Product supplement no. MS-7-I
To prospectus dated November 14, 2011 and
prospectus supplement dated November 14, 2011

Registration Statement No. 333-177923
Dated December 19, 2013
Rule 424(b)(2)

JPMORGAN CHASE & CO.

Market-Linked Notes Linked to One or More Indices and/or Exchange-Traded Funds
Market-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 market-linked notes or market-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-7-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 in this product supplement or 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 unsecured and unsubordinated 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 described below.
- For important information about tax consequences, see "Material U.S. Federal Income Tax Consequences" beginning on page PS-43.
- 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 component securities or commodity futures contracts 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 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 securities, commodities or commodity futures contracts 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-7-I, we refer to an index that is designed to track the performance of securities or commodity futures contracts as an "index," and collectively, as "indices" and we refer to an exchange-traded fund that is designed to track the performance of an index or basket of securities, commodities or other market measures 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."
Stated Principal Amount:	$10, unless otherwise specified in the relevant terms supplement
Payment at Maturity (Market-Linked Notes):	Unless otherwise specified in the relevant terms supplement, for market-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 market-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.

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Investing in the securities involves a number of risks. See "Risk Factors" beginning on page PS-10.

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-7-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 by the Federal Deposit Insurance Corporation or any other governmental agency, nor are they obligations of, or guaranteed by, a bank.

J.P.Morgan

December 19, 2013

Payment at Maturity (Market-Linked Partial Principal at Risk Securities):	Unless otherwise specified in the relevant terms supplement, for market-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 market-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 folllows: (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.
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 day will be calculated as follows: 100 × [1 + sum of (basket component percent change of each basket component × basket component weighting of each such basket component)]

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Basket Component Percent Change:	Unless otherwise specified in the relevant terms supplement, on any relevant 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 that underlying index on that day; or (b) if the basket component is ETF Shares, the share percent change for that ETF Shares on that day.
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 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 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."

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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 Determination Date."
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 Determination 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-7-I and the accompanying prospectus supplement and prospectus with respect to the securities offered by the relevant terms supplement 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-7-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-7-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-7-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-7-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 that offer or solicitation is unlawful.

In this product supplement no. MS-7-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 issuances 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-7-I have the meanings assigned in the accompanying prospectus supplement, prospectus, the relevant terms supplement and any related underlying supplement. The term "**security**" refers to each of our Market-Linked Notes Linked to One or More Indices and/or Exchange-Traded Funds and each of our Market-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 unsecured and unsubordinated 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 is designed to track the performance of securities or commodity futures contracts as an "**index**," and collectively, as "**indices**," we refer to an exchange-traded fund that is designed to track the performance of an index or basket of securities, commodities or other market measures as an "**exchange-traded fund**," and collectively, as "**exchange-traded funds**" and we refer to the index the performance of which an ETF (or a successor ETF) 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**." We refer to an ETF that is designed to track a commodity index or primarily invests in commodities or commodity futures contracts as a "**Commodity ETF**."

The securities are a series of debt securities referred to in the accompanying prospectus supplement and prospectus. 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 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 — Book-Entry System" in the accompanying prospectus.

The terms of specific issuances of the securities will be described in the relevant terms supplement accompanying this product supplement no. MS-7-I and any related underlying supplement. The terms described in that document supplement those described in this product supplement and in any related underlying supplement, the accompanying prospectus and prospectus supplement. If the terms described in the relevant terms supplement are inconsistent with those described in this product supplement or in any related underlying supplement, 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 that 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.

Market-Linked Notes

Unless otherwise specified in the relevant terms supplement, for market-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 market-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.

Market-Linked Partial Principal at Risk Securities

Unless otherwise specified in the relevant terms supplement, for market-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 market-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 day will be calculated as follows:

100 × [1 + sum of (basket component percent change of each basket component × basket component weighting of each such basket component)]

Unless otherwise specified in the relevant terms supplement, on any relevant 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 that underlying index on that day; or (b) if the basket component is ETF Shares, the share percent change for that ETF Shares on that 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 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 that adjustment effective date only on the initial averaging dates occurring prior to that 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 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 that adjustment to be used to determine the final share price will be deemed to equal that closing price divided by the adjustment factor, as adjusted (assuming that the adjustment factor prior to that 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 or any relevant successor index (as described below under "General Terms of Securities — Discontinuation of an Underlying Index; Alteration of Method of Calculation"), the "**index closing value**" on any relevant day will equal the official closing value of that underlying index or that successor index published with respect to that 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 relevant day means:

- if the shares of that ETF (or that successor ETF or 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 that ETF (or that successor ETF or other security) are listed or admitted to trading;

- if the shares of that ETF (or that successor ETF or other security) are not listed or admitted to trading on any national securities exchange but are included in the OTC Bulletin Board Service (or any successor service) operated by the Financial Industry Regulatory Authority (the "**FINRA**") (the "**OTC Bulletin Board**"), the last reported sale price of the principal trading session on the OTC Bulletin Board on that day; 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 that ETF (or that successor ETF or 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 that ETF (or that successor ETF or other security) obtained from as many recognized dealers in that ETF (or that successor ETF or other security), but not exceeding three, as will make those bid prices available to the calculation agent. Bids of any of our affiliates may be included in the calculation of the mean, but only to the extent that any of those bids is not the highest or the lowest of the bids obtained,

in each case subject to the provisions of "— Postponement of a Determination Date" and "General Terms of Securities — Discontinuation of an ETF; Alternate Calculation of Closing Price."

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.

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 Determination 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 Determination 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 the 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." In addition, the maturity date may be accelerated if there is an event of default. See "General Terms of Securities — Payment upon an Event of Default.

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 that 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.

The "**calculation agent**" is the agent appointed by us to make certain calculations for the Securities, which initially will be J.P. Morgan Securities LLC ("**JPMS**"). See "General Terms of Securities — Calculation Agent" below. JPMS is our affiliate and may have interests adverse to yours. Please see "Risk Factors — Risks Relating to the Securities Generally — We or our affiliates may have economic interests that are adverse to those of the holders of the securities due to JPMS's role as calculation agent."

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 Determination Date

In this product supplement, we refer to the initial averaging dates and the asset valuation dates as "**Determination Dates**."

Securities linked to a Basket

If a Determination 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 that Determination Date (any such day, a "**Disrupted Day**" and any basket component affected by a non-trading day or a market disruption event, a "**Disrupted Basket Component**"), the applicable Determination Date will be postponed to the earliest day on which the index closing value or closing price, as applicable, of each basket component has been established, as described below:

(a) for each basket component that is not a Disrupted Basket Component (an "**Unaffected Basket Component**"), the index closing value or closing price, as applicable, on the postponed Determination Date will be deemed to be the index closing value or closing price, as applicable, on the originally scheduled Determination Date; and

(b) for each Disrupted Basket Component, the index closing value or closing price, as applicable, on the postponed Determination Date will be deemed to be the index closing value or closing price, as applicable, on the first business day immediately following the originally scheduled Determination Date that is not a Disrupted Day for that Disrupted Basket Component.

Accordingly, if a Determination Date is postponed as described above, the calculation agent may reference the index closing value or closing price, as applicable, of the basket components from different business days when calculating the basket closing value or making other determinations with respect to that Determination Date, as postponed.

For example, assume that the securities are linked to a basket consisting of three basket components, underlying index A, ETF Shares B and ETF Shares C, and that:

(a) Business Day 1, a scheduled Determination Date, is not a Disrupted Day for underlying index A but is a Disrupted Day for ETF Shares B and C;

(b) Business Day 2 is not a Disrupted Day for ETF Shares B but is a Disrupted Day for ETF Shares C; and

(c) Business Day 3 is not a Disrupted Day for ETF Shares C.

Under these circumstances, the Determination Date originally scheduled to occur on Business Day 1 would be postponed to Business Day 3 and, with respect to that Determination Date, as postponed, the index closing value or closing price, as applicable, would be deemed to be (a) for underlying index A, the index closing value on Business Day 1; (b) for ETF Shares B, the closing price on Business Day 2 and (c) for ETF Shares C, the closing price on Business Day 3.

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

(a) for each Unaffected Basket Component, the index closing value or closing price, as applicable, on the originally scheduled Determination Date;

(b) for each Disrupted Basket Component that is not 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, unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, the index closing value of that underlying index determined by the calculation agent in accordance with the formula for and method of calculating the index closing value of that underlying index 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 that suspension or limitation or non-trading day) on that Final Disrupted Determination Date of each security most recently constituting that underlying index; or

(d) for each Final Disrupted Basket Component that is an ETF, the closing price of that ETF determined by the calculation agent in good faith based on the calculation agent's assessment of the market value of that ETF on that Final Disrupted Determination Date.

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

(a) for securities with a maturity of more than one year, the tenth business day after that Determination 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 Determination 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 that Determination Date, as originally scheduled.

Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, a "**trading day**" is, with respect to an underlying index or any relevant successor index, a day, as determined by the calculation agent, on which trading is generally conducted on (i) the relevant exchanges (as defined below) for securities underlying that underlying index or successor index, as applicable, and (ii) the exchanges on which futures or options contracts related to that underlying index or successor index, as applicable, are traded.

Unless otherwise specified in the relevant terms supplement, a "**trading day**" is, with respect to an ETF or any relevant successor ETF, a day, as determined by the calculation agent, on which trading is generally conducted on (i) the relevant exchanges (as defined below) for that ETF or successor ETF, as applicable, and (ii) the exchanges on which futures or options contracts related to that ETF or successor ETF, as applicable, are traded.

"**Relevant exchange**" means, with respect to an underlying index or any relevant successor index, the primary exchange or market of trading for any security (or any combination thereof) then included in that underlying index or successor index, as applicable.

"**Relevant exchange**" means (a) with respect to the shares of an ETF or any successor ETF, the primary exchange or market of trading for the shares of that ETF or successor ETF, as applicable, and (b) with respect to the applicable reference index, if any, the primary exchange or market of trading for any security, commodity or commodity futures contract (or any combination thereof) then included in that reference index.

Securities linked to a single Underlying Index or ETF

If a Determination Date is a Disrupted Day, the applicable Determination Date will be postponed to the immediately succeeding business day that is not a Disrupted Day. In no event, however, will any Determination Date be postponed to a date that is after the applicable Final Disrupted Determination Date. If a Determination Date has been postponed to that Final Disrupted Determination Date and that Final Disrupted Determination Date is a Disrupted Day, the calculation agent will determine the index closing value or closing price, as applicable, for that Determination Date on that Final Disrupted Determination Date:

(a) for Securities linked to an underlying index, unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, in accordance with the formula for and method of calculating the index closing value of that underlying index 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 that suspension or limitation or non-trading day) on that Final Disrupted Determination Date of each security most recently constituting the underlying index; or

(b) for Securities linked to an ETF, in good faith based on the calculation agent's assessment of the market value of the ETF on that Final Disrupted Determination 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 component securities or commodity futures contracts 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 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 securities, commodities or commodity futures contracts 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 may not pay more than the stated principal amount or, if applicable, the minimum payment amount at maturity.

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

For market-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 × (final value / 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.

Our offering of the securities does not constitute an expression of our view about, or a recommendation of, any underlying index, any ETF, the securities including in an underlying index or the securities, commodities or commodity futures 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, the securities included in any underlying index or the securities, commodities or commodity futures contracts 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, the securities included in any underlying index or the securities, commodities or commodity futures contracts 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, the securities included in one or more underlying indices and the securities, commodities and commodity futures contracts held by one or more ETFs 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 or ETFs, the securities included in one or more underlying indices or the securities, commodities or commodity futures contracts held by one or more ETFs. 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 or ETFs, the securities included in one or more underlying indices or the securities, commodities or commodity futures contracts held by one or more ETFs 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 Determination 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, this hedging may result in a profit that is more or less than expected, or it may result in a loss.

JPMS and other affiliates of ours also trade the ETF Shares, the securities including in the underlying indices, the securities, commodities and commodity futures contracts held by the ETFs and other financial instruments related to the underlying indices, the ETFs, the securities included in the underlying indices and the securities, commodities and commodity futures contracts held by the ETFs 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 underlying value on the pricing date or any initial averaging dates, as applicable, and/or decrease the underlying value on any asset valuation date, which could adversely affect your payment at maturity.

It is possible that these hedging or trading activities could result in substantial returns for us or our affiliates while the value of the securities declines.

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 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, 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 nonpublic information about the underlying companies, and we will not disclose any such information to you. In addition, we or 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 issuances of other securities or financial instruments with returns linked or related to changes in the level or price, as applicable, of an underlying index or an ETF, the securities included in an underlying index or the securities, commodities or commodity futures contracts held by an ETF. To the extent that we or one

of our affiliates serves as issuer, agent or underwriter for these securities or financial instruments, our or their interests with respect to these securities or financial instruments 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 equity securities underlying a foreign underlying index or a foreign ETF are denominated. If currency exchange rate calculations are involved in the calculation of the index closing values of a foreign underlying index or the net asset values of a foreign ETF, these trading activities could potentially affect the exchange rates with respect to the currencies in which the equity securities underlying that foreign underlying index or foreign ETF are denominated, the index closing values of that foreign underlying index or the closing prices of that foreign ETF and, accordingly, the value of the securities. A "**foreign underlying index**" or a "**foreign ETF**" is one that is composed primarily of securities issues by non-U.S. companies.

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.

In the course of our business, we or our affiliates may acquire nonpublic information about a Commodity ETF and the commodities or commodity futures contracts underlying a Commodity ETF, 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 a Commodity ETF or the commodities or commodity futures contracts underlying a Commodity ETF. Any prospective purchaser of securities should undertake an independent investigation of any relevant Commodity ETF and the commodities or commodity futures contracts underlying any relevant Commodity ETF 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 JPMS'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. The calculation agent will also make the assumptions used to determine the pricing of the securities and the estimated value of the securities when the terms of the securities are set, which refer to as JPMS's estimated value. The calculation agent will also determine, among other things:

- whether a market disruption event has occurred;
- whether an underlying index has been discontinued, whether the method of calculating an underlying index has changed in a material respect or whether an underlying index has been otherwise modified so that it does not, in the opinion of the calculation agent, fairly represent the value of that underlying index had those changes or modifications not been made and, if applicable, which index to select as a successor index; and
- whether an ETF has been delisted, liquidated or otherwise terminated, whether an ETF or its reference index, if applicable, has been changed in a material respect or an ETF has been otherwise modified so that it does not, in the opinion of the calculation agent, fairly represent the price of that ETF had those changes or modifications not been made and, if applicable, which exchange-traded fund to select as a successor ETF.

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.

JPMS and its affiliates may have published research, expressed opinions or provided recommendations that are inconsistent with investing in or holding the securities, and may do so in the future. Any such research, opinions or recommendations could affect the value of any relevant underlying index or ETF, and, therefore, the market value of the securities.

JPMS and its affiliates publish research from time to time on underlying companies, financial markets and other matters that may influence the value of the securities, or express opinions or provide recommendations that are inconsistent with purchasing or holding the securities. JPMS and its affiliates may have published or may publish research or other opinions that call into question the investment view implicit in an investment in the securities. Any research, opinions or recommendations expressed by JPMS or its affiliates may not be consistent with each other and may be modified from time to time without notice. Investors should make their own independent investigation of the merits of investing in the securities and any underlying index or ETF to which the securities are linked.

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 market-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 market-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 (market-linked notes) or only the minimum payment amount (for market-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. Any actual or potential changes in our creditworthiness or the credit spreads, as determined by the market for taking our credit risk, is likely to affect adversely the value of the securities. If we were to default on our payment obligations, you may not receive any amounts owed to you under the securities and you could lose your entire investment.

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

Any applicable maximum payment at maturity will be a U.S. dollar 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.

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 component securities, commodities or commodity futures contracts 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 designed to be held to 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 underlying asset has appreciated since the pricing date. The potential returns described in the relevant terms supplement assume that your securities are held to maturity.

Secondary trading may be limited.

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

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.

Secondary market prices of the securities will likely be lower than the original issue price of the securities.

Any secondary market prices of the securities will likely be lower than the original issue price of the securities because, among other things, secondary market prices take into account our secondary market credit spreads for structured debt issuances and, also, because secondary market prices (a) exclude selling commissions and (b) may exclude projected hedging profits, if any, and estimated hedging costs that are included in the original issue price of the securities. As a result, the price, if any, at which JPMS will be willing to buy securities from you in secondary market transactions, if at all, is likely to be lower than the original issue price. Any sale by you prior to the maturity date could result in a substantial loss to you. See the immediately following risk factor for information about additional factors that will impact any secondary market prices of the securities.

Secondary market prices of the securities will be impacted by many economic and market factors.

The secondary market price of the securities during their term will be impacted by a number of economic and market factors, which may either offset or magnify each other, aside from the selling commissions, projected hedging profits, if any, estimated hedging costs and the level of the Index, including:

- any actual or potential change in our creditworthiness or credit spreads;
- customary bid-ask spreads for similarly sized trades;
- secondary market credit spreads for structured debt issuances;
- the actual and expected frequency and magnitude of changes in the index closing value of any underlying index or the closing price of any ETF Shares (*i.e.*, volatility);
- 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 value 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;

- supply and demand trends and market prices at any time for the commodities upon which the futures contracts that compose any Commodity ETF or the exchange-traded futures contracts on such commodities;

- interest and yield rates in the market generally, as well as in the markets of the securities included in an underlying index or the securities, commodities or commodity futures contracts held by an ETF;

- economic, financial, political, regulatory, geographical, agricultural, meteorological and judicial events that affect the securities or futures contracts included in any underlying index or held by any ETF or stock, bond or commodity futures markets generally;

- for securities linked to a basket, changes in correlation (the extent to which the value of the basket components increase or decrease to the same degree at the same time) between the basket components;

- the exchange rates and the volatility of the exchange rates between the U.S. dollar and the currencies in which the equity securities underlying a foreign underlying index or foreign ETF are traded, and, if a foreign underlying index or foreign ETF is calculated in one currency and the equity securities underlying that foreign underlying index or foreign ETF are traded in one or more other currencies, the correlation between those rates and the value of that foreign underlying index or foreign ETF; and

Additionally, independent pricing vendors and/or third party broker-dealers may publish a price for the securities, which may also be reflected on customer account statements. This price may be different (higher or lower) than the price of the securities, if any, at which JPMS may be willing to purchase your securities in the secondary market.

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 market-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 market-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.

You will have no ownership rights in any ETF, in the securities included in any underlying index or in any securities, commodities or commodity futures contracts held by any ETF.

Investing in the securities is not equivalent to investing in any underlying index, any ETF, the securities included in any underlying index or the securities, commodities or commodity futures contracts held by any ETF or exchange-traded or over-the-counter instruments based on any underlying index, any ETF, the securities included in any underlying index or the securities, commodities or commodity futures contracts held by any ETF. As an investor in the securities, you will not have any ownership interests or rights in any underlying index, any ETF, the securities included in any underlying index or the securities, commodities or commodity futures contracts held by any ETF.

Your return on the securities will not reflect dividends, interest payments or other distributions on the 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 securities, if any, 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 securities, if any, 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 securities.

Concentration risks may adversely affect the value of the securities.

If the securities are linked to a single underlying index or ETF or to a small number of underlying index or ETFs that are concentrated in a single or a limited number of industry or commodity sectors or geographical regions, you will not benefit, with respect to the securities, from the advantages of a diversified investment, and will bear the risks of a concentrated investment, including the risk of greater volatility than may be experienced in connection with a diversified investment. You should be aware that other investments may be more diversified than the securities in terms of the number and variety of industry or commodity sectors or geographical regions.

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 Determination 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 Determination Dates and the maturity date will be postponed and your return will be adversely affected. See "Description of Securities — Market Disruption Events." Moreover, if any Determination Date is postponed to the last possible day and the index closing value of any underlying index or the closing price of any ETF Shares is not available on that day because of a market disruption event or if such day is not a trading day, the calculation agent will nevertheless determine that index closing value or closing price, as applicable, on such last possible day. See "Description of Securities — Postponement of a Determination Date" for more information.

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

In general, 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 obligations" for U.S. federal income tax purposes. No statutory, judicial or administrative authority directly addresses the treatment of these securities or similar instruments for U.S. federal income tax purposes, and we do not intend to request a ruling from the Internal Revenue Service (the "IRS") with respect to these securities. As a result, certain aspects of the U.S. federal income tax treatment of an investment in the securities are uncertain. You should review carefully the section entitled "Material U.S. Federal Income Tax Consequences" in this product supplement no. MS-7-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.

In general, if the term of the securities is 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 "contingent payment debt instruments" for U.S. federal income tax purposes. Under 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. Any loss generally will be treated as an ordinary loss to the extent of all previous inclusions with respect to your securities, 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 "Material U.S. Federal Income Tax Consequences" in this product supplement no. MS-7-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 that 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 securities or futures contracts 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 of those securities in the secondary market may be limited.

Risks Relating to a Basket

The basket components may not be equally weighted.

If so specified in the relevant terms supplement, the basket components may have different weights in determining the value of the basket. 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 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 component weightings will be determined based on the relative magnitude of the basket component percent 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).

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

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

The applicable Index Sponsor is responsible for maintaining an underlying index. The Index Sponsor can add, delete or substitute the securities underlying the applicable underlying index or make other methodological changes that could change the value of that underlying index. You should realize that the changing of securities included in an underlying index may affect that underlying index, as a newly added security may perform significantly better or worse than the security or securities it replaces. Additionally, the Index Sponsor may alter, discontinue or suspend calculation or

dissemination of the applicable 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 that underlying index. See the relevant index description section in any related underlying supplement or the relevant terms supplement for additional information.

Unless otherwise specified in the relevant terms supplement or any related underlying supplement, to our knowledge, we are not currently affiliated with any other company the equity securities of which are included in an underlying index.

Unless otherwise specified in the relevant terms supplement or any related underlying supplement, to our knowledge, we are not currently affiliated with any issuers the equity securities of which are included in an underlying index. As a result, we will have no ability to control the actions of the issuers of those equity securities, including actions that could affect the value of the equity securities included in an underlying index or your securities. Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, none of the money you pay us will go to any Index Sponsor or any of the issuers of the equity securities included in any underlying index, and none of those 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 corporate actions that might affect the value of your securities. See any related underlying supplement or the relevant terms supplement for additional information about whether we are one of the companies included in an underlying index.

In the event we become affiliated with any issuer of equity securities that are 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.

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 that 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 that 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 that underlying index without taking into consideration the value of dividends paid on those equity securities.

For securities linked in whole or in part to a foreign underlying index, the securities will be subject to risks associated with foreign indices.

For securities linked in whole or in part to a foreign underlying index, the securities will be subject to risks associated with foreign indices. See "— Risks Relating to a Foreign Underlying Index or a Foreign ETF" below.

Risks Relating to ETF Shares

The policies of the investment adviser or commodity pool operator, as applicable, for an ETF, and the sponsor of its reference index, if applicable, could affect the value and the amount payable on the securities.

The policies of the investment adviser or commodity pool operator, as applicable, for an ETF concerning the calculation of the ETF's net asset value; additions, deletions or substitutions of securities, commodities or commodity futures contracts underlying the ETF; substitutions of its reference index, if applicable; and manner in which changes affecting a reference index, if applicable, are reflected in the ETF, could affect the market price of the shares of that ETF 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 their value could also be affected if the investment adviser or commodity pool operator, as applicable, changes these policies, for example, by changing the manner in which it calculates the ETF's net asset value, or if the investment adviser or commodity pool operator, as applicable, 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, if applicable, 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, commodities or commodity futures contracts included in the reference index, if applicable, could affect the value of the reference index and, consequently, 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 exchanges 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 adviser'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 any applicable ETF description in the relevant terms supplement or any relevant underlying supplement for additional information.

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.

For securities linked in whole or in part to an ETF that is designed to track a reference index, the performance of the ETF may not correlate with the performance of its reference index.

Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, an ETF that is designed to track a reference index uses a representative sampling strategy or a replication or indexing strategy to attempt to track the performance of its reference index. Pursuant to a 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, commodities or commodity futures contracts included in its reference index. Even if an ETF uses a replication or indexing strategy, the ETF may not hold all of the securities, commodities or commodity futures contracts 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, commodities or commodity futures contracts 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 adviser.

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 securities, commodities or commodity futures contracts of an ETF may be unavailable in the secondary market due to other extraordinary circumstances. Corporate actions with respect to any securities (such as mergers and

spin-offs) also may impact the variance between an ETF and its reference index. Finally, because the ETF Shares may be traded on NYSE Arca and may be subject to market supply and investor demand, the market value of one ETF Share may differ from the net asset value per share of the ETF.

For all of the foregoing reasons, the performance of an ETF that is designed to track a reference index may not correlate with the performance of 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 securities, commodities or commodity futures contracts 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.

For securities linked in whole or in part to a foreign ETF, the securities will be subject to risks associated with foreign funds.

For securities linked in whole or in part to a foreign ETF, the securities will be subject to risks associated with foreign funds. See "—Risks Relating to a Foreign Underlying Index or a Foreign ETF" below.

For securities linked in whole or in part to a Commodity ETF, the securities will be subject to risks associated with commodity funds.

For securities linked in whole or in part to a Commodity ETF, the securities will be subject to risks associated with commodity funds. See "— Risks Relating to a Commodity ETF" below.

For securities linked in whole or in part to an ETF that primarily invests in debt securities, the securities will be subject to risks associated with bond funds.

For securities linked in whole or in part to an ETF that primarily invests in debt securities, the securities will be subject to risks associated with bond funds. See the relevant term sheet or any relevant underlying supplement for risk factors relating to any relevant ETF that holds debt securities.

Risks Relating to a Foreign Underlying Index or a Foreign ETF

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

Because the prices of the non-U.S. securities underlying the applicable foreign underlying index or foreign ETF are not converted into U.S. dollars for purposes of calculating the value of that foreign underlying index or foreign ETF and although the non-U.S. securities underlying that foreign underlying index or foreign ETF are traded in currencies other than U.S. dollars, and the securities, which are linked in whole or in part to that foreign underlying index or foreign ETF, 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 non-U.S. securities underlying that foreign underlying index or 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 underlying index or a foreign ETF, if the prices of its component non-U.S. securities are converted into U.S. dollars for purposes of calculating the value of that foreign underlying index or foreign ETF, the securities will be subject to currency exchange risk.

Because the prices of the non-U.S. securities underlying the applicable foreign underlying index or foreign ETF are converted into U.S. dollars for the purposes of calculating the value of that foreign underlying index or 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 non-U.S. securities underlying that foreign underlying index or 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 non-U.S. securities underlying that foreign underlying index or foreign ETF denominated in each applicable currency. If, taking into account the weighting, the U.S. dollar strengthens against those currencies, the value of that foreign underlying index or 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 in the countries issuing those currencies and the United States and between each country and its major trading partners;
- political, civil or military unrest in the countries issuing those currencies and the United States; 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, 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 or a foreign ETF, if the prices of its component non-U.S. securities are converted into U.S. dollars for purposes of calculating the value of that foreign underlying index or foreign ETF, changes in the volatility of exchange rates and the correlation between those rates and the values of that foreign underlying index or 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 non-U.S. securities underlying the applicable foreign underlying index or foreign ETF 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 that foreign underlying index or foreign ETF is denominated and the U.S. dollar. This exchange rate reflects the amount of the particular currency in which an equity security composing a foreign underlying index or 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 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 non-U.S. securities underlying a foreign underlying index or foreign ETF are denominated refers to the size and frequency of changes in that exchange rate.

Because the applicable foreign underlying index or foreign ETF is calculated, in part, by converting the closing prices of the non-U.S. securities underlying that foreign underlying index or 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 non-U.S. 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 non-U.S. securities underlying a foreign underlying index or foreign ETF are denominated and the value of that foreign underlying index or foreign ETF refers to the relationship between the percentage changes in that exchange rate and the percentage changes in the value of that foreign underlying index or 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 non-U.S. securities underlying a foreign underlying index or foreign ETF are denominated and the percentage changes in the value of that foreign underlying index or foreign ETF could affect the value of the securities.

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

Unless otherwise specified in the relevant terms supplement, the securities that compose a foreign underlying index or foreign ETF have been issued by non-U.S. companies. Investments in securities linked to the value of securities of non-U.S. issuers 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. markets may be affected by political, economic, financial and social factors in such markets, including changes in a country's government, economic and fiscal policies, currency exchange laws or other laws or restrictions. Moreover, the economies of these countries may differ favorably or unfavorably from the economy of the United States in such respects as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency. These countries may be subjected to different and, in some cases, more adverse economic environments.

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

Some or all of these factors may influence the index closing value for a foreign underlying index or the closing price for 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 an underlying index or an ETF based on its historical performance. The value of an underlying index or the price of an ETF may decrease, which may adversely affect your payment at maturity.

Risks Relating to a Commodity ETF

The commodity futures contracts underlying a Commodity ETF are subject to legal and regulatory regimes that may change in ways that could have a substantial adverse effect on the value of the securities.

Futures contracts and options on futures contracts markets, including the futures contracts underlying a Commodity ETF, are subject to extensive regulation and margin requirements. The Commodity Futures Trading Commission, commonly referred to as the "**CFTC**," and the exchanges on which such futures contracts trade, are authorized to take extraordinary actions in the event of a market emergency, including, for example, the retroactive implementation of speculative position limits or higher margin requirements, the establishment of daily limits and the suspension of trading. Furthermore, certain exchanges have regulations that limit the amount of fluctuations in futures contract prices that may occur during a single five-minute trading period. These limits could adversely affect the market prices of relevant futures contracts and forward contracts. The regulation of commodity transactions in the U.S. is subject to ongoing modification by government and judicial action. In addition, various non-U.S. governments have expressed concern regarding the disruptive effects of speculative trading in the commodity markets and the need to regulate the derivative markets in general. The effect on the value of the securities of any future regulatory change is impossible to predict, but could be substantial and adverse to the interests of holders of the securities.

Notably, with respect to agricultural and exempt commodities as defined in the Commodity Exchange Act (generally, physical commodities such as agricultural commodities, energy commodities and metals), the Dodd-Frank Act, which was enacted on July 21, 2010, amended the Commodity Exchange Act to provide the CFTC with additional authority to establish limits on the number of positions, other than bona fide hedge positions, that may be held by any person in a commodity through futures contracts, options on futures contracts and other related derivatives, such as swaps, that are economically equivalent to those contracts. In addition, designated contract markets and swap execution facilities, as defined in the Commodity Exchange Act, are authorized to establish and enforce position limits or position accountability requirements on their own markets or facilities, which must be at least as stringent as the CFTC's where CFTC limits also apply.

On November 5, 2013, the CFTC proposed rules to establish position limits that will apply to 28 agricultural, metals and energy futures contracts and futures, options and swaps that are economically equivalent to those futures contracts. The limits would apply to a number of commodity futures contracts that may be held by a Commodity Fund, such as CBOT Soybeans, Soybean Meal and Wheat futures; ICE Futures US Cotton No. 2, Sugar No. 11 and Sugar No. 16 futures; NYMEX Light Sweet Crude Oil, NY Harbor No. 2 Heating Oil, NY Harbor Gasoline Blendstock and Henry Hub Natural Gas futures; and COMEX Gold, Silver and Copper futures and NYMEX Palladium and Platinum futures. The limits will apply to a person's combined position in futures, options and swaps on the same underlying commodity. The rules also would set new aggregation standards for purposes of these position limits and would specify the requirements for designated contract markets and swap execution facilitates to impose position limits on contracts traded on those markets. The rules, if finalized in their proposed form, may interfere with our ability to enter into or maintain hedge positions to hedge our obligations under the securities.

An investment in the securities may not offer direct exposure to physical commodities.

If the securities are linked to a Commodity ETF composed of futures contracts on a commodity, the securities will reflect, in whole or in part, the return on those commodity futures contracts, not the return on the physical commodities underlying those commodity futures contracts. The price of a futures contract reflects the expected value of the commodity upon delivery in the future, whereas the spot price of a commodity reflects the immediate delivery value of the commodity. A variety of factors can lead to a disparity between the expected future price of a commodity and the spot price at a given point in time, such as the cost of storing the commodity for the term of the futures contract, interest charges incurred to finance the purchase of the commodity and expectations concerning supply and

demand for the commodity. The price movements of a futures contract are typically correlated with the movements of the spot price of the reference commodity, but the correlation is generally imperfect and price movements in the spot market may not be reflected in the futures market (and vice versa). Accordingly, the securities may underperform a similar investment that reflects the return on physical commodities.

The securities are not regulated by the Commodity Futures Trading Commission.

The net proceeds to be received by us from the sale of the securities will not be used to purchase or sell any commodity futures contracts or options on futures contracts for your benefit. An investment in the securities thus does not constitute either an investment in futures contracts or options on futures contracts, or a collective investment vehicle that trades in these futures contracts (*i.e.*, the securities will not constitute a direct or indirect investment by you in the futures contracts), and you will not benefit from the regulatory protections of the Commodity Futures Trading Commission, commonly referred to as the "**CFTC**." Among other things, this means that we are not registered with the CFTC as a futures commission merchant and you will not benefit from the CFTC's or any other non-U.S. regulatory authority's regulatory protections afforded to persons who trade in futures contracts on a regulated futures exchange through a registered futures commission merchant. For example, the price you pay to purchase securities will be used by us for our own purposes and will not be subject to customer funds segregation requirements provided to customers that trade futures on an exchange regulated by the CFTC.

Unlike an investment in the securities, an investment in a collective investment vehicle that invests in futures contracts on behalf of its participants may be subject to regulation as a commodity pool and its operator may be required to be registered with and regulated by the CFTC as a commodity pool operator, or qualify for an exemption from the registration requirement. Because the securities will not be interests in a commodity pool, the securities will not be regulated by the CFTC as a commodity pool, we will not be registered with the CFTC as a commodity pool operator and you will not benefit from the CFTC's or any non-U.S. regulatory authority's regulatory protections afforded to persons who invest in regulated commodity pools.

Suspension or disruptions of market trading in relevant commodity and related futures markets may adversely affect the value of the securities.

The commodity markets are subject to temporary distortions or other disruptions due to various factors, including the lack of liquidity in the markets, the participation of speculators and government regulation and intervention. In addition, U.S. futures exchanges and some foreign exchanges have regulations that limit the amount of fluctuation in futures contract prices that may occur during a single day. These limits are generally referred to as "daily price fluctuation limits" and the maximum or minimum price of a contract on any given day as a result of these limits is referred to as a "limit price." Once the limit price has been reached for a particular contract, no trades may be made at a different price. Limit prices have the effect of precluding trading in a particular contract or forcing the liquidation of contracts at disadvantageous times or prices. These circumstances could adversely affect the price of any Commodity ETF and, therefore, the value of your securities.

An increase in the margin requirements for any commodity futures contracts underlying a Commodity ETF may adversely affect the value of the securities.

Futures exchanges require market participants to post collateral in order to open and keep open positions in futures contracts. If an exchange increases the amount of collateral required to be posted to hold positions in commodity futures contracts underlying any Commodity ETF, market participants who are unwilling or unable to post additional collateral may liquidate their positions, which may cause the price of that Commodity ETF, as applicable, to decline significantly. As a result, the value of the securities may be adversely affected.

A Commodity ETF may be subject to pronounced risks of pricing volatility.

As a general matter, the risk of low liquidity or volatile pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take physical delivery of the underlying commodities. Many commodities, like those in the energy and industrial metals sectors, have liquid futures contracts that expire every month. Therefore, these contracts are rolled forward every month. Contracts based on certain other commodities, most notably agricultural and livestock products, tend to have only a few contract months each year that trade with substantial liquidity. Thus, these commodities, with related futures contracts that expire infrequently, roll forward less frequently than every month, and can have further pronounced pricing volatility during extended periods of low liquidity. The risk of aberrational liquidity or pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take delivery of the underlying commodities. In respect of a Commodity ETF that represents energy, it should be noted that due to the significant level of continuous consumption, limited reserves and oil cartel controls, energy commodities are subject to rapid price increases in the event of perceived or actual shortages. These factors (when combined or in isolation) may affect the price of futures contracts and, as a consequence, the price of a Commodity ETF and your payment at maturity.

Higher future prices of commodity futures contracts held by a Commodity ETF relative to their current prices may lead to a decrease in the payment at maturity on your securities.

A Commodity ETF holds, futures contracts on physical commodities. As the contracts underlying a Commodity ETF come to expiration, they are replaced by contracts that have a later expiration. For example, a contract purchased and held in August may specify an October expiration. As time passes, the contract expiring in October is replaced by a contract for delivery in November. This is accomplished by selling the October contract and purchasing the November contract. This process is referred to as "rolling." Excluding other considerations, if the market for these contracts is in "contango," where the prices are higher in the distant delivery months than in the nearer delivery months, the purchase of the November contract would take place at a price that is higher than the price of the October contract, thereby creating a negative "roll yield." Moreover, many commodities have historically exhibited contango markets. The presence of contango in the commodity markets could adversely affect the price of a Commodity ETF and, accordingly, the amount payable at maturity.

Prices for the physical commodities upon which the futures contracts underlying a Commodity ETF are based may change unpredictably and affect the value of the securities in unanticipated ways.

A decrease in the price of any of the commodities upon which the futures contracts underlying a Commodity ETF are based may have a material adverse effect on the value of the securities and your return on an investment in the securities. The prices of such commodities tend to be highly volatile and may fluctuate rapidly based on numerous factors, including: changes in supply and demand relationships, governmental programs and policies, national and international political and economic events, changes in interest and exchange rates, speculation and trading activities in commodities and related contracts, general weather conditions, and trade, fiscal, monetary and exchange control policies. Many commodities are also highly cyclical. These factors, some of which are specific to the market for each such commodity, as discussed below, may cause the value of the different commodities upon which the futures contracts underlying a Commodity ETF are based, as well as the futures contracts themselves, to move in inconsistent directions at inconsistent rates. This, in turn, will affect the value of the securities linked to a Commodity ETF. It is not possible to predict the aggregate effect of all or any combination of these factors. A Commodity ETF each provide one avenue for exposure to commodities. The high volatility and cyclical nature of commodity markets may render these investments inappropriate as the focus of an investment portfolio. The relevant terms supplement or any related underlying supplement may provide additional risk factors relating to any relevant Commodity ETF.

Agricultural Sector

Global prices of agricultural commodities, including cocoa, coffee, corn, cotton, soybeans, sugar and wheat, are primarily affected by the global demand for and supply of those commodities, but are also significantly influenced by speculative actions and by currency exchange rates. In addition, prices for agricultural commodities are affected by governmental programs and policies regarding agriculture, as well as general trade, fiscal and exchange control policies. Extrinsic factors, such as drought, floods, general weather conditions, disease and natural disasters may also affect agricultural commodity prices. Demand for agricultural commodities, such as wheat, corn and soybeans, both for human consumption and as cattle feed, has generally increased with worldwide growth and prosperity.

Energy Sector

Global prices of energy commodities, including WTI crude oil, Brent crude oil, RBOB gasoline, heating oil, gasoil and natural gas, are primarily affected by the global demand for and supply of these commodities, but are also significantly influenced by speculative actions and by currency exchange rates. In addition, prices for energy commodities are affected by governmental programs and policies, national and international political and economic events, changes in interest and exchange rates, trading activities in commodities and related contracts, trade, fiscal, monetary and exchange control policies, and with respect to oil, drought, floods, weather, government intervention, environmental policies, embargoes and tariffs. Demand for refined petroleum products by consumers, as well as the agricultural, manufacturing and transportation industries, affects the price of energy commodities. Sudden disruptions in the supplies of energy commodities, such as those caused by war, natural events, accidents or acts of terrorism, may cause prices of energy commodity futures contracts to become extremely volatile and unpredictable. Also, sudden and dramatic changes in the futures market may occur, for example, upon a cessation of hostilities that may exist in countries producing energy commodities, the introduction of new or previously withheld supplies into the market or the introduction of substitute products or commodities. In particular, supplies of crude oil may increase or decrease depending on, among other factors, production decisions by the Organization of the Oil and Petroleum Exporting Countries ("**OPEC**") and other crude oil producers. Crude oil prices are determined with significant influence by OPEC, which has the capacity to influence oil prices worldwide because its members possess a significant portion of the world's oil supply. Crude oil prices are generally more volatile and subject to dislocation than prices of other commodities. Demand for energy commodities such as oil and gasoline is generally linked to economic activity, and will tend to reflect general economic conditions.

Industrial Metals Sector

Global prices of industrial metals commodities, including aluminum, copper, lead, nickel and zinc, are primarily affected by the global demand for and supply of these commodities, but are also significantly influenced by speculative actions and by currency exchange rates. Demand for industrial metals is significantly influenced by the level of global industrial economic activity. Prices for industrial metals commodities are affected by governmental programs and policies, national and international political and economic events, changes in interest and exchange rates, trading activities in commodities and related contracts, trade, fiscal, monetary and exchange control policies, general weather conditions, government intervention, embargoes and tariffs. An additional, but highly volatile, component of demand for industrial metals is adjustments to inventory in response to changes in economic activity and/or pricing levels, which will influence investment decisions in new mines and smelters. Sudden disruptions in the supplies of industrial metals, such as those caused by war, natural events, accidents, acts of terrorism, transportation problems, labor strikes and shortages of power, may cause prices of industrial metals futures contracts to become extremely volatile and unpredictable. The introduction of new or previously withheld supplies into the market or the introduction of substitute products or commodities will also affect the prices of industrial metals commodities.

Livestock Sector

Livestock commodities, including live cattle, feeder cattle and lean hogs, are "non-storable" commodities, and therefore may experience greater price volatility than traditional commodities. Global livestock commodity prices are primarily affected by the global demand for and supply of those commodities, but are also significantly influenced by speculative actions and by currency exchange rates. In addition, prices for livestock commodities are affected by governmental programs and policies regarding livestock, as well as general trade, fiscal and exchange control policies. Extrinsic factors, such as drought, floods, general weather conditions, disease (*e.g.*, Bovine Spongiform Encephalopathy, or Mad Cow Disease), availability of and prices for livestock feed and natural disasters may also affect livestock commodity prices. Demand for livestock commodities has generally increased with worldwide growth and prosperity.

Precious Metals Sector

Global prices of precious metals commodities, including gold, silver and platinum, are primarily affected by the global demand for and supply of those commodities, but are also significantly influenced by speculative actions and by currency exchange rates. The price of gold is primarily affected by the global demand for and supply of gold. The market for gold bullion is global, and gold prices are subject to volatile price movements over short periods of time and are affected by numerous factors, including macroeconomic factors such as the structure of and confidence in the global monetary system, expectations regarding the future rate of inflation, the relative strength of, and confidence in, the U.S. dollar (the currency in which the price of gold is usually quoted), interest rates, gold borrowing and lending rates and global or regional economic, financial, political, regulatory, judicial or other events. Gold prices may be affected by industry factors such as industrial and jewelry demand as well as lending, sales and purchases of gold by the official sector, including central banks and other governmental agencies and multilateral institutions which hold gold. Additionally, gold prices may be affected by levels of gold production, production costs and short-term changes in supply and demand due to trading activities in the gold market. From time to time, above-ground inventories of gold may also influence the market. It is not possible to predict the aggregate effect of all or any combination of these factors. The price of gold has recently been, and may continue to be, extremely volatile.

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

Platinum prices are primarily affected by the global demand for and supply of platinum. However, since the platinum supply is very limited, any disruptions in platinum supply tend to have an exaggerated effect on the price of platinum. Key factors that may influence prices are the policies in or political stability of the most important producing countries, in particular, Russia and South Africa (which together account for over 90% of production), the size and availability of the Russian platinum stockpiles and the economic situation of the main consuming countries. Platinum is used in a variety of

industries, primarily the automotive industry. Demand for platinum from the automotive industry, which uses platinum as a catalytic converter, accounts for a large portion of the industrial use of platinum. Platinum is also used in the chemical industry, the electronics industry and the dental industry. The primary non-industrial use of platinum is jewelry.

A separate underlying supplement or the relevant terms supplement may provide additional risk factors relating to any underlying index or ETF to which the securities are linked.

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 securities are offered to meet investor demand for products that reflect the risk-return profile and market exposure provided by the securities as set forth in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, the original issue price of the securities will be equal to the estimated value of the securities when the terms of the securities are set, which we refer to as JPMS's estimated value, plus the selling commissions paid to each agent and other affiliated or unaffiliated dealers (as shown on the cover page of the relevant terms supplement), plus (minus) the projected profits (losses) that our affiliates expect to realize for assuming risks inherent in hedging our obligations under the securities, plus the estimated cost of hedging our obligations under the securities. See the relevant terms supplement for additional information about JPMS's estimated value. 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, the securities included in one or more underlying indices or the securities, commodities or commodity futures contracts held by one or more ETFs. To accomplish this, we, through our affiliates or others, may take positions in one or more underlying indices or ETFs, the securities included in one or more underlying indices or the securities, commodities or commodity futures contracts held by one or more ETFs or instruments the value of which is derived from one or more underlying indices or ETFs, the securities included in one or more underlying indices or the securities, commodities or commodity futures contracts held by one or more ETFs. 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 underlying value on the pricing date or any initial averaging dates, as applicable, and/or decrease the underlying value on any asset valuation date, which could adversely affect your payment at maturity. Because hedging our obligations entails risk and may be influenced by market forces beyond our control, this hedging may result in a profit that is more or less than expected, or it may result in a loss. It is possible that these hedging or trading activities could result in substantial returns for us or our affiliates while the value of the securities declines. See "Risk Factors — Risks Relating to the Securities Generally — 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 one or more underlying indices or ETFs, the securities included in one or more underlying indices or the securities, commodities or commodity futures contracts held by one or more ETFs. No security holder will have any rights or interest in our hedging activity or any positions that we or any unaffiliated counterparties may take in connection with our hedging activity.

THE UNDERLYING INDICES OR ETFS

If the securities are linked to an underlying index or shares of an ETF not described in this product supplement or to an underlying 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 that underlying index or ETF.

Underlying Indices and ETFs

A separate underlying supplement or the relevant terms supplement will provide additional information relating to any underlying index or ETF to which the securities are linked.

Conflicts of Interest

See the relevant terms supplement, any related underlying supplement and "Risk Factors — Risks Relating to the securities Generally — 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" for information about economic interests with respect to any underlying index or ETF that we or our affiliates make may have that are adverse to your interests.

Historical Performance of the Underlying Indices and ETFs

We will provide historical level or price information regarding any underlying index or ETF in the relevant terms supplement. You should not take any of those historical levels or prices as an indication of future performance. **Neither we nor any of our affiliates makes any representation to you as to the performance of any underlying 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. The calculation agent will also make the assumptions used to determine the pricing of the securities and the estimated value of the securities when the terms of the securities are set. The calculation agent will also determine, among other things:

- whether a market disruption event has occurred;
- whether an underlying index has been discontinued, whether the method of calculating an underlying index has changed in a material respect or whether an underlying index has been otherwise modified so that it does not, in the opinion of the calculation agent, fairly represent the value of that underlying index had those changes or modifications not been made and, if applicable, which index to select as a successor index; and
- whether an ETF has been delisted, liquidated or otherwise terminated, whether an ETF or its reference index, if applicable, has been changed in a material respect or an ETF has been otherwise modified so that it does not, in the opinion of the calculation agent, fairly represent the price of that ETF had those changes or modifications not been made and, if applicable, which exchange-traded fund to select as a successor ETF.

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 any amount payable on the securities 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.*, 0.87645 would be rounded to 0.8765); 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.*, 0.76545 would be rounded up to 0.7655); and all dollar amounts payable, 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 Determination 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 (or any relevant successor index), a "**market disruption event**," unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, means:

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

- 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 equity securities then constituting 20% or more of the level of that underlying index (or that successor index) during the one-hour period preceding the close of the principal trading session on that relevant exchange are materially inaccurate;

- 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 that underlying index (or that 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 that exchange or market; or

- a decision to permanently discontinue trading in those related 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 purposes of determining whether a market disruption event with respect to an underlying index (or any relevant successor index) exists at any time, if trading in a security included in that underlying index (or that successor index) is materially suspended or materially limited at that time, then the relevant percentage contribution of that security to the level of that underlying index (or that successor index) will be based on a comparison of:

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

- the overall level of that underlying index (or that 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 that underlying index (or that successor index);

- limitations pursuant to the rules of any relevant exchange similar to New York Stock Exchange ("**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 that underlying index (or that successor index) by the primary exchange or market for trading in those contracts by reason of:

  - a price change exceeding limits set by that exchange or market,

  - an imbalance of orders relating to those contracts or

  - a disparity in bid and ask quotes relating to those contracts

  will, in each case, constitute a suspension, absence or material limitation of trading in futures or options contracts related to that underlying index (or that 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 that underlying index (or that successor index) are traded will not include any time when that exchange or market is itself closed for trading under ordinary circumstances.

With respect to an ETF (or any relevant successor ETF), a "**market disruption event**," unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, means:

- the occurrence or existence of a suspension, absence or material limitation of trading of the shares of that ETF (or that successor ETF) on the relevant exchange for the shares of that ETF (or that successor ETF) for more than two hours of trading during, or during the half-hour period preceding the close of, the principal trading session on that relevant exchange;

- a breakdown or failure in the price and trade reporting systems of the relevant exchange for the shares of that ETF (or that successor ETF) as a result of which the reported trading prices for the shares of that ETF (or that successor ETF) during the last half-hour preceding the close of the principal trading session on that relevant exchange are materially inaccurate;

- if applicable, the occurrence or existence of a suspension, absence or material limitation of trading of securities, commodities or futures contracts then constituting 20% or more of the level of the applicable reference index on the relevant exchanges for those securities for more than two hours of trading during, or during the half-hour period preceding the close of, the principal trading session on that relevant exchange; 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 applicable reference index, if any, or shares of that ETF (or that successor ETF) for more than two hours of trading during, or during the half-hour period preceding the close of, the principal trading session on that exchange or market,

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 purposes of determining whether a market disruption event with respect to an ETF (or any relevant successor ETF) exists at any time, unless otherwise specified in the relevant terms supplement, if trading in a security, commodity or futures contract included in the applicable reference index, if any, is materially suspended or materially limited at that time, then the relevant percentage contribution of that security, commodity or futures contract to the level of the applicable reference index, if any, will be based on a comparison of (x) the portion of the level of the applicable reference index, if any, attributable to that security, commodity or futures contract relative to (y) the overall level of the applicable reference index, if any, in each case immediately before that suspension or limitation.

For purposes of determining whether a market disruption event with respect to an ETF (or any relevant successor ETF) 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 the shares of that ETF (or that successor ETF);

- 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 applicable reference index, if any, or shares of that ETF (or that successor ETF) by the primary exchange or market for trading in those contracts by reason of:

  - a price change exceeding limits set by that exchange or market,

  - an imbalance of orders relating to those contracts or

  - a disparity in bid and ask quotes relating to those contracts

  will, in each case, constitute a suspension, absence or material limitation of trading in futures or options contracts related to the applicable reference index, if any, or the shares of that ETF (or that successor ETF); 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 applicable reference index, if any, or the shares of that ETF (or that successor ETF) are traded will not include any time when that exchange or market is itself closed for trading under ordinary circumstances.

Discontinuation of an Underlying Index; Alteration of Method of Calculation

Unless otherwise specified in the relevant terms supplement or any related underlying supplement, if the sponsor of an underlying index (an "**Index Sponsor**") discontinues publication of that underlying index and that 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 of that underlying index on any Determination Date or any other relevant date on which the index closing value of that underlying index is to be determined will be determined by reference to the value of that successor index published with respect to that 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.

Unless otherwise specified in the relevant terms supplement or any related underlying supplement, if the Index Sponsor for an underlying index discontinues publication of that underlying index prior to, and that discontinuation is continuing on, a Determination Date or any other relevant date on which the index closing value of that underlying index is to be determined, and the calculation agent determines, in its sole discretion, that no successor index for that underlying index is available at such

time, or the calculation agent has previously selected a successor index for that underlying index and publication of that successor index is discontinued prior to, and that discontinuation is continuing on, that Determination Date or other relevant date, then the calculation agent will determine the index closing value for that underlying index for that Determination Date or that other relevant date on that date. Unless otherwise specified in the relevant terms supplement or any related underlying supplement, the index closing value of that underlying index will be computed by the calculation agent in accordance with the formula for and method of calculating that underlying index or successor index, as applicable, last in effect prior to that 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 that suspension or limitation) at the close of the principal trading session on that date of each security most recently composing that underlying index or successor index, as applicable. Notwithstanding these alternative arrangements, discontinuation of the publication of an underlying index or its 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 it does not, in the opinion of the calculation agent, fairly represent the value of that underlying index or successor index, as applicable, 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 index closing value of that underlying index or successor index, as applicable, 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 that underlying index or successor index, as the case may be, as if those changes or modifications had not been made, and the calculation agent will calculate the index closing value of that underlying index or successor index, as applicable, with reference to that underlying index or successor index, as adjusted. Accordingly, if the method of calculating an underlying index or a successor index is modified so that the value of that underlying index or 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 that underlying index or successor index), then the calculation agent will adjust its calculation of that underlying index or successor index, as applicable, in order to arrive at a value of that underlying index or successor index, as applicable, as if there had been no modification (*e.g.*, as if the split had not occurred).

Anti-Dilution Adjustments

The adjustment factor for an ETF (or the relevant successor ETF) is subject to adjustment by the calculation agent as a result of the anti-dilution adjustments described in this section.

Unless otherwise specified below, no adjustments to the adjustment factor for an ETF (or the relevant successor ETF) will be required unless the adjustment factor adjustment would require a change of at least 0.1% in the applicable adjustment factor then in effect. The applicable 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 for an ETF (or the relevant successor ETF) after the close of business on the business day immediately preceding the maturity date.

No adjustments to the adjustment factor for an ETF (or the relevant successor ETF) 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 relevant 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 the relevant successor ETF) are subject to a share split or reverse share split, then once that split has become effective, the applicable 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 that ETF (or that 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 the relevant successor ETF) is subject to (i) a share dividend, *i.e.*, an issuance of additional shares of that ETF (or that successor ETF) that is given ratably to all or substantially all holders of shares of that ETF (or that successor ETF) or (ii) a distribution of shares of that ETF (or that successor ETF) as a result of the triggering of any provision of the corporate charter of that ETF (or that successor ETF), then, once the dividend or distribution has become effective and the shares of that ETF (or that successor ETF) are trading ex-dividend, the applicable 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 that ETF (or that successor ETF).

Non-Cash Dividends or Distributions

If an ETF (or the relevant successor ETF) distributes shares of capital stock, evidences of indebtedness or other assets or property of that ETF (or that successor ETF) to all or substantially all holders of shares of that ETF (or that successor ETF) (other than (i) share dividends or distributions referred to under "— Share Splits and Reverse Share Splits" or "— Share Dividends or Distributions" above and (ii) cash dividends referred under "— Cash Dividends or Distributions" below), then, once the distribution has become effective and the shares of that ETF (or that successor ETF) are trading ex-dividend, the applicable 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 that ETF (or that successor ETF) and the denominator of which is the amount by which the Current Market Price exceeds the Fair Market Value of that distribution.

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

With respect to an ETF, the "**Fair Market Value**" of any distribution means the value of that distribution on the ex-dividend date for that distribution, as determined by the calculation agent. If that 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 the distributed property on that ex-dividend date.

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

Cash Dividends or Distributions

If an ETF (or the relevant successor ETF) pays dividends or makes other distributions consisting exclusively of cash to all or substantially all holders of shares of that ETF (or that successor ETF) during any dividend period during the term of the securities, in an aggregate amount that, together with other cash dividends or distributions made previously during that 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 that ETF (or that successor ETF) are trading ex-dividend, the applicable 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 that ETF (or that successor ETF) and the denominator of which is the amount by which the Current Market Price exceeds the aggregate amount in cash per share of that ETF (or that successor ETF) distributed in that cash dividend or distribution together with any cash dividends or distributions made previously during that 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 that ETF (or that successor ETF) in excess of the Dividend Threshold.

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

The "**Dividend Threshold**" of an ETF (or the relevant successor ETF) 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 that ETF (or that successor ETF) *plus* (y) 10% of the closing price of one share of that ETF (or that successor ETF) on the trading day immediately preceding the ex-dividend date, unless otherwise specified in the relevant terms supplement.

The "**dividend period**" of an ETF (or the relevant successor ETF) means any period during the term of the securities for which dividends are paid on a regular and consistent basis to shareholders of that ETF (or that 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 for an ETF (or the relevant successor ETF) upon written request by any investor in the securities.

Discontinuation of an ETF; Alternate Calculation of Closing Price

Unless otherwise specified in the relevant terms supplement, if an ETF (or a successor ETF (as defined herein)) is delisted from the relevant exchange for that ETF (or that successor ETF), liquidated or otherwise terminated, the calculation agent will substitute an exchange-traded fund that the calculation agent determines, in its sole discretion, to be comparable to the discontinued ETF (or that successor ETF) (such substitute fund being referred to herein as a "**successor ETF**"). If an ETF (or a successor ETF) is delisted, 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 one share of that ETF by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate that ETF. If a successor ETF is selected or if the calculation agent calculates a closing price by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate that ETF, that successor ETF or closing price will be substituted for that ETF (or that 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.

Unless otherwise specified in the relevant terms supplement, if at any time, an ETF (or a successor ETF) or a reference index, if applicable, 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 that ETF (or that 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 that ETF or that 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 one share of an exchange-traded fund comparable to that ETF (or that successor ETF) as if those changes or modifications had not been made, and calculate the closing price with reference to that ETF (or that 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 one share 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 in the relevant terms supplement under the caption "Description of Securities — Payment at Maturity," calculated as if the date of acceleration were (a) the final asset valuation date and (b) the Final Disrupted Determination Date for the final asset valuation date (if the date of acceleration is a Disrupted Day). 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 depositary 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 heading "Description of Notes — Forms of Notes" and in the accompanying prospectus under the heading "Forms of Securities — Book-Entry System."

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.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a discussion of the material U.S. federal income tax consequences of owning and disposing of the securities. It applies to you only if you are an initial investor who purchases a security at its issue price for cash and holds it as a capital asset within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the "Code").

This discussion 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, including the potential application of the provision of the Code known as the Medicare contribution tax and the different consequences that may apply if you are a holder 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 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 discussion is based on the Code, administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations as of the date of this product supplement, subsequent changes to any of which may affect the tax consequences described herein, possibly with retroactive effect. 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, 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 for U.S. federal income tax purposes 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." At the time of the relevant offering, we may seek an opinion of counsel regarding this treatment. The following discussion assumes that the treatment of the securities as indebtedness and, in the case of securities with a term of more than one year, as contingent payment debt instruments, is respected. The relevant terms supplement may indicate other issues applicable to a particular offering of securities.

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 individual resident of the United States;
- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein 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 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 generally expect to treat the securities as "short-term obligations" for U.S. federal income tax purposes, and the remainder of this discussion assumes the securities are properly so treated. No statutory, judicial or administrative authority directly addresses the treatment of these securities or similar instruments for U.S. federal income tax purposes, and we do not intend to request a ruling from the IRS with respect to these securities.

Generally, a short-term 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, and this discount is treated as ordinary interest income when received or accrued, in accordance with the taxpayer's method of tax accounting. There is no authority, however, regarding the accrual of discount on short-term obligations, such as the securities, that provide for contingent payments, and no ruling will be requested from the IRS with respect to the securities. As a result, several aspects of the U.S. federal income tax consequences of an investment in these securities are uncertain, as discussed below.

Tax Treatment Prior to Maturity

If you are a cash-method taxpayer, 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. You may, however, elect to accrue discount into income on a current basis, in which case you would be subject to the rules described in the following paragraph. Generally, a taxpayer that owns a short-term obligation that does not make this election is required to defer deductions with respect to any interest paid on indebtedness incurred to purchase or carry the short-term obligation, to the extent of accrued discount that the taxpayer has not yet included in income (or accounted for in connection with a sale or exchange of the obligation). As noted above, however, there is no authority regarding the accrual of discount on short-term obligations such as the securities. It is therefore unclear how, if at all, the rules regarding deferral of interest deductions would apply to your securities.

Generally, accrual-method taxpayers and certain other owners of a short-term obligation (including electing cash-method taxpayers) are required to accrue discount on the obligation into income on a straight-line basis. As noted above, however, there is no authority regarding the accrual of discount on short-term obligations such as the securities. Consequently, the timing and amounts of the discount to be accrued on these short-term obligations is generally unclear. You should consult your tax adviser regarding the application of these rules with respect to your securities.

Tax Treatment upon Sale, Exchange or Redemption of a Security

Upon a sale or exchange of a short-term security (including redemption at maturity), you will 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 will equal the amount you paid to acquire 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. A loss may be subject to special reporting requirements if it exceeds certain thresholds, although this is unclear. Gain resulting from redemption at maturity should be treated as ordinary income.

Generally, if you are a cash-method taxpayer who has not elected an accrual method of tax accounting, gain recognized on a sale or exchange prior to maturity will be treated as ordinary income in an amount not exceeding the accrued but unpaid discount. As noted above, however, there is no authority regarding the accrual of discount on short-term obligations such as the securities.

Generally, in the case of a taxpayer that owns a short-term obligation that is subject to an accrual method of tax accounting, gain recognized on a sale or exchange is short-term capital gain, because accrued discount will already have been included in the taxpayer's income. As noted above, however, there is no authority regarding the accrual of discount on short-term obligations such as the securities. Consequently, there is uncertainty regarding what portion, if any, of gain recognized upon the sale or exchange prior to maturity of a security subject to an accrual method of tax accounting will be treated as short-term capital gain. Notwithstanding this uncertainty, if you are an accrual-method taxpayer, you will recognize interest income no later than, and in an amount not less than, if the securities were subject to cash-method accounting.

Securities with a Term of More than One Year

If the term of the securities is more than one year (including either the issue date or the last possible date that the securities could be outstanding, but not both), 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 that this treatment is respected. 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 method of tax accounting, you will be required to accrue as interest income OID on your securities in each taxable year at the comparable yield, adjusted upward or downward to reflect the difference, if any, between the actual and the projected amount of the contingent payment on the securities.

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 tax basis in the security. Your adjusted tax basis in the security will equal the amount you paid to acquire the security, increased by the amount of interest income you have accrued 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).

Subject to the discussion below, income and gain from a security will be exempt from U.S. federal income tax (including withholding tax) if you provide a properly completed IRS Form W-8BEN and 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 (and, if an applicable treaty so requires, is attributable to a permanent establishment in the United States), although exempt from withholding tax discussed above, you generally will be taxed in the same manner as a U.S. Holder. You will not be subject to withholding if you provide a properly completed IRS Form W-8ECI. If this paragraph applies to you, you should consult your tax adviser with respect to other U.S. tax consequences of owning and disposing of securities, including the possible imposition of a 30% branch profits tax if you are a corporation.

FATCA Legislation

Legislation commonly referred to as "FATCA," as modified by published guidance from Treasury and the IRS, including final Treasury regulations and administrative guidance, generally will impose a withholding tax of 30% on payments to certain foreign entities (including financial intermediaries) with respect to, among other things, debt instruments issued after June 30, 2014, unless various U.S. information reporting and due diligence requirements (that are in addition to, and potentially significantly more onerous than, the requirement to deliver an IRS Form W-8BEN) have been satisfied. Pursuant to the final Treasury regulations and administrative guidance, this legislation will apply to payments of interest made after June 30, 2014 and to payments of gross proceeds of the sales of debt instruments such as the securities made after December 31, 2016.

Federal Estate Tax

If you are an individual Non-U.S. Holder, your securities will not be treated as U.S. situs property subject to U.S. federal estate tax, 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) will generally be subject to information reporting unless you are an "exempt recipient." You may also be subject to backup withholding on payments in respect of your securities unless you provide proof of an applicable exemption or a correct taxpayer identification number and otherwise comply with applicable requirements of the backup withholding rules. If you are a Non-U.S. Holder, you will not be subject to

backup withholding if you provide a properly completed IRS Form W-8 appropriate to your circumstances. 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.

THE TAX CONSEQUENCES TO YOU OF OWNING AND DISPOSING OF SECURITIES MAY BE UNCLEAR. YOU SHOULD CONSULT YOUR TAX ADVISER REGARDING THE TAX CONSEQUENCES OF OWNING AND DISPOSING OF SECURITIES, INCLUDING THE TAX CONSEQUENCES UNDER STATE, LOCAL, FOREIGN AND OTHER TAX LAWS AND THE POSSIBLE EFFECTS OF CHANGES IN U.S. FEDERAL OR OTHER TAX LAWS.

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 are or may become 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.

Our affiliates, including JPMS, may use this product supplement no. MS-7-I, any related underlying supplement and the accompanying prospectus supplement, prospectus or terms supplement in connection with offers and sales of the securities in the secondary market. 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.

Unless otherwise specified in the relevant terms supplement, there is currently no public trading market for the securities. In addition, unless otherwise specified in the relevant terms supplement, we have not applied and do not intend to apply to list the securities on any securities exchange or to have the securities quoted on a quotation system. JPMS may act as a market maker for the securities. However, JPMS is not obligated to do so and may discontinue any market-making in the securities at any time in its sole discretion. Therefore, we cannot assure you that a liquid trading market for the securities will develop, that you will be able to sell your securities at a particular time or that the price you receive if you sell your securities will be favorable.

In connection with an offering of the securities, JPMS may engage in overallotment, stabilizing transactions and syndicate covering transactions in accordance with Regulation M under the Securities Exchange Act of 1934. Overallotment involves sales in excess of the offering size, which create a short position for JPMS. Stabilizing transactions involve bids to purchase the securities in the open market for the purpose of pegging, fixing or maintaining the price of the securities. Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover short positions. Stabilizing transactions and syndicate covering transactions may cause the price of the securities to be higher than it would otherwise be in the absence of those transactions. If JPMS engages in stabilizing or syndicate covering transactions, it may discontinue them at any time.

Certain of the Agents engage in transactions with and perform services for us and our subsidiaries in the ordinary course of business.

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-7-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-7-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 that it will not offer or sell the securities in any non-U.S. jurisdiction (i) if that offer or sale would not be in compliance with any applicable law or regulation or (ii) if any consent, approval or permission is needed for that offer or sale by that Agent or for or on our behalf, unless the consent, approval or permission has been previously obtained. We will have no responsibility for, and the applicable Agent will obtain, any consent, approval or permission required by that Agent for the subscription, offer, sale or delivery by that Agent of the securities, or the distribution of any offering materials, under the laws and regulations in force in any non-U.S. jurisdiction to which that Agent is subject or in or from which that Agent makes any subscription, offer, sale or delivery. 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).

Conflicts of Interest

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 its affiliates in connection with hedging our obligations under the securities. The underwriting arrangements for an offering of the securities 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 an offering of the securities to any of its discretionary accounts without the specific written approval of the customer.

NOTICE TO INVESTORS

We will offer to sell, and will seek offers to buy, the securities only in jurisdictions where offers and sales are permitted. None of the accompanying prospectus supplement and prospectus, this product supplement no. MS-7-I, any related underlying supplement and the terms supplement (each, a "Disclosure Document" and, collectively, the "Disclosure Documents") will constitute an offer to sell, or a solicitation of an offer to buy, the securities by any person in any jurisdiction in which it is unlawful for that person to make an offer or solicitation. Neither the delivery of any Disclosure Document nor any sale made thereunder implies that our affairs have not changed or that the information in any Disclosure Document is correct as of any date after the date thereof.

You must (i) comply with all applicable laws and regulations in force in any jurisdiction in connection with the possession or distribution of the Disclosure Documents 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 those 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 that 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) Targeted 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 will 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

The Disclosure Documents have not been and will not be registered or filed with any regulatory authority in Bermuda. The offering of the securities pursuant to the Disclosure Documents 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, including the Disclosure Documents, as well as the information contained 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

The Disclosure Documents and the securities 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 the Disclosure Documents. The securities will not be offered or sold, directly or indirectly, in the Cayman Islands.

Chile

The Agents, we and the securities have not been and will not be 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 will not be offered or sold within Chile or to, or for the account of benefit of, persons in Chile, except in circumstances that 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 that will not result in a "public offering" as such term is defined in Article 4 of the Chilean Securities Act, and/or 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 be sold only 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 our respective affiliates, regarding the determination of the convenience or suitability of securities as an investment for the buyer or any other person; and that it 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 will 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 distribution lists to market the securities.

The Disclosure Documents are for your sole and exclusive use, including any of your shareholders, administrators or employees, as applicable. You acknowledge the Colombian laws and regulations (specifically foreign exchange and tax regulations) applicable to any transaction or investment consummated pursuant thereto and represent that you are the sole liable party for full compliance with those laws and regulations.

Costa Rica

The securities may not be offered or sold, directly or indirectly, to any person within the Republic of Costa Rica, in circumstances that require the issuer or offeror and the securities to be authorised by the Superintendencia General de Valores. Any offering, express or implicit, that seeks to issue, negotiate or sell securities among public investors, is deemed under Costa Rican law (Ley Reguladora del Mercado de Valores, N° 7732, and its Regulations) as a public offering, which requires the issuer or offeror and the securities to be authorised by the Superintendencia General de Valores. A public offering is any invitation or transmission by any means to the public or determined groups of persons exceeding 50 potential investors. A public offering is presumed when made through public or collective means of communication (mass media), such as press, radio, television and internet, or when the offering includes standardised securities.

Accordingly, each Agent has represented and agreed that (i) it is appropriately registered with the Superintendencia General de Valores, (ii) it has not offered or sold and will not offer or sell, directly or indirectly, any securities to the public in Costa Rica and (iii) that sales of the securities in Costa Rica will be placed or negotiated only on an individual basis with private investors, limited to a maximum 50 investors. Each Agent will evidence in writing, for each offering, compliance with the above requirements by means of an affidavit, a party declaration or any form of express acknowledgement. Each Agent has acknowledged that it is registered as a financial intermediary with the Superintendencia General de Valores, and that the Disclosure Documents have not been filed with the Superintendencia General de Valores and, therefore, it is not intended for any public offering of the securities in Costa Rica within the meaning of Costa Rican law.

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 any Disclosure Document 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, that are not directed to the Salvadoran public. The offering of the securities will not be 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 will be negotiated only on an individual basis with determinate individuals or entities in strict compliance with the aforementioned Article 2 of the Salvadoran Securities Market Law, and will, 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 that 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 will not make an offer of the securities to the public in that Relevant Member State except that it may, with effect from and including the Relevant Implementation Date, make an offer of the securities to the public in that Relevant Member State:

(i) at any time to any legal entity that is a qualified investor as defined in the Prospectus Directive;

(ii) at any time to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the Agent; or

(iii) at any time in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no offer of securities will require us or any Agent to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of the securities to the public" 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, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

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

Hong Kong

Each Agent has represented and agreed that:

(i) it will not offer or sell in Hong Kong, by means of any document, the securities (except for securities which are a "structured product" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong) other than (a) to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance; or (b) in other circumstances that do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or that do not constitute an offer to the public within the meaning of that Ordinance; and

(ii) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the securities that is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to securities that are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

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 the securities that 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. The Disclosure Documents 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

Each Agent has represented and agreed that with effect from and including January 1, 2012, it will not make an offer of securities that are the subject of the offering contemplated by the Disclosure Documents to the public in The Netherlands in reliance on Article 3(2) of the Prospectus Directive if and to the extent article 5:20(5) of the Dutch Financial Supervision Act (Wet op het financieel toezicht, the "DFSA") will be applied, unless such offer is made exclusively to qualified investors in The Netherlands as defined in the Prospectus Directive, *provided* that no offer of the securities will require us or any Agent to publish a prospectus pursuant to Article 3 of the Prospectus Directive. For the purposes of this provision, the expressions (i) an "offer of securities to the public" in The Netherlands; and (ii) "Prospectus Directive" have the meaning given to them above under the section entitled "European Economic Area."

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 not been and will not be registered with or approved by the regulator of the Peruvian securities market or the stock exchange. Accordingly, the securities 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

None of the Disclosure Documents has been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the Disclosure Documents 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 pursuant to Section 275(1) of the SFA, or to any person pursuant to Section 275(1A) of the SFA, 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.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person, which is: (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust will not be transferred within six months after that corporation or that trust has acquired the securities pursuant to an offer made under Section 275 of the SFA except: (1) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA; (2) where no consideration is or will be given for the transfer; (3) where the transfer is by operation of law; or (4) as specified in Section 276(7) of the SFA.

Switzerland

The Disclosure Documents are not intended to constitute an offer or solicitation to purchase or invest in the securities described therein. The securities may not be publicly offered, sold or advertised, directly or indirectly, in, into or from Switzerland and will not be listed on the SIX Swiss Exchange or on any other exchange or regulated trading facility in Switzerland. Neither the Disclosure Documents nor any other offering or marketing material relating to the securities constitutes a prospectus as such term is understood pursuant to article 652a or article 1156 of the Swiss Code of Obligations or the Swiss Collective Investment Scheme Act, and neither the Disclosure Documents nor any other offering or marketing material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Neither the Disclosure Documents nor any other offering or marketing material relating to us, the offering or the securities have been or will be filed with or approved by any Swiss regulatory authority. The securities are not subject to the supervision by any Swiss regulatory authority, *e.g.*, the Swiss Financial Markets Supervisory Authority (FINMA), and investors in the securities will not benefit from protection or supervision by any such authority.

United Kingdom

Each Agent has represented and agreed that:

(a) in relation to any securities that have a maturity of less than one year, (i) 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 we will not be registered with the Central Bank of Uruguay pursuant to section 2 of Uruguayan law 16.749.

Venezuela

The securities will not be registered with the Venezuelan National Securities Commission (*Comisión Nacional de Valores*) and will not be 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 statutory or administrative exemptive relief were available.

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 is appropriate for, or meets all relevant legal requirements with respect to investments by, Plans or Non-ERISA Arrangements generally or any particular Plan or Non-ERISA Arrangement.