

# JPMORGAN CHASE & CO.

## ***Equity-Linked Notes Linked to One or More Indices and/or Exchange-Traded Funds Equity-Linked Partial Principal at Risk Securities Linked to One or More Indices and/or Exchange-Traded Funds***

### **General**

- JPMorgan Chase & Co. may from time to time offer and sell equity-linked notes or equity-linked partial principal at risk securities, each of which we refer to as securities, that are linked to a single index, shares of an exchange-traded fund or a basket consisting of two or more indices and/or exchange-traded funds. This product supplement no. MS-14-A-I describes terms that will apply generally to the securities, and supplements the terms described in the accompanying prospectus supplement and prospectus. A separate term sheet, preliminary terms document, pricing sheet or pricing supplement, as the case may be, will describe terms that apply to specific issuances of the securities, including any changes to the terms specified below. We refer to such term sheets, preliminary terms documents, pricing sheets and pricing supplements generally as terms supplements. A separate underlying supplement or the relevant terms supplement will describe any index or exchange-traded fund not described in this product supplement and to which the securities are linked. If the terms described in the relevant terms supplement are inconsistent with those described herein, in any related underlying supplement or in the accompanying prospectus supplement or prospectus, the terms described in the relevant terms supplement will control.
- The securities are senior unsecured obligations of JPMorgan Chase & Co. Any payment on the securities is subject to the credit risk of JPMorgan Chase & Co.
- Payment is linked to a basket, a single underlying index or a single ETF, as specified in the relevant terms supplement.
- For important information about tax consequences, see "Certain U.S. Federal Income Tax Consequences" beginning on page PS-69.
- Minimum denominations of \$10 and integral multiples thereof, unless otherwise specified in the relevant terms supplement.
- Investing in securities linked to a basket is not equivalent to investing directly in the basket components or any of the equity securities underlying the basket components. Investing in securities linked to a single underlying index is not equivalent to investing directly in the underlying index or any of the equity securities of the underlying index. Investing in securities linked to a single ETF is not equivalent to investing directly in the ETF Shares, the reference index or any of the equity securities underlying the ETF Shares or included in the reference index.
- The securities will not be listed on any securities exchange unless otherwise specified in the relevant terms supplement.

### **Key Terms**

Underlying Asset:	In this product supplement, we refer to the basket, the underlying index or the ETF Shares, as applicable, as the underlying asset.
Basket:	If the securities are linked to a basket, the relevant terms supplement will specify the indices and/or exchange-traded funds (each, a "basket component" and collectively, the "basket components") that compose the basket. In this product supplement no. MS-14-A-I, we refer to an index that tracks the performance of equity securities as an "index," and collectively, as "indices" and we refer to an exchange-traded fund that tracks the performance of an index or basket of equity securities as an "exchange-traded fund," and collectively, as "exchange-traded funds."
Underlying Index:	If the securities are linked to a single index, the relevant terms supplement will specify the index (the "underlying index"). In this product supplement, we also refer to a basket component that is an index as an "underlying index."
ETF Shares:	If the securities are linked to the shares of a single exchange-traded fund (an "ETF"), the relevant terms supplement will specify the ETF shares (the "ETF Shares"). In this product supplement, we also refer to a basket component that is an exchange-traded fund as "ETF Shares."
Reference Index:	In this product supplement, we refer to the index the performance of which an ETF seeks to track as a "reference index," and in the relevant terms supplement, we may refer to the reference index of an ETF as an "underlying index."
Stated Principal Amount:	\$10, unless otherwise specified in the relevant terms supplement
Payment at Maturity (Equity-Linked Notes):	<p>Unless otherwise specified in the relevant terms supplement, for equity-linked notes, the amount you will receive at maturity is based on the performance of the underlying asset and any applicable maximum payment at maturity as described below.</p> <p>Unless otherwise specified in the relevant terms supplement, you will receive a cash payment at maturity per security calculated as follows:</p> <p style="padding-left: 40px;">stated principal amount + supplemental redemption amount, subject to the maximum payment at maturity, if applicable</p> <p><i>For equity-linked notes, if the final value is less than or equal to the initial value, the supplemental redemption amount will be equal to \$0, and you will receive no return on your investment at maturity.</i></p>

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**Investing in the securities involves a number of risks. See "Risk Factors" beginning on page PS-9.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities or passed upon the accuracy or the adequacy of this product supplement no. MS-14-A-I, the accompanying prospectus supplement and prospectus, or any related underlying supplement or terms supplement. Any representation to the contrary is a criminal offense.

***The securities are not bank deposits and are not insured or guaranteed by the Federal Deposit Insurance Corporation or any other governmental agency, nor are they obligations of, or guaranteed by, a bank.***

**J.P.Morgan**

### Key Terms (Continued)

Payment at Maturity  
(Equity-Linked Partial  
Principal at Risk  
Securities):

Unless otherwise specified in the relevant terms supplement, for equity-linked partial principal at risk securities, the amount you will receive at maturity is based on the performance of the underlying asset, the minimum payment amount and any applicable maximum payment at maturity as described below.

If the final value is greater than the initial value, you will receive a cash payment at maturity per security calculated as follows:

stated principal amount + supplemental redemption amount,  
subject to the maximum payment at maturity, if applicable

If the final value is less than or equal to the initial value, you will receive a cash payment at maturity per security calculated as follows:

stated principal amount  $\times$  (final value / initial value),  
subject to the minimum payment amount

*For equity-linked partial principal at risk securities, if the final value is less than the initial value, at maturity, you will receive less than the stated principal amount and you may receive no more than the minimum payment amount.*

Supplemental  
Redemption Amount:

Unless otherwise specified in the relevant terms supplement, the supplemental redemption amount is calculated as follows:

(a) for securities linked to a basket:

stated principal amount  $\times$  basket percent change  $\times$  participation rate;

(b) for securities linked to a single underlying index:

stated principal amount  $\times$  index percent change  $\times$  participation rate; and

(c) for securities linked to a single ETF:

stated principal amount  $\times$  share percent change  $\times$  participation rate.

In no event, however, will the supplemental redemption amount be less than \$0 or, if a maximum payment at maturity is applicable, greater than the maximum payment at maturity *minus* the stated principal amount.

Basket Percent Change:

Unless otherwise specified in the relevant terms supplement, for securities linked to a basket, the basket percent change is equal to:

$$\frac{\text{final basket value} - \text{initial basket value (or strike value, if applicable)}}{\text{initial basket value (or strike value, if applicable)}}$$

Index Percent Change:

Unless otherwise specified in the relevant terms supplement, for securities linked to a single underlying index, the index percent change is equal to:

$$\frac{\text{final index value} - \text{initial index value (or strike value, if applicable)}}{\text{initial index value (or strike value, if applicable)}}$$

Share Percent Change:

Unless otherwise specified in the relevant terms supplement, for securities linked to a single ETF, the share percent change is equal to:

$$\frac{\text{final share price} - \text{initial share price (or strike value, if applicable)}}{\text{initial share price (or strike value, if applicable)}}$$

Participation Rate:

A percentage as specified in the relevant terms supplement

Maximum Payment at  
Maturity:

If applicable, an amount as specified in the relevant terms supplement

Minimum Payment  
Amount:

If applicable, an amount as specified in the relevant terms supplement

Initial Value:

In this product supplement, we refer to the initial basket value (or strike value, if applicable), the initial index value (or strike value, if applicable) and the initial share price (or strike value, if applicable), as applicable, as the "initial value."

Final Value:

In this product supplement, we refer to the final basket value, the final index value and the final share price, as applicable, as the "final value."

Initial Basket Value:

Unless otherwise specified in the relevant terms supplement, set equal to 100 on the pricing date, the final initial averaging date, if applicable, or on such other relevant date as specified in the relevant terms supplement

Final Basket Value:

The basket closing value on the valuation date or such other date as specified in the relevant terms supplement, or the arithmetic average of the basket closing values on each of the ending averaging dates, if so specified in the relevant terms supplement

Basket Closing Value:

Unless otherwise specified in the relevant terms supplement, the basket closing value on any relevant trading day will be calculated as follows:

$$100 \times [1 + \text{sum of (basket component percent change of each basket component} \times \text{basket component weighting of each such basket component)}]$$

Basket Component  
Percent Change:

Unless otherwise specified in the relevant terms supplement, on any trading day, the basket component percent change for each basket component is equal to (a) if the basket component is an underlying index, the index percent change of such underlying index on such trading day; or (b) if the basket component is ETF Shares, the share percent change for such ETF Shares on such trading day.

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**Key Terms (Continued)**

Basket Component  
Weighting:

With respect to each basket component, a fixed percentage or fraction as specified in the relevant terms supplement, *provided* that the sum of the basket component weightings for all basket components will equal 100% or 1, as applicable.

The relevant terms supplement will specify either (i) the weight of each basket component in the basket, which will be fixed for the term of the securities, or (ii) the manner in which the weight of each basket component will be determined. For example, if the relevant terms supplement specifies that a basket component is weighted to compose 18% of the value of the basket, the basket component weighting for that basket component is 18%. Alternatively, the relevant terms supplement may specify that, for a basket consisting of two basket components, the basket component with the greater basket component percent change will make up 70% of the value of the basket, and the basket component with the lesser basket component percent change will make up 30% of the value of the basket.

Initial Index Value:

Unless otherwise specified in the relevant terms supplement, the index closing value on the pricing date or such other date as specified in the relevant terms supplement, or the arithmetic average of the index closing values on each of the initial averaging dates, if so specified in the relevant terms supplement

Final Index Value:

Unless otherwise specified in the relevant terms supplement, (a) for securities linked to a single underlying index, the index closing value on the valuation date or such other date as specified in the relevant terms supplement, or the arithmetic average of the index closing values on each of the ending averaging dates, if so specified in the relevant terms supplement, and (b) for securities linked to a basket, the index closing value on the relevant trading day.

Initial Share Price:

Unless otherwise specified in the relevant terms supplement, the closing price of one ETF Share on the pricing date or such other date as specified in the relevant terms supplement, divided by the adjustment factor, or the arithmetic average of the closing prices of one ETF Share on each of the initial averaging dates, each divided by the adjustment factor, if so specified in the relevant terms supplement. The closing price of one ETF Share on an initial averaging date, if applicable, used to determine the initial share price may be subject to adjustment. See "Description of Securities — Payment at Maturity" and "General Terms of Securities — Anti-Dilution Adjustments."

Final Share Price:

Unless otherwise specified in the relevant terms supplement, (a) for securities linked to a single ETF, the closing price of one ETF Share on the valuation date or such other date as specified in the relevant terms supplement, or the arithmetic average of the closing prices of one ETF Share on each of the ending averaging dates, if so specified in the relevant terms supplement, and (b) for securities linked to a basket, the closing price of one ETF Share on the relevant trading day. The closing price of one ETF Share on an ending averaging date used to determine the final share price may be subject to adjustment. See "Description of Securities — Payment at Maturity" and "General Terms of Securities — Anti-Dilution Adjustments."

Adjustment Factor:

Unless otherwise specified in the relevant terms supplement, set initially to equal 1.0, subject to adjustment upon the occurrence of certain events affecting the ETF Shares. See "General Terms of Securities — Anti-Dilution Adjustments."

Strike Value:

With respect to a basket, the relevant terms supplement may specify a value other than the initial basket value, which we refer to as the "strike value," to be used for calculating the basket percent change and the amount payable at maturity, if any. The strike value may be based on and/or expressed as a percentage of the basket closing value as of a specified date, or may be determined without regard to the basket closing value as of a particular date. For example, the relevant terms supplement may specify a strike value equal to 95% of the initial basket value.

With respect to an underlying index, the relevant terms supplement may specify a value other than the initial index value, which we refer to as the "strike value," to be used for calculating the index percent change and the amount payable at maturity, if any. The strike value may be based on and/or expressed as a percentage of the index closing value as of a specified date, or may be determined without regard to the index closing value as of a particular date. For example, the relevant terms supplement may specify a strike value equal to 95% of the initial index value.

With respect to ETF Shares, the relevant terms supplement may specify a price other than the initial share price, which we refer to as the "strike value," to be used for calculating the share percent change and the amount payable at maturity, if any. The strike value, if applicable, will be specified in the relevant terms supplement to be equal to either (a) a percentage of the closing price of one ETF Share as of a specified date, or (b) a fixed amount determined without regard to the closing price of one ETF Share as of a particular date, in each case divided by the adjustment factor. For example, the relevant terms supplement may specify that the strike value will be 95% of the closing price of one ETF Share on the pricing date, divided by the adjustment factor. The strike value is subject to adjustment upon the occurrence of certain events affecting the ETF Shares. See "General Terms of Securities — Anti-Dilution Adjustments."

Asset Valuation  
Date(s):

The final value will be calculated on a single date, which we refer to as the valuation date, or on several dates, each of which we refer to as an ending averaging date, as specified in the relevant terms supplement. We refer to such dates generally as asset valuation dates in this product supplement. Any asset valuation date is subject to postponement in the event of certain market disruption events and as described under "Description of Securities — Postponement of a Calculation Date."

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**Key Terms (Continued)**

Initial Averaging Dates:	As specified, if applicable, in the relevant terms supplement. Any initial averaging date is subject to postponement in the event of certain market disruption events and as described under "Description of Securities — Postponement of a Calculation Date."
Issue Price:	Unless otherwise specified in the relevant terms supplement, \$10 per security.
Pricing Date:	As specified in the relevant terms supplement.
Original Issue Date:	As specified in the relevant terms supplement.
Maturity Date:	As specified in the relevant terms supplement. The maturity date of the securities is subject to the impact of certain market disruption events. See "Description of Securities — Payment at Maturity" and "General Terms of Securities — Market Disruption Events."

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We have not authorized anyone to provide any information other than that contained or incorporated by reference in the relevant terms supplement, any related underlying supplement, this product supplement no. MS-14-A-I and the accompanying prospectus supplement and prospectus with respect to the securities offered by the relevant terms supplement, any related underlying supplement and this product supplement no. MS-14-A-I, and with respect to JPMorgan Chase & Co. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This product supplement no. MS-14-A-I, together with the relevant terms supplement, any related underlying supplement and the accompanying prospectus and prospectus supplement, contains the terms of the securities and supersedes all other prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, stand-alone fact sheets, brochures or other educational materials of ours, or any written materials prepared by any Agent (as defined in "Underwriting"). The information in the relevant terms supplement, any related underlying supplement, this product supplement no. MS-14-A-I and the accompanying prospectus supplement and prospectus may only be accurate as of the dates of each of these documents, respectively.

The securities described in the relevant terms supplement and this product supplement no. MS-14-A-I are not appropriate for all investors, and involve important legal and tax consequences and investment risks, which should be discussed with your professional advisers. You should be aware that the regulations of the Financial Industry Regulatory Authority, or FINRA, and the laws of certain jurisdictions (including regulations and laws that require brokers to ensure that investments are suitable for their customers) may limit the availability of the securities. The relevant terms supplement, any related underlying supplement, this product supplement no. MS-14-A-I and the accompanying prospectus supplement and prospectus do not constitute an offer to sell or a solicitation of an offer to buy the securities in any circumstances in which such offer or solicitation is unlawful.

In this product supplement no. MS-14-A-I, any related underlying supplement, the relevant terms supplement and the accompanying prospectus supplement and prospectus, "we," "us" and "our" refer to JPMorgan Chase & Co., unless the context requires otherwise.

## DESCRIPTION OF SECURITIES

*The following description of the terms of the securities supplements the description of the general terms of the debt securities set forth under the headings "Description of Securities" in the accompanying prospectus supplement and "Description of Debt Securities" in the accompanying prospectus. A separate terms supplement will describe the terms that apply to specific issuance of the securities, including any changes to the terms specified below. A separate underlying supplement or the relevant terms supplement will describe any index or exchange-traded fund not described in this product supplement and to which the securities are linked. Capitalized terms used but not defined in this product supplement no. MS-14-A-I have the meanings assigned in the accompanying prospectus supplement, prospectus and the relevant terms supplement. The term "**security**" refers to each of our Equity-Linked Notes Linked to One or More Indices and/or Exchange-Traded Funds and each of our Equity-Linked Partial Principal at Risk Securities Linked to One or More Indices and/or Exchange-Traded Funds with a principal amount equal to the stated principal amount (as defined below).*

### General

The securities are senior unsecured obligations of JPMorgan Chase & Co. that are linked to a single index (the "**underlying index**"), shares (the "**ETF Shares**") of an exchange-traded fund (the "**ETF**") or a basket (the "**basket**") consisting of two or more indices and/or exchange-traded funds (each, a "**basket component**" and collectively, the "**basket components**") as specified in the relevant terms supplement. We refer to any single index, exchange-traded fund or basket that may underlie the securities as the "**underlying asset**," we refer to an index that tracks the performance of equity securities as an "**index**," and collectively, as "**indices**," we refer to an exchange-traded fund that tracks the performance of an index or basket of equity securities as an "**exchange-traded fund**," and collectively, as "**exchange-traded funds**" and we refer to the index the performance of which an exchange-traded fund seeks to track as a "**reference index**." In this product supplement, we also refer to a basket component that is an index as an "**underlying index**" and to the shares of a basket component that is an exchange-traded fund (an "**ETF**") as "**ETF Shares**."

The securities are a series of debt securities referred to in the accompanying prospectus supplement, prospectus and the relevant terms supplement, as well as any related underlying supplement. The securities will be issued by JPMorgan Chase & Co. under an indenture dated May 25, 2001, as may be amended or supplemented from time to time, between us and Deutsche Bank Trust Company Americas (formerly Bankers Trust Company), as trustee.

Unless otherwise specified in the relevant terms supplement, the securities will not pay interest or a fixed amount at maturity. Instead, at maturity you will receive a payment in cash, the amount of which will vary depending on the performance of the underlying asset over the term of the securities, calculated in accordance with the applicable formula set forth below and whether the securities have a strike value, a maximum payment at maturity and/or a minimum payment amount.

The securities are not bank deposits and are not insured or guaranteed by the Federal Deposit Insurance Corporation or by any other governmental agency, nor are they obligations of, or guaranteed by, a bank.

The securities are our unsecured and unsubordinated obligations and will rank *pari passu* with all of our other unsecured and unsubordinated obligations.

The securities will be issued in denominations of \$10 and integral multiples thereof, unless otherwise specified in the relevant terms supplement. The stated principal amount and issue price of each note is \$10, unless otherwise specified in the relevant terms supplement. The securities will be represented by one or more permanent global note registered in the name of The Depository Trust Company, or DTC, or its nominee, as described under "Description of Notes — Forms of Notes" in the accompanying prospectus supplement and "Forms of Securities — Global Securities" in the accompanying prospectus.

The terms that apply to specific issuances of the securities will be described in the relevant terms supplement accompanying this product supplement no. MS-14-A-I and any related underlying

supplement. The terms described in that document supplement those described herein, in any related underlying supplement or and the accompanying prospectus and prospectus supplement. If the terms described in the relevant terms supplement are inconsistent with those described herein, in any related underlying supplement or in the accompanying prospectus or prospectus supplement, the terms described in the relevant terms supplement will control.

### **Payment at Maturity**

The “**maturity date**” for the securities will be set forth in the relevant terms supplement and is subject to adjustment if such day is not a business day or if the final asset valuation date is postponed as described below. We will specify, in each case if applicable, the participation rate, maximum payment at maturity and minimum payment amount.

#### ***Equity-Linked Notes***

Unless otherwise specified in the relevant terms supplement, for equity-linked notes, the amount you will receive at maturity is based on the performance of the underlying asset and any applicable maximum payment at maturity as described below.

Unless otherwise specified in the relevant terms supplement, you will receive a cash payment at maturity per security calculated as follows:

stated principal amount + supplemental redemption amount,  
subject to the maximum payment at maturity, if applicable

*For equity-linked notes, if the final value is less than or equal to the initial value, the supplemental redemption amount will be equal to \$0, and you will receive no return on your investment at maturity.*

#### ***Equity-Linked Partial Principal at Risk Securities***

Unless otherwise specified in the relevant terms supplement, for equity-linked partial principal at risk securities, the amount you will receive at maturity is based on the performance of the underlying asset, the minimum payment amount and any applicable maximum payment at maturity as described below.

If the final value is greater than the initial value, you will receive a cash payment at maturity per security calculated as follows:

stated principal amount + supplemental redemption amount,  
subject to the maximum payment at maturity, if applicable

If the final value is less than or equal to the initial value, you will receive a cash payment at maturity per security calculated as follows:

stated principal amount × (final value / initial value),  
subject to the minimum payment amount

*For equity-linked partial principal at risk securities, if the final value is less than the initial value, at maturity, you will receive less than the stated principal amount and you may receive no more than the minimum payment amount.*

Unless otherwise specified in the relevant terms supplement, the “**supplemental redemption amount**” is calculated as follows:

(a) for securities linked to a basket:

stated principal amount × basket percent change × participation rate;

(b) for securities linked to a single underlying index:

stated principal amount × index percent change × participation rate; and

(c) for securities linked to a single ETF:

stated principal amount × share percent change × participation rate.

In no event, however, will the supplemental redemption amount be less than \$0 or, if a maximum payment at maturity is applicable, greater than the maximum payment at maturity *minus* the stated principal amount.

Unless otherwise specified in the relevant terms supplement, if applicable, for securities linked to a basket, the **“basket percent change”** is calculated as follows:

$$\text{basket percent change} = \frac{\text{final basket value} - \text{initial basket value (or strike value, if applicable)}}{\text{initial basket value (or strike value, if applicable)}}$$

Unless otherwise specified in the relevant terms supplement, if applicable, for securities linked to a single underlying index, the **“index percent change”** is calculated as follows:

$$\text{index percent change} = \frac{\text{final index value} - \text{initial index value (or strike value, if applicable)}}{\text{initial index value (or strike value, if applicable)}}$$

Unless otherwise specified in the relevant terms supplement, if applicable, for securities linked to a single ETF, the **“share percent change”** is calculated as follows:

$$\text{share percent change} = \frac{\text{final share price} - \text{initial share price (or strike value, if applicable)}}{\text{initial share price (or strike value, if applicable)}}$$

The **“participation rate”** will be a percentage as specified in the relevant terms supplement.

If applicable, the **“maximum payment at maturity”** will be an amount as specified in the relevant terms supplement.

If applicable, the **“minimum payment amount”** will be an amount as specified in the relevant terms supplement.

In this product supplement, we refer to the initial basket value (or strike value, if applicable), the initial index value (or strike value, if applicable) and the initial share price (or strike value, if applicable), as applicable, as the **“initial value.”**

In this product supplement, we refer to the final basket value, the final index value and the final share price, as applicable, as the **“final value.”**

Unless otherwise specified in the relevant terms supplement, the **“initial basket value”** is set equal to 100 on the pricing date, the final initial averaging date, if applicable, or on such other relevant date as specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, the **“final basket value”** means the basket closing value on the valuation date or such other date as specified in the relevant terms supplement, or the arithmetic average of the basket closing values on each of the ending averaging dates, if so specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, the **“basket closing value”** on any relevant trading day will be calculated as follows:

$$100 \times [1 + \text{sum of (basket component percent change of each basket component} \times \text{basket component weighting of each such basket component)}]$$



Unless otherwise specified in the relevant terms supplement, on any trading day, the **“basket component percent change”** for each basket component is equal to (a) if the basket component is an underlying index, the index percent change of such underlying index on such trading day; or (b) if the basket component is ETF Shares, the share percent change for such ETF Shares on such trading day.

With respect to each basket component, the **“basket component weighting”** means a fixed percentage or fraction as specified in the relevant terms supplement, *provided* that the sum of the basket component weightings for all basket components will equal 100% or 1, as applicable.

The relevant terms supplement will specify either (i) the weight of each basket component in the basket, which will be fixed for the term of the securities, or (ii) the manner in which the weight of each basket component will be determined. For example, if the relevant terms supplement specifies that a basket component is weighted to compose 18% of the value of the basket, the basket component weighting for that basket component is 18%. Alternatively, the relevant terms supplement may specify that, for a basket consisting of two basket components, the basket component with the greater basket component percent change will make up 70% of the value of the basket, and the basket component with the lesser basket component percent change will make up 30% of the value of the basket.

Unless otherwise specified in the relevant terms supplement, the **“initial index value”** means the index closing value on the pricing date or such other date as specified in the relevant terms supplement, or the arithmetic average of the index closing values on each of the initial averaging dates, if so specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, the **“final index value”** means (a) for securities linked to a single underlying index, the index closing value on the valuation date or such other date as specified in the relevant terms supplement, or the arithmetic average of the index closing values on each of the ending averaging dates, if so specified in the relevant terms supplement, and (b) for securities linked to a basket, the index closing value on the relevant trading day.

Unless otherwise specified in the relevant terms supplement, the **“initial share price”** means the closing price of one ETF Share on the pricing date or such other date as specified in the relevant terms supplement, divided by the adjustment factor, or the arithmetic average of the closing prices of one ETF Share on each of the initial averaging dates, each divided by the adjustment factor, if so specified in the relevant terms supplement. Notwithstanding the foregoing, if the relevant terms supplement specifies that the initial share price will be determined based on the arithmetic average of the closing prices of the ETF Shares on each of the initial averaging dates specified in the relevant terms supplement and an adjustment to the adjustment factor becomes effective in accordance with “General Terms of Securities — Anti-Dilution Adjustments” (an **“adjustment effective date”**) after the first initial averaging date but on or prior to the final initial averaging date, the adjustment factor will be so adjusted for the event giving rise to such adjustment effective date only on the initial averaging dates occurring prior to such adjustment effective date. The adjustment factor will continue to be subject to further adjustments in connection with adjustment effective dates occurring after the final initial averaging date as described under “General Terms of Securities — Anti-Dilution Adjustments.”

Unless otherwise specified in the relevant terms supplement, **“final share price”** means (a) for securities linked to a single ETF, the closing price of one ETF Share on the valuation date or such other date as specified in the relevant terms supplement, or the arithmetic average of the closing prices of one ETF Share on each of the ending averaging dates, if so specified in the relevant terms supplement, and (b) for securities linked to a basket, the closing price of one ETF Share on the relevant trading day. Notwithstanding the foregoing, if the relevant terms supplement specifies that the final share price will be determined based on the arithmetic average of the closing prices of the ETF Shares on each of the ending averaging dates and an adjustment to the adjustment factor would have become effective in accordance with “General Terms of Securities — Anti-Dilution Adjustments” after the first ending averaging date but on or prior to the final ending averaging date, then the closing price of the ETF Shares on each ending averaging date occurring prior to the effective date of such adjustment to be used to determine the final share price will be deemed to equal such closing price divided by the adjustment factor, as adjusted (assuming that the adjustment factor prior to such adjustment is equal to 1.0). See “General Terms of Securities — Anti-Dilution Adjustments.”

**With respect to a basket**, the relevant terms supplement may specify a value other than the initial basket value, which we refer to as the **“strike value,”** to be used for calculating the basket percent change and the amount payable at maturity, if any. The strike value may be based on and/or expressed as a percentage of the basket closing value as of a specified date, or may be determined without regard to the basket closing value as of a particular date. For example, the relevant terms supplement may specify a strike value equal to 95% of the initial basket value.

**With respect to an underlying index**, the relevant terms supplement may specify a value other than the initial index value, which we refer to as the **“strike value,”** to be used for calculating the index percent change and the amount payable at maturity, if any. The strike value may be based on and/or expressed as a percentage of the index closing value as of a specified date, or may be determined without regard to the index closing value as of a particular date. For example, the relevant terms supplement may specify a strike value equal to 95% of the initial index value.

**With respect to ETF Shares**, the relevant terms supplement may specify a price other than the initial share price, which we refer to as the **“strike value,”** for calculating the share percent change and the amount payable at maturity, if any. The strike value, if applicable, will be specified in the relevant terms supplement to be equal to either (a) a percentage of the closing price of one ETF Share as of a specified date, or (b) a fixed amount determined without regard to the closing price of one ETF Share as of a particular date, in each case divided by the adjustment factor. For example, the relevant terms supplement may specify that the strike value will be 95% of the closing price of one ETF Share on the pricing date, divided by the adjustment factor. The strike value is subject to adjustment upon the occurrence of certain events affecting the ETF Shares. See “General Terms of Securities — Anti-Dilution Adjustments.”

Unless otherwise specified in the relevant terms supplement, the **“adjustment factor”** is set initially to equal 1.0, subject to adjustment upon the occurrence of certain events affecting the ETF Shares. See “General Terms of Securities – Anti-Dilution Adjustments.”

The **“issue price”** and **“original issue date”** will be specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, with respect to an underlying index, the **“index closing value”** on any trading day will equal the official closing value of such underlying index or any successor index thereto (as described below under “General Terms of Securities — Discontinuation of an Underlying Index; Alteration of Method of Calculation”) published following the regular official weekday close of trading for such underlying index or such successor index, as applicable, on that trading day. In certain circumstances, the **“index closing value”** will be based on the alternative calculation of the underlying index or successor index, as applicable, described under “General Terms of Securities — Discontinuation of an Underlying Index; Alteration of Method of Calculation” below.

Unless otherwise specified in the relevant terms supplement, the **“closing price”** of one share of an ETF (or any relevant successor ETF (as defined under “General Terms of Securities — Discontinuation of an ETF; Alternate Calculation of Closing Price”) or one unit of any other security for which a closing price must be determined) on any trading day (as defined below) means:

- if the shares of such ETF (or any such successor ETF or such other security) are listed or admitted to trading on a national securities exchange, the last reported sale price, regular way (or, in the case of The NASDAQ Stock Market, the official closing price) of the principal trading session on such day on the principal U.S. securities exchange registered under the Securities Exchange Act of 1934, as amended (the **“Exchange Act”**), on which the shares of such ETF (or any such successor ETF or such other security) are listed or admitted to trading;
- if the shares of such ETF (or any such successor ETF or such other security) are not listed or admitted to trading on any national securities exchange but is included in the OTC Bulletin Board Service (the **“OTC Bulletin Board”**) operated by the Financial Industry Regulatory Authority (**“FINRA”**), the last reported sale price of the principal trading session on the OTC Bulletin Board Service on such day;

- if the shares of such ETF (or any such successor ETF) are de-listed, liquidated or otherwise terminated, the closing price calculated pursuant to the alternative methods of calculating the closing price described under “General Terms of Securities — Discontinuation of an ETF; Alternate Calculation of Closing Price”; or
- if, because of a market disruption event (as defined under “General Terms of Securities — Market Disruption Events”) or otherwise, the last reported official closing price for the shares of such ETF (or any such successor ETF or such other security) is not available pursuant to the preceding bullet points, the mean, as determined by the calculation agent, of the bid prices for the shares of such ETF (or any such successor ETF or such other security) obtained from as many recognized dealers in such security, but not exceeding three, as will make such bid prices available to the calculation agent. Bids of any of our affiliates may be included in the calculation of such mean, but only to the extent that any such bid is not the highest or the lowest of the bids obtained,

in each case subject to the provisions of “General Terms of Securities — Discontinuation of an ETF; Alternate Calculation of Closing Price.” The term OTC Bulletin Board Service will include any successor service thereto.

In this product supplement, we refer to the basket closing value, the index closing value and the closing price, as applicable, as the “**Closing Value**” of the applicable underlying asset.

Unless otherwise specified in the relevant terms supplement, a “**trading day**” is, with respect to an underlying index, a day, as determined by the calculation agent, on which trading is generally conducted on (i) the relevant exchanges (as defined below) for equity securities underlying such underlying index or the relevant successor index, as applicable, and (ii) the exchanges on which futures or options contracts related to such underlying index or the relevant successor index, as applicable, are traded, other than a day on which trading on such relevant exchange or exchange on which such futures or options contracts are traded is scheduled to close prior to its regular weekday closing time.

Unless otherwise specified in the relevant terms supplement, a “**trading day**” is, with respect to an ETF, a day, as determined by the calculation agent, on which trading is generally conducted on (i) the relevant exchanges (as defined below) for such ETF or the relevant successor ETF, as applicable, and (ii) the exchanges on which futures or options contracts related to such ETF or the relevant successor ETF, as applicable, are traded, other than a day on which trading on such relevant exchange or exchange on which such futures or options contracts are traded is scheduled to close prior to its regular weekday closing time.

The “**pricing date**,” if applicable, will be specified in the relevant terms supplement. The “**initial averaging dates**,” if applicable, will be specified in the relevant terms supplement, and any such date is subject to adjustment as described under “— Postponement of a Calculation Date” below. The “**asset valuation date(s)**,” which will be either a single date, which we refer to as the “**valuation date**,” or several dates, each of which we refer to as an “**ending averaging date**,” will be specified in the relevant terms supplement and any such date is subject to adjustment as described under “— Postponement of a Calculation Date” below.

The maturity date will be specified in the relevant terms supplement and is subject to adjustment as described below. If the scheduled maturity date (as specified in the relevant terms supplement) is not a business day, then the maturity date will be the next succeeding business day following such scheduled maturity date. If, due to a market disruption event or otherwise, the final asset valuation date is postponed so that it falls less than three business days prior to the scheduled maturity date, the maturity date will be the third business day following the final asset valuation date, as postponed, unless otherwise specified in the relevant terms supplement. We describe market disruption events under “General Terms of Securities — Market Disruption Events.”

We will irrevocably deposit with DTC no later than the opening of business on the applicable date funds sufficient to make payments of the amount payable, if any, with respect to the securities on such date. We will give DTC irrevocable instructions and authority to pay such amount to the holders of the securities entitled thereto.

A “business day” is, unless otherwise specified in the relevant terms supplement, any day other than a day on which banking institutions in The City of New York are authorized or required by law, regulation or executive order to close or a day on which transactions in dollars are not conducted.

Subject to the foregoing and to applicable law (including, without limitation, U.S. federal laws), we or our affiliates may, at any time and from time to time, purchase outstanding securities by tender, in the open market or by private agreement.

### **Postponement of a Calculation Date**

In this product supplement, we refer to the initial averaging dates and the asset valuation dates as “**Calculation Dates**.”

#### ***Securities linked to a Basket***

If a Calculation Date is not a trading day with respect to any basket component or there is a market disruption event with respect to any basket component on such Calculation Date (any such day, a “**Disrupted Day**” and any such basket component affected by a non-trading day or a market disruption event, a “**Disrupted Basket Component**”), the applicable Calculation Date will be postponed to the immediately succeeding business day that is not a Disrupted Day for any such Disrupted Basket Component; *provided* that the index closing value or closing price, as applicable, on such Calculation Date, as postponed, will be:

- (a) for each basket component (other than any such Disrupted Basket Component) (an “**Unaffected Basket Component**”), the index closing value or closing price, as applicable, on the originally scheduled Calculation Date; and
- (b) for any such Disrupted Basket Component, the index closing value or closing price, as applicable, on the immediately succeeding business day for such Disrupted Basket Component that is not a Disrupted Day for such Disrupted Basket Component.

For the avoidance of doubt, if a Calculation Date is to be postponed as described above, and there are two or more Disrupted Basket Components and the first business day that is not a Disrupted Day for the first Disrupted Basket Component is different from such business day for one or more of the other Disrupted Basket Components, such Calculation Date will be postponed to the latest of such business days. Under these circumstances, the calculation agent will calculate the basket closing value for such Calculation Date using the index closing values or closing prices of the Disrupted Basket Components on different business days.

In no event, however, will any Calculation Date be postponed to a date that is after the Final Disrupted Calculation Date. If a Calculation Date is or has been postponed to the Final Disrupted Calculation Date and on such day, the index closing value or closing price, as applicable, for any Disrupted Basket Component has not been determined in accordance with the first paragraph above (a “**Final Disrupted Basket Component**”), the index closing value or closing price, as applicable, on the Final Disrupted Valuation Date will be:

- (a) for each Unaffected Basket Component, the index closing value or closing price, as applicable, on the originally scheduled Calculation Date;
- (b) for each Disrupted Basket Component (other than a Final Disrupted Basket Component), the index closing value or closing price, as applicable, determined in the manner described in the first paragraph above;

- (c) for each Final Disrupted Basket Component that is an underlying index, the index closing value of such underlying index determined by the calculation agent in accordance with the formula for and method of calculating such index closing value last in effect prior to the commencement of the market disruption event (or prior to the non-trading day), using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent's good faith estimate of the closing price that would have prevailed but for such suspension or limitation or non trading day) on the Final Disrupted Calculation Date of each security most recently constituting such underlying index; or
- (d) for each Final Disrupted Basket Component that is an ETF, the closing price of such ETF determined by the calculation agent in good faith based on the calculation agent's assessment of the market value of such ETF on the Final Disrupted Calculation Date.

With respect to a Calculation Date, the **"Final Disrupted Calculation Date"** means:

- (a) for securities with a maturity of more than one year, the tenth business day after such Calculation Date, as originally scheduled; and
- (b) for securities with a maturity of not more than one year, the earlier of (i) the last date that could serve as the final Calculation Date without causing the maturity date to be more than one year (counting for this purpose either the issue date or the last possible date that the securities could be outstanding) after the issue date and (ii) the tenth business day after such Calculation Date, as originally scheduled.

***Securities linked to a single Underlying Index***

If a Calculation Date is a Disrupted Day, the applicable Calculation Date will be postponed to the immediately succeeding business day that is not a Disrupted Day. In no event, however, will any Calculation Date be postponed to a date that is after the Final Disrupted Calculation Date. If a Calculation Date is or has been postponed to the Final Disrupted Calculation Date and the Final Disrupted Calculation Date is a Disrupted Day, the calculation agent will determine the index closing value for such Calculation Date on the Final Disrupted Calculation Date in accordance with the formula for and method of calculating the index closing value last in effect prior to the commencement of the market disruption event (or prior to the non-trading day), using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent's good faith estimate of the closing price that would have prevailed but for such suspension or limitation or non trading day) on the Final Disrupted Calculation Date of each security most recently constituting the underlying index.

***Securities linked to a single ETF***

If a Calculation Date is a Disrupted Day, the applicable Calculation Date will be postponed to the immediately succeeding business day that is not a Disrupted Day. In no event, however, will any Calculation Date be postponed to a date that is after the Final Disrupted Calculation Date. If a Calculation Date is or has been postponed to the Final Disrupted Calculation Date and the Final Disrupted Calculation Date is a Disrupted Day, the calculation agent will determine the closing price of one ETF Share for such Calculation Date on the Final Disrupted Calculation Date in good faith based on its assessment of the market value of such ETF on the Final Disrupted Calculation Date.

## RISK FACTORS

*Your investment in the securities will involve certain risks. The securities do not pay interest or guarantee any return of principal at, or prior to, maturity. Investing in securities linked to a basket is not equivalent to investing directly in the basket components or any of the equity securities underlying the basket components. Investing in securities linked to a single underlying index is not equivalent to investing directly in the underlying index or any of the component equity securities of the underlying index. Investing in securities linked to a single ETF is not equivalent to investing directly in the ETF Shares, the reference index or any of the equity securities underlying the ETF Shares or included in the reference index. In addition, your investment in the securities entails other risks not associated with an investment in conventional debt securities. **You should consider carefully the following discussion of risks before you decide that an investment in the securities is suitable for you.***

### Risks Relating to the Securities Generally

#### The securities differ from conventional debt securities.

The securities combine features of equity and debt. The terms of the securities differ from those of conventional debt securities in that we will not pay current interest on the securities. For equity-linked notes, if the final value is less than or equal to the initial value, the supplemental redemption amount will be equal to \$0, and you will receive no return on your investment at maturity. For equity-linked partial principal at risk securities, if the final value is less than the initial value, at maturity, you will receive less than the stated principal amount and you may receive no more than the minimum payment amount. Therefore, the return on your investment in the securities may be less than the amount that would be paid on an ordinary debt security. The return at maturity of only the stated principal amount (equity-linked notes) or only the minimum payment amount (for equity-linked partial principal at risk securities) will not compensate you for any loss in value due to inflation and other factors relating to the value of money over time.

#### The securities are subject to the credit risk of JPMorgan Chase & Co.

The securities are subject to the credit risk of JPMorgan Chase & Co., and our credit ratings and credit spreads may adversely affect the market value of the securities. Investors are dependent on JPMorgan Chase & Co.'s ability to pay all amounts due on the securities at maturity, and therefore investors are subject to our credit risk and to changes in the market's view of our creditworthiness. Any decline in our credit ratings or increase in the credit spreads charged by the market for taking our credit risk is likely to adversely affect the value of the securities. Any payment on the securities is subject to the creditworthiness of JPMorgan Chase & Co.

#### **Our offering of the securities does not constitute an expression of our view about, or a recommendation of, any underlying index, any ETF or the equity securities included in an underlying index or held by an ETF.**

You should not take our offering of the securities as an expression of our views about how any underlying index, any ETF or the equity securities included in an underlying index or held by an ETF will perform in the future or as a recommendation to invest (directly or indirectly, by taking a long or short position) in any underlying index, any ETF or the equity securities included in an underlying index or held by an ETF, including through an investment in the securities. As a global financial institution, we and our affiliates may, and often do, have positions (long, short or both) in one or more underlying indices, one or more ETFs and equity securities included in an underlying index or held by an ETF that conflict with an investment in the securities. See "— We or our affiliates may have economic interests that are adverse to those of the holders of the securities as a result of our hedging and other trading activities" and "Use of Proceeds and Hedging" in this product supplement for some examples of potential conflicting positions we may have. You should undertake an independent determination of whether an investment in the securities is suitable for you in light of your specific investment objectives and financial resources.

**We or our affiliates may have economic interests that are adverse to those of the holders of the securities as a result of our hedging and other trading activities.**

In anticipation of the sale of the securities, we expect to hedge our obligations under the securities through certain affiliates or unaffiliated counterparties by taking positions in instruments the value of which is derived from one or more underlying indices, ETFs and/or equity securities included in an underlying index or held by an ETF. We may also adjust our hedge by, among other things, purchasing or selling instruments the value of which is derived from one or more underlying indices, ETFs and/or equity securities included in an underlying index or held by an ETF at any time and from time to time, and close out or unwind our hedge by selling any of the foregoing on or before any Calculation Date. We cannot give you any assurances that our hedging will not negatively affect the value of the underlying asset or the performance of the securities. See "Use of Proceeds and Hedging" below for additional information about our hedging activities.

This hedging activity may present a conflict of interest between your interest as a holder of the securities and the interests our affiliates have in executing, maintaining and adjusting hedge transactions. These hedging activities could also affect the price at which JPMS is willing to purchase your securities in the secondary market.

Our hedging counterparties expect to make a profit. Because hedging our obligations entails risk and may be influenced by market forces beyond our control, such hedging may result in a profit that is more or less than expected, or it may result in a loss. It is possible that such hedging could result in substantial returns for us or our affiliates while the value of the securities declines.

JPMS and other affiliates of ours also trade the ETFs and the equity securities included in an underlying index or held by an ETF and other financial instruments related to one or more underlying indices, ETFs and/or equity securities included in an underlying index or held by an ETF on a regular basis (taking long or short positions or both), for their accounts, for other accounts under their management and to facilitate transactions, including block transactions, on behalf of customers. While we cannot predict an outcome, any of these hedging activities or other trading activities of ours could potentially increase the initial value and/or decrease the ending value, which could adversely affect your payment at maturity.

**We or our affiliates may have economic interests that are adverse to those of the holders of the securities as a result of our business activities.**

We or our affiliates may currently or from time to time engage in business with companies the equity securities of which are included in an underlying index or held by an ETF or with companies that are included in a relevant reference index (the "underlying companies"), including extending loans to, or making equity investments in, or providing advisory services to the underlying companies, including merger and acquisition advisory services. In the course of this business, we or our affiliates may acquire non public information about the underlying companies, and we will not disclose any such information to you. In addition, one or more of our affiliates may publish research reports or otherwise express views about the underlying companies. Any prospective purchaser of securities should undertake an independent investigation of each of the underlying companies, as in its judgment is appropriate to make an informed decision with respect to an investment in the securities. We do not make any representation or warranty to any purchaser of securities with respect to any matters whatsoever relating to our business with the underlying companies.

Additionally, we or one of our affiliates may serve as issuer, agent or underwriter for additional issuances of securities with returns linked or related to changes in the level or price, as applicable, of an underlying index or an ETF or the equity securities that compose or are held by an underlying index or an ETF. To the extent that we or one of our affiliates serves as issuer, agent or underwriter for such securities or financial instruments, our or their interests with respect to such products may be adverse to those of the holders of the securities. By introducing competing products into the marketplace in this manner, we or one or more of our affiliates could adversely affect the value of the securities.

We or one of our affiliates may currently or from time to time engage in trading activities related to the currencies in which the securities composing a foreign underlying index or held by a foreign ETF, are denominated. These trading activities could potentially affect the exchange rates with respect to such currencies and, if currency exchange rate calculations are involved in the calculation of the index closing values of a foreign underlying index and the closing prices of a foreign ETF, could affect the index closing values of that foreign underlying index or the closing prices of that foreign ETF and, accordingly, the value of the securities.

In the course of our or our affiliates' currency trading activities, we or our affiliates may acquire material nonpublic information with respect to currency exchange rates, and we will not disclose any such information to you. In addition, one or more of our affiliates may produce and/or publish research reports, or otherwise express views, with respect to expected movements in currency exchange rates. We do not make any representation or warranty to any purchaser of securities with respect to any matters whatsoever relating to future currency exchange rate movements and, if the securities are linked to a foreign underlying index or a foreign ETF, any prospective purchaser of securities should undertake an independent investigation of the currencies in which securities composing a foreign underlying index or held by a foreign ETF are denominated and their related exchange rates as, in its judgment, is appropriate to make an informed decision with respect to an investment in the securities.

**We or our affiliates may have economic interests that are adverse to those of the holders of the securities due to J.P. Morgan Security LLC's role as calculation agent.**

JPMS, one of our affiliates, will act as the calculation agent. The calculation agent will determine, among other things, the initial basket value, the initial index level or the initial share price, as applicable, the strike value, if applicable, the initial closing value of any underlying index and the closing price of one share of any relevant ETF on each initial averaging date, if applicable, and each asset valuation date, the adjustment factor and anti-dilution adjustments, if any, the final basket value, the final index value or the final share price, as applicable, the basket percent change, the index percent change or the share percent change, as applicable, and the amount, if any, that we will pay you at maturity. In addition, the calculation agent will also determine whether there has been a market disruption event or a discontinuation of any underlying index or ETF and whether there has been a material change in the method of calculation of any of underlying index or ETF, as well as which exchange-traded fund will be substituted for an ETF (or relevant successor ETF, if applicable) if an ETF (or relevant successor ETF, if applicable) is de-listed, liquidated or otherwise terminated; whether any reference index (or the underlying index related to any relevant successor ETF, if applicable) has been changed in a material respect and whether an ETF (or relevant successor ETF, if applicable) has been modified so that such ETF (or successor ETF, if applicable) does not, in the opinion of the calculation agent, fairly represent the price of such ETF (or relevant successor ETF, if applicable) had those modifications not been made. In performing these duties, JPMS may have interests adverse to the interests of the holders of the securities, which may affect your return on the securities, particularly where JPMS, as the calculation agent, is entitled to exercise discretion.

**The securities may not pay more than the stated principal amount or, if applicable, the minimum payment amount at maturity.**

For equity-linked notes, if the final value is less than or equal to the initial value, the supplemental redemption amount will be equal to \$0, and you will receive no return on your investment at maturity. For equity-linked partial principal at risk securities, if the final value is less than the initial value, at maturity, you will receive less than the stated principal amount and you may receive no more than the minimum payment amount. This will be true even if the closing value was higher than the initial value at some time during the term of the securities but later falls below the initial value. The return on your investment in the securities may be less than the amount that would be paid on a conventional debt security of comparable maturity. This return may not fully compensate you for any loss in value due to inflation and other factors relating to the value of money over time.



**For equity-linked partial principal at risk securities, your investment in the securities may result in a loss.**

For equity-linked partial principal at risk securities, you may receive a payment at maturity in an amount that is less than \$10 for each \$10 security. At maturity, if the final value is less than or equal to the initial value, you will receive a cash payment per \$10 security equal to  $\$10 \times (\text{final value} / \text{initial value})$ , subject to the minimum payment amount. Accordingly, if the final value is less than the initial value, at maturity, you will receive less than the stated principal amount and you may receive no more than the minimum payment amount.

**The appreciation potential of the securities is limited to the maximum payment at maturity, if applicable.**

If the securities are subject to a maximum payment at maturity, the payment at maturity will be limited by the maximum payment at maturity. Any applicable maximum payment at maturity will be an amount that we will determine on the pricing date and that will be set forth in the relevant terms supplement. Accordingly, if the relevant terms supplement specifies a maximum payment at maturity, the payment at maturity will be limited to that maximum payment at maturity even if the sum of the stated principal amount and the supplemental redemption amount is greater than that maximum payment at maturity.

**If the participation rate is less than 100%, the supplemental redemption amount will be limited by the participation rate.**

If the participation rate is less than 100% and the final value is greater than the initial value, the supplemental redemption amount you receive at maturity will equal only a percentage, as specified in the relevant terms supplement, of the appreciation of the underlying asset above the initial value. Under these circumstances, the supplemental redemption amount you receive at maturity will not fully reflect the performance of the underlying asset.

**Investing in the securities is not equivalent to investing in the underlying asset or any equity securities underlying or included in the underlying asset.**

Investing in the securities is not equivalent to investing in the underlying asset or any equity securities underlying or included in the underlying asset. As a holder of the securities, you will not have voting rights or other rights with respect to the underlying asset or any equity securities underlying or included in the underlying asset, if applicable.

**Your return on the securities will not reflect dividends, interest payments or other distributions on the equity securities, if any, underlying or included in the underlying asset.**

Your return on the securities will not reflect the return you would realize if you actually owned the equity securities underlying or included in the underlying asset and received the dividends, interest payments or other distributions paid on those securities. This is because the calculation agent will calculate the amount payable to you at maturity of the securities by reference to the final value. The final value reflects the prices of the equity securities underlying or included in the underlying asset on the asset valuation date(s) without taking into consideration the value of dividends, interest payments or other distributions paid on those equity securities.

**Secondary trading may be limited.**

Unless otherwise specified in the relevant terms supplement, the securities will not be listed on a securities exchange. There may be little or no secondary market for the securities. Even if there is a secondary market, it may not provide enough liquidity to allow you to trade or sell the securities easily.

J.P. Morgan Securities LLC, or JPMS, may act as a market maker for the securities, but is not required to do so. Because we do not expect that other market makers will participate significantly in

the secondary market for the securities, the price at which you may be able to trade your securities is likely to depend on the price, if any, at which JPMS is willing to buy the securities. If at any time JPMS or another agent does not act as a market maker, it is likely that there would be little or no secondary market for the securities.

**The final value may be less than the Closing Value of the underlying asset at the maturity date of the securities or at other times during the term of the securities.**

Because the final value is calculated based on the Closing Value of the underlying asset on one or more asset valuation dates during the term of the securities, the Closing Value of the underlying asset at the maturity date or at other times during the term of the securities, including dates near the asset valuation date(s), could be greater than the final value. This difference could be particularly large if there is a significant increase in the Closing Value of the underlying asset after the final asset valuation date, if there is a significant decrease in the Closing Value of the underlying asset around the time of the asset valuation date(s) or if there is significant volatility in the Closing Value of the underlying asset during the term of the securities (especially on dates near the asset valuation date(s)). For example, when the asset valuation date(s) are near the end of the term of the securities, then if the Closing Values increase or remain relatively constant during the initial term of the securities and then decrease below the initial value, the final value may be significantly less than if it were calculated on a date earlier than the asset valuation date(s). Under these circumstances, you may receive a lower payment at maturity than you would have received if you had invested in the underlying asset, the equity securities underlying or included in the underlying asset or contracts relating to the underlying asset for which there is an active secondary market.

**The initial value may be determined after the original issue date of the securities.**

If so specified in the relevant terms supplement, the initial value will be determined based on the arithmetic average of the Closing Values of the underlying asset on the initial averaging dates specified in the relevant terms supplement. One or more of the initial averaging dates so specified may occur on or following the original issue date of the securities; as a result, the initial value may not be determined, and you may therefore not know the initial value, until after the original issue date. Similarly, the global note certificate representing the securities, which will be deposited with DTC on the original issue date as described under "General Terms of Securities — Book-Entry Only Issuance — The Depository Trust Company," will not set forth the value of the initial value of the underlying asset. If there are any increases in the Closing Values of the underlying asset on the initial averaging dates that occur after the original issue date and such increases result in the initial value of the underlying asset being greater than the Closing Value of the underlying asset on the original issue date, this may establish greater values that the underlying asset must achieve for you to obtain a positive return on your investment or avoid a loss of principal at maturity.

**The securities are not designed to be short-term trading instruments.**

The price at which you will be able to sell your securities to us or our affiliates prior to maturity, if at all, may be at a substantial discount from the principal amount of the securities, even in cases where the Closing Value of the underlying asset has appreciated since the pricing date. The potential returns described in the relevant terms supplement assume that your securities, which are not designed to be short-term trading instruments, are held to maturity.

**Prior to maturity, the value of the securities will be influenced by many unpredictable factors.**

Many economic and market factors will influence the value of the securities. We expect that, generally, the Closing Value of the underlying asset on any day will affect the value of the securities more than any other single factor. However, you should not expect the value of the securities in the secondary market to vary in proportion to changes in the Closing Value of the underlying asset. The value of the securities will be affected by a number of other factors that may either offset or magnify each other, including:

- the expected volatility in the underlying asset;
- the time to maturity of the securities;
- the dividend rate on the equity securities included in an underlying index or held by an ETF (while not paid to holders of the securities, dividend payments on any equity securities underlying or held by an underlying asset may influence the price of the underlying asset and the market value of options on the underlying asset and therefore affect the market value of the securities);
- the occurrence of certain events to the shares of any ETF that may or may not require an adjustment to the applicable adjustment factor;
- interest and yield rates in the market generally, as well as in the markets of the equity securities underlying or held by the underlying asset;
- economic, financial, political, regulatory and judicial events that affect the equity securities included in any underlying index or held by any ETF or stock markets generally;
- for securities linked in whole or in part to one or more underlying indices composed primarily of foreign securities (a "foreign underlying index") or one or more ETFs holding primarily foreign securities (a "foreign ETF"), the exchange rate and the volatility of the exchange rate between the U.S. dollar and the currencies in which the securities composing each of the foreign underlying indices or foreign ETFs, as applicable, are traded, and the correlation between those rates and the levels or prices, as the case may be, of any foreign underlying index consisting of or foreign ETF holding securities denominated in currencies other than the U.S. dollar; and
- our creditworthiness, including actual or anticipated downgrades in our credit ratings.

Some or all of these factors will influence the price you will receive if you choose to sell your securities prior to maturity. 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. You may have to sell your securities at a substantial discount from the principal amount if the final value is at, below or not sufficiently above the initial value.

You cannot predict the future performance of the underlying asset based on its historical performance. The value of the underlying asset may decrease such that you may not receive any return of your investment. For equity-linked notes, if the final value is less than or equal to the initial value, the supplemental redemption amount will be equal to \$0, and you will receive no return on your investment at maturity. For equity-linked partial principal at risk securities, if the final value is less than the initial value, at maturity, you will receive less than the stated principal amount and you may receive no more than the minimum payment amount. There can be no assurance that the value of the underlying asset will increase so that you will receive a positive return on your investment at maturity.

**If the price of the underlying asset changes, the market value of your securities may not change in the same manner.**

Owning the securities is not the same as owning the underlying asset. Accordingly, changes in the value of the underlying asset may not result in a comparable change of the market value of the securities. If the Closing Value of the underlying asset on any trading day increases above the initial value, the market value of the securities may not increase comparably, if at all. It is possible for the value of the underlying asset to increase moderately while the value of the securities declines.

**The inclusion in the original issue price of each agent's commission and the estimated cost of hedging our obligations under the securities is likely to adversely affect the value of the securities prior to maturity.**

While the payment at maturity, if any, will be based on the full principal amount of your securities as described in the relevant terms supplement, the original issue price of the securities includes each agent's commission and the estimated cost of hedging our obligations under the securities. Such estimated cost includes our affiliates' expected cost of providing such hedge, as well as the profit our affiliates expect to realize in consideration for assuming the risks inherent in providing such hedge. As a result, assuming no change in market conditions or any other relevant factors, the price, if any, at which JPMS will be willing to purchase securities from you in secondary market transactions, if at all, will likely be lower than the original issue price. In addition, any such prices may differ from values determined by pricing models used by JPMS, as a result of such compensation or other transaction costs.

**The anti-dilution protection is limited.**

The calculation agent will make adjustments to the adjustment factor, which will initially be set at 1.0, for certain events affecting an ETF. See "General Terms of Securities — Anti-Dilution Adjustments." The calculation agent is not required, however, to make such adjustments in response to all events that could affect an ETF. If an event occurs that does not require the calculation agent to make an adjustment, the value of the securities may be materially and adversely affected.

**Market disruptions may adversely affect your return.**

The calculation agent may, in its sole discretion, determine that the markets have been affected in a manner that prevents it from properly determining the Closing Value of the underlying asset on any Calculation Date and calculating the amount, if any, that we are required to pay you at maturity. These events may include disruptions or suspensions of trading in the markets as a whole. If the calculation agent, in its sole discretion, determines that any of these events prevents us or any of our affiliates from properly hedging our obligations under the securities, it is possible that one or more of the Calculation Dates and the maturity date will be postponed and your return will be adversely affected. See "Description of Securities — Market Disruption Events."

**Generally, if the term of the securities is not more than one year, we expect to treat the securities as short-term debt instruments for U.S. federal income tax purposes.**

Unless otherwise provided in the relevant terms supplement, if the term of the securities is not more than one year (including either the issue date or the last possible date that the securities could be outstanding, but not both), we expect to treat the securities as "short-term" debt instruments for U.S. federal income tax purposes. No statutory, judicial or administrative authority directly addresses the treatment of securities or instruments similar to the securities for U.S. federal income tax purposes, and no ruling is being requested from the Internal Revenue Service (the "IRS") with respect to the securities. As a result, certain aspects of the tax treatment of an investment in the securities are uncertain. You should review carefully the section entitled "Certain U.S. Federal Income Tax Consequences" in this product supplement no. MS-14-A-I and consult your tax adviser regarding your particular circumstances.

**Generally, if the term of the securities is more than one year, we expect to treat the securities as contingent payment debt instruments for U.S. federal income tax purposes.**

Unless otherwise provided in the relevant terms supplement, if the term of the securities is more than one year (including either the issue date or the last possible date the securities could be outstanding, but not both), we expect to treat the securities as “contingent payment debt instruments” for U.S. federal income tax purposes. Assuming this treatment, you generally will be required to recognize interest income in each year at the “comparable yield,” as determined by us, although we will not make any payments with respect to the securities until maturity. Interest included in income will increase your basis in your securities. Generally, amounts received at maturity or on earlier sale or exchange in excess of your basis will be treated as additional interest income, while any loss will generally be treated as an ordinary loss to the extent of all previous inclusions with respect to your securities, which to that extent will be deductible against other income (e.g., employment and interest income) with the balance treated as capital loss, which may be subject to limitations. Losses may be subject to special reporting requirements. You should review carefully the section entitled “Certain U.S. Federal Income Tax Consequences” in this product supplement no. MS-14-A-I and consult your tax adviser regarding your particular circumstances.

**Historical performance of the underlying asset should not be taken as an indication of the future performance of such underlying asset during the terms of the securities.**

The actual performance of the underlying asset over the term of the securities, as well as the amount payable at maturity, may bear little relation to the historical performance of the underlying asset. The trading prices of the equity securities included in or held by the underlying asset will determine the value of the underlying asset. As a result, it is impossible to predict whether the value of the underlying asset will rise or fall.

**JPMorgan Chase & Co. employees holding the securities must comply with policies that limit their ability to trade the securities and may affect the value of their securities.**

If you are an employee of JPMorgan Chase & Co. or one of its affiliates, you may only acquire the securities for investment purposes and you must comply with all of our internal policies and procedures. Because these policies and procedures limit the dates and times that you may transact in the securities, you may not be able to purchase any securities described in the relevant terms supplement from us and your ability to trade or sell any such securities in the secondary market may be limited.

### **Risks Relating to a Basket**

**The basket components may not be equally weighted.**

Unless otherwise specified in the relevant terms supplement, the basket components may have different weights in determining the value of the basket, depending on the basket component weightings specified in the relevant terms supplement. For example, the relevant terms supplement may specify that the basket consists of five basket components and that the basket component weightings are 25%, 30%, 15%, 20% and 10% respectively. One consequence of such an unequal weighting of the basket components is that the same percentage change in two of the basket components may have different effects on the basket closing value. For example, if the basket component weighting for basket component A is greater than the basket component weighting for basket component B, a 5% decrease in basket component A will have a greater effect on the basket closing value than a 5% decrease in basket component B.

**The basket component weightings may be determined on a date other than the pricing date.**

If so specified in the relevant terms supplement, the basket component weightings may be determined on a date or dates other than the pricing date. For example, the relevant terms

supplement may specify that the basket components weights will be determined based on the relative magnitude of the basket component percentage change of each basket component. As a result, if the relevant terms supplement so specifies, you will not know the weight assigned to each basket component until a date later than the pricing date, and you may not know the weight assigned to each basket component in the Basket prior to the final valuation date.

**Changes in the value of the basket components may offset each other.**

Price movements in the basket components may not correlate with each other. At a time when the value of one or more of the basket components increases, the value of the other basket components may not increase as much or may even decline. Therefore, in calculating the final basket value, increases in the value of one or more of the basket components may be moderated, or more than offset, by lesser increases or declines in the level of the other basket component or basket components, particularly if the basket component or basket components that appreciate are of relatively low weight in the basket. There can be no assurance that the final basket value will be higher than the initial basket value (or strike value, if applicable). You may lose some or all of your investment in the securities if the final basket value is lower than the initial basket value (or strike value, if applicable).

**Movements in the basket components may be highly correlated.**

High correlation of movements in the basket components during periods of negative returns among the basket components could have an adverse effect on your return on your investment at maturity. However, the movements in the basket components may become uncorrelated in the future. Accordingly, at a time when the value of one or more of the basket components increases, the value of the other basket components may not increase as much or may even decline. See “Changes in the value of the basket components may offset each other” above.

**Risks Relating to an Underlying Index**

**If the securities are linked in whole or in part to an underlying index that is not a total return index, your return on the securities will not reflect dividends on the equity securities included in such underlying index.**

If the securities are linked in whole or in part to an underlying index that is not a total return index, your return on the securities will not reflect the return you would realize if you actually owned the equity securities included in such underlying index and received the dividends paid on those equity securities. This is because the calculation agent will calculate the amount payable to you at maturity of the securities by reference to the index closing value. The index closing value reflects the prices of the equity securities as calculated in such underlying index without taking into consideration the value of dividends paid on those equity securities.

**The sponsor of an underlying index (an “Index Sponsor”) may adjust such underlying index in a way that affects its level, and such Index Sponsor has no obligation to consider your interests.**

The Index Sponsor of an underlying index is responsible for calculating and maintaining such underlying index. Such Index Sponsor can add, delete or substitute the equity securities underlying such underlying index or make other methodological changes that could change the level of such underlying index. You should realize that the changing of equity securities included in such underlying index may affect such underlying index, as a newly added equity security may perform significantly better or worse than the equity security or securities it replaces. Additionally, such Index Sponsor may alter, discontinue or suspend calculation or dissemination of such underlying index. Any of these actions could adversely affect the value of the securities. The Index Sponsor of an underlying index has no obligation to consider your interests in calculating or revising such underlying index. See the relevant index description section below, any related underlying supplement or the relevant terms supplement for additional information.

**We are currently one of the companies that make up the S&P 500® Index, but, to our knowledge, we are not currently affiliated with any other company the equity securities of which are included in the S&P 500® Index.**

We are currently one of the companies that make up the S&P 500® Index, but, to our knowledge, we are not currently affiliated with any of the issuers of the securities underlying any other underlying index. As a result, we will have no ability to control the actions of the other issuers of such securities, including actions that could affect the value of the securities included in an underlying index or your securities. None of the money you pay us will go to the Index Sponsor for an underlying index or any of the other issuers of the securities included in an underlying index and none of those other issuers will be involved in the offering of the securities in any way. Neither those issuers nor we will have any obligation to consider your interests as a holder of the securities in taking any actions that might affect the value of your securities.

In the event we become affiliated with any issuers the equity securities of which is included in an underlying index, we will have no obligation to consider your interests as a holder of the securities in taking any action with respect to such issuer that might affect the value of your securities.

**For securities linked in whole or in part to the Russell 2000® Index, an investment in the securities will be subject to risks associated with small capitalization stocks.**

The stocks that constitute the Russell 2000® Index are issued by companies with relatively small market capitalization. The stock prices of smaller companies may be more volatile than stock prices of large capitalization companies. Small capitalization companies may be less able to withstand adverse economic, market, trade and competitive conditions relative to larger companies. These companies tend to be less well-established than large market capitalization companies. Small capitalization companies are less likely to pay dividends on their stocks, and the presence of a dividend payment could be a factor that limits downward stock price pressure under adverse market conditions.

**For securities linked in whole or in part to a foreign underlying index, if the prices of its component equity securities are not converted into U.S. dollars for purposes of calculating the value of the foreign underlying index, the amount payable on the securities at maturity will not be adjusted for changes in exchange rates that might affect the foreign underlying index.**

Because the prices of the equity securities composing a foreign underlying index are not converted into U.S. dollars for purposes of calculating the value of the foreign underlying index and although the equity securities composing the foreign underlying index are traded in currencies other than U.S. dollars, and the securities, which are linked in whole or in part to the foreign underlying index, are denominated in U.S. dollars, the amount payable on the securities at maturity, if any, will not be adjusted for changes in the exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing the foreign underlying index are denominated. Changes in exchange rates, however, may reflect changes in various non-U.S. economies that in turn may affect the payment on the securities. The amount we pay in respect of the securities on the maturity date, if any, will be determined solely in accordance with the procedures described in "Description of Securities — Payment at Maturity."

**For securities linked in whole or in part to a foreign underlying index, if the prices of its component equity securities are converted into U.S. dollars for purposes of calculating the value of the foreign underlying index, the securities will be subject to currency exchange risk.**

Because the prices of the equity securities composing a foreign underlying index are converted into U.S. dollars for the purposes of calculating the value of the foreign underlying index, the holders of the securities will be exposed to currency exchange rate risk with respect to each of the currencies in which the equity securities composing the foreign underlying index trade. An investor's net exposure will depend on the extent to which such currencies strengthen or weaken against the U.S. dollar and the relative weight of the equity securities composing the foreign underlying index denominated in each such currency. If, taking into account such weighting, the U.S. dollar strengthens against such

currencies, the value of the foreign underlying index will be adversely affected and the payment at maturity of the securities may be reduced.

Of particular importance to potential currency exchange risk are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments; and
- the extent of governmental surpluses or deficits in the component 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 component countries and the United States and other countries important to international trade and finance.

**For securities linked in whole or in part to a foreign underlying index, if the prices of its component equity securities are converted into U.S. dollars for purposes of calculating the value of the foreign underlying index, changes in the volatility of exchange rates, and the correlation between those rates and the values of the foreign underlying index are likely to affect the market value of the securities.**

The exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing a foreign underlying index are denominated refers to a foreign exchange spot rate that measures the relative values of two currencies — the particular currency in which an equity security composing the foreign underlying index and the U.S. dollar. This exchange rate reflects the amount of the particular currency in which an equity security composing the foreign underlying index is denominated that can be purchased for one U.S. dollar and thus increases when the U.S. dollar appreciates relative to the particular currency in which that equity security is denominated. The volatility of the exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing the foreign underlying index are denominated refers to the size and frequency of changes in that exchange rate.

Because a foreign underlying index is calculated, in part, by converting the closing prices of the equity securities composing the foreign underlying index into U.S. dollars, the volatility of the exchange rate between the U.S. dollar and each of the currencies in which those equity securities are denominated could affect the market value of the securities.

The correlation of the exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing a foreign underlying index are denominated and the value of the foreign underlying index refers to the relationship between the percentage changes in that exchange rate and the percentage changes in the value of the foreign underlying index. The direction of the correlation (whether positive or negative) and the extent of the correlation between the percentage changes in the exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing the foreign underlying index are denominated and the percentage changes in the value of the foreign underlying index could affect the value of the securities.

**For securities linked in whole or in part to a foreign underlying index, an investment in the securities is subject to risks associated with non-U.S. securities markets.**

The equity securities that compose a foreign underlying index have been issued by non-U.S. companies. Investments in securities linked to the value of such non-U.S. equity 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. Also, 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.



The prices of securities in non-U.S. jurisdictions 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 and other foreign laws or restrictions. Moreover, the economies in such 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. Such 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 the relatively unstable governments which 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. The risks of the economies of emerging market countries are relevant for securities linked to a foreign underlying index composed of securities traded in one or more emerging market countries.

Some or all of these factors may influence the value of a foreign underlying 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. You cannot predict the future performance of the foreign underlying index based on its historical performance. There can be no assurance that the value of the foreign underlying index will not decrease so that at maturity you will not lose some or all of your investment.

### **Risks Relating to ETF Shares**

**The policies of the investment adviser for an ETF, and the sponsor of a reference index, could affect the value and the amount payable on the securities.**

The policies of the investment advisor for an ETF concerning the calculation of the ETF's net asset value, additions, deletions or substitutions of equity securities underlying the ETF, substitutions of its reference index and manner in which changes affecting a reference index are reflected in the ETF could affect the market price of the ETF Shares and, therefore, affect the amount payable on the securities at maturity, if any, and the value of the securities before maturity. The amount payable on the securities and its value could also be affected if investment advisor changes these policies, for example, by changing the manner in which it calculates the ETF's net asset value, or if investment advisor discontinues or suspends calculation or publication of the ETF's net asset value, in which case it may become difficult to determine the value of the securities.

In addition, the sponsor of a reference index is responsible for the design and maintenance of the reference index. The policies of the sponsor concerning the calculation of the reference index, including decisions regarding the addition, deletion or substitution of the securities included in the reference index, could affect the value of the reference index and, consequently, could affect the market prices of the ETF Shares and, therefore, the amount payable on the securities at maturity, and the value of the securities before maturity.

**There are risks associated with an ETF.**

An ETF may have a limited operating history. Although the ETF Shares may be listed for trading on NYSE Arca, Inc. ("NYSE Arca") and a number of similar products have been traded on NYSE Arca or other securities exchange for varying periods of time, there is no assurance that an active trading market will continue for the ETF Shares or that there will be liquidity in the trading market.

In addition, an ETF is subject to management risk, which is the risk that the applicable investment advisor's investment strategy, the implementation of which is subject to a number of constraints, may not produce the intended results. These constraints could adversely affect the market prices of the ETF Shares, and consequently, the value of the securities. See the relevant ETF description below or the relevant terms supplement for additional information.

**For securities linked in whole or in part to an ETF, the performance of the ETF may not correlate with the performance of its reference index.**

Unless otherwise specified in the relevant terms supplement, an ETF uses a representative sampling strategy to attempt to track the performance of its reference index. Pursuant to such representative sampling strategy, an ETF invests in a representative sample of securities that collectively has an investment profile similar to its reference index; however, an ETF may not hold all or substantially all of the securities included in its reference index. Therefore, while the performance of an ETF is linked principally to the performance of its reference index, its performance is also generally linked in part to assets other than the securities included in its reference index because, unless otherwise specified in the relevant terms supplement, its investment adviser generally may invest a portion of an ETF's assets in securities not included in the reference index and in other assets, including potentially shares of money market funds affiliated with or advised by the investment advisor.

In addition, the performance of an ETF will reflect additional transaction costs and fees that are not included in the calculation of its reference index. Also, the component equity securities, if applicable, of an ETF may be unavailable in the secondary market or due to other extraordinary circumstances. Corporate actions with respect to the sample of securities (such as mergers and spin-offs) also may impact the variance between an ETF and its reference index. Finally, because the shares of an ETF may be traded on the NYSE Arca, Inc. and may be subject to market supply and investor demand, the market value of one share of an ETF may differ from the net asset value per share of the ETF.

For all of the foregoing reasons, the performance of an ETF may not correlate with the performance of the its reference index. Consequently, the return on the securities will not be the same as investing directly in any ETF or any relevant reference index or in the equity securities held by any ETF or included in any relevant reference index, and will not be the same as investing in a debt security with a payment at maturity linked to the performance of any relevant reference index.

**We are currently one of the companies that make up the SPDR® S&P® 500 ETF Trust and the S&P 500® Index, but, to our knowledge, unless otherwise specified in any related underlying supplement or relevant terms supplement, we are not currently affiliated with any other issuer of securities underlying any other ETF or included in any other relevant reference index.**

We are currently one of the companies that make up the SPDR® S&P® 500 ETF Trust and the S&P 500® Index, but, to our knowledge, unless otherwise specified in any related underlying supplement or relevant terms supplement, we are not currently affiliated with any of the issuers of the securities underlying any other ETF or included in any other relevant reference index. As a result, we will have no ability to control the actions of the other issuers of such securities, including actions that could affect the value of the securities underlying an ETF or included in any relevant reference index or your securities. None of the money you pay us will go to an ETF, any investment adviser for an ETF, the sponsor for any relevant reference index or any of the other issuers of the securities underlying an ETF or included in any relevant reference index and none of those other issuers will be involved in the offering of the securities in any way. Neither those issuers nor we will have any obligation to consider your interests as a holder of the securities in taking any actions that might affect the value of your securities.

In the event we become affiliated with any issuer of the securities underlying an ETF or included any relevant reference index, we will have no obligation to consider your interests as a holder of the securities in taking any action with respect to such issuer that might affect the value of your securities.

**For securities linked in whole or in part to a foreign ETF, if the prices of the securities underlying the foreign ETF are not converted into U.S. dollars for purposes of calculating the net asset value of the foreign ETF, the amount payable on the securities at maturity will not be adjusted for changes in exchange rates that might affect the foreign ETF.**

Because the prices of the securities underlying a foreign ETF are not converted into U.S. dollars for purposes of calculating the net asset value of the foreign ETF and although the securities underlying the foreign ETF are traded in currencies other than U.S. dollars, and the securities, which are linked in whole or in part to the foreign ETF, are denominated in U.S. dollars, the amount payable on the securities at maturity will not be adjusted for changes in the exchange rate between the U.S. dollar and each of the currencies in which the securities underlying the foreign ETF are denominated. Changes in exchange rates, however, may reflect changes in various non-U.S. economies that in turn may affect the payment on the securities. The amount we pay in respect of the securities on the maturity date, if any, will be determined solely in accordance with the procedures described in "Description of Securities — Payment at Maturity."

**For securities linked in whole or in part to a foreign ETF, if the prices of the securities underlying the foreign ETF are converted into U.S. dollars for purposes of calculating the net asset value of the foreign ETF, the securities will be subject to currency exchange risk.**

Because the prices of the securities underlying a foreign ETF are converted into U.S. dollars for the purposes of calculating the net asset value of the foreign ETF, the holders of the securities will be exposed to currency exchange rate risk with respect to each of the currencies in which the securities underlying the foreign ETF trade. An investor's net exposure will depend on the extent to which such currencies strengthen or weaken against the U.S. dollar and the relative weight of the securities underlying the foreign ETF denominated in each such currency. If, taking into account such weighting, the U.S. dollar strengthens against such currencies, the net asset value of the foreign ETF will be adversely affected and the payment at maturity of the securities may be reduced.

Of particular importance to potential currency exchange risk are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments; and
- the extent of governmental surpluses or deficits in the component 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 component countries and the United States and other countries important to international trade and finance.

**For securities linked in whole or in part to foreign ETF, if the prices of the securities underlying the foreign ETF are converted into U.S. dollars for purposes of calculating the net asset value of the foreign ETF, changes in the volatility of exchange rates, and the correlation between those rates and the net asset value of the foreign ETF are likely to affect the market value of the securities.**

The exchange rate between the U.S. dollar and each of the currencies in which the securities underlying the foreign ETF are denominated refers to a foreign exchange spot rate that measures the relative values of two currencies — the particular currency in which a security underlying the foreign ETF and the U.S. dollar. This exchange rate reflects the amount of the particular currency in which a security underlying a foreign ETF is denominated that can be purchased for one U.S. dollar and thus increases when the U.S. dollar appreciates relative to the particular currency upon which that security is denominated. The volatility of the exchange rate between the U.S. dollar and each of the currencies in which the securities underlying a foreign ETF refer to the size and frequency of changes in that exchange rate.

Because the net asset value of a foreign ETF is calculated, in part, by converting the closing prices of the securities underlying the foreign ETF into U.S. dollars, the volatility of the exchange rate between the U.S. dollar and each of the currencies in which those securities are denominated could affect the market value of the securities.

The correlation of the exchange rate between the U.S. dollar and each of the currencies in which the securities underlying a foreign ETF are denominated and the net asset value of the foreign ETF refers to the relationship between the percentage changes in that exchange rate and the percentage changes in the net asset value of the foreign ETF. The direction of the correlation (whether positive or negative) and the extent of the correlation between the percentage changes in the exchange rate between the U.S. dollar and each of the currencies in which the securities underlying the foreign ETF are denominated and the percentage changes in the net asset value of the foreign ETF could affect the value of the securities.

**For securities linked in whole or in part to a foreign ETF, an investment in the securities is subject to risks associated with non-U.S. securities markets.**

All or a substantial portion of the securities held by a foreign ETF have been issued by non-U.S. companies. Investments in securities linked to the value of such 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. Also, 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.

The prices of securities in non-U.S. jurisdictions 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 and other foreign laws or restrictions. Moreover, the economies in such 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. Such 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 the relatively unstable governments which 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. The risks of the economies of emerging market countries are relevant for securities linked to a foreign ETF composed of securities traded in one or more emerging market countries.

Some or all of these factors may influence the value of a foreign ETF. 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. You cannot predict the future performance of the foreign ETF based on its historical performance. There can be no assurance that the value of the foreign ETF will not decrease so that at maturity you will not lose some or all of your investment.

\* \* \*

**If the securities are linked to a single underlying index or an ETF not described in this product supplement, a separate underlying supplement or the relevant terms supplement may provide additional risk factors relating to such underlying index or ETF.**

## USE OF PROCEEDS AND HEDGING

Unless otherwise specified in the relevant terms supplement, the net proceeds we receive from the sale of the securities will be used for general corporate purposes and, in part, by us or by one or more of our affiliates in connection with hedging our obligations under the securities. The original issue price of the securities includes each agent's commissions (as shown on the cover page of the relevant terms supplement) paid with respect to the securities and the estimated cost of hedging our obligations under the securities. We may have hedged our obligations under the securities through certain affiliates or unaffiliated counterparties.

Unless otherwise specified in the relevant terms supplement, the price to public of the securities will include the reimbursement of certain issuance costs and the estimated cost of hedging our obligations under the securities. The estimated cost of hedging includes the projected profit, which in no event will exceed \$0.35 per \$10 security, that our affiliates expect to realize in consideration for assuming the risks inherent in hedging our obligations under the securities. Because hedging our obligations entails risk and may be influenced by market forces beyond our control, such hedging may result in a profit that is more or less than expected, or could result in a loss. See also "Use of Proceeds" in the accompanying prospectus.

On or prior to the date of the relevant terms supplement, we, through our affiliates or others, expect to hedge some or all of our anticipated exposure in connection with the securities. In addition, from time to time after we issue the securities, we, through our affiliates or others, may enter into additional hedging transactions and close out or unwind those we have entered into, in connection with the securities and possibly in connection with our or our affiliates' exposure to one or more underlying indices or ETFs or the equity securities underlying one or more underlying indices or ETFs. To accomplish this, we, through our affiliates or others, may take positions in one or more underlying indices or ETFs, the equity securities underlying one or more underlying indices or ETFs or instruments the value of which is derived from one or more underlying indices or ETFs or their underlying equity securities. From time to time, prior to maturity of the securities, we may pursue a dynamic hedging strategy that may involve taking long or short positions in the instruments described above.

While we cannot predict an outcome, any of these hedging activities or other trading activities of ours could potentially increase the initial value and/or decrease the ending value, which could adversely affect your payment at maturity. See "Risk Factors — We or our affiliates may have economic interests that are adverse to those of the holders of the securities as a result of our hedging and other trading activities" above.

We have no obligation to engage in any manner of hedging activity and will do so solely at our discretion and for our own account. We may hedge our exposure on the securities directly or we may aggregate this exposure with other positions taken by us and our affiliates with respect to our exposure to specific underlying indices or ETFs or the underlying equity securities. No note holder will have any rights or interest in our hedging activity or any positions we or any affiliated or unaffiliated counterparties may take in connection with our hedging activity.

## THE EURO STOXX 50® INDEX

We have derived all information contained in this product supplement regarding the EURO STOXX 50® Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by, STOXX Limited. We make no representation or warranty as to the accuracy or completeness of such information. The EURO STOXX 50® Index is calculated, maintained and published by STOXX Limited. STOXX Limited has no obligation to continue to publish, and may discontinue publication of, the EURO STOXX 50® Index.

The EURO STOXX 50® Index is reported by Bloomberg L.P. under the ticker symbol "SX5E."

The EURO STOXX 50® Index was created by STOXX Limited, a joint venture between Deutsche Börse AG and SIX Group AG. Publication of the EURO STOXX 50® Index began on February 26, 1998, based on an initial EURO STOXX 50® Index value of 1,000 at December 31, 1991. The EURO STOXX 50® Index is published in The Wall Street Journal and disseminated on the STOXX Limited website: <http://www.stoxx.com>, which sets forth, among other things, the country and industrial sector weightings of the securities included in the EURO STOXX 50® Index and updates these weightings at the end of each quarter. Information contained in the STOXX Limited website is not incorporated by reference in, and should not be considered a part of, this product supplement or the relevant terms supplement.

On March 1, 2010, STOXX Limited announced the removal of the "Dow Jones" prefix from all of its indices, including the EURO STOXX 50® Index.

### **EURO STOXX 50® Index Composition and Maintenance**

The EURO STOXX 50® Index is composed of 50 component stocks of market sector leaders from within the 19 EURO STOXX® Supersector indices, which represent the Eurozone portion of the STOXX Europe 600® Supersector indices. The STOXX Europe 600® Supersector indices contain the 600 largest stocks traded on the major exchanges of 18 European countries.

The composition of the EURO STOXX 50® Index is reviewed annually, based on the closing stock data on the last trading day in August. The component stocks are announced the first trading day in September. Changes to the component stocks are implemented on the third Friday in September and are effective the following trading day. The composition of the EURO STOXX 50® Index is also reviewed monthly to ensure that component stocks still remain eligible for inclusion. Any resulting changes from the monthly review are implemented on the close of the fifth trading day following the monthly review and are effective the next trading day. Changes in the composition of the EURO STOXX 50® Index are made to ensure that the EURO STOXX 50® Index includes the 50 market sector leaders from within the EURO STOXX® Index. A current list of the issuers that comprise the EURO STOXX 50® Index is available on the STOXX Limited website: <http://www.stoxx.com>. Information contained in the STOXX Limited website is not incorporated by reference in, and should not be considered a part of, this product supplement or the relevant terms supplement.

The free float factors for each component stock used to calculate the EURO STOXX 50® Index, as described below, are reviewed, calculated and implemented on a quarterly basis and are fixed until the next quarterly review.

The EURO STOXX 50® Index is also reviewed on an ongoing basis. Corporate actions (including initial public offerings, mergers and takeovers, spin-offs, delistings and bankruptcy) that affect the EURO STOXX 50® Index composition are immediately reviewed. Any changes are announced, implemented and effective in line with the type of corporate action and the magnitude of the effect.

## EURO STOXX 50® Index Calculation

The EURO STOXX 50® Index is calculated with the “Laspeyres formula,” which measures the aggregate price changes in the component stocks against a fixed base quantity weight. The formula for calculating the EURO STOXX 50® Index value can be expressed as follows:

$$\text{Index} = \frac{\text{free float market capitalization of the EURO STOXX 50® Index}}{\text{adjusted base date market capitalization of the EURO STOXX 50® Index}} \times 1,000$$

The “free float market capitalization of the EURO STOXX 50® Index” is equal to the sum of the products of the closing price, market capitalization and free float factor for each component stock as of the time the EURO STOXX 50® Index is being calculated.

The EURO STOXX 50® Index is also subject to a divisor, which is adjusted to maintain the continuity of EURO STOXX 50® Index values despite changes due to corporate actions. The following is a summary of the adjustments to any component stock made for corporate actions and the effect of such adjustment on the divisor, where shareholders of the component stock will receive “B” number of shares for every “A” share held (where applicable).

<p>(1) <i>Split and reverse split:</i></p> <p>Adjusted price = closing price * A/B</p> <p>New number of shares = old number of shares * B/A</p> <p>Divisor: no change</p>	
<p>(2) <i>Rights offering:</i></p> <p>If the subscription price is not available or if the subscription price is equal to or greater than the closing price on the day before the effective date, then no adjustment is made</p> <p>Adjusted price = (closing price * A + subscription price * B) / (A + B)</p> <p>New number of shares = old number of shares * (A + B) / A</p> <p>Divisor: increases</p>	
<p>(3) <i>Stock dividend:</i></p> <p>Adjusted price = closing price * A / (A + B)</p> <p>New number of shares = old number of shares * (A + B) / A</p> <p>Divisor: decreases</p>	<p>(4) <i>Stock dividend of another company:</i></p> <p>Adjusted price = (closing price * A - price of other company * B) / A</p> <p>Divisor: decreases</p>



<p><i>(5) Return of capital and share consideration:</i></p> <p>Adjusted price = (closing price – capital return announced by company * (1- withholding tax)) * A / B</p> <p>New number of shares = old number of shares * B / A</p> <p>Divisor: decreases</p>	<p><i>(6) Repurchase of shares / self tender:</i></p> <p>Adjusted price = ((price before tender * old number of shares) - (tender price * number of tendered shares)) / (old number of shares - number of tendered shares)</p> <p>New number of shares = old number of shares - number of tendered shares</p> <p>Divisor: decreases</p>
<p><i>(7) Spin-off:</i></p> <p>Adjusted price = (closing price * A - price of spun-off shares * B) / A</p> <p>Divisor: decreases</p>	
<p><i>(8) Combination stock distribution (dividend or split) and rights offering:</i></p> <p>For this corporate action, the following additional assumptions apply: Shareholders receive B new shares from the distribution and C new shares from the rights offering for every A share held. If A is not equal to one share, all the following “new number of shares” formulae need to be divided by A:</p>	
<p><i>- If rights are applicable after stock distribution (one action applicable to other):</i></p> <p>Adjusted price = (closing price * A + subscription price * C * (1 + B / A)) / ((A + B) * (1 + C / A))</p> <p>New number of shares = old number of shares * ((A + B) * (1 + C / A)) / A</p> <p>Divisor: increases</p>	<p><i>- If stock distribution is applicable after rights (one action applicable to other):</i></p> <p>Adjusted price = (closing price * A + subscription price * C) / ((A + C) * (1 + B / A))</p> <p>New number of shares = old number of shares * ((A + C) * (1 + B / A))</p> <p>Divisor: increases</p>
<p><i>- Stock distribution and rights (neither action is applicable to the other):</i></p> <p>Adjusted price = (closing price * A + subscription price * C) / (A + B + C)</p> <p>New number of shares = old number of shares * (A + B + C) / A</p> <p>Divisor: increases</p>	

#### License Agreement with STOXX Limited

We have entered into an agreement with STOXX Limited (“STOXX”) providing us and certain of our affiliates or subsidiaries identified in that agreement with a non-exclusive license and, for a fee, with the right to use the EURO STOXX 50® Index, which is owned and published by STOXX Limited, in connection with certain securities, including the securities.

STOXX and its licensors (the “Licensors”) have no relationship to JPMorgan Chase & Co., other than the licensing of the EURO STOXX 50® Index and the related trademarks for use in connection with the securities.

**STOXX and its Licensors do not:**

- sponsor, endorse, sell or promote the securities;
- recommend that any person invest in the securities or any other securities;
- have any responsibility or liability for or make any decisions about the timing, amount or pricing of the securities;
- have any responsibility or liability for the administration, management or marketing of the securities; or
- consider the needs of the securities or the holders of the securities in determining, composing or calculating the EURO STOXX 50® Index or have any obligation to do so.

**STOXX and its Licensors will not have any liability in connection with the securities. Specifically,**

- **STOXX and its Licensors do not make any warranty, express or implied and disclaim any and all warranty about:**
  - **The results to be obtained by the securities, the holders of the securities or any other person in connection with the use of the EURO STOXX 50® Index and the data included in the EURO STOXX 50® Index;**
  - **The accuracy or completeness of the EURO STOXX 50® Index and its data; or**
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- **STOXX and its Licensors will have no liability for any errors, omissions or interruptions in the EURO STOXX 50® Index or its data; and**
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**The licensing agreement between JPMorgan Chase & Co. and STOXX is solely for their benefit and not for the benefit of the holders of the securities or any other third parties.**

## THE iSHARES® MSCI EMERGING MARKETS INDEX FUND

We have derived all information contained in this product supplement regarding the iShares® MSCI Emerging Markets Index Fund (the “EEM Fund”), including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by, iShares®, Inc., BlackRock Institutional Trust Company, N.A. (“BTC”) and BlackRock Fund Advisors (“BFA”). The EEM Fund is an investment portfolio maintained and managed by iShares®, Inc. BFA is currently the investment adviser to the EEM Fund. The EEM Fund is an exchange-traded fund (“ETF”) that trades on the NYSE Arca, Inc. (“NYSE Arca”) under the ticker symbol “EEM.” We make no representation or warranty as to the accuracy or completeness of the information derived from these public sources.

iShares®, Inc. is a registered investment company that consists of numerous separate investment portfolios, including the EEM Fund. Information provided to or filed with the SEC by iShares®, Inc. pursuant to the Securities Act of 1933, as amended, and the Investment Company Act of 1940, as amended, can be located by reference to SEC file numbers 033-97598 and 811-09102, respectively, through the SEC’s website at <http://www.sec.gov>. For additional information regarding iShares®, Inc., BFA and the EEM Fund, please see the prospectus dated January 1, 2011. In addition, information about iShares® and the EEM Fund may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents and the iShares® website at [www.ishares.com](http://www.ishares.com). We make no representation or warranty as to the accuracy or completeness of such information. Information contained in the iShares® website is not incorporated by reference in, and should not be considered a part of, this product supplement or the relevant terms supplement.

### Investment Objective and Strategy

The EEM Fund seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of publicly traded securities in emerging markets, as measured by the MSCI Emerging Markets Index. The EEM Fund holds equity securities traded primarily in the global emerging markets. The MSCI Emerging Markets Index was developed by MSCI Inc. (“MSCI”) as an equity benchmark for international stock performance, and is designed to measure equity market performance in the global emerging markets. For more information about the MSCI Emerging Markets Index, please see “The MSCI Indices” in this product supplement.

As of March 31, 2011, the EEM Fund holdings by country consisted of the following 24 countries: Bermuda, Brazil, Cayman Islands, Chile, China, Colombia, Czech Republic, Egypt, Hong Kong, India, Indonesia, Luxembourg, Malaysia, Mexico, Peru, Philippines, Poland, Russia, South Africa, South Korea, Taiwan, Thailand, Turkey and the United States. In addition, as January 31, 2011, the EEM Fund’s three largest holdings by country were China, Brazil and South Korea. As of such date, its three largest equity securities were OAO Gazprom, Petroleo Brasileiro S.A. and Samsung Electronics Co., Ltd., and its three largest sectors were financials, energy and materials.

The EEM Fund uses a representative sampling strategy (as described below under “— Representative Sampling”) to try to track the MSCI Emerging Markets Index. In addition, the EEM Fund may invest up to 10% of its assets in other securities, including securities not in the MSCI Emerging Markets Index, futures contracts, options on futures contracts, other types of options and swaps related to the MSCI Emerging Markets Index, as well as cash and cash equivalents, including shares of money market funds affiliated with BFA or its affiliates.

### Representative Sampling

The EEM Fund pursues a “representative sampling” strategy in attempting to track the performance of the MSCI Emerging Markets Index, and generally does not hold all of the equity securities included in the MSCI Emerging Markets Index. The EEM Fund invests in a representative sample of securities that collectively has an investment profile similar to the MSCI Emerging Markets Index. Securities selected are expected to have, in the aggregate, investment characteristics (based on factors such as market capitalization and industry weightings), fundamental characteristics (such as return variability and yield) and liquidity measures similar to those of the MSCI Emerging Markets Index.

## Correlation

The MSCI Emerging Markets Index is a theoretical financial calculation, while the EEM Fund is an actual investment portfolio. The performance of the EEM Fund and the MSCI Emerging Markets Index will vary due to transaction costs, foreign currency valuation, asset valuations, corporate actions (such as mergers and spin-offs), timing variances, and differences between the EEM Fund's portfolio and the MSCI Emerging Markets Index resulting from legal restrictions (such as diversification requirements) that apply to the EEM Fund but not to the MSCI Emerging Markets Index or the use of representative sampling. A figure of 100% would indicate perfect correlation. Any correlation of less than 100% is called "tracking error." BFA expects that, over time, the EEM Fund's tracking error will not exceed 5%. The EEM Fund, using a representative sampling strategy, can be expected to have a greater tracking error than a fund using a replication strategy. Replication is a strategy in which a fund invests in substantially all of the securities in its underlying index in approximately the same proportions as in the underlying index.

## Industry Concentration Policy

The EEM Fund will concentrate its investments (*i.e.*, hold 25% or more of its total assets) in a particular industry or group of industries to approximately the same extent that the MSCI Emerging Markets Index is concentrated. For purposes of this limitation, securities of the U.S. government (including its agencies and instrumentalities) and repurchase agreements collateralized by U.S. government securities are not considered to be issued by members of any industry.

## Holdings Information

As of April 29, 2011, 99.63% of the EEM Fund's holdings consisted of equity securities, 0.05% consisted of cash and 0.32% was in other assets, including dividends booked but not yet received. The following tables summarize the EEM Fund's top holdings in individual companies and by sector as of such date.

### Top holdings in individual securities as of April 29, 2011

Company	Percentage of Total Holdings
Samsung Electronics Co., Ltd.	2.11%
OAQ "Gazprom"	1.91%
Petróleo Brasileiro S.A. - Preferred	1.68%
Vale S.A.	1.47%
Petróleo Brasileiro S.A.	1.44%
Taiwan Semiconductor Manufacturing Company Ltd.	1.39%
América Móvil SAB De C.V.	1.35%
China Mobile Limited	1.30%
Itaú Unibanco Holding S.A.	1.23%
Industrial and Commercial Bank of China	1.23%

### Top holdings by sector as of April 29, 2011

<b>Sector</b>	<b>Percentage of Total Holdings</b>
Financials	23.95%
Energy	15.25%
Materials	14.14%
Information Technology	12.60%
Industrials	7.48%
Consumer Discretionary	7.44%
Telecommunication Services	6.86%
Consumer Staples	6.54%
Utilities	3.33%
Health Care	1.20%
Other/Undefined	0.72%

The information above was compiled from the iShares® website. We make no representation or warranty as to the accuracy or completeness of such information. Information contained in the iShares® website is not incorporated by reference in, and should not be considered a part of, this product supplement or the relevant terms supplement.

#### **Historical Performance of the EEM Fund**

We will provide historical price information with respect to the shares of the EEM Fund in the relevant terms supplement. You should not take any such historical prices as an indication of future performance.

#### **Disclaimer**

The securities are not sponsored, endorsed, sold or promoted by BTC. BTC makes no representations or warranties to the owners of the securities or any member of the public regarding the advisability of investing in the securities. BTC has no obligation or liability in connection with the operation, marketing, trading or sale of the securities.

## THE iSHARES® MSCI EAFE INDEX FUND

We have derived all information contained in this product supplement regarding the iShares® MSCI EAFE Index Fund (the “EFA Fund”), including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by, iShares® Trust, BlackRock Institutional Trust Company, N.A. (“BTC”) and BlackRock Fund Advisors (“BFA”). The EFA Fund is an investment portfolio maintained and managed by iShares® Trust. BFA is currently the investment adviser to the EFA Fund. The EFA Fund is an exchange-traded fund (“ETF”) that trades on the NYSE Arca, Inc. (“NYSE Arca”) under the ticker symbol “EFA.” We make no representation or warranty as to the accuracy or completeness of the information derived from these public sources.

iShares® Trust is a registered investment company that consists of numerous separate investment portfolios, including the EFA Fund. Information provided to or filed with the SEC by iShares® Trust pursuant to the Securities Act of 1933, as amended, and the Investment Company Act of 1940, as amended, can be located by reference to SEC file numbers 333-92935 and 811-09729, respectively, through the SEC’s website at <http://www.sec.gov>. For additional information regarding iShares® Trust, BFA and the EFA Fund, please see the prospectus dated December 1, 2010. In addition, information about iShares® and the EFA Fund may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents and the iShares® website at [www.ishares.com](http://www.ishares.com). We make no representation or warranty as to the accuracy or completeness of such information. Information contained in the iShares® website is not incorporated by reference in, and should not be considered a part of, this product supplement or the relevant terms supplement.

### Investment Objective and Strategy

The EFA Fund seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of publicly traded securities in developed European, Australasian and Far Eastern markets, as measured by the MSCI EAFE® Index. The EFA Fund holds equity securities traded primarily in certain developed markets. The MSCI EAFE® Index was developed by MSCI Inc. (“MSCI”) as an equity benchmark for international stock performance, and is designed to measure equity market performance in certain developed markets. For more information about the MSCI EAFE® Index, please see “The MSCI Indices” in this product supplement.

As of March 31, 2011 the EFA Fund holdings by country consisted of the following 28 countries: Australia, Austria, Belgium, Bermuda, China, Cyprus, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, Jersey, Luxembourg, Macau, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom. In addition, as of March 31, 2011, the Fund’s three largest holdings by country were the United Kingdom, Japan and France. As of such date, its three largest equity securities were Nestle S.A., HSBC Holdings plc, and BHP Billiton Ltd, and its three largest sectors were financials, industrials and materials.

The EFA Fund uses a representative sampling strategy (as described below under “— Representative Sampling”) to try to track the MSCI EAFE® Index. In addition, the EFA Fund may invest up to 10% of its assets in securities not included in the MSCI EAFE® Index but which BFA believes will help the EFA Fund track the MSCI EAFE® Index and in futures contracts, options on futures contracts, options and swaps as well as cash and cash equivalents, including shares of money market funds advised by BFA or its affiliates.

### Representative Sampling

The EFA Fund pursues a “representative sampling” strategy in attempting to track the performance of the MSCI EAFE® Index, and generally does not hold all of the equity securities included in the MSCI EAFE® Index. The EFA Fund invests in a representative sample of securities that collectively has an investment profile similar to the MSCI EAFE® Index. Securities selected are expected to have, in the aggregate, investment characteristics (based on factors such as market capitalization and industry weightings), fundamental characteristics (such as return variability and yield) and liquidity measures similar to those of the MSCI EAFE® Index.

## Correlation

The MSCI EAFE® Index is a theoretical financial calculation, while the EFA Fund is an actual investment portfolio. The performance of the EFA Fund and the MSCI EAFE® Index will vary due to transaction costs, foreign currency valuation, asset valuations, corporate actions (such as mergers and spin-offs), timing variances, and differences between the EFA Fund's portfolio and the MSCI EAFE® Index resulting from legal restrictions (such as diversification requirements) that apply to the EFA Fund but not to the MSCI EAFE® Index or the use of representative sampling. A figure of 100% would indicate perfect correlation. Any correlation of less than 100% is called "tracking error." BFA expects that, over time, the EFA Fund's tracking error will not exceed 5%. The EFA Fund, using a representative sampling strategy, can be expected to have a greater tracking error than a fund using a replication strategy. Replication is a strategy in which a fund invests in substantially all of the securities in its underlying index in approximately the same proportions as in the underlying index.

## Industry Concentration Policy

The EFA Fund will concentrate its investments (*i.e.*, hold 25% or more of its total assets) in a particular industry or group of industries to approximately the same extent that the MSCI EAFE® Index is concentrated. For purposes of this limitation, securities of the U.S. government (including its agencies and instrumentalities) and repurchase agreements collateralized by U.S. government securities are not considered to be issued by members of any industry.

## Holdings Information

As of April 29, 2011 99.34% of the EFA Fund's holdings consisted of equity securities, 0.01% consisted of cash and 0.65% was in other assets, including dividends booked but not yet received. The following tables summarize the EFA Fund's top holdings in individual companies and by sector as of such date.

### Top holdings in individual securities as of April 29, 2011

Company	Percentage of Total Holdings
Nestle S.A.	1.77%
HSBC Holdings plc	1.60%
BHP Billiton Limited	1.33%
Vodafone Group plc	1.24%
BP plc	1.20%
Royal Dutch Shell plc	1.14%
TOTAL S.A.	1.11%
Novartis AG	1.03%
Siemens AG	0.99%
Roche Holding AG	0.94%

### Top holdings by sector as of April 29, 2011

<b>Sector</b>	<b>Percentage of Total Holdings</b>
Financials	23.91%
Industrials	12.84%
Materials	11.18%
Consumer Discretionary	10.13%
Consumer Staples	9.81%
Energy	8.40%
Health Care	8.12%
Telecommunication Services	5.50%
Utilities	4.75%
Information Technology	4.65%
Other/Undefined	0.71%

The information above was compiled from the iShares® website. We make no representation or warranty as to the accuracy or completeness of such information. Information contained in the iShares® website is not incorporated by reference in, and should not be considered a part of, this product supplement or the relevant terms supplement.

#### Historical Performance of the EFA Fund

We will provide historical price information with respect to the shares of the EFA Fund in the relevant terms supplement. You should not take any such historical prices as an indication of future performance.

#### Disclaimer

The securities are not sponsored, endorsed, sold or promoted by BTC. BTC makes no representations or warranties to the owners of the securities or any member of the public regarding the advisability of investing in the securities. BTC has no obligation or liability in connection with the operation, marketing, trading or sale of the securities.



## THE MSCI INDICES

We have derived all information contained in this product supplement regarding the the MSCI EAFE® Index and the MSCI Emerging Markets Index (together, "the MSCI Indices"), including, without limitation, their make-up, method of calculation and changes in their components, from publicly available information. Such information reflects the policies of, and is subject to change by, MSCI Inc. ("MSCI"). We make no representation or warranty as to the accuracy or completeness of such information. The MSCI Indices are calculated, maintained and published by MSCI. MSCI has no obligation to continue to publish, and may discontinue publication of, any of the MSCI Indices.

### Transition

On March 28, 2007, MSCI announced changes to the methodology used by MSCI to calculate its Standard and Small Cap Indices. The transition of the Standard and Small Cap Indices to the MSCI Global Investable Market Indices occurred in two phases, the first completed as of November 30, 2007 and the second completed as of May 30, 2008. The current index calculation methodology used to formulate the MSCI Indices (and which is also used to formulate the MSCI Global Investable Market Indices) (the "MSCI Global Investable Market Indices Methodology") was implemented as of June 1, 2008.

### The MSCI EAFE® Index

The MSCI EAFE® Index is a free float-adjusted market capitalization index intended to measure the equity market performance of certain developed markets. The MSCI EAFE® Index is calculated daily in U.S. dollars and published in real time every 15 seconds during market trading hours. As of May 25, 2011, the MSCI EAFE® Index consisted of the following 22 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom. Effective May 2010, Israel has been reclassified as a developed market and has been included in the MSCI EAFE® Index. The MSCI EAFE® Index is reported by Bloomberg L.P. under the ticker symbol "MXEA."

### The MSCI Emerging Markets Index

The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of global emerging markets. The MSCI Emerging Markets Index is calculated daily in U.S. dollars and published in real time every 15 seconds during market trading hours. As of May 25, 2011, the MSCI Emerging Markets Index consisted of the following 21 emerging market country indices: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand and Turkey. Effective May 2010, Israel has been reclassified as a developed market and is no longer included in the MSCI Emerging Markets Index. The MSCI Emerging Markets Index is reported by Bloomberg L.P. under the ticker symbol "MXEF."

### Constructing the MSCI Global Investable Market Indices

MSCI undertakes an index construction process that involves: (i) defining the Equity Universe; (ii) determining the Market Investable Equity Universe for each market; (iii) determining market capitalization size segments for each market; (iv) applying Index Continuity Rules for the MSCI Standard Index; (v) creating style segments within each size segment within each market; and (vi) classifying securities under the Global Industry Classification Standard (the "GICS").

The "relevant market" with respect to a single country index is equivalent to the single country, except in DM-classified countries in Europe (as described below), where all such countries are first aggregated into a single market for index construction purposes. Subsequently, individual DM Europe country indices within the MSCI Europe Index are derived from the constituents of the MSCI Europe Index under the MSCI Global Investable Market Indices Methodology.

The “relevant market” with respect to a composite index includes each of the single countries which comprise the composite index.

The “Global Investable Equity Universe” is the aggregation of all Market Investable Equity Universes. The “DM Investable Equity Universe” is the aggregation of all the Market Investable Equity Universes for Developed Markets.

#### *Defining the Equity Universe*

(i) Identifying Eligible Equity Securities: The Equity Universe initially looks at securities listed in any of the countries in the MSCI Global Index Series, which will be classified as Developed Markets (“DM”), Emerging Markets (“EM”) or Frontier Markets (“FM”). All listed equity securities, including Real Estate Investment Trusts (REITs) and certain income trusts in Canada are eligible for inclusion in the Equity Universe. Conversely, mutual funds (other than business development companies in the U.S.), exchange traded funds, equity derivatives, limited partnerships and most investment trusts are not eligible for inclusion in the Equity Universe.

(ii) Country Classification of Eligible Securities: Each company and its securities (i.e., share classes) are classified in one and only one country, which allows for a distinctive sorting of each company by its respective country.

#### *Determining the Market Investable Equity Universes*

A Market Investable Equity Universe for a market is derived by applying investability screens to individual companies and securities in the Equity Universe that are classified in that market. A market is equivalent to a single country, except in DM Europe, where all DM countries in Europe are aggregated into a single market for index construction purposes. Subsequently, individual DM Europe country indices within the MSCI Europe Index are derived from the constituents of the MSCI Europe Index under the Global Investable Market Indices methodology.

The investability screens used to determine the Investable Equity Universe in each market are as follows:

- (i) Equity Universe Minimum Size Requirement: This investability screen is applied at the company level. In order to be included in a Market Investable Equity Universe, a company must have the required minimum full market capitalization. A company will meet this requirement if its cumulative free float-adjusted market capitalization is within the top 99% of the Equity Universe sorted in descending order by full market capitalization.
- (ii) Equity Universe Minimum Float-Adjusted Market Capitalization Requirement: This investability screen is applied at the individual security level. To be eligible for inclusion in a Market Investable Equity Universe, a security must have a free float-adjusted market capitalization equal to or higher than 50% of the Equity Universe Minimum Size Requirement.
- (iii) DM and EM Minimum Liquidity Requirement: This investability screen is applied at the individual security level. To be eligible for inclusion in a Market Investable Equity Universe, a security must have adequate liquidity as measured by the Annualized Traded Value Ratio (“ATVR”) and the Frequency of Trading. The ATVR screens out extreme daily trading volumes, taking into account the free float-adjusted market capitalization size of securities. The aim of the 12-month and 3-month ATVR together with 3-month Frequency of Trading is to select securities with a sound long and short-term liquidity. A minimum liquidity level of 20% of 3-month ATVR and 90% of 3-month Frequency of Trading over the last 4 consecutive quarters, as well as 20% of 12-month ATVR are required for the inclusion of a security in a Market Investable Equity Universe of a Developed Market. A minimum liquidity level of 15% of 3-month ATVR and 80% of 3-month Frequency of Trading over the last 4 consecutive quarters, as well as 15% of 12-month ATVR are required for the inclusion of a security in a Market Investable Equity Universe of an Emerging Market.

In instances when a security does not meet the above criteria, the security will be represented by a relevant liquid eligible Depository Receipt if it is trading in the same geographical region. Depository Receipts are deemed liquid if they meet all the above mentioned criteria for 12-month ATVR, 3-month ATVR and 3-month Frequency of Trading.

- (iv) **Global Minimum Foreign Inclusion Factor Requirement:** This investability screen is applied at the individual security level. To be eligible for inclusion in a Market Investable Equity Universe, a security's Foreign Inclusion Factor ("FIF") must reach a certain threshold. The FIF of a security is defined as the proportion of shares outstanding that is available for purchase in the public equity markets by international investors. This proportion accounts for the available free float of and/or the foreign ownership limits applicable to a specific security (or company). In general, a security must have an FIF equal to or larger than 0.15 to be eligible for inclusion in a Market Investable Equity Universe.
- (v) **The Minimum Length of Trading Requirement:** This investability screen is applied at the individual security level. For an initial public offering ("IPO") to be eligible for inclusion in a Market Investable Equity Universe, the new issue must have started trading at least four months before the implementation of the initial construction of the index or at least three months before the implementation of a semi-annual index review. This requirement is applicable to small new issues in all markets. Large IPOs are not subject to the Minimum Length of Trading Requirement and may be included in a Market Investable Equity Universe and the Standard Index outside of a Quarterly or semi-annual index review.

#### *Defining Market Capitalization Size Segments for Each Market*

Once a Market Investable Equity Universe is defined, it is segmented into the following size-based indices:

- Investable Market Index (Large + Mid + Small)
- Standard Index (Large + Mid)
- Large Cap Index
- Mid Cap Index
- Small Cap Index

Creating the Size Segment Indices in each market involves the following steps: (i) defining the Market Coverage Target Range for each size segment; (ii) determining the Global Minimum Size Range for each size segment; (iii) determining the Market Size-Segment Cutoffs and associated Segment Number of Companies; (iv) assigning companies to the size segments; and (v) applying final size-segment investability requirements and index continuity rules.

#### *Index Continuity Rules for the Standard Indices*

In order to achieve index continuity, as well as provide some basic level of diversification within a market index, notwithstanding the effect of other index construction rules, a minimum number of five constituents will be maintained for a DM Standard Index and a minimum number of three constituents will be maintained for an EM Standard Index.

If after the application of the index construction methodology, a Standard Index contains fewer than five securities in a Developed Market or three securities in an Emerging Market, then the largest securities by free float-adjusted market capitalization are added to the Standard Index in order to reach five constituents in that Developed Market or three in that Emerging Market. At subsequent index reviews, if the free float-adjusted market capitalization of a non-index constituent is at least 1.50 times the free float-adjusted market capitalization of the smallest existing constituent after rebalancing, the larger free float-adjusted market capitalization security replaces the smaller one.

### *Creating Style Indices within Each Size Segment*

All securities in the investable equity universe are classified into Value or Growth segments using the MSCI Global Value and Growth methodology.

### *Classifying Securities under the Global Industry Classification Standard*

All securities in the Global Investable Equity Universe are assigned to the industry that best describes their business activities. To this end, MSCI has designed, in conjunction with Standard & Poor's, the Global Industry Classification Standard ("GICS"). The GICS entails four levels of classification: (1) sector; (2) industry groups; (3) industries; (4) sub-industries. Under the GICS, each company is assigned uniquely to one sub-industry according to its principal business activity. Therefore, a company can belong to only one industry grouping at each of the four levels of the GICS.

### **Maintenance of the MSCI Global Investable Market Indices**

The MSCI Global Investable Market Indices are maintained with the objective of reflecting the evolution of the underlying equity markets and segments on a timely basis, while seeking to achieve index continuity, continuous investability of constituents and replicability of the indices, and index stability and low index turnover.

In particular, index maintenance involves:

- (i) semi-annual index reviews ("SAIRs") in May and November of the Size Segment and Global Value and Growth Indices which include:
  - updating the indices on the basis of a fully refreshed Equity Universe;
  - taking buffer rules into consideration for migration of securities across size and style segments; and
  - updating FIFs and Number of Shares ("NOS").

The objective of the SAIRs is to systematically reassess the various dimensions of the Equity Universe for all markets on a fixed semi-annual timetable. A SAIR involves a comprehensive review of the Size Segment and Global Value and Growth Indices.

- (ii) quarterly index reviews ("QIRs") in February and August of the Size Segment Indices aimed at:
  - including significant new eligible securities (such as IPOs that were not eligible for earlier inclusion) in the index;
  - allowing for significant moves of companies within the Size Segment Indices, using wider buffers than in the SAIR; and
  - reflecting the impact of significant market events on FIFs and updating NOS.

QIRs are designed to ensure that the indices continue to be an accurate reflection of the evolving equity marketplace. This is achieved by a timely reflection of significant market driven changes that were not captured in the index at the time of their actual occurrence but are significant enough to be reflected before the next SAIR. QIRs may result in additions or deletions due to migration to another Size Segment Index, and changes in FIFs and in NOS. Only additions of significant new investable companies are considered, and only for the Standard Index. The buffer zones used to manage the migration of companies from one segment to another are wider than those used in the SAIR. The style classification is reviewed only for companies that are reassigned to a different size segment.

- (iii) Ongoing event-related changes. Ongoing event-related changes to the indices are the result of mergers, acquisitions, spin-offs, bankruptcies, reorganizations and other similar corporate events. They can also result from capital reorganizations in the form of rights issues, bonus issues, public placements and other similar corporate actions that take place on a continuing basis. These changes generally are reflected in the indices at the time of the event. Significantly large IPOs are included in the indices after the close of the company's tenth day of trading.

## Announcement Policy

The results of the SAIRs are announced at least two weeks in advance of their effective implementation dates as of the close of the last business day of May and November. The results of the QIRs are announced at least two weeks in advance of their effective implementation dates as of the close of the last business day of February and August. All changes resulting from corporate events are announced prior to their implementation.

The changes are typically announced at least ten business days prior to the changes becoming effective in the indices as an "expected" announcement, or as an "undetermined" announcement, when the effective dates are not known yet or when aspects of the event are uncertain. MSCI sends "confirmed" announcements at least two business days prior to events becoming effective in the indices, provided that all necessary public information concerning the event is available. The full list of all new and pending changes is delivered to clients on a daily basis, between 5:30 p.m. and 6 p.m., US Eastern Time through the Advance Corporate Events (ACE) File.

In exceptional cases, events are announced during market hours for same or next day implementation. Announcements made by MSCI during market hours are usually linked to late company disclosure of corporate events or unexpected changes to previously announced corporate events.

In the case of secondary offerings representing more than 5% of a security's number of shares for existing constituents, these changes will be announced prior to the end of the subscription period when possible and a subsequent announcement confirming the details of the event (including the date of implementation) will be made as soon as the results are available.

Both primary equity offerings and secondary offerings for U.S. securities, representing at least 5% of the security's number of shares, will be confirmed through an announcement during market hours for next day or shortly after implementation, as the completion of the events cannot be confirmed prior to the notification of the pricing.

Early deletions of constituents due to bankruptcy or other significant cases are announced as soon as practicable prior to their implementation.

## Index Calculation

### *Price Index Level*

The MSCI Indices are calculated using the Laspeyres' concept of a weighted arithmetic average together with the concept of chain-linking. As a general principle, today's index level is obtained by applying the change in the market performance to the previous period index level.

$$PriceIndexLevelUSD_t = PriceIndexLevelUSD_{t-1} \times \frac{IndexAdjustedMarketCapUSD_t}{IndexInitialMarketCapUSD_t}$$

$$PriceIndexLevelLocal_t = PriceIndexLevelLocal_{t-1} \times \frac{IndexAdjustedMarketCapForLocal_t}{IndexInitialMarketCapUSD_t}$$

Where:

- $PriceIndexLevelUSD_{t-1}$  is the Price Index level in USD at time t-1.
- $IndexAdjustedMarketCapUSD_t$  is the Adjusted Market Capitalization of the index in USD at time t.
- $IndexInitialMarketCapUSD_t$  is the Initial Market Capitalization of the index in USD at time t.
- $PriceIndexLevelLocal_{t-1}$  is the Price Index level in local currency at time t-1.
- $IndexAdjustedMarketCapForLocal_t$  is the Adjusted Market Capitalization of the index in USD converted using FX rate as of t-1 and used for local currency index at time t.

Note:  $IndexInitialMarketCapUSD$  was previously called  $IndexUnadjustedMarketCapPreviousUSD$

*Security Price Index Level*

$$SecurityPriceIndexLevel_t = SecurityPriceIndexLevel_{t-1} \times \frac{SecurityAdjustedMarketCapForLocal_t}{SecurityInitialMarketCapUSD_t}$$

*SecurityAdjustedMarketCapForLocal<sub>t</sub>* =

$$\frac{EndOfDayNumberOfShares_{t-1} \times PricePerShare_t \times InclusionFactor_t \times PAF_t}{FXrate_{t-1}} \times \frac{ICI_t}{ICI_{t-1}}$$

*SecurityInitialMarketCapUSD<sub>t</sub>*=

$$\frac{EndOfDayNumberOfShares_{t-1} \times PricePerShare_{t-1} \times InclusionFactor_t}{FXrate_{t-1}}$$

Where:

- $SecurityPriceIndexLevel_{t-1}$  is Security Price Index level at time t-1.
- $SecurityAdjustedMarketCapForLocal_t$  is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t-1.
- $SecurityInitialMarketCapUSD_t$  is the Initial Market Capitalization of security s in USD at time t.
- $EndOfDayNumberOfShares_{t-1}$  is the number of shares of security s at the end of day t-1.
- $PricePerShare_t$  is the price per share of security s at time t.
- $PricePerShare_{t-1}$  is the price per share of security s at time t-1.
- $InclusionFactor_t$  is the inclusion factor of security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor.
- $PAF_t$  is the Price Adjustment Factor of security s at time t.
- $FXrate_{t-1}$  is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- $ICI_t$  is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g., from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- $ICI_{t-1}$  is the Internal Currency Index of price currency at time t-1.

### Index Market Capitalization

$IndexAdjustedMarketCapUSD_t =$

$$\sum_{s \in I_t} \frac{EndOfDayNumberOfShares_{t-1} \times PricePerShare_t \times InclusionFactor_t \times PAF_t}{FXrate_t}$$

$IndexAdjustedMarketCapForLocal_t =$

$$\sum_{s \in I_t} \frac{EndOfDayNumberOfShares_{t-1} \times PricePerShare_t \times InclusionFactor_t \times PAF_t}{FXrate_{t-1}} \times \frac{ICI_t}{ICI_{t-1}}$$

$IndexInitialMarketCapUSD_t =$

$$\sum_{s \in I_t} \frac{EndOfDayNumberOfShares_{t-1} \times PricePerShare_t \times InclusionFactor_t}{FXrate_{t-1}}$$

Where:

- $EndOfDayNumberOfShares_{t-1}$  is the number of shares of security s at the end of day t-1.
- $PricePerShare_t$  is the price per share of security s at time t.
- $PricePerShare_{t-1}$  is the price per share of security s at time t-1.
- $InclusionFactor_t$  is the inclusion factor of security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor.
- $PAF_t$  is the Price Adjustment Factor of security s at time t.
- $FXrate_t$  is the FX rate of the price currency of security s vs USD at time t. It is the value of 1 USD in foreign currency.
- $FXrate_{t-1}$  is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- $ICI_t$  is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g., from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- $ICI_{t-1}$  is the Internal Currency Index of price currency at time t-1.

### Corporate Events

#### Mergers and Acquisitions

As a general principle, MSCI implements M&As as of the close of the last trading day of the acquired entity or merging entities (last offer day for tender offers), regardless of the status of the securities (index constituents or non-index constituents) involved in the event. MSCI uses market prices for implementation. This principle applies if all necessary information is available prior to the completion of the event and if the liquidity of the relevant constituent(s) is not expected to be significantly diminished on the day of implementation. Otherwise, MSCI will determine the most appropriate implementation method and announce it prior to the changes becoming effective in the indices.

#### Tender Offers

In tender offers, the acquired or merging security is generally deleted from an index at the end of the initial offer period, when the offer is likely to be successful and / or if the free float of the security is likely to be substantially reduced (this rule is applicable even if the offer is extended), or once the results of the offer have been officially communicated and the offer has been successful and the

security's free float has been substantially reduced, if all required information is not available in advance or if the offer's outcome is uncertain. The main factors considered by MSCI when assessing the outcome of a tender offer (not in order of importance) are: the announcement of the offer as friendly or hostile, a comparison of the offer price to the acquired security's market price, the recommendation by the acquired company's board of directors, the major shareholders' stated intention whether to tender their shares, the required level of acceptance, the existence of pending regulatory approvals, market perception of the transaction, official preliminary results if any, and other additional conditions for the offer.

In certain cases, securities may be deleted earlier than the last offer day. For example, in the case of tender offers in the United Kingdom, a security is typically deleted two business days after the offer is declared unconditional in all respects.

If a security is deleted from an index, the security will not be reinstated immediately after its deletion even when the tender offer is subsequently declared unsuccessful and/or the free float of the security is not substantially reduced. It may be reconsidered for index inclusion at the following regularly scheduled index review.

#### *Late Announcements of Completion of Mergers and Acquisitions*

When the completion of an event is announced too late to be reflected as of the close of the last trading day of the acquired or merging entities, implementation occurs as of the close of the following day or as soon as practicable thereafter. In these cases, MSCI uses a calculated price for the acquired or merging entities. The calculated price is determined using the terms of the transaction and the price of the acquiring or merged entity, or, if not appropriate, using the last trading day's market price of the acquired or merging entities.

#### *Conversions of Share Classes*

Conversions of a share class into another share class resulting in the deletion and/or addition of one or more classes of shares are implemented as of the close of the last trading day of the share class to be converted.

#### *Spin-Offs*

On the ex-date of a spin-off, a PAF is applied to the price of the security of the parent company. The PAF is calculated based on the terms of the transaction and the market price of the spun-off security. If the spun-off entity qualifies for inclusion, it is included as of the close of its first trading day. In cases of spin-offs of partially owned companies, the post-event free float of the spun-off entity is calculated using a weighted average of the existing shares and the spun-off shares, each at their corresponding free float. Any resulting changes to FIFs and/or DIFs are implemented as of the close of the ex-date.

In cases of spin-offs of partially-owned companies, the post-event free float of the spun-off entity is calculated using a weighted average of the existing shares and the spun-off shares, each at their corresponding free float. Any resulting changes to FIFs and/or DIFs are implemented as of the close of the ex-date.

When the spun-off security does not trade on the ex-date, a "detached" security is created to avoid a drop in the free float-adjusted market capitalization of the parent entity, regardless of whether the spun-off security is added or not. The detached security is included until the spun-off security begins trading, and is deleted thereafter. Generally, the value of the detached security is equal to the difference between the cum price and the ex price of the parent security.



### *Corporate Actions*

Corporate actions such as splits, stock dividends and rights issues, which affect the price of a security, require a price adjustment. In general, the PAF is applied on the ex-date of the event to ensure that security prices are comparable between the ex-date and the cum date. To do so, MSCI adjusts for the value of the right and/or the value of the special assets that are distributed and the changes in number of shares and FIF, if any, are reflected as of the close of the ex-date. In general, corporate actions do not impact the free float of the securities because the distribution of new shares is carried out on a pro rata basis to all existing shareholders. Therefore, MSCI will generally not implement any pending number of shares and/or free float updates simultaneously with the event.

If a security does not trade for any reason on the ex-date of the corporate action, the event will be generally implemented on the day the security resumes trading.

### *Share Placements and Offerings*

Changes in number of shares and FIF resulting from primary equity offerings representing at least 5% of the security's number of shares are generally implemented as of the close of the first trading day of the new shares, if all necessary information is available at that time. Otherwise, the event is implemented as soon as practicable after the relevant information is made available. A primary equity offering involves the issuance of new shares by a company. Changes in number of shares and FIF resulting from primary equity offerings representing less than 5% of the security's number of shares are deferred to the next regularly scheduled index review following the completion of the event. For public secondary offerings of existing constituents representing at least 5% of the security's number of shares, where possible, MSCI will announce these changes and reflect them shortly after the results of the subscription are known. Secondary public offerings that, given lack of sufficient notice, were not reflected immediately will be reflected at the next regularly scheduled index review. Secondary offerings involve the distribution of existing shares of current shareholders' in a listed company and are usually pre-announced by a company or by a company's shareholders and open for public subscription during a pre-determined period.

### *Debt-to-Equity Swaps*

In general, large debt-to-equity swaps involve the conversion of debt into equity originally not convertible at the time of issue. In this case, changes in numbers of shares and subsequent FIF and/or DIF changes are implemented as of the close of the first trading day of the newly issued shares, or shortly thereafter if all necessary information is available at the time of the swap. In general, shares issued in debt-to-equity swaps are assumed to be issued to strategic investors. As such, the post event free float is calculated on a pro forma basis assuming that all these shares are non-free float. Changes in numbers of shares and subsequent FIF and/or DIF changes due to conversions of convertible bonds or other convertible instruments, including periodical conversions of preferred stocks and small debt-to-equity swaps are implemented at a following regularly scheduled index review.

### *Suspensions and Bankruptcies*

MSCI will remove from an index as soon as practicable companies that file for bankruptcy, companies that file for protection from their creditors. MSCI will delete from an index after 40 business days of suspension securities of companies facing financial difficulties (*e.g.*, liquidity issues, debt repayment issues, companies under legal investigation, etc.) with at least two business days advance notice. Subsequently, if and when these securities resume normal trading, they may be considered as a potential addition to an index at the next scheduled semi-annual index review. Securities of companies suspended due to pending corporate events (*e.g.*, merger, acquisition, etc.), will continue to be maintained in an index until they resume trading regardless of the duration of the suspension period. When the primary exchange price is not available, MSCI will delete securities at an over the counter or equivalent market price when such a price is available and deemed relevant. If no over the counter or equivalent price is available, the security will be deleted at the smallest price (unit or fraction of the currency) at which a security can trade on a given exchange. For securities that are suspended, MSCI will carry forward the market price prior to the suspension during the suspension period.

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## THE RUSSELL 2000® INDEX

We have derived all information contained in this product supplement regarding the Russell 2000® Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by, Russell Investments ("Russell"). We make no representation or warranty as to the accuracy or completeness of such information. The Russell 2000® Index was developed by Russell Investment Group (formerly, Frank Russell Company) and is calculated, maintained and published by Russell, a subsidiary of Russell Investment Group. Russell has no obligation to publish, and may discontinue the publication of, the Russell 2000® Index.

The Russell 2000® Index is reported by Bloomberg L.P. under the ticker symbol "RTY."

The Russell 2000® Index measures the capitalization-weighted price performance of the small-cap stocks included in the Russell 2000® Index (the "Russell 2000 Component Stocks") and is designed to track the performance of the small capitalization segment of the U.S. equity market. All stocks included in the Russell 2000® Index are traded on a major U.S. exchange. The companies included in the Russell 2000® Index are the middle 2,000 of the companies that form the Russell 3000E™ Index, which is composed of the 4,000 largest U.S. companies as determined by market capitalization and represents approximately 99% of the U.S. equity market. The Russell 3000E™ Index is not the same as the Russell 3000® Index, which is a subset of the Russell 3000E™ Index.

*Selection of stocks underlying the Russell 2000® Index.* The Russell 2000® Index is a sub-index of the Russell 3000E™ Index. To be eligible for inclusion in the Russell 3000E™ Index, and, consequently, the Russell 2000® Index, a company's stock must be listed on the last trading day in May of a given year and Russell must have access to documentation verifying the company's eligibility for inclusion. Eligible initial public offerings are added to Russell U.S. indices at the end of each calendar quarter, based on total market capitalization rankings within the market-adjusted capitalization breaks established during the most recent reconstitution. To be added to any Russell U.S. index during a quarter outside of reconstitution, initial public offerings must meet additional eligibility criteria.

U.S. companies are eligible for inclusion in the Russell 3000E™ Index and, consequently, the Russell 2000® Index. Russell uses the following method for determining whether a company is a U.S. company. If a company incorporates in, has a stated headquarters location in, and also trades in the same country (ADRs and ADSs are not eligible), the company is assigned to its country of incorporation. If any of the three do not match, Russell then defines 3 Home Country Indicators ("HCIs"). The HCIs are as follows:

- country of incorporation;
- country of headquarters; and
- country of the most liquid exchange as defined by 2-year average daily dollar trading volume (ADDTV) from all exchanges within a country.

After the HCIs are defined, the next step in the country assignment involves an analysis of assets by location. Russell cross-compares the primary location of the company's assets with the three HCIs. If the primary location of assets matches ANY of the HCIs, then the company is assigned to its primary asset location.

If there is not enough information to conclude a company's primary country of assets, Russell uses the primary location of the company's revenue for the same cross-comparison and assigns the company to the appropriate country in a similar fashion. In 2011, Russell began using an average of two years of assets or revenues data for analysis to reduce potential turnover.

If conclusive country details cannot be derived from assets or revenue, Russell assigns the company to the country where its headquarters are located unless the country is a Benefit Driven Incorporation (BDI) country. If the country in which its headquarters are located is a BDI country, the company is assigned to the country of its most liquid stock exchange. The BDI countries are Anguilla, Antigua and Barbuda, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Channel Islands, Cook Islands, Faroe Islands, Gibraltar, Isle of Man, Liberia, Marshall Islands, Netherlands Antilles, Panama and Turks and Caicos Islands.

The following securities are specifically excluded from the Russell 2000® Index: (i) stocks that are not traded on a major U.S. exchange; (ii) preferred stock, convertible preferred stock, redeemable shares, participating preferred stock, warrants, rights and trust receipts; (iii) royalty trusts, limited liability companies, closed-end investment companies (business development companies or BDCs are eligible), blank check companies, special purpose acquisition companies (SPACs) and limited partnerships.

The primary criteria used to determine the initial list of securities eligible for the Russell 3000E™ Index is total market capitalization, which is defined as the price of the shares times the total number of available shares. All common stock share classes are combined in determining market capitalization. If multiple share classes have been combined, the price of the primary trading vehicle (usually the most liquid) is used in the calculations. In cases where the common stock share classes act independently of each other (*e.g.*, tracking stocks), each class is considered for inclusion separately. Stocks must trade at or above \$1.00 (on their primary exchange) on the last trading day in May of each year to be eligible for inclusion in the Russell 2000® Index. In order to reduce unnecessary turnover, if an existing Russell 2000® Component Stock's closing price is less than \$1.00 on the last trading day in May, it will be considered eligible if the average of the daily closing prices (from its primary exchange) during the month of May is equal to or greater than \$1.00. Quarterly IPO additions must have a close price at or above \$1.00 on the last day of their eligibility period in order to qualify for index inclusion. If a stock, new or existing, does not have a close price at or above \$1.00 (on its primary exchange) on the last trading day in May, but does have a close price at or above \$1.00 on another major U.S. exchange, the stock will be eligible for inclusion.

Companies with only a total market capitalization of less than \$30 million are not eligible for inclusion in the Russell 3000E™ Index and, consequently, the Russell 2000® Index. Companies with only a small portion of their shares available in the marketplace are not eligible for inclusion in the Russell 3000E™ Index and, consequently, the Russell 2000® Index. Companies with 5% or less float will be removed from eligibility.

The Russell 2000® Index is reconstituted annually to reflect changes in the marketplace. The list of companies is ranked based on total market capitalization as of the last trading day in May, with the actual reconstitution effective on the first trading day following the final Friday of June each year, except that if the last Friday of June of any year is the 28<sup>th</sup>, 29<sup>th</sup> or 30<sup>th</sup>, reconstitution will occur on the preceding Friday. Changes in the constituents are pre-announced and subject to change if any corporate activity occurs or if any new information is received prior to release.

*Capitalization Adjustments.* As a capitalization-weighted index, the Russell 2000® Index reflects changes in the capitalization, or market value, of the Russell 2000 Component Stocks relative to the capitalization on a base date. The current Russell 2000® Index value is calculated by adding the market values of the Russell 2000 Component Stocks, which are derived by multiplying the price of each stock by the number of available shares, to arrive at the total market capitalization of the 2,000 stocks. The total market capitalization is then divided by a divisor, which represents the "adjusted" capitalization of the Russell 2000® Index on the base date of December 31, 1986. To calculate the Russell 2000® Index, last sale prices will be used for exchange-traded and NASDAQ stocks. If a Russell 2000 Component Stock is not open for trading, the most recently traded price for that security will be used in calculating the Russell 2000® Index. In order to provide continuity for the Russell 2000® Index's value, the divisor is adjusted periodically to reflect events including changes in the number of common shares outstanding for Russell 2000 Component Stocks, company additions or deletions, corporate restructurings and other capitalization changes.

Available shares are assumed to be shares available for trading. Exclusion of capitalization held by other listed companies and large holdings of private investors (10% or more) is based on information recorded in SEC corporate filings, including DEF 14, 424B and 10K filings (but not 13F filings), or other reliable sources in the event of missing or questionable data.

The following types of shares are considered unavailable for the purposes of capitalization determinations:

- ESOP or LESOP shares — corporations that have Employee Stock Ownership Plans that comprise 10% or more of the shares outstanding are adjusted;
- Corporate cross-owned shares — corporate cross-ownership occurs when shares of a company in the Russell 2000® Index are held by another member of a Russell index (including Russell Global Indexes). Any percentage held in this class will be adjusted;
- Large private and corporate shares — large private and corporate holdings are defined as those shares held by an individual, a group of individuals acting together or a corporation not in the Russell 2000® Index that own 10% or more of the shares outstanding. However, not to be included in this class are institutional holdings, which are: investment companies, partnerships, insurance companies, mutual funds, banks or venture capital funds;
- Unlisted share classes — classes of common stock that are not traded on a U.S. securities exchange;
- Initial public offering lock-ups — shares locked-up during an initial public offering are not available to the public and will be excluded from the market value at the time the initial public offering enters the Russell 2000® Index; and
- Government Holdings:
  - Direct government holders: Those holdings listed as “government of” are considered unavailable and will be removed entirely from available shares;
  - Indirect government holders: Shares held by government investment boards and/or investment arms will be treated similar to large private holdings and removed if the holding is greater than 10%; and
  - Government pensions: Any holding by a government pension plan is considered institutional holdings and will not be removed from available shares.

*Corporate Actions Affecting the Russell 2000® Index.* The following summarizes the types of Russell 2000® Index maintenance adjustments and indicates whether or not a Russell 2000® Index adjustment is required.

- “No Replacement” Rule — Securities that leave the Russell 2000® Index, between reconstitution dates, for any reason (*e.g.*, mergers, acquisitions or other similar corporate activity) are not replaced. Thus, the number of securities in the Russell 2000® Index over a year will fluctuate according to corporate activity.
- Rules for Deletions — When a stock is acquired, delisted or moves to the pink sheets or bulletin boards on the floor of a U.S. securities exchange, the stock is deleted from the Russell 2000® Index at the market close on the effective date or when the stock is no longer trading on the exchange if Russell is able to determine the status of the corporate action to be final prior to 2:00 p.m. Eastern Standard Time, or the following day if Russell is able to determine the status of the corporate action to be final after 2:00 p.m. Eastern Standard Time. Companies that file for a Chapter 7 liquidation bankruptcy will be removed from the Russell 2000® Index at the

time of the bankruptcy filing; whereas, companies filing for a Chapter 11 reorganization bankruptcy will remain a member of the Russell 2000® Index, unless the company is de-listed from the primary exchange, in which case normal de-listing rules apply. Members of the Russell 2000® Index that are re-incorporated in another country are deleted when the re-incorporation is final.

- **Rules for Additions** — The only additions between reconstitution dates are as a result of spin-offs and initial public offerings. Spin-off companies are added to the parent company's index and capitalization tier of membership, if the spin-off company is sufficiently large. To be eligible, the spun-off company's total market capitalization must be greater than the market-adjusted total market capitalization of the smallest security in the Russell 3000E™ Index at the latest reconstitution. If a U.S. spin-off occurs from a Russell Global ex-U.S. Index member, the spun-off company will be placed in the parent's index and capitalization tier of the Russell Global Index. A member of the Russell Global Index that is reincorporating to the United States or one of the eligible countries/regions described above will be added to the Russell 3000E™ Index when the reincorporation is final.
- **Merger and Acquisition** — When mergers or acquisitions occur, changes to the membership and weighting of members within the Russell 2000® Index occur. In the event a merger or acquisition occurs between members of the Russell 2000® Index, the acquired company is deleted and its market capitalization moves to the acquiring stock according to the terms of the merger; hence, mergers have no effect on the Russell 2000® Index total capitalization. Shares are updated for the acquiring stock at the time the transaction is final. If the acquiring company is a member of the Russell 2000® Index, but the acquired company is not, the shares for the acquiring stock are adjusted at month-end. If the acquiring company is not a member of any of the Russell Indexes, there are two possibilities:
  - **Reverse Merger** — If the acquiring company is a private, non-publicly traded company or OTC company, Russell will review the action to determine if it is considered a reverse merger, defined as a transaction that results in a publicly traded company that meets all requirements for inclusion in a Russell Index. If it is determined that an action is a reverse merger, the newly formed entity will be placed in the appropriate market capitalization index after the close of the day following the completion of the merger. The acquired company will be removed from the current index simultaneously.
  - **Standard Action** — The acquired company is deleted after the action is final.
- **De-listed Stocks** — When stocks from the Russell 2000® Index are deleted as a result of exchange de-listing or reconstitution, the price used will be the closing primary exchange price on the day of deletion, or the following day using the closing OTC bulletin board price. However, there may be corporate events, such as mergers or acquisitions, that result in the lack of current market price for the deleted security and in such an instance the latest primary exchange closing price available will be used.
- **Rule for Re-Classification and Re-Incorporation** — For re-classification of shares, adjustments will be made at the open of the ex-date using previous day closing prices. Companies that reincorporate and no longer trade in the U.S. are immediately deleted.

*Updates to Share Capital Affecting the Russell 2000® Index.* Each month, the Russell 2000® Index is updated for changes to shares outstanding as companies report changes in share capital to the SEC. Effective April 30, 2002, only cumulative changes to available shares greater than 5% are reflected in the Russell 2000® Index. This does not affect treatment of major corporate events, which are effective on the ex-date.

*Pricing of Securities Included in the Russell 2000® Index.* Effective on January 1, 2002, primary exchange closing prices are used in the daily Russell 2000® Index calculations. FT Interactive data is used as the primary source for U.S. security prices, income, and total shares outstanding. Prior to January 1, 2002, composite closing prices, which are the last trade price on any U.S. exchange, were used in the daily Russell 2000® Index calculations.

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## THE S&P 500® INDEX

We have derived all information contained in this product supplement regarding the S&P 500® Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by, Standard & Poor's Financial Services LLC ("S&P"). We make no representation or warranty as to the accuracy or completeness of such information. The S&P 500® Index was developed by S&P and is calculated, maintained and published by S&P. S&P has no obligation to continue to publish, and may discontinue the publication of, the S&P 500® Index.

The S&P 500® Index is reported by Bloomberg L.P. under the ticker symbol "SPX."

The S&P 500® Index is intended to provide a performance benchmark for the U.S. equity markets. The calculation of the level of the S&P 500® Index (discussed below in further detail) is based on the relative value of the aggregate Market Value (as defined below) of the common stocks of 500 companies (the "S&P Component Stocks") as of a particular time as compared to the aggregate average Market Value of the common stocks of 500 similar companies during the base period of the years 1941 through 1943. Historically, the "Market Value" of any S&P Component Stock was calculated as the product of the market price per share and the number of the then-outstanding shares of such S&P Component Stock. As discussed below, on March 21, 2005, S&P began to use a new methodology to calculate the Market Value of the S&P Component Stocks and on September 16, 2005, S&P completed its transition to the new calculation methodology. The 500 companies are not the 500 largest companies listed on the New York Stock Exchange (the "NYSE") and not all 500 companies are listed on such exchange. S&P chooses companies for inclusion in the S&P 500® Index with the objective of achieving a distribution by broad industry groupings that approximates the distribution of these groupings in the common stock population of the U.S. equity market. S&P may from time to time, in its sole discretion, add companies to, or delete companies from, the S&P 500® Index to achieve the objectives stated above. Relevant criteria employed by S&P include the viability of the particular company, the extent to which that company represents the industry group to which it is assigned, the extent to which the company's common stock is widely-held and the Market Value and trading activity of the common stock of that company.

On March 21, 2005, S&P began to calculate the S&P 500® Index based on a half float-adjusted formula, and on September 16, 2005, the S&P 500® Index became fully float-adjusted. S&P's criteria for selecting stocks for the S&P 500® Index was not changed by the shift to float adjustment. However, the adjustment affects each company's weight in the S&P 500® Index (*i.e.*, its Market Value).

Under float adjustment, the share counts used in calculating the S&P 500® Index reflect only those shares that are available to investors, not all of a company's outstanding shares. S&P defines three groups of shareholders whose holdings are subject to float adjustment:

- holdings by other publicly traded corporations, venture capital firms, private equity firms, strategic partners, or leveraged buyout groups;
- holdings by government entities, including all levels of government in the United States or foreign countries; and
- holdings by current or former officers and directors of the company, founders of the company or family trusts of officers, directors or founders, as well as holdings of trusts, foundations, pension funds, employee stock ownership plans, or other investment vehicles associated with and controlled by the company.

However, treasury stock, stock options, equity participation units, warrants, preferred stock, convertible stock and rights are not part of the float. In cases where holdings in a group exceed 10% of the outstanding shares of a company, the holdings of that group will be excluded from the float-adjusted count of shares to be used in the S&P 500® Index calculation. Mutual funds, investment advisory firms, pension funds or foundations not associated with the company and investment funds in insurance companies, shares that trust beneficiaries may buy or sell without difficulty or significant

additional expense beyond typical brokerage fees, and, if a company has multiple classes of stock outstanding, shares in an unlisted or non-traded class if such shares are convertible by shareholders without undue delay and cost, are also part of the float. Shares held in a trust to allow investors in countries outside the country of domicile (*e.g.*, ADRs, CDIs and Canadian exchangeable shares) are normally part of the float.

For each stock, an investable weight factor ("IWF") is calculated by dividing the available float shares, defined as the total shares outstanding less shares held in one or more of the three groups listed above where the group holdings exceed 10% of the outstanding shares, by the total shares outstanding. (On March 21, 2005, the S&P 500® Index moved halfway to float adjustment, meaning that if a stock has an IWF of 0.80, the IWF used to calculate the S&P 500® Index between March 21, 2005 and September 16, 2005 was 0.90. On September 16, 2005, S&P began to calculate the S&P 500® Index on a fully float-adjusted basis, meaning that if a stock has an IWF of 0.80, the IWF used to calculate the S&P 500® Index on and after September 16, 2005 is 0.80.) The float-adjusted Index is calculated by dividing the sum of the IWF multiplied by both the price and the total shares outstanding for each stock by the Index Divisor. For companies with multiple classes of stock, S&P calculates the weighted average IWF for each stock using the proportion of the total company market capitalization of each share class as weights.

As of the date of this product supplement, the S&P 500® Index is calculated using a base-weighted aggregate methodology: the level of the S&P 500® Index reflects the total Market Value of all 500 S&P Component Stocks relative to the S&P 500® Index's base period of 1941–43 (the "Base Period").

An indexed number is used to represent the results of this calculation in order to make the value easier to work with and track over time.

The actual total Market Value of the S&P Component Stocks during the Base Period has been set equal to an indexed value of 10. This is often indicated by the notation 1941–43=10. In practice, the daily calculation of the S&P 500® Index is computed by dividing the total Market Value of the S&P Component Stocks by a number called the Index Divisor. By itself, the Index Divisor is an arbitrary number. However, in the context of the calculation of the S&P 500® Index, it is the only link to the original Base Period level of the S&P 500® Index. The Index Divisor keeps the S&P 500® Index comparable over time and is the manipulation point for all adjustments to the S&P 500® Index ("Index Maintenance").

Index Maintenance includes monitoring and completing the adjustments for company additions and deletions, share changes, stock splits, stock dividends and stock price adjustments due to company restructurings or spin-offs.

To prevent the level of the S&P 500® Index from changing due to corporate actions, all corporate actions which affect the total Market Value of the S&P 500® Index require an Index Divisor adjustment. By adjusting the Index Divisor for the change in total Market Value, the level of the S&P 500® Index remains constant. This helps maintain the level of the S&P 500® Index as an accurate barometer of stock market performance and ensures that the movement of the S&P 500® Index does not reflect the corporate actions of individual companies in the S&P 500® Index. All Index Divisor adjustments are made after the close of trading and after the calculation of the closing level of the S&P 500® Index. Some corporate actions, such as stock splits and stock dividends, require simple changes in the common shares outstanding and the stock prices of the companies in the S&P 500® Index and do not require Index Divisor adjustments.

The table below summarizes the types of Index Maintenance adjustments and indicates whether or not an Index Divisor adjustment is required.

Type of Corporate Action	Comments	Divisor Adjustment
Company added/deleted	Net change in market value determines divisor adjustment.	Yes
Change in shares outstanding	Any combination of secondary issuance, share repurchase or buy back – share counts revised to reflect change.	Yes
Stock split	Share count revised to reflect new count. Divisor adjustment is not required since the share count and price changes are offsetting.	No
Spin-off	If the spun-off company is not being added to the index, the divisor adjustment reflects the decline in index market value ( <i>i.e.</i> , the value of the spun-off unit).	Yes
Spin-off	Spun-off company added to the index, another company removed to keep number of names fixed. Divisor adjustment reflects deletion.	Yes
Change in IWF due to a corporate action or a purchase or sale by an inside holder	Increasing (decreasing) the IWF increases (decreases) the total market value of the index. The divisor change reflects the change in market value caused by the change to an IWF.	Yes
Special dividend	When a company pays a special dividend the share price is assumed to drop by the amount of the dividend; the divisor adjustment reflects this drop in index market value.	Yes
Rights offering	Each shareholder receives the right to buy a proportional number of additional shares at a set (often discounted) price. The calculation assumes that the offering is fully subscribed. Divisor adjustment reflects increase in market cap measured as the shares issued multiplied by the price paid.	Yes

Stock splits and stock dividends do not affect the Index Divisor, because following a split or dividend, both the stock price and number of shares outstanding are adjusted by S&P so that there is no change in the Market Value of the S&P Component Stock. All stock split and dividend adjustments are made after the close of trading on the day before the ex-date.

Each of the corporate events exemplified in the table requiring an adjustment to the Index Divisor has the effect of altering the Market Value of the S&P Component Stock and consequently of altering the aggregate Market Value of the S&P Component Stocks (the "Post-Event Aggregate Market Value"). In order that the level of the S&P 500® Index (the "Pre-Event Index Value") not be affected by the altered Market Value (whether increase or decrease) of the affected Component Stock, a new Index Divisor ("New Divisor") is derived as follows:

$$\frac{\text{Post-Event Aggregate Market Value}}{\text{New Divisor}} = \text{Pre-Event Index Value}$$

$$\text{New Divisor} = \frac{\text{Post-Event Aggregate Market Value}}{\text{Pre-Event Index Value}}$$

A large part of the Index Maintenance process involves tracking the changes in the number of shares outstanding of each of the S&P 500® Index companies. Four times a year, on a Friday close to the end of each calendar quarter, the share totals of companies in the S&P 500® Index are updated as required by any changes in the number of shares outstanding. After the totals are updated, the Index Divisor is adjusted to compensate for the net change in the total Market Value of the S&P 500® Index. In addition, any changes over 5% in the current common shares outstanding for the S&P 500® Index companies are carefully reviewed on a weekly basis, and when appropriate, an immediate adjustment is made to the Index Divisor.

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## THE SPDR® S&P® 500 ETF TRUST

We have derived all information contained in this product supplement regarding the SPDR® S&P® 500 ETF Trust (the “SPDR Fund”), including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by, State Street Bank and Trust Company, as trustee of the SPDR Fund (“SSBTC”), and PDR Services LLC, as sponsor of the SPDR Fund (“PDRS”). The SPDR Fund is a unit investment trust that issues securities called “Trust Units” or “Units.” The SPDR Fund is an exchange-traded fund (“ETF”) that trades on the NYSE Arca, Inc. (“NYSE Arca”) under the ticker symbol “SPY.” We make no representations or warranty as to the accuracy or completeness of the information derived from these public sources.

The SPDR Fund is an investment company registered under the Investment Company Act of 1940, as amended. Trust Units represent an undivided ownership interest in a portfolio of all, or substantially all, of the common stocks of the S&P 500® Index. Information provided to or filed with the SEC by the SPDR Fund pursuant to the Securities Act of 1933, as amended, and the Investment Company Act of 1940, as amended, can be located by reference to SEC file numbers 033-46080 and 811-06125, respectively, through the SEC’s website at <http://www.sec.gov>. For additional information regarding the SPDR Fund, SSBTC and PDRS, please see the prospectus dated January 27, 2010 of the SPDR Fund. In addition, information about the SPDR Fund, SSBTC and PDRS may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents and the SPDR Fund website at <https://www.spdrs.com/product/fund.seam?ticker=SPY>. We make no representation or warranty as to the accuracy or completeness of such information. Information contained in the SPDR Fund’s website is not incorporated by reference in, and should not be considered a part of, this product supplement or any terms supplement.

### Investment Objective and Strategy

The SPDR Fund’s objective is to provide investment results that, before expenses, generally correspond to the price and yield performance of the S&P 500® Index. See “— The S&P 500® Index” below for more information about the S&P 500® Index. The Trust holds stocks and cash and is not actively managed by traditional methods, which typically involve effecting changes in the holdings of stocks and cash on the basis of judgments made relating to economic, financial and market considerations. To maintain the correspondence between the composition and weightings of the stocks held by the SPDR Fund and the component stocks of the S&P 500® Index, which we refer to as “Index Securities,” SSBTC adjusts the holdings of the SPDR Fund from time to time to conform to periodic changes in the identity and/or relative weightings of the Index Securities. SSBTC aggregates certain of these adjustments and makes changes to the holdings of the SPDR Fund at least monthly or more frequently in the case of significant changes to the S&P 500® Index. Any change in the identity or weighting of an Index Security will result in a corresponding adjustment to the prescribed holdings of the SPDR Fund effective on any day that the New York Stock Exchange (“NYSE”) is open for business following the day on which the change to the S&P 500® Index takes effect after the close of the market.

The value of Trust Units fluctuates in relation to changes in the value of the holdings of the SPDR Fund. The market price of each individual Trust Unit may not be identical to the net asset value of such Trust Unit.

It is possible that the SPDR Fund may not always fully replicate the performance of the S&P 500® Index due to the unavailability of certain Index Securities in the secondary market or due to other extraordinary circumstances. In addition, the SPDR Fund is not able to replicate exactly the performance of the S&P 500® Index because the total return generated by the Trust’s portfolio of stocks and cash is reduced by the expenses of the SPDR Fund and transaction costs incurred in adjusting the actual balance of the SPDR Fund’s portfolio.

As of May 25, 2011, the SPDR Fund's three largest holdings were Exxon Mobil Corporation, Apple Inc. and Chevron Corporation, and its three largest sectors were information technology, financials and energy.

### Holdings Information

The following tables summarize the SPDR Fund's top holdings in individual companies and by sector as of May 25, 2011.

#### Top Holdings in Individual Securities as of May 25, 2011

Name	Weight	Shares Held
Exxon Mobil Corporation	3.37%	36,728,920
Apple Inc	2.58%	6,824,038
Chevron Corporation	1.72%	14,869,416
International Business Machines Corporation	1.70%	9,033,173
General Electric Company	1.69%	78,652,270
Procter & Gamble Company	1.54%	20,745,686
AT&T Inc.	1.52%	43,786,680
Johnson & Johnson	1.51%	20,260,024
Microsoft Corporation	1.48%	54,768,830
JPMorgan Chase & Co.	1.40%	29,506,264

### Top Holdings by Sector as of May 25, 2011

Sector	Percentage of Total Holdings
Information Technology	17.82%
Financials	15.14%
Energy	12.52%
Health Care	11.76%
Industrials	11.00%
Consumer Staples	10.97%
Consumer Discretionary	10.74%
Materials	3.55%
Utilities	3.39%
Telecommunication Services	3.11%

The information above was compiled from the SPDR Fund's website. We make no representation or warranty as to the accuracy of the information above. Information contained in the SPDR Fund's website is not incorporated by reference in, and should not be considered a part of, this product supplement.

### Historical Performance of the SPDR Fund

We will provide historical price information with respect to the shares of the SPDR Fund in the relevant terms supplement. You should not take any such historical prices as an indication of future performance.

### Disclaimer

The securities are not sponsored, endorsed, sold or promoted by the SPDR Fund, SSBTC or PDRS. None of the SPDR Fund, SSBTC or PDRS makes any representations or warranties to the owners of the securities or any member of the public regarding the advisability of investing in the securities. None of the SPDR Fund, SSBTC or PDRS has any obligation or liability in connection with the operation, marketing, trading or sale of the securities.

#### **OTHER INDICES OR ETFS**

If the securities are linked to an Index or shares of an ETF not described in this product supplement or to an Index or shares of an ETF described in this product supplement that has changed its methodology in any material respect, a separate underlying supplement or the relevant terms supplement will provide additional information relating to such Index or ETF.



## GENERAL TERMS OF SECURITIES

### Calculation Agent

J.P. Morgan Securities LLC, one of our affiliates, will act as the calculation agent. The calculation agent will determine, among other things, the initial basket value, the initial index level or the initial share price, as applicable, the strike value, if applicable, the initial closing value of any underlying index and the closing price of one share of any relevant ETF on each initial averaging date, if applicable, and each asset valuation date, the adjustment factor and anti-dilution adjustments, if any, the final basket value, the final index value or the final share price, as applicable, the basket percent change, the index percent change or the share percent change, as applicable, and the amount, if any, that we will pay you at maturity. In addition, the calculation agent will also determine whether there has been a market disruption event or a discontinuation of any underlying index or ETF and whether there has been a material change in the method of calculation of any of underlying index or ETF, as well as which exchange-traded fund will be substituted for an ETF (or relevant successor ETF, if applicable) if an ETF (or relevant successor ETF, if applicable) is de-listed, liquidated or otherwise terminated; whether any reference index (or the underlying index related to any relevant successor ETF, if applicable) has been changed in a material respect and whether an ETF (or relevant successor ETF, if applicable) has been modified so that such ETF (or successor ETF, if applicable) does not, in the opinion of the calculation agent, fairly represent the price of such ETF (or relevant successor ETF, if applicable) had those modifications not been made. All determinations made by the calculation agent will be at the sole discretion of the calculation agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different calculation agent from time to time after the date of the original issue of the securities without your consent and without notifying you.

The calculation agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity on or prior to 11:00 a.m., New York City time, on the business day preceding the maturity date.

All calculations with respect to the initial basket value, the initial index level or the initial share price, as applicable, the strike value, if applicable, the initial closing value of any underlying index and closing price of one share of any relevant ETF, the final basket value, the final index value or the final share price, as applicable, the basket percent change, the index percent change or the share percent change, as applicable, will be rounded to the nearest ten-thousandth, with five one-hundred-thousandth rounded upward (*e.g.*, .87645 would be rounded to .8765); all dollar amounts related to determination of the payment per security at maturity, if any, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid, if any, on the aggregate principal amount of securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

### Market Disruption Events

Certain events may prevent the calculation agent from calculating the Closing Value of the underlying asset on any Calculation Date and calculating the amount, if any, that we will pay to you at maturity. These events may include disruptions or suspensions of trading on the markets as a whole. We refer to each of these events individually as a "market disruption event."

With respect to an underlying index and any relevant successor index, a "market disruption event," unless otherwise specified in the relevant terms supplement, means:

- a suspension, absence or material limitation of trading of stocks then constituting 20% or more of such underlying index (or the relevant successor index) on the relevant exchanges (as defined below) for such securities for more than two hours of trading during, or during the one hour period preceding the close of, the principal trading session on such relevant exchange; or

- a breakdown or failure in the price and trade reporting systems of any relevant exchange as a result of which the reported trading prices for stocks then constituting 20% or more of the level of such underlying index (or the relevant successor index) during the one hour preceding the close of the principal trading session on such relevant exchange are materially inaccurate;
- a suspension, absence or material limitation of trading on the primary exchange or market for trading in futures or options contracts related to such underlying index (or the relevant successor index) for more than two hours of trading during, or during the one hour period preceding the close of, the principal trading session on such exchange or market; or
- a decision to permanently discontinue trading in the relevant futures or options contracts;

in each case as determined by the calculation agent in its sole discretion; and

- a determination by the calculation agent in its sole discretion that the applicable event described above materially interfered with our ability or the ability of any of our affiliates to adjust or unwind all or a material portion of any hedge with respect to the securities.

For the purpose of determining whether a market disruption event with respect to an underlying index (or the relevant successor index) exists at any time, if trading in a security included in such underlying index (or the relevant successor index) is materially suspended or materially limited at that time, then the relevant percentage contribution of that security to the level of such underlying index (or the relevant successor index) shall be based on a comparison of:

- the portion of the level of such underlying index (or the relevant successor index) attributable to that security relative to
- the overall level of such underlying index (or the relevant successor index),

in each case immediately before that suspension or limitation.

For purposes of determining whether a market disruption event with respect to an underlying index (or the relevant successor index) has occurred, unless otherwise specified in the relevant terms supplement:

- a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange, or the primary exchange or market for trading in futures or options contracts related to such underlying index (or the relevant successor index);
- limitations pursuant to the rules of any relevant exchange similar to NYSE Rule 80B (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B as determined by the calculation agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading;
- a suspension of trading in futures or options contracts on such underlying index (or the relevant successor index) by the primary exchange or market trading in such contracts by reason of
  - a price change exceeding limits set by such exchange or market,
  - an imbalance of orders relating to such contracts or
  - a disparity in bid and ask quotes relating to such contracts

will, in each such case, constitute a suspension, absence or material limitation of trading in futures or options contracts related to such underlying index (or the relevant successor index); and

- a “suspension, absence or material limitation of trading” on any relevant exchange or on the primary exchange or market on which futures or options contracts related to such underlying index (or the relevant successor index) are traded will not include any time when such exchange or market is itself closed for trading under ordinary circumstances.

“**Relevant exchange**” means, with respect to each underlying index or the relevant successor index, the primary organized exchange or market of trading for any security (or any combination thereof) then included in such underlying index or such successor index, as applicable.

With respect to an ETF (or any successor ETF or other security for which a closing price must be determined), a “**market disruption event**,” unless otherwise specified in the relevant terms supplement, means:

- the occurrence or existence of a suspension, absence or material limitation of trading of the shares of such ETF (or such successor ETF or such other security) on the relevant exchange for such shares of such ETF (or such successor ETF or such other security) for more than two hours of trading during, or during the one-half hour period preceding the close of, the principal trading session on such relevant exchange;
- a breakdown or failure in the price and trade reporting systems of the relevant exchange for the shares of such ETF (or such successor ETF or such other security) as a result of which the reported trading prices for the shares of such ETF (or such successor ETF or such other security) during the last one-half hour preceding the close of the principal trading session on such relevant exchange are materially inaccurate; or
- 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 shares of such ETF (or such successor ETF or such other security), if available, during the one-half hour period preceding the close of the principal trading session in the applicable exchange or market,

in each case as determined by the calculation agent in its sole discretion; or

- the occurrence or existence of a suspension, absence or material limitation of trading of equity securities then constituting 20% or more of the value of the reference index (or the underlying index related to the successor ETF) on the relevant exchanges for such securities for more than two hours of trading during, or during the one-half hour period preceding the close of, the principal trading session on such relevant exchange, in each case as determined by the calculation agent in its sole discretion; or
- 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 reference index (or the underlying index related to the successor ETF) or shares of such ETF (or such successor ETF or such other security) for more than two hours of trading during, or during the one-half hour period preceding the close of, the principal trading session on such applicable exchange or market, in each case as determined by the calculation agent in its sole discretion; and

in each case, a determination by the calculation agent in its sole discretion that the applicable event described above materially interfered with our ability or the ability of any of our affiliates to unwind or adjust all or a material portion of the hedge position with respect to the securities.

For the purpose of determining whether a market disruption event with respect to the shares of an ETF (or the successor ETF) exists at any time, if trading in an equity security included in the reference index (or the underlying index related to the successor ETF) is materially suspended or materially limited at that time, then the relevant percentage contribution of that equity security to the level of the reference index (or the underlying index related to the successor ETF) will be based on a comparison of the portion of the level of the reference index (or the underlying index related to the successor ETF) attributable to that equity security relative to the overall level of the reference index (or the underlying index related to the successor ETF), in each case immediately before that suspension or limitation.

For the purpose of determining whether a market disruption event with respect to the shares of an ETF (or the successor ETF or such other security) has occurred:

- a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange or the primary exchange or market for trading in futures or options contracts related to the shares of such ETF (or such successor ETF or such other security);
- a decision to permanently discontinue trading in the relevant futures or options contract or exchange traded fund will not constitute a market disruption event;
- limitations pursuant to the rules of any relevant exchange similar to NYSE Rule 80B (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B as determined by the calculation agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading;
- a suspension of trading in futures or options contracts on the reference index (or the underlying index related to the successor ETF) or shares of such ETF (or such successor ETF or such other security) by the primary exchange or market trading in such contracts by reason of:
  - a price change exceeding limits set by such exchange or market,
  - an imbalance of orders relating to such contracts, or
  - a disparity in bid and ask quotes relating to such contracts

will constitute a suspension, absence or material limitation of trading in futures or options contracts related to the reference index (or the underlying index related to the successor ETF) or the shares of such ETF (or such successor ETF or such other security); and

- a suspension, absence or material limitation of trading on any relevant exchange or on the primary exchange or market on which futures or options contracts related to the reference index (or the underlying index related to the successor ETF) or the shares of such ETF (or such successor ETF or such other security) are traded will not include any time when such exchange or market is itself closed for trading under ordinary circumstances.

**“Relevant exchange”** means, with respect to the shares of an ETF or any successor ETF, the primary exchange or market of trading for the shares of such ETF, or such successor ETF, as applicable, or, with respect to the reference index or any underlying index related to such successor ETF, as applicable, the primary exchange or market of trading for any equity security then included in the reference index or any underlying index related to such successor ETF, as applicable.

### **Discontinuation of an Underlying Index; Alteration of Method of Calculation**

If the Index Sponsor of an underlying index discontinues publication of such underlying index and such Index Sponsor or another entity publishes a successor or substitute index that the calculation agent determines, in its sole discretion, to be comparable to the discontinued underlying index (such index being referred to herein as a “successor index”), then the index closing value on any relevant Calculation Date or other relevant date on which the index closing value is to be determined will be determined by reference to the value of such successor index at the close of trading on the relevant exchange for such successor index on such day.

Upon any selection by the calculation agent of a successor index, the calculation agent will cause written notice thereof to be promptly furnished to the trustee, to us and to the holders of the securities.

If the Index Sponsor for an underlying index discontinues publication of such underlying index prior to, and such discontinuation is continuing on, a Calculation Date or any other relevant date on which the index closing value is to be determined, and the calculation agent determines, in its sole discretion, that no successor index is available at such time or the calculation agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on, such Calculation Date or other relevant date, then the calculation agent will determine the index closing value for such date. The index closing value will be computed by the calculation agent in accordance with the formula for and method of calculating the such or successor index, as applicable, last in effect prior to such discontinuation, using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent's good faith estimate of the closing price that would have prevailed but for such suspension or limitation) at the close of the principal trading session on such date of each security most recently composing such underlying index or successor index, as applicable. Notwithstanding these alternative arrangements, discontinuation of the publication of such underlying index or successor index, as applicable, may adversely affect the value of the securities.

If at any time the method of calculating an underlying index or a successor index, or the value thereof, is changed in a material respect, or if an underlying index or a successor index is in any other way modified so that such underlying index or such successor index does not, in the opinion of the calculation agent, fairly represent the value of such underlying index or such successor index had such changes or modifications not been made, then the calculation agent will, at the close of business in New York City on each date on which the index closing value is to be determined, make such calculations and adjustments as, in the good faith judgment of the calculation agent, may be necessary in order to arrive at a value of an index comparable to such underlying index or such successor index, as the case may be, as if such changes or modifications had not been made, and the calculation agent will calculate the index closing value with reference to such underlying index or such successor index, as adjusted. Accordingly, if the method of calculating such underlying index or a successor index is modified so that the value of such underlying index or such successor index is a fraction of what it would have been if there had been no such modification (e.g., due to a split in such underlying index or such successor index), then the calculation agent will adjust its calculation of such underlying index or such successor index in order to arrive at a value of such underlying index or such successor index as if there had been no such modification (e.g., as if such split had not occurred).

### **Anti-Dilution Adjustments**

The adjustment factor is subject to adjustment by the calculation agent as a result of the anti-dilution adjustments described in this section.

No adjustments to the adjustment factor will be required unless the adjustment factor adjustment would require a change of at least 0.1% in the adjustment factor then in effect. The adjustment factor resulting from any of the adjustments specified in this section will be rounded to the nearest ten-thousandth with five one hundred-thousandths being rounded upward. The calculation agent will not be required to make any adjustments to the adjustment factor after the close of business on the business day immediately preceding the maturity date.

No adjustments to the adjustment factor will be required other than those specified below. The required adjustments specified in this section do not cover all events that could affect the closing price of one share of an ETF (or the relevant successor ETF) on any trading day during the term of the securities.

With respect to an ETF (or the relevant successor ETF), anti-dilution adjustments will be calculated as follows:

### *Share Splits and Reverse Share Splits*

If the shares of an ETF (or such successor ETF) are subject to a share split or reverse share split, then once such split has become effective, the adjustment factor will be adjusted so that the new adjustment factor will equal the product of:

- the prior adjustment factor, and
- the number of shares that a holder of one share of such ETF (or such successor ETF) before the effective date of the share split or reverse share split would have owned immediately following the applicable effective date.

### *Share Dividends or Distributions*

If an ETF (or such successor ETF) is subject to (i) a share dividend, *i.e.*, an issuance of additional shares of the ETF (or such successor ETF) that is given ratably to all or substantially all holders of shares of the ETF (or such successor ETF) or (ii) a distribution of shares of such ETF (or such successor ETF) as a result of the triggering of any provision of the corporate charter of such ETF (or such successor ETF), then, once the dividend or distribution has become effective and the shares of such ETF (or such successor ETF) are trading ex-dividend, the adjustment factor will be adjusted so that the new adjustment factor will equal the prior adjustment factor plus the product of:

- the prior adjustment factor, and
- the number of additional shares issued in the share dividend or distribution with respect to one share of such ETF (or such successor ETF).

### *Non-Cash Distributions*

If an ETF (or such successor ETF) distributes shares of capital stock, evidences of indebtedness or other assets or property of such ETF (or such successor ETF) to all or substantially all holders of shares of such ETF (or such successor ETF) (other than (i) share dividends or distributions referred to under “— Share Dividends or Distributions” above and (ii) cash dividends referred to under “— Cash Dividends or Distributions” below), then, once the distribution has become effective and the shares of such ETF (or such successor ETF) are trading ex-dividend, the adjustment factor will be adjusted so that the new adjustment factor will equal the product of:

- the prior adjustment factor, and
- a fraction, the numerator of which is the Current Market Price of one share of such ETF (or such successor ETF) and the denominator of which is the amount by which such Current Market Price exceeds the Fair Market Value of such distribution.

The “**Current Market Price**” of an ETF (or such successor ETF) means the closing price of one share of such ETF (or such successor ETF) on the trading day immediately preceding the ex-dividend date of the dividend or distribution requiring an adjustment to the adjustment factor.

“**Ex-dividend date**,” with respect to a dividend or other distribution for an ETF (or such successor ETF), will mean the first trading day on which transactions in the shares of such ETF (or such successor ETF) trade on the relevant exchange without the right to receive that dividend or other distribution.

The “**Fair Market Value**” of any such distribution means the value of such distribution on the ex-dividend date for such distribution, as determined by the calculation agent. If such distribution consists of property traded on the ex-dividend date on a U.S. national securities exchange, the Fair Market Value will equal the closing price of such distributed property on such ex-dividend date.

### *Cash Dividends or Distributions*

If the issuer of the shares of an ETF (or such successor ETF) pays dividends or makes other distributions consisting exclusively of cash to all or substantially all holders of shares of such ETF (or such successor ETF) during any dividend period during the term of the securities, in an aggregate amount that, together with other such cash dividends or distributions made previously during such dividend period with respect to which an adjustment to the adjustment factor has not previously been made under this “—Cash Dividends or Distributions” section, exceeds the Dividend Threshold, then, once the dividend or distribution has become effective and the shares of such ETF (or such successor ETF) are trading ex-dividend, the adjustment factor will be adjusted so that the new adjustment factor will equal the product of:

- the prior adjustment factor, and
- a fraction, the numerator of which is the Current Market Price of one share of such ETF (or such successor ETF) and the denominator of which is the amount by which such Current Market Price exceeds the aggregate amount in cash per share of such ETF (or such successor ETF) distributes in such cash dividend or distribution together with any cash dividends or distributions made previously during such dividend period with respect to which an adjustment to the adjustment factor has not previously been made under this “—Cash Dividends or Distributions” section to holders of shares of such ETF (or such successor ETF) in excess of the Dividend Threshold.

For the avoidance of doubt, the adjustment factor may be adjusted more than once in any particular dividend period because of cash dividends or distributions that exceed the Dividend Threshold. If the adjustment factor has been previously adjusted in a particular dividend period because of cash dividends or distributions that exceed the Dividend Threshold, subsequent adjustments will be made if the relevant ETF (or such successor ETF) pays cash dividends or makes other distributions during such dividend period in an aggregate amount that, together with other such cash dividends or distributions since the last adjustment to the adjustment factor (because of cash dividends or distributions that exceed the Dividend Threshold) exceeds the Dividend Threshold. Such subsequent adjustments to the adjustment factor will only take into account the cash dividends or distributions during such dividend period made since the last adjustment to the adjustment factor because of cash dividends or distributions that exceed the Dividend Threshold.

The “**Dividend Threshold**” is equal to the sum of (x) the immediately preceding cash dividend(s) or other cash distribution(s) paid in the preceding dividend period, if any, per share of an ETF (or such successor ETF) plus (y) 10% of the closing price of one share of such ETF (or such successor ETF) on the trading day immediately preceding the ex-dividend date, unless otherwise specified in the relevant terms supplement.

The “**dividend period**” means any period during the term of the securities for which dividends are paid on a regular and consistent basis to shareholders of an ETF (or such successor ETF).

The calculation agent will be solely responsible for the determination and calculation of any adjustments to the adjustment factor and of any related determinations and calculations, and its determinations and calculations with respect thereto will be conclusive in the absence of manifest error.

The calculation agent will provide information as to any adjustments to the adjustment factor upon written request by any investor in the securities.

## **Discontinuation of an ETF; Alternate Calculation of Closing Price**

If an ETF (or a successor ETF (as defined herein)) is de-listed from the relevant exchange for such ETF (or such successor ETF), liquidated or otherwise terminated, the calculation agent will substitute an exchange-traded fund that the calculation agent determines, in its sole discretion, is comparable to such discontinued ETF (or such successor ETF) (such substitute fund being referred to herein as a “**successor ETF**”). If an ETF (or a successor ETF) is de-listed, liquidated or otherwise terminated and the calculation agent determines that no successor ETF is available, then the calculation agent will, in its sole discretion, calculate the appropriate closing price of the shares of such ETF by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate such ETF. If a successor ETF is selected or the calculation agent calculates a closing price by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate an ETF, that successor ETF or closing price will be substituted for such ETF (or such successor ETF) for all purposes of the securities.

Upon any selection by the calculation agent of a successor ETF, the calculation agent will cause written notice thereof to be promptly furnished to the trustee, to us and to the holders of the securities.

If at any time, the reference index related to an ETF or a successor ETF is changed in a material respect, or an ETF or a successor ETF in any other way is modified so that it does not, in the opinion of the calculation agent, fairly represent the price of the shares of such ETF or such successor ETF had those changes or modifications not been made, then the calculation agent will, at the close of business in New York City on each date on which the closing price of one share of such ETF or such successor ETF is to be determined, make such calculations and adjustments as, in the good faith judgment of the calculation agent, may be necessary in order to arrive at a closing price of an exchange traded fund comparable to such ETF (or such successor ETF) as if those changes or modifications had not been made, and calculate the closing price with reference to such ETF (or such successor ETF), as adjusted. The calculation agent may also determine that no adjustment is required by the modification of the method of calculation.

The calculation agent will be solely responsible for the method of calculating the closing price of the shares of an ETF (or any successor ETF) and of any related determinations and calculations, and its determinations and calculations with respect thereto will be conclusive in the absence of manifest error.

The calculation agent will provide information as to the method of calculating the closing price of the shares of an ETF upon written request by any investor in the securities.

## **Events of Default**

Under the heading “Description of Debt Securities — Events of Default and Waivers” in the accompanying prospectus is a description of events of default relating to debt securities including the securities.

## **Payment upon an Event of Default**

Unless otherwise specified in the relevant terms supplement, in case an event of default with respect to the securities shall have occurred and be continuing, the amount declared due and payable per securities upon any acceleration of the securities will be determined by the calculation agent and will be an amount in cash equal to the amount payable at maturity per securities as described under the caption “Description of Securities — Payment at Maturity,” calculated as if the date of acceleration were the final asset valuation date. If the securities have more than one asset valuation date, then, for each asset valuation date scheduled to occur after the date of acceleration, the trading days immediately preceding the date of acceleration (in such number equal to the number of asset valuation dates in excess of one) will be the corresponding asset valuation dates, unless otherwise specified in the relevant terms supplement.



If the maturity of the securities is accelerated because of an event of default as described above, we will, or will cause the calculation agent to, provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, and to DTC of the cash amount due with respect to the securities as promptly as possible and in no event later than two business days after the date of acceleration.

### **Modification**

Under the heading “Description of Debt Securities — Modification of the Indenture” in the accompanying prospectus is a description of when the consent of each affected holder of debt securities is required to modify the indenture.

### **Defeasance**

The provisions described in the accompanying prospectus under the heading “Description of Debt Securities — Discharge, Defeasance and Covenant Defeasance” are not applicable to the securities, unless otherwise specified in the relevant terms supplement.

### **Listing**

The securities will not be listed on any securities exchange, unless otherwise specified in the relevant terms supplement.

### **Book-Entry Only Issuance — The Depository Trust Company**

DTC will act as securities depository for the securities. The securities will be issued only as fully registered securities registered in the name of Cede & Co. (DTC’s nominee). One or more fully registered global securities certificates, representing the total aggregate principal amount of the securities, will be issued and will be deposited with DTC. See the descriptions contained in the accompanying prospectus supplement under the headings “Description of Notes — Forms of Notes” and “The Depository.”

### **Registrar, Transfer Agent and Paying Agent**

Payment of amounts due at maturity on the securities will be payable and the transfer of the securities will be registrable at the principal corporate trust office of The Bank of New York Mellon in The City of New York.

The Bank of New York Mellon or one of its affiliates will act as registrar and transfer agent for the securities. The Bank of New York Mellon will also act as paying agent and may designate additional paying agents.

Registration of transfers of the securities will be effected without charge by or on behalf of The Bank of New York Mellon, but upon payment (with the giving of such indemnity as The Bank of New York Mellon may require) in respect of any tax or other governmental charges that may be imposed in relation to it.

### **Governing Law**

The securities will be governed by and interpreted in accordance with the laws of the State of New York.

## CERTAIN U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of the securities. This summary applies to you if you are an initial holder of a security purchasing the security at its issue price for cash and if you hold the security as a capital asset within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the "Code").

This summary does not address all aspects of U.S. federal income and estate taxation that may be relevant to you in light of your particular circumstances or if you are a holder of a security who is subject to special treatment under the U.S. federal income tax laws, such as:

- a financial institution;
- a "regulated investment company" as defined in Code Section 851;
- a "real estate investment trust" as defined in Code Section 856;
- a tax-exempt entity, including an "individual retirement account" or "Roth IRA" as defined in Code Section 408 or 408A, respectively;
- a dealer in securities;
- a person holding a security as part of a "straddle," conversion transaction or integrated transaction, or who has entered into a "constructive sale" with respect to a security;
- a U.S. Holder (as defined below) whose functional currency is not the U.S. dollar;
- a trader in securities who elects to apply a mark-to-market method of tax accounting; or
- a partnership or other entity classified as a partnership for U.S. federal income tax purposes.

This summary is based on the Code, administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations as of the date of this product supplement, changes to any of which, subsequent to the date of this product supplement, may affect the tax consequences described herein. As the law applicable to the U.S. federal income taxation of instruments such as the securities is technical and complex, the discussion below necessarily represents only a general summary. Moreover, the effects of any applicable state, local or foreign tax laws are not discussed. **You should consult your tax adviser concerning the application of U.S. federal income and estate tax laws to your particular situation (including the possibility of alternative characterizations of the securities), as well as any tax consequences arising under the laws of any state, local or foreign jurisdictions.**

### Tax Treatment of the Securities

The tax treatment of the securities will depend upon the facts at the time of the relevant offering. Generally, for U.S. federal income tax purposes, we expect to treat the securities as indebtedness, and securities with a term of more than one year as "contingent payment debt instruments." We expect to seek an opinion from Davis Polk & Wardwell LLP, our special tax counsel, regarding this treatment. The relevant terms supplement will describe our special tax counsel's level of comfort on these issues, which will depend on the facts of the particular offering, its receipt of certain factual representations from us at the time of the relevant offering and any additional considerations that may be relevant to the particular offering. The following discussion describes the treatment of the securities assuming that for U.S. federal income tax purposes the securities are indebtedness and, in the case of securities with a term of more than one year, are "contingent payment debt instruments."

### Tax Consequences to U.S. Holders

You are a "U.S. Holder" if for U.S. federal income tax purposes you are a beneficial owner of a security that is:

- a citizen or resident of the United States;

- a corporation created or organized in or under the laws of the United States, any state or the District of Columbia; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

### **Securities with a Term of Not More than One Year**

If the term of the securities (including either the issue date or the last possible date that the securities could be outstanding, but not both) is not more than one year, the following discussion applies. No statutory, judicial or administrative authority directly addresses the treatment of these securities or instruments similar thereto for U.S. federal income tax purposes, and no ruling will be requested from the IRS with respect to the securities. As a result, certain aspects of the U.S. federal income tax consequences of an investment in these securities are uncertain.

#### ***Tax Treatment Prior to Maturity***

Because the term of these securities is not more than one year, they will be treated as short-term debt obligations. A short-term debt obligation is treated for U.S. federal income tax purposes as issued at a discount equal to the difference between the payments due thereon and the instrument's issue price. In general, this discount is treated as ordinary income when received or accrued, in accordance with the holder's method of tax accounting. However, because the amount of discount that will be paid on the securities is uncertain, several aspects of the tax treatment of these securities are not clear.

If you are a cash-method holder, you will not be required to recognize income with respect to the securities prior to maturity, other than pursuant to a sale or exchange, as described below. However, you may elect to accrue discount into income on a current basis, in which case you would generally be treated as an accrual-method holder, as described below. If you do not make this election, you could be required to defer deductions with respect to any interest paid on indebtedness incurred to purchase or carry your securities, to the extent of accrued discount that you have not yet included in income, until you dispose of the securities in a taxable transaction. You should consult your tax adviser regarding these issues.

Although accrual-method holders and certain other holders (including electing cash-method holders) are generally required to accrue into income discount on short-term indebtedness on a straight-line basis, the amount of discount that must ultimately be accrued with respect to the securities is uncertain, and it is therefore not clear how these accruals should be determined. You should consult your tax adviser regarding the application of these rules with respect to your securities.

#### ***Sale, Exchange or Redemption of a Security***

Upon a sale or exchange of a short-term security (including redemption at maturity), you should recognize gain or loss in an amount equal to the difference between the amount you receive and your adjusted basis in the security. Your adjusted basis in the security should equal the issue price of the security, increased by any discount that you have previously included in income but not received. The amount of any resulting loss will be treated as a capital loss, which may be subject to special reporting requirements if the loss exceeds certain thresholds. Gain resulting from redemption at maturity should be treated as ordinary income. It is not clear, however, whether or to what extent gain from a sale or exchange prior to maturity should be treated as capital gain or ordinary interest income. You should consult your tax adviser regarding the proper treatment of any gain or loss recognized upon a sale or exchange of a security.

### **Securities with a Term of More than One Year**

If the term of the securities (including either the issue date or the last possible date that the securities could be outstanding, but not both) is more than one year, we generally expect to treat the securities as "contingent payment debt instruments" for U.S. federal income tax purposes, and the

remainder of this discussion assumes the securities are properly so treated. These securities will generally be subject to the original issue discount ("OID") provisions of the Code and the Treasury regulations issued thereunder, and you will be required to accrue as interest income the OID on the securities as described below.

We are required to determine a "comparable yield" for the securities. The "comparable yield" is the yield at which we could issue a fixed-rate debt instrument with terms similar to those of the securities, including the level of subordination, term, timing of payments and general market conditions, but excluding any adjustments for the riskiness of the contingencies or the liquidity of the securities. Solely for purposes of determining the amount of interest income that you will be required to accrue, we are also required to construct a "projected payment schedule" in respect of the securities representing a payment at maturity that will produce a yield to maturity on the securities equal to the comparable yield.

Unless otherwise provided in the relevant terms supplement, we will provide, and you may obtain, the comparable yield for a particular offering of securities, and the related projected payment schedule, in the final terms supplement for these securities, which we will file with the SEC.

**Neither the comparable yield nor the projected payment schedule constitutes a representation by us regarding the actual supplemental redemption amount, if any, that we will pay on the securities.**

For U.S. federal income tax purposes, you are required to use our determination of the comparable yield and projected payment schedule in determining interest accruals and adjustments in respect of your securities, unless you timely disclose and justify the use of other estimates to the IRS. Regardless of your accounting method, you will be required to accrue as interest income OID on your securities at the comparable yield.

Upon a sale or exchange of a security (including redemption at maturity), you generally will recognize taxable income or loss equal to the difference between the amount received from the sale, exchange or redemption and your adjusted basis in the security. Your adjusted basis in the security will equal the cost thereof, increased by the amount of interest income previously accrued by you in respect of the security. You generally must treat any income as interest income and any loss as ordinary loss to the extent of previous interest inclusions, and the balance as capital loss. These losses are not subject to the limitation imposed on miscellaneous itemized deductions under Section 67 of the Code. The deductibility of capital losses, however, is subject to limitations. Additionally, if you recognize a loss above certain thresholds, you may be required to file a disclosure statement with the IRS. You should consult your tax adviser regarding these limitations and reporting obligations.

### **Tax Consequences to Non-U.S. Holders**

You are a "Non-U.S. Holder" if for U.S. federal income tax purposes you are a beneficial owner of a security that is:

- a nonresident alien individual;
- a foreign corporation; or
- a foreign estate or trust.

You are not a "Non-U.S. Holder" for purposes of this discussion if you are an individual present in the United States for 183 days or more in the taxable year of disposition. In this case, you should consult your tax adviser regarding the U.S. federal income tax consequences of the sale or exchange of a security (including redemption at maturity).

Income and gain from a security will be exempt from U.S. federal income tax (including withholding tax) provided, generally, that you have certified on IRS Form W-8BEN, under penalties of perjury, that you are not a United States person and provided your name and address or otherwise satisfied applicable documentation requirements, and that these amounts are not effectively connected with your conduct of a U.S. trade or business.

If you are engaged in a U.S. trade or business and if the income or gain from a security is effectively connected with your conduct of that trade or business, although exempt from the withholding tax referred to above, you generally will be subject to U.S. income tax on this income or gain in the same manner as if you were a U.S. Holder, except that in lieu of the certification described in the preceding paragraph, you will be required to provide a properly executed IRS Form W-8ECI in order to claim an exemption from withholding. If this paragraph applies to you, you should consult your tax adviser with respect to other U.S. tax consequences of the ownership and disposition of securities, including the possible imposition of a 30% branch profits tax if you are a corporation.

If you are an individual, your securities will not be included in your estate for U.S. federal estate tax purposes, provided that your income from the securities is not then effectively connected with your conduct of a U.S. trade or business.

### **Backup Withholding and Information Reporting**

Interest (including OID) accrued or paid on your securities and the proceeds received from a sale or exchange of your securities (including redemption at maturity) may be subject to information reporting, and may also be subject to backup withholding at the rates specified in the Code if you fail to provide certain identifying information (such as an accurate taxpayer identification number, if you are a U.S. Holder) or meet certain other conditions. However, if you are a Non-U.S. Holder and you comply with the identification procedures described in the preceding section, you will generally establish an exemption from backup withholding. Amounts withheld under the backup withholding rules are not additional taxes and may be refunded or credited against your U.S. federal income tax liability, provided the required information is furnished to the IRS.

## UNDERWRITING (CONFLICTS OF INTEREST)

Under the terms and subject to the conditions contained in the Master Agency Agreement entered into between JPMorgan Chase & Co. and J.P. Morgan Securities LLC, as agent (an "Agent" or "JPMS") and certain other agents that may be party to the Master Agency Agreement, as amended or supplemented, from time to time (each an "Agent" and collectively with JPMS, the "Agents"), each Agent participating in an offering of securities, acting as principal for its own account, has agreed to purchase, and we have agreed to sell, the principal amount of securities set forth on the cover page of the relevant terms supplement. Each such Agent proposes initially to offer the securities directly to the public at the public offering price set forth on the cover page of the relevant terms supplement. JPMS will allow a concession to other dealers, or we may pay other fees, in the amount set forth on the cover page of the relevant terms supplement. After the initial offering of the securities, the Agents may vary the offering price and other selling terms from time to time.

We own, directly or indirectly, all of the outstanding equity securities of JPMS. The net proceeds received from the sale of the securities will be used, in part, by JPMS or one of its affiliates in connection with hedging our obligations under the securities. The underwriting arrangements for this offering will comply with the requirements of FINRA Rule 5121 regarding a FINRA member firm's underwriting of securities of an affiliate. In accordance with FINRA Rule 5121, neither JPMS nor any other affiliated Agent of ours may make sales in this offering to any of its discretionary accounts without the prior written approval of the customer.

JPMS or another Agent may act as principal or agent in connection with offers and sales of the securities in the secondary market. Secondary market offers and sales will be made at prices related to market prices at the time of such offer or sale; accordingly, the Agents or a dealer may change the public offering price, concession and discount after the offering has been completed.

In order to facilitate the offering of the securities, JPMS may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. Specifically, JPMS may sell more securities than it is obligated to purchase in connection with the offering, creating a naked short position in the securities for its own account. JPMS must close out any naked short position by purchasing the securities in the open market. A naked short position is more likely to be created if JPMS is concerned that there may be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering. As an additional means of facilitating the offering, JPMS may bid for, and purchase, securities in the open market to stabilize the price of the securities. Any of these activities may raise or maintain the market price of the securities above independent market levels or prevent or retard a decline in the market price of the securities. JPMS is not required to engage in these activities, and may end any of these activities at any time.

No action has been or will be taken by us, JPMS or any dealer that would permit a public offering of the securities or possession or distribution of this product supplement no. MS-14-A-I, any related underlying supplement or the accompanying prospectus supplement, prospectus or terms supplement, other than in the United States, where action for that purpose is required. No offers, sales or deliveries of the securities, or distribution of this product supplement no. MS-14-A-I, any related underlying supplement or the accompanying prospectus supplement, prospectus or terms supplement or any other offering material relating to the securities, may be made in or from any jurisdiction except in circumstances which will result in compliance with any applicable laws and regulations and will not impose any obligations on us, the Agents or any dealer.

Each Agent has represented and agreed, and each dealer through which we may offer the securities has represented and agreed, that it (i) will comply with all applicable laws and regulations in force in each non-U.S. jurisdiction in which it purchases, offers, sells or delivers the securities or possesses or distributes this product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement and (ii) will obtain any consent, approval or permission required by it for the purchase, offer or sale by it of the securities under the laws and regulations in force in each non-U.S. jurisdiction to which it is subject or in which it makes purchases, offers or sales of the securities. We shall not have responsibility for any Agent's or any dealer's compliance with the applicable laws and regulations or obtaining any required consent, approval or permission. For additional information regarding selling restrictions, please see "Notice to Investors" in this product supplement.

Unless otherwise specified in the relevant terms supplement, the original issue date for the securities will be the third business day following the pricing date (which is referred to as a "T+3" settlement cycle).

## NOTICE TO INVESTORS

We are offering to sell, and are seeking offers to buy, the securities only in jurisdictions where offers and sales are permitted. Neither this product supplement no. MS-14-A-I nor any related underlying supplement, the accompanying prospectus supplement, prospectus or terms supplement constitutes an offer to sell, or a solicitation of an offer to buy, any securities by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation. Neither the delivery of this product supplement no. MS-14-A-I nor any related underlying supplement, the accompanying prospectus supplement, prospectus or terms supplement nor any sale made hereunder implies that there has been no change in our affairs or that the information in this product supplement no. MS-14-A-I, any related underlying supplement, and accompanying prospectus supplement, prospectus and terms supplement is correct as of any date after the date hereof.

You must (i) comply with all applicable laws and regulations in force in any jurisdiction in connection with the possession or distribution of this product supplement no. MS-14-A-I, any related underlying supplement, and the accompanying prospectus supplement, prospectus and terms supplement and the purchase, offer or sale of the securities and (ii) obtain any consent, approval or permission required to be obtained by you for the purchase, offer or sale by you of the securities under the laws and regulations applicable to you in force in any jurisdiction to which you are subject or in which you make such purchases, offers or sales.

### Argentina

The securities have not been and will not be authorized by the *Comisión Nacional de Valores* (the "CNV") for public offer in Argentina and therefore may not be offered or sold to the public at large or to sectors or specific groups thereof by any means, including but not limited to personal offerings, written materials, advertisements, the internet or the media, in circumstances which constitute a public offering of securities under Argentine Law No. 17,811, as amended (the "Argentine Public Offering Law").

The Argentine Public Offering Law does not expressly recognize the concept of private placement. Notwithstanding the foregoing, pursuant to the general rules on public offering and the few existing judicial and administrative precedents, the following private placement rules have been outlined:

- (i) target investors should be qualified or sophisticated investors, capable of understanding the risk of the proposed investment.
- (ii) investors should be contacted on an individual, direct and confidential basis, without using any type of massive means of communication.
- (iii) the number of contacted investors should be relatively small.
- (iv) investors should receive complete and precise information on the proposed investment.
- (v) any material, brochures, documents, etc, regarding the investment should be delivered in a personal and confidential manner, identifying the name of the recipient.
- (vi) the documents or information mentioned in item (v) should contain a legend or statement expressly stating that the offer is a private offer not subject to the approval or supervision of the CNV, or any other regulator in Argentina.
- (vii) the aforementioned documents or materials should also contain a statement prohibiting the re-sale or re-placement of the relevant securities within the Argentine territory or their sale through any type of transaction that may constitute a public offering of securities pursuant to Argentine law.



## **The Bahamas**

The securities have not been and shall not be offered or sold in or into The Bahamas except in circumstances that do not constitute a 'public offering' according to the Securities Industry Act, 1999.

The offer of the securities, directly or indirectly, in or from within The Bahamas may only be made by an entity or person who is licensed as a Broker Dealer by the Securities Commission of The Bahamas.

Persons deemed "resident" in The Bahamas pursuant to the Exchange Control Regulations, 1956 must receive the prior approval of the Central Bank of The Bahamas prior to accepting an offer to purchase any securities.

## **Bermuda**

This product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement have not been registered or filed with any regulatory authority in Bermuda. The offering of the securities pursuant to this product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and any terms supplement to persons resident in Bermuda is not prohibited, *provided* we are not thereby carrying on business in Bermuda.

## **Brazil**

The securities have not been and will not be registered with the "*Comissão de Valores Mobiliários*" – the Brazilian Securities and Exchange Commission ("CVM") and accordingly, the securities may not and will not be sold, promised to be sold, offered, solicited, advertised and/or marketed within the Federal Republic of Brazil, except in circumstances that cannot be construed as a public offering or unauthorized distribution of securities under Brazilian laws and regulations. The securities are not being offered into Brazil. Documents relating to an offering of the securities, as well as the information contained herein and therein, may not be supplied or distributed to the public in Brazil nor be used in connection with any offer for subscription or sale of the securities to the public in Brazil.

## **British Virgin Islands**

The securities may not be offered in the British Virgin Islands unless we or the person offering the securities on our behalf is licensed to carry on business in the British Virgin Islands. We are not licensed to carry on business in the British Virgin Islands. The securities may be offered to British Virgin Islands "business companies" (from outside the British Virgin Islands) without restriction. A British Virgin Islands "business company" is a company formed under or otherwise governed by the BVI Business Companies Act, 2004 (British Virgin Islands).

## **Cayman Islands**

This product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement, and the securities offered hereby and thereby have not been, and will not be, registered under the laws and regulations of the Cayman Islands, nor has any regulatory authority in the Cayman Islands passed comment upon or approved the accuracy or adequacy of this product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement. The securities have not been, and will not be, offered or sold, directly or indirectly, in the Cayman Islands.

## **Chile**

None of the Agents, we or the securities have been registered with the *Superintendencia de Valores y Seguros de Chile* (Chilean Securities and Insurance Commission) pursuant to *Ley No. 18,045 de Mercado de Valores* (the "Chilean Securities Act"), as amended, of the Republic of Chile and, accordingly, the securities have not been and will not be offered or sold within Chile or to, or for the account of benefit of persons in Chile except in circumstances which have not resulted and will not result in a public offering and/or securities intermediation in Chile within the meaning of the Chilean Securities Act.

None of the Agents is a bank or a licensed broker in Chile, and therefore each Agent has not and will not conduct transactions or any business operations in any of such qualities, including the marketing, offer and sale of the securities, except in circumstances which have not resulted and will not result in a “public offering” as such term is defined in Article 4 of the Chilean Securities Act, and/or have not resulted and will not result in the intermediation of securities in Chile within the meaning of Article 24 of the Chilean Securities Act and/or the breach of the brokerage restrictions set forth in Article 39 of Decree with Force of Law No. 3 of 1997.

The securities will only be sold to specific buyers, each of which will be deemed upon purchase:

- (i) to be a financial institution and/or an institutional investor or a qualified investor with such knowledge and experience in financial and business matters as to be capable of evaluating the risks and merits of an investment in the securities;
- (ii) to agree that it will only resell the securities in the Republic of Chile in compliance with all applicable laws and regulations; and that it will deliver to each person to whom the securities are transferred a notice substantially to the effect of this selling restriction;
- (iii) to acknowledge receipt of sufficient information required to make an informed decision whether or not to invest in the securities; and
- (iv) to acknowledge that it has not relied upon advice from any Agent and/or us, or its or our respective affiliates, regarding the determination of the convenience or suitability of securities as an investment for the buyer or any other person; and has taken and relied upon independent legal, regulatory, tax and accounting advice.

## Colombia

The securities have not been and will not be registered in the National Securities Registry of Colombia (*Registro Nacional de Valores y Emisores*) kept by the Colombian Financial Superintendency (*Superintendencia Financiera de Colombia*) or in the Colombian Stock Exchange (*Bolsa de Valores de Colombia*).

Therefore, the securities shall not be marketed, offered, sold or distributed in Colombia or to Colombian residents in any manner that would be characterized as a public offering, as such is defined in article 1.2.1.1 of Resolution 400, issued on May 22, 1995 by the Securities Superintendency General Commission (*Sala General de la Superintendencia de Valores*), as amended from time to time.

If the securities are to be marketed within Colombian territory or to Colombian residents, regardless of the number of persons to which said marketing is addressed to, any such promotion or advertisement of the securities must be made through a local financial entity, a representative's office, or a local correspondent, in accordance with Decree 2558, issued on June 6, 2007 by the Ministry of Finance and Public Credit of Colombia, as amended from time to time.

Therefore, the securities should not be marketed within Colombian territory or to Colombian residents, by any given means, that may be considered as being addressed to an indeterminate number of persons or to more than ninety-nine (99) persons, including but not limited to: (i) any written material or other means of communication, such as subscription lists, bulletins, pamphlets or advertisements; (ii) any offer or sale of the securities at offices or branches open to the public; (iii) use of any oral or written advertisements, letters, announcements, notices or any other means of communication that may be perceived to be addressed to an indeterminate number of persons for the purpose of marketing and/or offering the securities; or (iv) use (a) non-solicited emails or (b) email distributions lists to market the securities.

## El Salvador

The securities may not be offered to the general public in El Salvador, and according to Article 2 of the *Ley de Mercado de Valores* (Securities Market Law) of the Republic of El Salvador, Legislative Decree number 809 dated 16 February 1994, published on the *Diario Oficial* (Official Gazette) number 73-BIS, Number 323, dated 21 April 1994, and in compliance with the aforementioned regulation, each Agent has represented and agreed that it will not make an invitation for subscription or purchase of the securities to indeterminate individuals, nor will it make known this product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement in the territory of El Salvador through any mass media communication such as television, radio, press, or any similar medium, other than publications of an international nature that are received in El Salvador, such as internet access or foreign cable advertisements, which are not directed to the Salvadoran public. The offering of the securities has not been registered with an authorized stock exchange in the Republic of El Salvador. Any negotiation for the purchase or sale of securities in the Republic of El Salvador shall only be negotiated on an individual basis with determinate individuals or entities in strict compliance with the aforementioned Article 2 of the Salvadoran Securities Market Law, and shall in any event be effected in accordance with all securities, tax and exchange control of the Dominican Republic, Central America, and United States Free Trade Agreements, and other applicable laws or regulations of the Republic of El Salvador.

## European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), each Agent has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") it has not made and will not make an offer of securities which are the subject of the offering contemplated by this product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement to the public in that Relevant Member State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive except that it may, with effect from and including the Relevant Implementation Date, make an offer of such securities to the public in that Relevant Member State:

- (a) at any time to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- (b) at any time to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000; and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
- (c) to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the Agent; or
- (d) at any time in any other circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of securities to the public" in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

This European Economic Area selling restriction is in addition to any other selling restrictions set out herein.

## Hong Kong

The securities may not be offered or sold in Hong Kong, by means of any document, other than to persons whose ordinary business it is to buy or sell shares or debentures, whether as principal or agent, or in circumstances that do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32) of Hong Kong. Each Agent has not issued and will not issue any advertisement, invitation or document relating to the securities, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to securities which are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made thereunder.

## Jersey

Each Agent has represented to and agreed with us that it will not circulate in Jersey any offer for subscription, sale or exchange of any securities which would constitute an offer to the public for the purposes of Article 8 of the Control of Borrowing (Jersey) Order 1958.

## Mexico

The securities have not been, and will not be, registered with the Mexican National Registry of Securities maintained by the Mexican National Banking and Securities Commission nor with the Mexican Stock Exchange and therefore, may not be offered or sold publicly in the United Mexican States. This product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement may not be publicly distributed in the United Mexican States. The securities may be privately placed in Mexico among institutional and qualified investors, pursuant to the private placement exemption set forth in Article 8 of the Mexican Securities Market Law.

## The Netherlands

An offer to the public of any securities which are the subject of the offering and placement contemplated by this product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement may not be made in The Netherlands and each Agent has represented and agreed that it has not made and will not make an offer of such securities to the public in The Netherlands, unless such an offer is made exclusively to one or more of the following categories of investors in accordance with the Dutch Financial Markets Supervision Act (*Wet op het financieel toezicht*, the "FMSA"):

1. Regulated Entities: (a) any person or entity who or which is subject to supervision by a regulatory authority in any country in order to lawfully operate in the financial markets (which includes: credit institutions, investment firms, financial institutions, insurance companies, collective investment schemes and their management companies, pension funds and their management companies, commodity dealers) ("Supervised Entities"); and (b) any person or entity who or which engages in a regulated activity on the financial markets but who or which is not subject to supervision by a regulatory authority because it benefits from an exemption or dispensation ("Exempt Entities");
2. Investment Funds and Entities: any entity whose corporate purpose is solely to invest in securities (which includes, without limitation, hedge funds);
3. Governmental institutions: the Dutch State, the Dutch Central Bank, Dutch regional, local or other decentralized governmental institutions, international treaty organizations and supranational organizations;
4. Self-certified Small and Medium-Sized Enterprises ("SMEs"): any company having its registered office in The Netherlands which does not meet at least two of the three criteria mentioned in (6) below and which has (a) expressly requested the Netherlands Authority for the Financial Markets (the "AFM") to be considered as a qualified investor, and (b) been entered on the register of qualified investors maintained by the AFM;

5. Self-certified Natural Persons: any natural person who is resident in The Netherlands if this person meets at least two (2) of the following criteria:

- (i) the investor has carried out transactions of a significant size on securities markets at an average frequency of, at least, ten (10) per quarter over the previous four (4) quarters;
- (ii) the size of the investor's securities portfolio exceeds €500,000;
- (iii) the investor works or has worked for at least one (1) year in the financial sector in a professional position which requires knowledge of investment in securities,

*provided* this person has:

- (a) expressly requested the AFM to be considered as a qualified investor; and
- (b) been entered on the register of qualified investors maintained by the AFM;

6. Large Enterprises: any company or legal entity which meets at least two of the following three criteria according to its most recent consolidated or non-consolidated annual accounts:

- (a) an average number of employees during the financial year of at least 250;
- (b) total assets of at least €43,000,000; or
- (c) an annual net turnover of at least €50,000,000.

7. Discretionary individual portfolio managers: any portfolio manager in The Netherlands who or which purchases the securities for the account of clients who are not Qualified Investors on the basis of a contract of agency that allows for making investment decisions on the client's behalf without specific instructions of or consultation with any such client;

8. Minimum consideration: any person or entity for a minimum consideration of €50,000 or more (or equivalent in foreign currency) for each offer of securities; or

9. Fewer than 100 Offerees: fewer than 100 natural or legal persons (other than Qualified Investors).

For the purposes of this provision, the expression:

- (a) an "offer to the public" in relation to any securities means making a sufficiently determined offer as meant in Section 217(1) of Book 6 of the Dutch Civil Code (*Burgerlijk Wetboek*) addressed to more than one person to conclude a contract to purchase or otherwise acquire securities, or inviting persons to make an offer in respect of such securities;
- (b) "Qualified Investors" means the categories of investors listed under (1) up to and including (6) above.

Zero Coupon securities may not, directly or indirectly, as part of their initial distribution (or immediately thereafter) or as part of any re-offering be offered, sold, transferred or delivered in The Netherlands. For purposes of this paragraph "Zero Coupon securities" are securities (whether in definitive or in global form) that are in bearer form and that constitute a claim for a fixed sum against us and on which interest does not become due prior to maturity or on which no interest is due whatsoever.

## **Panama**

The securities have not been and will not be registered with the National Securities Commission of the Republic of Panama under Decree Law No. 1 of July 8, 1999 (the "Panamanian Securities Law") and may not be publicly offered or sold within Panama, except in certain limited transactions exempt from the registration requirements of the Panamanian Securities Law. The securities do not benefit from the tax incentives provided by the Panamanian Securities Law and are not subject to regulation or supervision by the National Securities Commission of the Republic of Panama.

## **Peru**

The securities have been and will be offered only to institutional investors (as defined by the Peruvian Securities Market Law – “*Ley de Mercado de Valores*” enacted by Legislative Decree No. 861 – Unified Text of the Law approved by Supreme Decree No. 093-2002-EF) and not to the public in general or a segment of it. The placement of the securities shall comply with article 5 of the Peruvian Securities Market Law.

## **Singapore**

Neither this product supplement no. MS-14-A-I, any related underlying supplement nor the accompanying prospectus supplement, prospectus or terms supplement has been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this product supplement no. MS-14-A-I, any related underlying supplement, the accompanying prospectus supplement, prospectus or terms supplement, and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities may not be circulated or distributed, nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the “SFA”), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

## **Switzerland**

The securities have not been and will not be offered or sold, directly or indirectly, to the public in Switzerland, and this product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement do not constitute a public offering prospectus as that term is understood pursuant to article 652a or article 1156 of the Swiss Federal Code of Obligations.

We have not applied for a listing of the securities on the SWX Swiss Exchange or on any other regulated securities market and, consequently, the information presented in this product supplement no. MS-14-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement does not necessarily comply with the information standards set out in the relevant listing rules.

The securities do not constitute a participation in a collective investment scheme in the meaning of the Swiss Federal Act on Collective Investment Schemes and are not licensed by the Swiss Federal Banking Commission. Accordingly, neither the securities nor holders of the securities benefit from protection under the Swiss Federal Act on Collective Investment Schemes or supervision by the Swiss Federal Banking Commission.

## **United Kingdom**

Each Agent has represented and agreed that:

- (a) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business and (ii) it has not offered or sold and will not offer or sell the securities other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the securities would otherwise constitute a contravention of Section 19 of the Financial Services and Markets Act 2000 (the “FSMA”) by the Issuer;
- (b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the securities in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(c) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

#### **Uruguay**

The offering of securities in Uruguay constitutes a private offering and each Agent has agreed that the securities and us will not be registered with the Central Bank of Uruguay pursuant to section 2 of Uruguayan law 16.749.

#### **Venezuela**

The securities comprising this offering have not been registered with the Venezuelan National Securities Commission (*Comisión Nacional de Valores*) and are not being publicly offered in Venezuela. No document related to the offering of the securities shall be interpreted to constitute a public offer of securities in Venezuela. This document has been sent exclusively to clients of the Agents and the information contained herein is private, confidential and for the exclusive use of the addressee. Investors wishing to acquire the securities may use only funds located outside of Venezuela, which are not of mandatory sale to the Central Bank of Venezuela (*Banco Central de Venezuela*) or are not otherwise subject to restrictions or limitations under the exchange control regulation currently in force in Venezuela.

## BENEFIT PLAN INVESTOR CONSIDERATIONS

A fiduciary of a pension, profit-sharing or other employee benefit plan subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), including entities such as collective investment funds, partnerships and separate accounts whose underlying assets include the assets of such plans (collectively, "ERISA Plans") should consider the fiduciary standards of ERISA in the context of the ERISA Plan's particular circumstances before authorizing an investment in the securities. Among other factors, the fiduciary should consider whether the investment would satisfy the prudence and diversification requirements of ERISA and would be consistent with the documents and instruments governing the ERISA Plan.

Section 406 of ERISA and Section 4975 of the Internal Revenue Code of 1986, as amended, (the "Code") prohibit ERISA Plans, as well as plans (including individual retirement accounts and Keogh plans) subject to Section 4975 of the Code (together with ERISA Plans, "Plans"), from engaging in certain transactions involving the "plan assets" with persons who are "parties in interest" under ERISA or "disqualified persons" under Section 4975 of the Code (in either case, "Parties in Interest") with respect to such Plans. As a result of our business, we, and our current and future affiliates, may be Parties in Interest with respect to many Plans. Where we (or our affiliate) are a Party in Interest with respect to a Plan (either directly or by reason of our ownership interests in our directly or indirectly owned subsidiaries), the purchase and holding of the securities by or on behalf of the Plan could be a prohibited transaction under Section 406 of ERISA and/or Section 4975 of the Code, unless exemptive relief were available under an applicable exemption (as described below).

Certain prohibited transaction class exemptions ("PTCEs") issued by the U.S. Department of Labor may provide exemptive relief for direct or indirect prohibited transactions resulting from the purchase or holding of the securities. Those class exemptions are PTCE 96-23 (for certain transactions determined by in-house asset managers), PTCE 95-60 (for certain transactions involving insurance company general accounts), PTCE 91-38 (for certain transactions involving bank collective investment funds), PTCE 90-1 (for certain transactions involving insurance company separate accounts) and PTCE 84-14 (for certain transactions determined by independent qualified asset managers). In addition, ERISA Section 408(b)(17) and Section 4975(d)(20) of the Code may provide a limited exemption for the purchase and sale of the securities and related lending transactions, provided that neither the issuer of the securities nor any of its affiliates have or exercise any discretionary authority or control or render any investment advice with respect to the assets of the Plan involved in the transaction and provided further that the Plan pays no more, and receives no less, than adequate consideration in connection with the transaction (the so-called "service provider exemption"). There can be no assurance that any of these statutory or class exemptions will be available with respect to transactions involving the securities.

Accordingly, the securities may not be purchased or held by any Plan, any entity whose underlying assets include "plan assets" by reason of any Plan's investment in the entity (a "Plan Asset Entity") or any person investing "plan assets" of any Plan, unless such purchaser or holder is eligible for the exemptive relief available under PTCE 96-23, 95-60, 91-38, 90-1 or 84-14 or the service-provider exemption or there is some other basis on which the purchase and holding of the securities will not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code. Each purchaser or holder of the securities or any interest therein will be deemed to have represented by its purchase or holding of the securities that (a) it is not a Plan and its purchase and holding of the securities is not made on behalf of or with "plan assets" of any Plan or (b) its purchase and holding of the securities will not result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code.



Certain governmental plans (as defined in Section 3(32) of ERISA), church plans (as defined in Section 3(33) of ERISA) and non-U.S. plans (as described in Section 4(b)(4) of ERISA) ("Non-ERISA Arrangements") are not subject to these "prohibited transaction" rules of ERISA or Section 4975 of the Code, but may be subject to similar rules under other applicable laws or regulations ("Similar Laws"). Accordingly, each such purchaser or holder of the securities shall be required to represent (and deemed to have represented by its purchase of the securities) that such purchase and holding is not prohibited under applicable Similar Laws.

Due to the complexity of these rules, it is particularly important that fiduciaries or other persons considering purchasing the securities on behalf of or with "plan assets" of any Plan consult with their counsel regarding the relevant provisions of ERISA, the Code or any Similar Laws and the availability of exemptive relief under PTCE 96-23, 95-60, 91-38, 90-1, 84-14, the service provider exemption or some other basis on which the acquisition and holding will not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or a violation of any applicable Similar Laws.

The securities are contractual financial instruments. The financial exposure provided by the securities is not a substitute or proxy for, and is not intended as a substitute or proxy for, individualized investment management or advice for the benefit of any purchaser or holder of the securities. The securities have not been designed and will not be administered in a manner intended to reflect the individualized needs and objectives of any purchaser or holder of the securities.

Each purchaser or holder of any securities acknowledges and agrees that:

- (i) the purchaser or holder or its fiduciary has made and shall make all investment decisions for the purchaser or holder and the purchaser or holder has not relied and shall not rely in any way upon us or our affiliates to act as a fiduciary or adviser of the purchaser or holder with respect to (A) the design and terms of the securities, (B) the purchaser or holder's investment in the securities, or (C) the exercise of or failure to exercise any rights we have under or with respect to the securities;
- (ii) we and our affiliates have acted and will act solely for our own account in connection with (A) all transactions relating to the securities and (B) all hedging transactions in connection with our obligations under the securities;
- (iii) any and all assets and positions relating to hedging transactions by us or our affiliates are assets and positions of those entities and are not assets and positions held for the benefit of the purchaser or holder;
- (iv) our interests are adverse to the interests of the purchaser or holder; and
- (v) neither we nor any of our affiliates is a fiduciary or adviser of the purchaser or holder in connection with any such assets, positions or transactions, and any information that we or any of our affiliates may provide is not intended to be impartial investment advice.

Each purchaser and holder of the securities has exclusive responsibility for ensuring that its purchase, holding and subsequent disposition of the securities does not violate the fiduciary or prohibited transaction rules of ERISA, the Code or any applicable Similar Laws. The sale of any securities to any Plan is in no respect a representation by us or any of our affiliates or representatives that such an investment meets all relevant legal requirements with respect to investments by Plans or Non-ERISA Arrangements generally or any particular Plan or Non-ERISA Arrangement, or that such an investment is appropriate for Plans or Non-ERISA Arrangements generally or any particular Plan or Non-ERISA Arrangement.