicts of interest) prior to making your investment decision to enter into a Transaction.***

Proprietary and rules-based Index

The Index follows a notional rules-based proprietary trading strategy that operates on the basis of pre-defined rules. Accordingly, potential investors in Transactions linked to the performance of the Index should determine whether the applicable rules-based proprietary trading strategy (as described in the Index Rules) is appropriate in light of their individual circumstances and investment objectives.

No assurance can be given that any synthetic investment strategy on which the Index is based will be successful or that the Index will outperform any alternative strategy that might be employed in respect of the Currency Pairs referenced.

Notional Exposure

The Index is constructed on a “notional” synthetic portfolio of forward positions in respect of the Currency Pairs. There is no actual portfolio to which any person is entitled or in which any person has any ownership interest. The Index merely defines a notional rules-based proprietary trading strategy, the performances of which are used as a reference point for the purposes of calculating the Index Level. Consequently, investment in Transactions that are linked to the performance of the Index will not have any claim against any of the Currency Pairs in, or any other components referenced by, the Index.

Lack of Operating History

The Index is only recently established and therefore there is limited history to evaluate its past performance. Any back-testing or similar analysis performed by any person in respect of the Index must be considered illustrative only and may be based on estimates or assumptions not used by the Index Calculation Index when determining the Index Level. Past performance should not be considered indicative of future performance.

The Index may not perform as expected

The Index may not perform in the manner that is expected. Various market factors and circumstances at any time and/or over any period could cause the Index to perform differently than how it is expected to perform. Neither the Index Sponsor nor the Index Calculation Index provides any assurance as to the expected results of the Index over any period of time.

The Index Level may fall

The Index Level is determined, in part, by reference to the performance of the synthetic long exposures (which are in turn determined by reference to the closing prices of certain synthetic forward transactions, (“**Synthetic Forward**”)). All other things being equal, the Index Level will fall when the closing prices of the Synthetic Forwards referenced by the synthetic long synthetic exposure fall.

Index Level

The forward positions in respect of the Currency Pairs referenced by the Index can be volatile and move dramatically over short periods of time. There can be no assurance that the relevant synthetic exposures will not be subject to substantial negative returns. Positive returns on the Index may therefore be reduced or eliminated entirely due to movements in any market parameters negatively affecting the relevant synthetic exposures.

Market Risks

The performance of the Index is dependent in part on the forward positions in respect of the Currency Pairs referenced by the Index and the relevant notional rules-based proprietary trading strategy. As a consequence, investors in Transactions linked to the Index should appreciate that their investment is exposed to the performance of each of the Currency Pairs and such rules-based strategy.

Currency Exchange Risk

Investors in Transactions are exposed to currency exchange rate risk with respect to each of the relevant Currency Pairs. An investor's net exposure will depend on the extent to which those relevant currencies strengthen or weaken against each other in the relevant Currency Pairs. Of particular importance to potential currency exchange risks are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments;
- political, civil or military unrest; and
- the extent of governmental surpluses or deficits in the relevant countries and the United States.

All of these factors are, in turn, sensitive to the monetary, fiscal and trade policies pursued by the governments of various countries, the United States and other countries important to international trade and finance.

The value of your investment in a Transaction could be affected by the actions of the governments of the United States and the originating nations of the relevant currencies.

Foreign exchange rates can either be fixed by sovereign governments or floating. Exchange rates of most economically developed nations are permitted to fluctuate in value relative to the value of other currencies. However, governments do not always allow their currencies to float freely in response to economic forces. Governments use a variety of techniques, such as intervention by their central bank or imposition of regulatory controls or taxes, to affect the trading value of their respective currencies. They may also issue a new currency to replace an existing currency or alter the exchange rate or relative exchange characteristics by devaluation or revaluation of a currency. Thus, a special risk in entering into an Transaction is that the Index could be affected by the actions of sovereign governments which could change or interfere with freely determined currency valuation, fluctuations in response to other market forces and the movement of currencies across borders, which in turn could affect the observed trend in foreign exchange rates that realized volatility is lower than implied volatility.

Currency exchange risks can be expected to heighten in periods of financial turmoil and may adversely affect the Index.

In periods of financial turmoil, capital can move quickly out of regions that are perceived to be more vulnerable to the effects of the crisis than others with sudden and severely adverse consequences to the

currencies of those regions. In addition, governments around the world, including the United States government and governments of other major world currencies, have recently made, and may be expected to continue to make, very significant interventions in their economies, and sometimes directly in their currencies. Those interventions affect currency exchange rates globally and, in particular, the value of the currencies relative to the U.S. dollar. Further interventions, other government actions or suspensions of actions, as well as other changes in government economic policy or other financial or economic events affecting the currency markets, may cause currency exchange rates to fluctuate sharply in the future, which could have a material adverse effect on the return on your investment in a Transaction. These heightened currency exchange risks during periods of financial turmoil are unpredictable and may affect the observed trend in foreign exchange rates that realized volatility is lower than implied volatility.

Suspensions or disruptions of market trading in the currency markets may adversely affect the value of your investment in a Transaction.

The currency markets are subject to temporary distortions or other disruptions due to various factors, including the participation of speculators and government regulation and intervention. These circumstances could affect the value of the currencies underlying the Index, and, therefore, the amount of the return on your investment in a Transaction.

Continued publication of constituent data

The publication of the Index Level may depend on the maintenance of requisite index licenses and the continued Spot Rate publication of the currencies referenced by each of the Currency Pairs. Any disturbance or discontinuation of any of these actions may adversely affect the ability of the Index Calculation Index to continue with the calculation and publication of the Index Level.

Index Calculation Index Discretion

The Index Rules confer on the Index Calculation Index discretion in making certain determinations and calculations from time to time. The exercise of such discretion in the making of calculations and determinations may adversely affect the performance of the Index.

Potential Conflicts of Interest

Potential conflicts of interest may exist in the structure and operation of the Index and the course of the normal business activities of the Index Sponsor, the Index Calculation Index and any of their affiliates or subsidiaries or their respective directors, officers, employees, representatives or agents (each a “**Relevant Person**”).

During the course of their normal business, the Index Sponsor, the Index Calculation Index and each Relevant Person may enter into or promote, offer or sell transactions or investments (structured or otherwise) linked to the Index. In addition, the Index Sponsor, the Index Calculation Index and any Relevant Person may have, or may have had, interests or positions, or may buy, sell or otherwise trade positions in or relating to the Index, or may invest or engage in transactions with other persons, or on behalf of such persons relating to any of these items. Such activity may or may not have an impact on the Index Level but all persons reading this document should be aware that a conflict of interest could arise where anyone is acting in more than one capacity, and such conflict may have an impact, positive or negative, on the Index Level. None of the Index Sponsor, the Index Calculation Index or any Relevant Person has any duty to consider the circumstances of any person when participating in such transactions or to conduct themselves in a manner that is favorable to anyone with exposure to the Index.

JPMorgan or JPMorgan's affiliates may have economic interests that are adverse to counterparties of a Transaction as a result of JPMorgan's hedging and other trading activities.

JPMorgan expects to hedge its obligations under a Transaction through certain affiliates or unaffiliated counterparties by taking positions in instruments the value of which is derived from one or more currencies, currency futures contracts or currency indices, or positions in futures contracts underlying one or more indices or positions in related options or futures contracts. JPMorgan may also adjust its hedge by, among other things, purchasing or selling any of the foregoing at any time and from time to time, and close out or unwind our hedge. JPMorgan cannot give you any assurances that its hedging will not negatively affect the value of the underlying index/indices or the Transactions.

JPMorgan or JPMorgan's affiliates may have economic interests that are adverse to those of the counterparties to a Transaction as a result of JPMorgan's business activities.

In the course of our business, JPMorgan or JPMorgan's affiliates may acquire nonpublic information about one or more relevant currencies, currency futures contracts or indices, and JPMorgan will not disclose any such information to you. In addition, one or more of JPMorgan's affiliates may publish research reports or otherwise express views about one or more one or more relevant currencies, currency futures contracts or indices. Any prospective counterparty in a Transaction should undertake an independent investigation of any relevant currencies, currency futures contracts or indices as in its judgment is appropriate to make an informed decision with respect to a Transaction.

Additionally, JPMorgan or one of JPMorgan's affiliates may serve as issuer, agent or underwriter for issuances of other securities or financial instruments or counterparty to derivative transactions (other than the Transactions) with returns linked or related to changes in the price or level, as applicable, of one or more relevant currencies. To the extent that JPMorgan or one of JPMorgan's affiliates serves as issuer, agent or underwriter for those securities or financial instruments or counterparty to currency transactions (other than the Transactions), JPMorgan's or JPMorgan's affiliates' interests with respect to those products may be adverse to those of the counterparty to a Transaction.

Market Disruption Events

The publication and/or determination of the Index Level may be affected by the occurrence of certain market disruption events with respect to the Currency Pairs, which could interfere with the ability of market participants generally to transact in positions with respect to the Currency Pairs. Such events are set out more fully in the Index Rules and are referred to as Market Disruption Events. If a Market Disruption Event occurs, the Index Calculation Index will not calculate the Index Level for such Calculation Day and will suspend the calculation and publication of the Index Level until the first succeeding Calculation Day that is not a Disrupted Calculation Day.

Extraordinary Events

The calculation of the Index Level depends on, amongst other things, the continued existence of the Currency Pair. As a result, any Extraordinary Event relating to any of the Currency Pairs may adversely affect the ability of the Index Calculation Index to continue with the calculation and publication of the Index Level. In addition, amongst other things, a change in law that makes it contrary to law to hold, acquire or dispose of any transaction or interest in or relating to a Currency Pair may also result in the Index Calculation Index excluding or substituting an affected Currency Pair. All such events are set out more fully in the Index Rules under the heading "Extraordinary Events" and in the related definitions.

The occurrence of certain Extraordinary Events with respect to a Currency Pair may result in the affected Currency Pair being replaced by a substitute Currency Pair and the Index Calculation Index may cease publishing the Index.

In respect of a Change in Law, the Index Calculation Index may exclude or substitute any Currency Pair following such Change in Law and, if it excludes or substitutes such affected Currency Pair, then the Index Calculation Index may adjust the Index Rules as it determines in good faith to be appropriate to account for such exclusion or substitution.

Amendments

The Index Sponsor may amend the Index Rules from time to time at its discretion and will re-publish (in a manner determined by the Index Sponsor from time to time) the Index Rules no later than one calendar month following such amendment. JPMS plc as the Index sponsor (the “**Index Sponsor**”) shall not have any responsibility to any person for any determination, interpretation or calculation made or anything done (or omitted to be done) (whether as a result of negligence or otherwise) in respect of any Index or in respect of the publication of any Index Level (or failure to publish such level) or any use to which any person may put the Index or the Index Levels.

PART B

APPENDIX 1.16

The J.P. Morgan US Treasury Note Futures Tracker

1. Introduction

This Appendix comprises the variables required to complete the Rules of the J.P. Morgan US Treasury Note Futures Tracker (the “**Variables**” and the “**Futures Tracker**”). Variables may be amended from time to time at the discretion of J.P. Morgan Securities plc (“**JPMS**”) in its capacity as Calculation Agent. The Variables will be re-published no later than one calendar month following amendment to reflect any such changes. This document must be read in conjunction with Part A of the Rules of the J.P. Morgan Futures Tracker Series. This Appendix 1.16 was amended and restated as of 4 December, 2013.

2. Definitions

Variables	
Tracker Name	The J.P. Morgan US Treasury Note Futures Tracker
Price Source	Bloomberg page RFJPUSBE
Base Underlying	The 10 Year US Treasury Note
Re-weighting Date	The 2nd to last Dealing Day of February, May, August and November
Adjustment Factor	Shall equal 0.0625
Futures Tracker Currency	US Dollars (USD)
Relevant Exchange	Means, as at the Base Date, the Chicago Board of Trade (CBOT) or any successor thereof or otherwise any exchange on which any Successor Futures Contract is traded, from time to time
Initial Tracker Level	114.50
Official Settlement Price	Means the closing price published on the price source given by the relevant Bloomberg Code for the Futures Contract (defined below)
Base Date	25-Feb-99
Expiry Dates	Expected to be the 3rd Wednesday of March, June, September and December
Number of Contracts p.a.	4
Futures Contract	Means the futures contract identified by the following Bloomberg Codes from time to time

<i>Futures Contracts</i>				
<i>i</i>	Futures Contract	Bloomberg Month Code	Currency	Expected Bloomberg Code*
1	March	H	USD	TYH&"Year" <Comdty>
2	June	M	USD	TYM&"Year" <Comdty>
3	September	U	USD	TYU&"Year" <Comdty>
4	December	Z	USD	TYZ&"Year" <Comdty>

*The Bloomberg codes are typically constructed as "TY" followed by the Bloomberg Month Code followed by the year in which the Expiry Date falls, so that the March 09 Futures Contract shall have ticker TYH09 Index or TYH9 Index. If the Relevant Exchange publishes any modification to the composition of the Bloomberg code referenced in the table above, such new Bloomberg code shall be deemed to be Bloomberg code in respect of the Futures Contract. If the Calculation Agent determines that a successor Futures Contract is to replace the existing Futures Contract, then, on and from the date of such replacement, the Bloomberg code for the successor Futures Contract shall be deemed to be the relevant Bloomberg code for the futures contract in question.

3. Additional Risk Factors

Not Applicable

Copyright JPMorgan Chase & Co. 2013. All rights reserved. J. P. Morgan is the marketing name for JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide. J.P. Morgan Securities plc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority and is a member of the London Stock Exchange. The Calculation Agent owns all intellectual property rights in: the development of and methodology for producing the J.P. Morgan Futures Tracker Series; the Futures Trackers within the J.P. Morgan Futures Tracker Series; the Tracker Levels in respect of such Futures Trackers; and these Rules. Such intellectual property rights must not be used without the prior written consent of the Calculation Agent (including in situations where a third party performs certain functions in relation to the Tracker).

PART B

APPENDIX 1.35

The J.P. Morgan 2-Year US Treasury Note Futures Tracker

1. Introduction

This Appendix comprises the variables required to complete the Rules for the J.P. Morgan 2-Year US Treasury notes Futures Tracker (the “**Variables**” and the “**Futures Tracker**”). The Variables may be amended from time to time at the discretion of J.P. Morgan Securities plc (“**JPMS**”) in its capacity as Calculation Agent. The Variables will be re-published no later than one calendar month following amendment to reflect any such changes. This document must be read in conjunction with Part A of the Rules of the J.P. Morgan Futures Tracker Series. This Appendix 1.35 was amended and restated as of 15 January, 2014.

2. Definitions

Variables	
Tracker Name	The J.P. Morgan 2-Year US Treasury Note Futures Tracker
Price Source	Bloomberg page FTJPUS2E
Base Underlying	2-Year US Treasury Note Futures (Bloomberg Ticker TU1 Comdty)
Re-weighting Date	Two (2) Dealing Days prior to the Expiry Month of the Near Futures Contract
Adjustment Factor	Shall equal 4/64
Futures Tracker Currency	US Dollar (USD)
Relevant Exchange	Means, as at the Base Date, the CBT-Chicago Board of Trade or any successor thereof or otherwise any exchange on which any Successor Futures Contract is traded, from time to time;
Initial Tracker Level	99.344
Official Settlement Price	Means the closing price published on the price source given by the relevant Bloomberg Code for the Futures Contract (defined below)
Base Date	22 December 1999
Expiry Dates	Last Business Day of the calendar months March, June, September and December
Number of Contracts p.a.	4
Futures Contract	Means the futures contract identified by the following Bloomberg Codes from time to time

<i>Futures Contracts</i>				
<i>i</i>	Futures Contract	Bloomberg Month Code	Currency	Expected Bloomberg Code*
1	March	H	USD	TUH&"Year" <Comdty>
2	June	M	USD	TUM&"Year" <Comdty>
3	September	U	USD	TUU&"Year" <Comdty>
4	December	Z	USD	TUZ&"Year" <Comdty>

*The Bloomberg codes are typically constructed as "TU" followed by the Bloomberg Month Code followed by the year in which the Expiry Date falls, so that for the contract expiring prior to and including March 2012 such as March 2009 Futures Contract shall have ticker TUH09 Comdty, while June 2012 onwards contracts such as March 2013 Futures Contract shall have ticker TUH3 Comdty. If the Relevant Exchange or Bloomberg publishes any modification to the composition of the Bloomberg code referenced in the table above, such new Bloomberg code shall be deemed to be Bloomberg code in respect of the Futures Contract. If the Calculation Agent determines that a successor Futures Contract is to replace the existing Futures Contract, then, on and from the date of such replacement, the Bloomberg code for the successor Futures Contract shall be deemed to be the relevant Bloomberg code for the futures contract in question.

3. Additional Risk Factors

Not Applicable

Copyright JPMorgan Chase & Co. 2014. All rights reserved. J. P. Morgan is the marketing name for JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide. J.P. Morgan Securities plc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority and is a member of the London Stock Exchange. The Calculation Agent owns all intellectual property rights in: the development of and methodology for producing the J.P. Morgan Futures Tracker Series; the Futures Trackers within the J.P. Morgan Futures Tracker Series; the Tracker Levels in respect of such Futures Trackers; and these Rules. Such intellectual property rights must not be used without the prior written consent of the Calculation Agent (including in situations where a third party performs certain functions in relation to the Tracker).

PART B

APPENDIX 1.27

The J. P. Morgan 30-Year US Treasury Bond Futures Tracker

1. Introduction

This Appendix comprises the variables required to complete the Rules for the J.P. Morgan 30-Year US Treasury bond Futures Tracker (the “**Variables**” and the “**Futures Tracker**”). The Variables may be amended from time to time at the discretion of J.P. Morgan Securities plc (“**JPMS**”) in its capacity as Calculation Agent. The Variables will be re-published no later than one calendar month following amendment to reflect any such changes. This document must be read in conjunction with Part A of the Rules of the J.P. Morgan Futures Tracker Series. This Appendix 1.27 was amended and restated as of 4 December, 2013.

2. Definitions

Variables	
Tracker Name	J.P. Morgan 30-Year US Treasury bond Futures Tracker (net)
Price Source	Bloomberg page FTJMTBE
Base Underlying	The 30-Year US Treasury Note
Re-weighting Date	Second to last Dealing Day of February, May, August and November
Adjustment Factor	Shall equal 0.0625
Futures Tracker Currency	US Dollar (USD)
Relevant Exchange	Means, as at the Base Date, the CBT-Chicago Board of Trade or any successor thereof or otherwise any exchange on which any Successor Futures Contract is traded, from time to time;
Initial Tracker Level	120.97
Official Settlement Price	Means the closing price published on the price source given by the relevant Bloomberg Code for the Futures Contract (defined below)
Base Date	26 February 1999
Expiry Dates	Expected to be the third Wednesday of the delivery months March, June, September and December
Number of Contracts p.a.	4
Futures Contract	Means the futures contract identified by the following Bloomberg Codes from time to time

<i>Futures Contracts</i>				
<i>i</i>	Futures Contract	Bloomberg Month Code	Currency	Expected Bloomberg Code*
1	March	H	USD	USH&"Year" <Comdty>
2	June	M	USD	USM&"Year" <Comdty>
3	September	U	USD	USU&"Year" <Comdty>
4	December	Z	USD	USZ&"Year" <Comdty>

*The Bloomberg codes are typically constructed as "US" followed by the Bloomberg Month Code followed by the year in which the Expiry Date falls, so that for year prior to and including 2010 contracts such as March 2009 Futures Contract shall have ticker USH09 Comdty, while 2011 onwards contracts such as March 2011 Futures Contract shall have ticker USH1 Comdty. If the Relevant Exchange publishes any modification to the composition of the Bloomberg code referenced in the table above, such new Bloomberg code shall be deemed to be Bloomberg code in respect of the Futures Contract. If the Calculation Agent determines that a successor Futures Contract is to replace the existing Futures Contract, then, on and from the date of such replacement, the Bloomberg code for the successor Futures Contract shall be deemed to be the relevant Bloomberg code for the futures contract in question.

3. Additional Risk Factors

Not Applicable

Copyright JPMorgan Chase & Co. 2013. All rights reserved. J. P. Morgan is the marketing name for JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide. J.P. Morgan Securities plc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority and is a member of the London Stock Exchange. The Calculation Agent owns all intellectual property rights in: the development of and methodology for producing the J.P. Morgan Futures Tracker Series; the Futures Trackers within the J.P. Morgan Futures Tracker Series; the Tracker Levels in respect of such Futures Trackers; and these Rules. Such intellectual property rights must not be used without the prior written consent of the Calculation Agent (including in situations where a third party performs certain functions in relation to the Tracker).

JPMORGAN CASH INDEX USD 3 MONTH

All information contained in this underlying supplement regarding the JPMorgan Cash Index USD 3 Month (the "Cash Index"), including, without limitation, its make-up, method of calculation and changes in its components, has been derived from publicly available information and information supplied by the Global Index Research Group ("GIRG") of JPMorgan Chase & Co., an affiliate and ultimate parent of the sponsor of the Index, without independent verification. This information reflects the policies of, and is subject to change by, GIRG. The Cash Index was developed by GIRG and is calculated, maintained and published by GIRG. GIRG has no obligation to continue to publish, and may discontinue the publication of, the Cash Index.

The level of the Cash Index is reported by Bloomberg L.P. under the ticker symbol "JPCAUS3M."

The Cash Index measures the total return performance of constant maturity euro-currency deposits in the U.S. dollar from rolling over a euro-currency deposit every business day. The Cash Index is calculated daily for three-month deposits in the U.S. dollar. The Cash Index has been constructed from December 31, 1985 using daily data. From September 1, 1990 forward, the Cash Index has used quotes for the LIBOR rates for the U.S. dollar from the ICE Benchmark Administration Limited ("IBA"), as the successor LIBOR administrator to the British Bankers' Association (see Reuters page LIBOR01). To calculate 3-month LIBOR, IBA collects U.S. dollar offered rates for deposits in the London interbank market with maturities of 3 months at 11:00 a.m., London time on each London business day from 18 designated banks. The top quartile and bottom quartile market quotes are disregarded and the middle two quartiles are averaged; the resulting "spot fixing" is the IBA 3-month LIBOR rate for the U.S. dollar for that business day.

The returns to euro-currency deposits are highly correlated with the returns to domestic money market instruments because the two markets are well arbitrated. Therefore, the euro-currency indices are representative of the domestic money markets returns.

GIRG only includes deposits with standard maturities because other quotes are typically a linear interpolation between two standard maturity deposits. Therefore, adding deposits with non-standard maturities offers no additional information.

The Cash Index has a relatively constant maturity. The Cash Index assumes GIRG rolls over the corresponding deposit every business day. The maturity or duration of the Cash Index is always equal to the term of the deposit; the actual number of days to maturity can vary due to settlement rules (e.g., a one-month index can vary from 28 to 33 days). The more common approach is to buy, for example, a three-month deposit, hold it for one month, and then roll it over into the new three-month deposit. The maturity of this index would be three months at the beginning of the month and two months at the end. It is more useful to attribute daily cash returns to particular maturities rather than confuse the measurement of returns by varying the maturity.