# JPMorgan Chase & Co.

# Capital Protected Notes Linked to an Index

## General

- JPMorgan Chase & Co. may from time to time, offer and sell capital protected notes linked to an Index. This product supplement no. MS-4-A-I describes terms that will apply generally to the capital protected notes 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 specifically to the notes, 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 index supplement or the relevant terms supplement will describe any index not described in this product supplement and to which the notes are linked. If the terms described in the relevant terms supplement, or in the accompanying prospectus supplement or prospectus, the terms described in the relevant terms supplement will control.
- The notes are senior unsecured obligations of JPMorgan Chase & Co.
- Payment is linked to an Index as described below.
- Unless otherwise specified in the relevant terms supplement, full principal protection if the notes are held to maturity.
- Unless otherwise specified in the relevant terms supplement, cash payment of the stated principal amount (or a portion of the stated principal amount if the relevant terms supplement specifies a partial principal protection percentage) plus \$10 x the minimum return, if applicable, plus the supplemental redemption amount, if any.
- The supplemental redemption amount will depend on the index performance and the specific terms of the notes as set forth in the relevant terms supplement. Unless otherwise specified in the relevant terms supplement, the supplemental redemption amount per \$10 stated principal amount note will equal (A) \$10 x the index performance x the participation rate, but will not be less than zero or greater than \$10 x the maximum return, if applicable, or (B) an amount calculated according to the formula in clause A, unless, (i) for notes with continuous index observation, at any time during the observation period or on any observation day, as applicable, the index is equal to or greater than the barrier level, or (ii) for notes with daily index observation, on any trading day during the observation period or on any observation day, as applicable, the closing index value is equal to or greater than the barrier level, in which case the supplemental redemption amount will equal \$10 x the barrier rate, or (C) if the final index value is equal to or greater than the initial index value, a fixed amount specified in the relevant terms supplement (which amount we refer to as the fixed payment) and otherwise zero.
- In addition to a cash payment at maturity of the applicable stated principal amount, plus \$10 x the minimum return, if applicable, plus the supplemental redemption amount, if any, the notes may pay interest prior to maturity, if specified in the relevant terms supplement.
- For important information about tax consequences, see "Certain U.S. Federal Income Tax Consequences" beginning on page PS-28.
- Minimum denominations of \$10 and integral multiples thereof, unless otherwise specified in the relevant terms supplement.
- Investing in the notes is not equivalent to investing in the Index or any of its component securities.
- The notes will not be listed on any securities exchange unless otherwise specified in the relevant terms supplement.

#### **Key Terms**

Amount:

Index: Stated Principal

Payment at Maturity:

An Index as specified in the relevant terms supplement (the "Index") \$10, unless otherwise specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, at maturity you will receive a cash payment for each \$10

stated principal amount note of (a) the \$10 stated principal amount (or \$10 x the partial principal protection percentage, if the relevant terms supplement specifies a partial principal protection percentage) or, if the relevant terms supplement specifies a minimum payment at maturity, (b) the minimum payment at maturity, plus the supplemental redemption amount, which may be zero.

Minimum Payment at

Maturity:

Unless otherwise specified in the relevant terms supplement, the minimum payment at maturity for each \$10 stated principal amount will be a fixed dollar amount and will be an amount greater than \$10, which will represent the sum of \$10 (or \$10 x the partial principal protection percentage, if the relevant terms supplement specifies a partial principal

protection percentage) *plus* \$10 x the minimum return.

Minimum Return:

If applicable, the minimum return will be a fixed percentage as specified in the relevant terms supplement. For notes with a minimum return, at maturity you will receive a cash payment for each \$10 stated principal amount the minimum payment at maturity that equals \$10 (or \$10 x the partial principal protection percentage, if the relevant terms supplement specifies a partial principal protection percentage) plus \$10 x the minimum return plus the supplemental redemption amount, which may be zero.

(continued on next page)

# Investing in the Capital Protected Notes involves a number of risks. See "Risk Factors" beginning on page PS-7.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the notes or passed upon the accuracy or the adequacy of this product supplement no. MS-4-A-I, the accompanying prospectus supplement and prospectus, or any related index supplement or terms supplement. Any representation to the contrary is a criminal offense.

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

# **Key Terms (continued):**

Supplemental Redemption Amount (Notes with neither a Barrier Level nor a Fixed Payment): For notes with neither a barrier level nor a fixed payment, the supplemental redemption amount per \$10 stated principal amount note paid at maturity will equal, unless otherwise specified in the relevant terms supplement, \$10 x the index performance x the participation rate; *provided* that the supplemental redemption amount will not be less than zero or greater than \$10 x the maximum return, if applicable.

Supplemental Redemption Amount (Notes with a Barrier Level): For notes with a barrier level, the supplemental redemption amount per \$10 stated principal amount note paid at maturity will equal, unless otherwise specified in the relevant terms supplement:

- (1) If the final index value is greater than the initial index value, and (a) for notes with continuous index observation, the Index is less than the barrier level at all times during the observation period or on any observation day specified in the relevant terms supplement, or (b) for notes with daily index observation, the index closing value is less than the barrier level on each trading day during the observation period or on each observation day specified in the relevant terms supplement, \$10 x the index performance x the participation rate; or
- (2) If, (a) for notes with continuous index observation, the Index is equal to or greater than the barrier level at any time during the observation period or on any observation day specified in the relevant terms supplement, or (b) for notes with daily index observation, the index closing value is equal to or greater than the barrier level on any trading day during the observation period or on any observation day specified in the relevant terms supplement, which we refer to as a barrier event, \$10 x the barrier rate; or
- (3) If the final index value is less than or equal to the initial index value, zero.

Notwithstanding the foregoing, in no event will the supplemental redemption amount be less than zero or greater than \$10 x the maximum return, if applicable.

Supplemental Redemption Amount (Notes with a Fixed Payment): For notes with a fixed payment, the supplemental redemption amount per \$10 stated principal amount note paid at maturity will equal:

- (1) If the final index value is equal to or greater than the initial index value, the fixed payment; or
- (2) If the final index value is less than the initial index value, zero (or \$10 x the minimum return, if applicable).

Maximum Return:

If applicable, the maximum return will be a fixed percentage as specified in the relevant terms supplement. Accordingly, if a maximum return is applicable, then the supplemental redemption amount will equal no more than the amount specified as \$10 x the maximum return in the relevant terms supplement.

Other Terms:

In each case if applicable, the participation rate, barrier level, barrier rate, fixed payment, interest rate, partial principal protection percentage, interest period, interest determination dates and/or interest payment date(s) will be set forth in the relevant terms supplement.

Index Performance:

Unless otherwise specified in the relevant terms supplement:

final index value – initial index value

initial index value

Initial Index Value:

The index closing value on the pricing date, or such other date or dates 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:

The index closing value on the determination date, or the arithmetic average of the index closing value on each of the ending averaging dates, or such other date or dates as specified in the relevant terms supplement.

Observation Period or Observation Day(s):

As specified in the relevant terms supplement. For example, the relevant terms supplement may specify that the observation period consists of each trading day from the pricing date to and including the determination date. Alternatively, the relevant terms supplement may specify that the observation days consist of the last calendar day of each month, commencing and ending on specified dates.

**Initial Averaging Dates:** 

If applicable, as specified 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 Notes – Payment at Maturity."

Index Valuation Date(s):

The index closing value will be calculated on a single date, which we refer to as the determination 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 index valuation dates in this product supplement. Any index valuation date is subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Payment at Maturity."

**Barrier Event:** 

Unless otherwise specified in the relevant terms supplement, a barrier event occurs if, (a) for notes with continuous index observation, at any time during the observation period, or on any observation day, as applicable, the index is equal to or greater than the barrier level, or (b) for notes with daily index observation, on any trading day during the observation period, or on any observation day, as applicable, the index closing value is equal to or greater than the barrier level.

The relevant terms supplement will specify whether continuous or daily index observation is applicable to the notes or, alternatively, may specify another method for observing the index. For example, the relevant terms supplement may specify weekly or monthly index observation on specified day(s) during a week or month for purposes of determining whether a barrier event has occurred.

Barrier Level:

If applicable, a fixed value of the Index as specified in the relevant terms supplement. The barrier level may be based on a fixed percentage of the initial index value, as specified in the relevant terms supplement.

Barrier Rate:

If applicable, a percentage as specified in the relevant terms supplement. If a barrier rate is not specified in the relevant terms supplement, the barrier rate is deemed to be 0%.

Maturity Date:

As specified in the relevant terms supplement. The maturity date of the notes is subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Payment at Maturity."

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In making your investment decision, you should rely only on the information contained or incorporated by reference in the terms supplement relevant to your investment, any related index supplement, this product supplement no. MS-4-A-I and the accompanying prospectus supplement and prospectus with respect to the notes offered by the relevant terms supplement, any related index supplement and this product supplement no. MS-4-A-I and with respect to JPMorgan Chase & Co. This product supplement no. MS-4-A-I, together with the relevant terms supplement, any related index supplement and the accompanying prospectus and prospectus supplement, contains the terms of the notes 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 index supplement, this product supplement no. MS-4-A-I and the accompanying prospectus supplement and prospectus may only be accurate as of the dates of each of these documents, respectively.

The notes described in the relevant terms supplement and this product supplement no. MS-4-A-I are not appropriate for all investors, and involve important legal and tax consequences and investment risks, which should be discussed with your professional advisers. You should be aware that the regulations of the Financial Industry Regulatory Authority, or FINRA, and the laws of certain jurisdictions (including regulations and laws that require brokers to ensure that investments are suitable for their customers) may limit the availability of the notes. The relevant terms supplement, any related index supplement, this product supplement no. MS-4-A-I and the accompanying prospectus supplement and prospectus do not constitute an offer to sell or a solicitation of an offer to buy the notes in any circumstances in which such offer or solicitation is unlawful.

In this product supplement no. MS-4-A-I, any related index 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 NOTES**

The following description of the terms of the notes supplements the description of the general terms of the debt securities set forth under the headings "Description of Notes" in the accompanying prospectus supplement and "Description of Debt Securities" in the accompanying prospectus. A separate terms supplement will describe the terms that apply specifically to the notes, including any changes to the terms specified below. A separate index supplement or the relevant terms supplement will describe an index not described in this product supplement and to which the notes are linked. Capitalized terms used but not defined in this product supplement no. MS-4-A-I have the meanings assigned in the accompanying prospectus supplement, prospectus, the relevant terms supplement and any related index supplement. The term "note" refers to each \$10 stated principal amount of our Capital Protected Notes Linked to an Index.

## General

The Capital Protected Notes are senior unsecured obligations of JPMorgan Chase & Co. that are linked to an Index (the "Index") as specified in the relevant terms supplement. The notes are a series of securities referred to in the accompanying prospectus supplement, prospectus and the relevant terms supplement, as well as any related index supplement. The notes 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 notes 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 Index over the term of the notes, calculated in accordance with the applicable formula as set out below. Unless otherwise specified in the relevant terms supplement, we will pay you at maturity for each \$10 stated principal amount note (a) the stated principal amount of \$10 (or a portion of the stated principal amount if the relevant terms supplement specifies a partial principal protection percentage) or, if the relevant terms supplement specifies a minimum payment at maturity, (b) the minimum payment at maturity, plus the supplemental redemption amount, if any and, if specified in the relevant terms supplement, accrued and unpaid interest.

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

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

The notes 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 notes will be represented by one or more permanent global notes 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 prospectus supplement and "Forms of Securities — Global Securities" in the prospectus.

The specific terms of the notes will be described in the relevant terms supplement accompanying this product supplement no. MS-4-A-I and any related index supplement. The terms described in that document supplement those described herein and in any related index supplement, the accompanying prospectus and prospectus supplement. If the terms described in the relevant terms supplement are inconsistent with those described herein or in any related index 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 notes will be set forth in the relevant terms supplement and is subject to adjustment if such day is not a business day or if the determination date is postponed as described below. We will specify, in each case if applicable, the participation rate, partial principal protection percentage, minimum return, minimum payment at maturity, maximum return, barrier level, barrier rate and fixed payment and the applicable terms of any such payment terms in the relevant terms supplement.

Your return on the notes will be linked to the performance of the S&P 500<sup>®</sup> Index or another Index specified in a separate Index Supplement during the life of the notes.

Unless otherwise specified in the relevant terms supplement, at maturity you will receive a cash payment for each \$10 stated principal amount note of (a) the \$10 stated principal amount (or \$10 x the partial principal protection percentage, if the relevant terms supplement specifies a partial principal protection percentage) or, if the relevant terms supplement specifies a minimum payment at maturity (b) the minimum payment at maturity, plus the supplemental redemption amount, which may be zero.

Unless otherwise specified in the relevant terms supplement, the "minimum payment at maturity" for each \$10 stated principal amount will be a fixed dollar amount and will be an amount greater than \$10, which will represent the sum of \$10 (or \$10 x partial principal protection percentage, if the relevant terms supplement specifies a partial principal protection percentage) plus \$10 x the minimum return, if applicable.

Unless otherwise specified in the relevant terms supplement, you will not receive less than \$10 (or \$10 x partial principal protection percentage, if the relevant terms supplement specifies a partial principal protection percentage) for each \$10 stated principal amount note if you hold the notes to maturity.

If applicable, the "minimum return" will be a fixed percentage as specified in the relevant terms supplement. For notes with a minimum return, at maturity you will receive a cash payment for each \$10 stated principal amount the minimum payment at maturity that equals \$10 (or \$10 on partial principal protection percentage, if the relevant terms supplement specifies a partial principal protection percentage) plus \$10 x the minimum return plus the supplemental redemption amount, which may be zero.

For notes with neither a barrier level nor a fixed payment, the supplemental redemption amount per \$10 stated principal amount note paid at maturity will equal, unless otherwise specified in the relevant terms supplement, \$10 x the index performance x the participation rate; *provided* that the supplemental redemption amount will not be less than zero or greater than \$10 x the maximum return, if applicable.

The "partial principal protection percentage" will be a percentage less than 100%, as specified in the relevant terms supplement.

The "participation rate" will be a percentage, which may be more or less than 100%, as specified in the relevant terms supplement.

If applicable, the "maximum return" will be a fixed percentage as specified in the relevant terms supplement. Accordingly, if a maximum return is applicable, then the supplemental redemption amount will equal no more than the amount specified as \$10 x the maximum return in the relevant terms supplement.

For notes with a barrier level, the "supplemental redemption amount" per \$10 stated principal amount note paid at maturity will equal, unless otherwise specified in the relevant terms supplement:

- (1) If the final index value is greater than the initial index value, and (a) for notes with continuous index observation, the Index is less than the barrier level at all times during the observation period or on any observation day specified in the relevant terms supplement, or (b) for notes with daily index observation, the index closing value is less than the barrier level on each trading day during the observation period or on any observation day specified in the relevant terms supplement, \$10 x the index performance x the participation rate; or
- (2) If, (a) for notes with continuous index observation, the Index is equal to or greater than the barrier level at any time during the observation period or on any observation day specified in the relevant terms supplement, or (b) for notes with daily index observation, the index closing value is equal to or greater than the barrier level on any trading day during the observation period or on any observation day specified in the relevant terms supplement, which we refer to as a barrier event, \$10 x the barrier rate; or
- (3) If the final index value is less than or equal to the initial index value, zero.

Notwithstanding the foregoing, in no event will the supplemental redemption amount be less than zero or greater than \$10 x the maximum return, if applicable.

If applicable, the "barrier level" will be fixed value of the Index as specified in the relevant terms supplement. The barrier level may be based on a fixed percentage of the initial index value, as specified in the relevant terms supplement.

The "barrier rate" will be a percentage as specified in the relevant terms supplement. If a barrier rate is not specified in the relevant terms supplement, the barrier rate is deemed to be 0%.

A "barrier event" occurs if, (a) for notes with continuous index observation, at any time during the observation period, or on any observation day, as applicable, the Index is equal to or greater than the barrier level, or (b) for notes with daily index observation, on any trading day during the observation period, or on any observation day, as applicable, the index closing value is equal to or greater than the barrier level.

The relevant terms supplement will specify whether continuous or daily index observation is applicable to the notes or, alternatively, may specify another method for observing the index. For example, the relevant terms supplement may specify weekly or monthly index observation on specified day(s) during a week or month for purposes of determining whether a barrier event has occurred.

The "observation period" or "observation day(s)" will be specified in the relevant terms supplement. For example, the relevant terms supplement may specify that the observation period consists of each trading day from the pricing date to and including the determination date. Alternatively, the relevant terms supplement may specify that the observation days consist of the last calendar day of each month, commencing and ending on specified dates.

For notes with a fixed payment, the "supplemental redemption amount" per \$10 stated principal amount note paid at maturity will equal:

- (1) if the final index value is equal to or greater than the initial index value, the fixed payment; or
- (2) if the final index value is less than the initial index value, zero (or \$10 x the minimum return, if applicable).

The "fixed payment" is a fixed dollar amount per \$10 stated principal amount note as specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, the "index performance," as calculated by the calculation agent, is the percentage change in the index closing value, calculated by comparing the index closing value on the determination date, or the arithmetic average of the index closing value on each of the ending averaging dates, or such other date or dates as specified in the relevant terms supplement (the "final index value"), to the index closing value on the pricing date, or such other date or dates as specified in the relevant terms supplement, or to the arithmetic average of the index closing values on each of the initial averaging dates, if so specified in the relevant terms supplement (the "initial index value"). The relevant terms supplement will specify the manner in which the initial index value and the final index value will be determined. The index performance, unless otherwise specified in the relevant terms supplement, is calculated as follows:

The "index closing value" on any trading day will equal the official closing value of the Index or any successor index thereto (as described under any related index supplement or under "General Terms of Notes— Discontinuation of the Index; Alteration of Method of Calculation" in this product supplement no. MS-4-A-I) published following the regular official weekday close of trading on that trading day. In certain circumstances, the "index closing value" will be based on the alternative calculation of the Index described under any related index supplement or under "The Index—Discontinuation of the Index; Alteration of Method of Calculation" in this product supplement no. MS-4-A-I.

A "trading day" is, unless otherwise specified in the relevant terms supplement, 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 such Index or the relevant successor index, if applicable, and (ii) the exchanges on which futures or options contracts related to such Index or the relevant successor index, if applicable, are traded, other than a day on which trading on such relevant exchange or exchange on which such futures or options contracts are traded is scheduled to close prior to its regular weekday closing time.

The initial averaging dates, if applicable, will be specified in the relevant terms supplement and any such date is subject to adjustment as described below. If an initial averaging date is not a trading day or if there is a market disruption event on such day, the applicable initial averaging date will be postponed to the immediately succeeding trading day during which no market disruption event shall have occurred or be continuing. In no event, however, will any initial averaging date be postponed more than ten business days following the date originally scheduled to be such initial averaging date. If the tenth business day following the date originally scheduled to be the applicable initial averaging date is not a trading day, or if there is a market disruption event on such date, the calculation agent will determine the index closing value for such initial averaging date on such date in accordance with the formula for and method of calculating the index closing value last in effect prior to commencement of the market disruption event (or prior to the non-trading day), using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent's good faith estimate of the closing price that would have prevailed but for such suspension or limitation or non-trading day) on such tenth scheduled business day of each security most recently constituting the Index.

The index valuation date(s), which will be either a single date, which we refer to as the determination 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 below.

The maturity date will be set forth in the relevant terms supplement. If the scheduled maturity date (as specified in the relevant terms supplement) is not a business day, then the maturity date will be the next succeeding business day following such scheduled maturity date. If, due to a market disruption event or otherwise, the final index 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 index valuation date, as postponed, unless otherwise specified in the relevant terms supplement. We describe market disruption events under "General Terms of Notes—Market Disruption Events."

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

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

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

# Notes with a maturity of more than one year

If an index valuation date is not a trading day or if there is a market disruption event on such day, the applicable index valuation date will be postponed to the immediately succeeding trading day during which no market disruption event shall have occurred or be continuing. In no event, however, will any index valuation date be postponed more than ten business days following the date originally scheduled to be such index valuation date. If the tenth business day following the date originally scheduled to be the applicable index valuation date is not a trading day, or if there is a market disruption event on such date, the calculation agent will determine the index closing value for such index valuation date on such date in accordance with the formula for and method of calculating such index closing value last in effect prior to commencement of the market disruption event (or prior to the non-trading day), using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent's good faith estimate of the closing price that would have prevailed but for such suspension or limitation or non-trading day) on such tenth scheduled business day of each security most recently constituting the Index.

# Notes with a maturity of not more than one year

If an index valuation date is not a trading day or if there is a market disruption event on such day, the applicable index valuation date will be postponed to the immediately succeeding trading day during which no market disruption event shall have occurred or be continuing. In no event, however, will any index valuation date be postponed more than ten business days following the date originally scheduled to be such index valuation date; provided that no index valuation date, as postponed, will produce a maturity date more than one year (counting for this purpose either the issue date or the maturity date, but not both) after the issue date (the last date that could serve as the final index valuation date without causing the maturity date to be more than one year after the issue date, the "final disrupted valuation date"). If the tenth business day following the date originally scheduled to be the applicable index valuation date is not a trading day, or if there is a market disruption event on such day, the calculation agent will determine the index closing value for such index valuation date on such date in accordance with the formula for and method of calculating such index closing value last in effect prior to commencement of the market disruption event (or prior to the non-trading day), using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent's good faith estimate of the closing price that would have prevailed but for such suspension or limitation or nontrading day) on such tenth scheduled business day of each security most recently constituting the Index.

Notwithstanding the foregoing, if any index valuation date has been postponed to the final disrupted valuation date (treating any such index valuation date that is not the final index valuation date as if it were the final index valuation date), and such final disrupted valuation date is not a trading day, or if there is a market disruption event on such final disrupted valuation date, the calculation agent will determine the index closing value on such final disrupted valuation date in accordance with the formula for and method of calculating such index closing value last in effect prior to commencement of the market disruption event (or prior to the non-trading day), using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent's good faith estimate of the closing price that would have prevailed but for such suspension or limitation or non-trading day) on the business day immediately preceding such final disrupted valuation date of each security most recently constituting the Index. For the avoidance of doubt, in no event will any index valuation date occur after the final disrupted valuation date.

# **Interest Payments**

If the relevant terms supplement specifies that the notes will bear interest, the notes will bear interest at the rate per annum, or such other rate or rates, as specified in such terms supplement. Under these circumstances, interest will accrue from the issuance date of the notes to but excluding the maturity date. Interest will be paid in arrears on each date specified in the relevant terms supplement (each such date an "interest payment date") to and including the maturity date, to the holders of record at the close of business on the date 15 calendar days prior to that interest payment date, whether or not such fifteenth calendar day is a business day, unless otherwise specified in the relevant terms supplement. Interest on the notes will be calculated based on a 360day year of twelve 30-day months, unless otherwise specified in the relevant terms supplement. If any day on which a payment of interest or principal is due is not a business day, the payment will be made with the same force and effect on the next succeeding business day, but no additional interest will accrue as a result of the delayed payment, and the next interest payment period will commence as if the payment had not been delayed. If the maturity date is adjusted as the result of a market disruption event, the payment of interest due on the maturity date will be made on the maturity date as adjusted, with the same force and effect as if the maturity date had not been adjusted, but no additional interest will accrue or be payable as a result of the delayed payment.

#### **RISK FACTORS**

Your investment in the notes will involve certain risks. The notes may not pay interest or guarantee any return of principal prior to maturity unless otherwise specified in the relevant terms supplement. Investing in the notes is not equivalent to investing directly in the Index or any of the component securities of the Index. In addition, your investment in the notes 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 notes is suitable for you.

# Risks Relating to the Notes Generally

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

The notes combine features of equity and debt. The terms of the notes differ from those of conventional debt securities in that we may not pay interest on the notes or, if we do pay interest, a significant portion of your total payment at maturity may be based on the performance of the Index rather than the interest rate we will pay you. Where the relevant terms supplement does not provide for interest payments, if the final index value does not exceed, or in certain cases, equal, the initial index value, and (i) for notes with continuous index observation, the Index is less than the barrier level, if any, at all times during the observation period or on any observation day, as applicable, or (ii) for notes with daily index observation, the index closing value is less than the barrier level, if any, on each trading day during the observation period or on each observation day, as applicable, at maturity you will receive only the \$10 stated principal amount per note or, if applicable, the minimum payment at maturity, unless otherwise specified in the relevant terms supplement. Therefore, the return on your investment in the notes 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 or, if applicable, the minimum payment at maturity will not compensate you for any loss in value due to inflation and other factors relating to the value of money over time.

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

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

# The notes may not pay more than the stated principal amount or, if applicable, the minimum payment at maturity, and accrued and unpaid interest, if applicable, at maturity.

If the final index value is less than, or, in certain cases, equal to the initial index value, and (i) for notes with continuous index observation, the Index is less than the barrier level at all times during the observation period or on any observation day, as applicable, or (ii) for notes with daily index observation, the index closing value is less than the barrier level, if any, on each trading day during the observation period or on each observation day, as applicable, you will receive only the applicable interest payments, if any, set forth in the terms supplement and, unless otherwise specified in the relevant terms supplement, the \$10 stated principal amount or, if applicable, the minimum payment at maturity for each \$10 note you hold at maturity. This will be true even if the Index, or the index closing value, as applicable, was higher than the initial index value at some time during the life of the notes but later falls below the initial index value. Because the notes may accrue interest at an interest rate lower than that payable for other debt securities issued by us with a comparable maturity, the return on your investment in the notes 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.

# Your investment in the notes may result in a loss if a partial principal protection percentage is applicable.

If the relevant terms supplement specifies that a partial principal protection percentage will apply to the notes, you may receive a payment at maturity in an amount that is less than \$10 for each \$10 stated principal amount note. For notes with partial principal protection, at maturity you will receive a cash payment for each \$10 stated principal amount note of \$10 x the partial principal protection percentage, plus \$10 x the minimum return, if applicable, plus the supplemental redemption amount, which may be zero.

# For notes with a barrier level, the appreciation potential of the notes will be limited by the barrier rate.

If the notes have a barrier level, the appreciation potential of the notes is limited by the barrier level and the corresponding barrier rate. For example, if the barrier level equals 125% of the initial index value, the appreciation potential of the notes is limited to 24.99%. Once the value of the Index (for notes with continuous index observation) or index closing value (for notes with daily index observation), as applicable, is equal to or greater than the barrier level at any time during the observation period or on any observation day, as applicable, the appreciation potential of the notes is limited to the barrier rate. If a barrier event has occurred, the return on the notes will equal the barrier rate multiplied by the stated principal amount of the notes and will not be determined by reference to the index performance. Therefore, once a barrier event has occurred, your return on the notes will be determined by the barrier rate, even if the value of the Index at any time during the observation period or on any observation day, as applicable (for notes with continuous index observation), or index closing value on any trading day during the observation period or on any observation day, as applicable (for notes with daily index observation), subsequently decreases below the barrier level. In addition, if a barrier event has occurred, your return on the notes at maturity may be less than the return you would have received at maturity if a barrier event had not occurred and the final index value was greater than the initial index value.

This return may not compensate you for any loss in value due to inflation and other factors relating to the value of money over time. Therefore your return may be less than the return you would have otherwise received if you had invested directly in the Index, the stocks underlying the index or contracts relating to the Index for which there is an active secondary market. Under these circumstances, your return will not reflect any potential increase in the final index value, as compared to the initial index value, of greater than the barrier rate.

# The final index value may be less than the value of the Index at other times during the term of the notes.

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

# The initial index value may be determined after the issue date of the notes.

If so specified in the relevant terms supplement, the initial index value will be determined based on the arithmetic average of the index closing values on the initial averaging dates specified in that relevant terms supplement. One or more of the initial averaging dates specified may occur on or following the issue date of the notes; as a result, the initial index value may not be determined, and you may therefore not know the initial index value, until after the issue date. Similarly, the global note certificate representing the notes, which will be deposited with the DTC on the issue date as described under "General Terms of Notes – Book-Entry Only Issuance – The Depository Trust Company," will not set forth the value of the initial index value for the Index. If there are any increases in the index closing values on the initial averaging dates that occur after the issue date and such increases result in the initial index value being greater than the index closing value on the issue date, this may establish higher values that the Index must achieve for you to receive at maturity more than the applicable stated principal amount of your notes and, if applicable, the minimum payment at maturity.

# You will receive no more than the stated principal amount of your notes (plus \$10 x the minimum return, if applicable) plus \$10 x the barrier rate if the Index closes or trades at or above the barrier level at any applicable time during the observation period.

If the Index (for notes with continuous observation) or the index closing value (for notes with daily observation) is at or above the barrier level at any applicable time during the observation period, you will receive only \$10 (plus \$10 x the minimum return, if applicable) plus \$10 x the barrier rate per \$10 stated principal amount note you hold at maturity. The likelihood of the Index closing or trading above the barrier level at any applicable time during the observation period will depend in large part on the volatility of the Index – the frequency and magnitude of changes in the value of the Index. Since its inception, the Index has experienced significant volatility.

# The appreciation potential of the notes will be limited by the fixed payment, if applicable.

If the notes have a fixed payment, the appreciation potential of the notes is limited to the appreciation represented by such fixed payment, even if the appreciation in the Index would, but for the fixed payment, result in the payment of a greater supplemental redemption amount at maturity. If the final index value is equal to or greater than the initial index value, the return on the notes will equal the fixed payment and will not be determined by reference to the index performance. This return will be limited regardless of the appreciation of the Index, which may be significant. Therefore, under certain circumstances, your return may be less than the return you would have otherwise received if you had invested directly in the Index, the stocks underlying the Index or contracts relating to the Index for which there is an active secondary market.

# The appreciation potential of the notes will be limited by the maximum return, if applicable.

If the notes have a maximum return, the appreciation potential of the notes is limited to the fixed percentage amount per \$10 stated principal amount note specified in the relevant terms supplement as the maximum return. The supplemental redemption amount will equal no more than \$10 x the maximum return. Accordingly, the appreciation potential of the notes will be limited to \$10 x the maximum return even if the supplemental redemption amount calculated with reference to the index performance and participation rate would be greater than \$10 x the maximum return.

# 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 index value exceeds the initial index value, the supplemental redemption amount you receive at maturity will equal only a percentage, as specified in the relevant terms supplement, of the index performance above the initial index value. Under these circumstances, the supplemental redemption amount you receive at maturity will not fully reflect the performance of the Index.

If the notes are linked to an Index that is not a total return index, your return on the notes will not reflect dividends on the equity securities included in such Index.

Your return on the notes will not reflect the return you would realize if you actually owned the equity securities included in the 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 notes by reference to the final index value. The final index value reflects the prices of the equity securities as calculated in the Index without taking into consideration the value of dividends paid on those equity securities.

# The notes are designed to be held to maturity.

The notes are not designed to be short-term trading instruments. The price at which you will be able to sell your notes prior to maturity, if at all, may be at a substantial discount from the stated principal amount of the notes, even in cases where the Index has appreciated since the date of the issuance of the notes. The potential returns described in any terms supplement assume that your notes are held to maturity.

# Secondary trading may be limited.

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

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

# Prior to maturity, the value of the notes will be influenced by many unpredictable factors.

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

- the expected volatility in the Index;
- the time to maturity of the notes;
- the dividend rate on the equity securities underlying the Index;
- interest and yield rates in the market generally as well as in the markets of the equity securities composing the Index;
- economic, financial, political, regulatory or judicial events that affect the equity securities included in the Index or stock markets generally and which may affect the index closing value on any index valuation date or any initial averaging date, if applicable;
- for notes linked to a foreign Index, the exchange rate and the volatility of the exchange rate between the U.S. dollar and the currencies in which the equity securities composing the Index are traded, and, if the Index is calculated in one currency and the equity securities composing the Index are traded in one or more other currencies, the correlation between those rates and the value of the Index; and
- our creditworthiness, including actual or anticipated downgrades in our credit ratings.

You cannot predict the future performance of the Index based on its historical performance. The final index value may be flat or negative as compared to the initial index value, in which event you will only receive the applicable stated principal amount of your notes at maturity or the minimum payment at maturity unless the relevant terms supplement provides for interest payments or includes a barrier feature.

The inclusion in the original issue price of each agent's commission and the estimated cost of hedging our obligations under the notes through one or more of our affiliates is likely to adversely affect the value of the notes prior to maturity.

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

# You will have no shareholder rights in issuers of equity securities that compose the Index.

As a holder of the notes, you will not have voting rights or rights to receive dividends or other distributions or other rights that holders of the equity securities composing the Index would have.

# We or our affiliates may have adverse economic interests to the holders of the notes.

JPMSI and other affiliates of ours trade the equity securities underlying the Index and other financial instruments related to the Index and its component securities on a regular basis, for their accounts and for other accounts under their management. JPMSI and these affiliates may also issue or underwrite or assist unaffiliated entities in the issuance or underwriting of other securities or financial instruments linked to the Index. To the extent that we or one of our affiliates serves as issuer, agent or underwriter for such securities or financial instruments, our or their interests with respect to such products may be adverse to those of the holders of the notes. Any of these trading activities could potentially affect the index value and, accordingly, could affect the value of the notes and any supplemental redemption amount payable to you at maturity.

We or our affiliates may currently or from time to time engage in business with companies the equity securities of which are included in the Index, including extending loans to, or making equity investments in, or providing advisory services to them, including merger and acquisition advisory services. In the course of this business, we or our affiliates may acquire non-public information about the companies, and we will not disclose any such information to you. In addition, one or more of our affiliates may publish research reports or otherwise express views about the companies the equity securities of which are included in the Index. Any prospective purchaser of notes should undertake an independent investigation of each company the equity securities of which are included in the Index as in its judgment is appropriate to make an informed decision with respect to an investment in the notes.

Additionally, we or one of our affiliates may serve as issuer, agent or underwriter for additional issuances of notes with returns linked or related to changes in the index value or the equity securities that compose the Index. 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 notes.

We may hedge our obligations under the notes through certain affiliates or unaffiliated counterparties, who would expect to make a profit on such hedge. Because hedging our obligations entails risk and may be influenced by market forces beyond our or our affiliates' control, such hedging may result in a profit that is more or less than expected, or it may result in a loss.

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 composing a foreign Index are denominated. These trading activities could potentially affect the exchange rates with respect to such currencies and, if currency exchange rate calculations are involved in the calculation of the index closing values of that foreign Index, could affect the index closing values of that foreign Index and, accordingly, if the notes are linked to that foreign Index, the value of the notes.

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 notes with respect to any matters relating to future currency exchange rate movements and, if the notes are linked to a foreign Index, any prospective purchaser of notes should undertake an independent investigation of the currencies in which equity securities composing that foreign Index 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 notes.

JPMSI, one of our affiliates, will act as the calculation agent. The calculation agent will determine, among other things, the initial index value, the final index value, the index closing value on each index valuation date and each initial averaging date, if applicable, the index performance and the supplemental redemption amount, if any, that we will pay you at maturity as well as whether the value of the Index at any time during the observation period or on any observation day (as applicable) or the index closing value on any trading day during the observation period or on any observation day, as applicable, for purposes of determining whether a barrier event has occurred (for notes with a barrier level), whether the final index value is equal to or greater than the initial index value, the minimum payment at maturity and the minimum return, if applicable, and, if the notes bear interest, the amount of interest payable, if any, on any interest payment date. The calculation agent will also be responsible for determining whether a market disruption event has occurred, whether the Index has been discontinued, whether there has been a material change in the method of calculation of the Index and, if the notes bear interest, whether a day is an interest payment date. In performing these duties, JPMSI may have interests adverse to the interests of the holders of the notes, which may affect your return on the notes, particularly where JPMSI, as the calculation agent, is entitled to exercise discretion.

## 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 index closing value or the index performance on any index valuation date or any initial averaging date, if applicable, and calculating the payment at maturity that we are required to pay you. 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 notes, it is possible that one or more of the index valuation dates or initial averaging dates, if any, and the maturity date will be postponed and your return will be adversely affected. See "General Terms of Notes—Market Disruption Events."

# Generally, if the term of the notes is not more than one year, we expect that the notes will be treated as short-term debt instruments for U.S. federal income tax purposes.

Unless otherwise provided in the relevant terms supplement, if the term of the notes is not more than one year (including either the issue date or the last possible date that the notes could be outstanding, but not both), we expect that the notes will be treated as "short-term" debt instruments for U.S. federal income tax purposes. No statutory, judicial or administrative authority directly addresses the treatment of notes or instruments similar to the notes for U.S. federal income tax purposes, and no ruling is being requested from the Internal Revenue Service (the "IRS") with respect to the notes. As a result, certain aspects of the tax treatment of an investment in the notes are uncertain. You should review carefully the section entitled "Certain U.S. Federal Income Tax Consequences" in this product supplement no. MS-2-A-I and consult your tax adviser regarding your particular circumstances.

Generally, if the term of the notes is more than one year, we expect that the notes will be treated as contingent payment debt instruments for U.S. federal income tax purposes.

Unless otherwise provided in the relevant terms supplement, if the term of the notes is more than one year (including either the issue date or the last possible date the notes could be outstanding, but not both), we expect that the notes will be treated as "contingent payment debt instruments" for U.S. federal income tax purposes. Assuming this treatment, subject to the occurrence of a barrier event, you will generally be required to recognize interest income in each year at a "comparable yield," even though we may not make any payments with respect to the notes until maturity. Interest included in income will increase your basis in the notes and the projected amount of stated interest, if any, will reduce your basis in the notes. Special rules may apply in the event of the occurrence of a barrier event. Generally, amounts received at maturity or on earlier sale or exchange in excess of your basis will be treated as additional interest income while any loss will generally be treated as an ordinary loss to the extent of all previous inclusions with respect to the notes, which will be deductible against other income (e.g., employment and interest income) with the balance treated as capital loss, which may be subject to limitations and/or special reporting requirements. You should review carefully the section entitled "Certain U.S. Federal Income Tax Consequences" in this product supplement no. MS-2-A-I and consult your tax adviser regarding your particular circumstances.

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

If you are an employee of JPMorgan Chase & Co. or one of its affiliates, you may only acquire the notes 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 notes, you may not be able to purchase any notes described in the relevant terms supplement from us and your ability to trade or sell any such notes in the secondary market may be limited.

#### Risks Relating to the Index

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

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

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

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

Unless otherwise specified in any related index supplement or relevant terms supplement, to our knowledge, we are not currently affiliated with any company the equity securities of which are included in the Index (other than the S&P 500® Index).

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

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

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

For notes linked to a foreign Index, if the prices of its component securities are converted into U.S. dollars for purposes of calculating the value of the Index, the notes will be subject to currency exchange risk.

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

Of particular importance to potential currency exchange risk are:

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

All of these factors are in turn sensitive to the monetary, fiscal and trade policies pursued by the governments of various component countries and the United States and other countries important to international trade and finance. For notes linked to a foreign Index, if the prices of its component securities are converted into U.S. dollars for purposes of calculating the value of the Index, changes in the volatility of exchange rates, and the correlation between those rates and the values of the Index are likely to affect the market value of the notes.

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

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

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

For notes linked to a foreign Index, an investment in the notes is subject to risks associated with non-U.S. securities markets.

The equity securities that compose a foreign Index have been issued by non-U.S. companies. Investments in securities linked to the value of such non-U.S. equity securities involve risks associated with the securities markets in those countries, including risks of volatility in those markets, governmental intervention in those markets and cross shareholdings in companies in certain countries. Also, there is generally less publicly available information about companies in some of these jurisdictions than about U.S. companies that are subject to the reporting requirements of the Securities and Exchange Commission (the "SEC"), and generally non-U.S. companies are subject to accounting, auditing and financial reporting standards and requirements and securities trading rules different from those applicable to U.S. reporting companies.

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

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

Some or all of these factors may influence the index closing value. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You cannot predict the future performance of the Index based on their historical performance. The value of the Index may decrease such that you may not receive more than the stated principal amount (or a portion of the stated principal amount if the relevant terms supplement specifies a partial principal protection percentage) of your notes at maturity. There can be no assurance that the index closing value will not decrease so that at maturity you will receive any supplemental redemption amount at maturity.

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

## **USE OF PROCEEDS**

Unless otherwise specified in the relevant terms supplement, the net proceeds we receive from the sale of the notes 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 notes. The original issue price of the notes includes each agent's commissions (as shown on the cover page of the relevant terms supplement) paid with respect to the notes and the estimated cost of hedging our obligations under the notes. We may have hedged our obligations under the notes through certain affiliates or unaffiliated counterparties.

Unless otherwise specified in the relevant terms supplement, each agent's commissions will include the projected profit, which in no event will exceed \$0.45 per \$10 note, that our affiliates expect to realize in consideration for assuming the risks inherent in hedging our obligations under the notes. Because hedging our obligations entails risk and may be influenced by market forces beyond our or our affiliates' control, our projected profit resulting from such hedging may result in a profit that is more or less than expected, or could result in a loss. See also "Use of Proceeds" in the accompanying prospectus.

On or prior to the date of the relevant terms supplement, we, through our affiliates or others, may hedge some or all of our anticipated exposure in connection with the notes by taking positions in the Index, the equity securities underlying the Index, or instruments the value of which is derived from the Index or the equity securities underlying the Index. While we cannot predict an outcome, such hedging activity or other hedging and investment activities of ours could potentially increase the value of the Index as well as the initial index value, and, therefore, effectively establish a higher value that the Index must achieve for you to receive more than the stated principal amount or, if applicable, the minimum payment at maturity. From time to time, prior to maturity of the notes, we may pursue a dynamic hedging strategy that may involve taking long or short positions in the Index, the equity securities underlying the Index, or instruments the value of which is derived from the Index or the equity securities underlying the Index. Although we have no reason to believe that any of these activities will have a material impact on the value of the Index or the value of the notes, we cannot assure you that these activities will not have such an effect.

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. No note holder will have any rights or interest in our hedging activity or any positions we or any unaffiliated counterparty may take in connection with our hedging activity.

# THE S&P 500® INDEX

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

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

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

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

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

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

However, treasury stock, stock options, restricted shares, equity participation units, warrants, preferred stock, convertible stock and rights are not part of the float. In cases where holdings in a group exceed 10% of the outstanding shares of a company, the holdings of that group will be excluded from the float-adjusted count of shares to be used in the S&P 500® Index calculation. Mutual funds, investment advisory firms, pension funds or foundations not associated with the company and investment funds in insurance companies, shares of a U.S. company traded in Canada as "exchangeable shares," shares that trust beneficiaries may buy or sell without difficulty or significant additional expense beyond typical brokerage fees, and, if a company has multiple classes of stock outstanding, shares in an unlisted or non-traded class if such shares are convertible by shareholders without undue delay and cost, are also part of the float.

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

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

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

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

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

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

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

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

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

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

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

# License Agreement with S&P

S&P and J.P. Morgan Securities Inc. have entered into a non-exclusive license agreement providing for the sub-license to us, and certain of our affiliated or subsidiary companies, in exchange for a fee, of the right to use the S&P 500® Index, which is owned and published by S&P, in connection with certain securities, including the notes.

The notes are not sponsored, endorsed, sold or promoted by Standard & Poor's, a division of The McGraw-Hill Companies, Inc., which we refer to as S&P. S&P makes no representation or warranty, express or implied, to the owners of the notes or any member of the public regarding the advisability of investing in securities generally or in the notes particularly, or the ability of the S&P 500® Index to track general stock market performance. S&P's only relationship to JPMorgan Chase & Co. is the licensing of certain trademarks and trade names of S&P without regard to JPMorgan Chase & Co. or the notes. S&P has no obligation to take the needs of JPMorgan Chase & Co. or the holders of the notes into consideration in determining, composing or calculating the S&P 500® Index. S&P is not responsible for and has not participated in the determination of the timing, price or quantity of the notes to be issued or in the determination or calculation of the amount due at maturity of the notes. S&P has no obligation or liability in connection with the administration, marketing or trading of the notes.

S&P DOES NOT GUARANTEE THE ACCURACY AND/OR THE COMPLETENESS OF THE S&P 500° INDEX OR ANY DATA INCLUDED THEREIN AND S&P SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS OR INTERRUPTIONS THEREIN. S&P MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO RESULTS TO BE OBTAINED BY JPMORGAN CHASE & CO., HOLDERS OF THE NOTES, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE S&P 500° INDEX OR ANY DATA INCLUDED THEREIN. S&P MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE S&P 500° INDEX OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL S&P HAVE ANY LIABILITY FOR ANY SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

"STANDARD & POOR'S," "S&P" AND "S&P 500" ARE TRADEMARKS OF THE MCGRAW-HILL COMPANIES, INC. AND HAVE BEEN LICENSED FOR USE BY J.P. MORGAN SECURITIES INC. AND SUBLICENSED FOR USE BY JPMORGAN CHASE & CO. THIS TRANSACTION IS NOT SPONSORED, ENDORSED, SOLD OR PROMOTED BY S&P AND S&P MAKES NO REPRESENTATION REGARDING THE ADVISABILITY OF PURCHASING ANY OF THE NOTES.

# **OTHER INDICES**

If the notes are linked to an index not described in this product supplement or to an index described in this product supplement that changed its methodology in any material respect, a separate index supplement or the relevant terms supplement will provide additional information relating to such index.

## **GENERAL TERMS OF NOTES**

# **Calculation Agent**

J.P. Morgan Securities Inc. will act as the calculation agent. The calculation agent will determine, among other things, the initial index value, the final index value, the index performance, the amount we will pay you at maturity, the index closing value on each initial averaging date, if applicable, and the index closing value on each index valuation date, including, if applicable, whether a barrier event has occurred (for notes with a barrier level), whether the final index value is equal to or greater than the initial index value, the minimum payment at maturity and the minimum return, if applicable, and, if the notes bear interest, the amount of interest payable, if any, on any interest payment date. In addition, the calculation agent will determine whether there has been a market disruption event or a discontinuation of the Index, whether there has been a material change in the method of calculation of the Index and, if the notes bear interest, whether a day is an interest payment date. 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 relevant terms supplement without your consent and without notifying you.

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

All calculations with respect to the initial index value, the final index value, the index performance or any index closing value or value of the Index will be rounded to the nearest one hundred-thousandth, with five one-millionths rounded upward (e.g., .876545 would be rounded to .87655); all dollar amounts related to determination of the supplemental redemption amount payable at maturity, if any, per \$10 stated principal amount note will be rounded to the nearest one ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the aggregate stated principal amount of notes 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 index closing value on any initial averaging date, if applicable, or index valuation date and consequently, the index performance or the value of the Index at any time during the observation period or on any observation day, as applicable, or the index closing value on any trading day during the observation period or on any observation day, as applicable, for purposes of determining whether a barrier event has occurred, or calculating the supplemental redemption 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 the Index and any relevant successor index, a "market disruption event," unless otherwise specified in the relevant terms supplement, means:

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

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

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

• a determination by the calculation agent in its sole discretion that the 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 notes.

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

- the portion of the value of the Index (or the relevant successor index) attributable to that security relative to
- the overall value of the Index (or the relevant successor index),

in each case immediately before that suspension or limitation.

For purposes of determining whether a market disruption event with respect to the 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 the Index (or the relevant successor index);
- limitations pursuant to the rules of any relevant exchange similar to NYSE Rule 80B (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B as determined by the calculation agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading;
- a suspension of trading in futures or options contracts on the Index (or the relevant successor index) by the primary exchange or market trading in such contracts by reason of
  - a price change exceeding limits set by such exchange or market,
  - an imbalance of orders relating to such contracts, or
  - a disparity in bid and ask quotes relating to such contracts

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

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

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

#### Discontinuation of the Index: Alteration of Method of Calculation

If the "Index Sponsor" discontinues publication of the Index and the 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 Index (such index being referred to herein as a "successor index"), then the index closing value on any relevant initial averaging date, if applicable, or index valuation date or any other relevant date on which the index closing value is to be determined will be determined by reference to the value of such successor index at the close of trading on the relevant exchange for such successor index on such day.

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

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

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

## **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 notes.

# Alternate Supplemental Redemption Amount Calculation in Case of an Event of Default

Unless otherwise specified in the relevant terms supplement, in case an event of default with respect to the notes shall have occurred and be continuing, the amount declared due and payable per \$10 stated principal amount note upon any acceleration of the notes will be equal to \$10 (or a portion of \$10 if there is a partial principal protection percentage set forth in the relevant terms supplement) plus \$10 x the minimum return, if applicable, plus the supplemental redemption amount, which will be calculated as if the date of acceleration were the final index valuation date, plus, if applicable, any accrued and unpaid interest on the notes. If the notes have more than one index valuation date, then for each index 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 index valuation dates in excess of one) will be the corresponding index valuation dates, unless otherwise specified in the relevant terms supplement. Upon any acceleration of the notes, any interest will be calculated on the basis of a 360-day year of twelve 30-day months and the actual number of days elapsed from and including the previous interest payment date for which interest was paid.

If the maturity of the notes 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 notes 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 notes, unless otherwise specified in the relevant terms supplement.

# Listing

The notes 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 notes. The notes will be issued only as fully-registered securities registered in the name of Cede & Co. (DTC's nominee). One or more fully-registered global notes certificates, representing the total aggregate stated principal amount of the notes, will be issued and will be deposited with DTC. See the descriptions contained in the accompanying prospectus supplement under the headings "Description of Notes — Forms of Notes" and "The Depositary."

## Registrar, Transfer Agent and Paying Agent

Payment of amounts due at maturity on the notes will be payable and the transfer of the notes 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 notes. The Bank of New York Mellon will also act as paying agent and may designate additional paying agents.

Registration of transfers of the notes 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 notes will be governed by and interpreted in accordance with the laws of the State of New York.

# **CERTAIN U.S. FEDERAL INCOME TAX CONSEQUENCES**

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

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

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

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

#### Tax Treatment of the Notes

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

# Tax Consequences to U.S. Holders

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

- a citizen or resident of the United States;
- a corporation created or organized in or under the laws of the United States or any political subdivision thereof; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

## Notes with a Term of Not More than One Year

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

# **Tax Treatment Prior to Maturity**

Because the term of these notes is not more than one year, they will be treated as short-term debt obligations. Cash-method holders will not be required to recognize income with respect to the notes prior to maturity, other than with respect to amounts received as stated interest, if any, or received pursuant to a sale or exchange, as described below. Although accrual-method holders and certain other holders are generally required to accrue interest on short-term notes on a straight-line basis, because the amount of interest that will be received with respect to the notes is uncertain, it is not clear how these accruals should be determined. If the amount of interest that will be received has become fixed (or the likelihood of this amount not being a fixed amount has become "remote") prior to maturity, it is likely that the amount of interest to be accrued will be determined based on the fixed amount. You should consult your tax adviser regarding the determination of the amount of any interest accruals on the notes.

## Sale, Exchange or Redemption of a Note

Upon a sale or exchange of a short-term note (including redemption at maturity), you should recognize gain or loss in an amount equal to the difference between the amount you receive and your adjusted basis in the note. Your adjusted basis in the note should equal the sum of the amount you paid to acquire the note and interest that you have previously included in income but not received, if any.

The amount of any resulting loss will be treated as a capital loss, which may be subject to special reporting requirements if the loss exceeds certain thresholds. Gain resulting from redemption at maturity should be treated as ordinary interest income. It is not clear, however, whether or to what extent gain from a sale or exchange prior to maturity should be treated as capital gain or ordinary interest income. If the amount of interest to be received at maturity has become fixed (or the likelihood of this amount not being a fixed amount has become "remote") prior to a sale or exchange, it is likely that the portion of gain on the sale or exchange that should be treated as accrued interest (and, therefore, taxed as ordinary income) will be determined based on the fixed amount. You should consult your tax adviser regarding the proper treatment of any gain or loss recognized upon a sale or exchange of a short-term note (including redemption at maturity).

## Interest on Indebtedness Incurred to Purchase a Note

To the extent you have not previously included interest income with respect to a short-term note, you may be required to defer deductions for interest paid on indebtedness incurred to purchase or carry the note until maturity or until you dispose of the note in a taxable transaction. You should consult your tax adviser regarding the possibility of this deferral.

#### Notes with a Term of More than One Year

If the term of the notes (including either the issue date or the last possible date that the notes could be outstanding, but not both) is more than one year, we expect that the notes will be treated as "contingent payment debt instruments" for U.S. federal income tax purposes, and the remainder of this discussion so assumes. These notes 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 notes as described below.

We are required to determine a "comparable yield" for the notes. The "comparable yield" is the yield at which we could issue a fixed-rate debt instrument with terms similar to those of the notes, 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 notes. 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 notes representing a payment or a series of payments the amount and timing of which would produce a yield to maturity on the notes 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 notes, and the related projected payment schedule, in the final terms supplement for these notes, which we will file with the SEC.

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

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 notes, unless you timely disclose and justify the use of other estimates to the IRS. Regardless of your accounting method, you will be required to accrue as interest income OID on your notes 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(s) on the notes (as described below).

In addition to interest accrued based upon the comparable yield as described above, you will be required to recognize interest income equal to the amount of any net positive adjustment, *i.e.*, the excess of actual payments over projected payments, in respect of a note for a taxable year. A net negative adjustment, *i.e.*, the excess of projected payments over actual payments, in respect of a note for a taxable year:

- will first reduce the amount of interest in respect of the note that you would otherwise be required to include in income in the taxable year; and
- to the extent of any excess, will give rise to an ordinary loss, but only to the extent that the amount of all previous interest inclusions under the note exceeds the total amount of your net negative adjustments treated as ordinary loss on the note in prior taxable years.

A net negative adjustment is not subject to the limitation imposed on miscellaneous itemized deductions under Section 67 of the Code. Any net negative adjustment in excess of the amounts described above will be carried forward to offset future interest income in respect of the note or to reduce the amount realized on a sale or exchange of the note (including redemption at maturity).

Upon a sale or exchange of a note (including redemption at maturity), you generally will recognize taxable gain or loss equal to the difference between the amount received from the sale, exchange or redemption and your adjusted tax basis in the note. Your adjusted tax basis in the note will equal the cost thereof, increased by the amount of interest income previously accrued by you in respect of the note (determined without regard to any of the positive or negative adjustments to interest accruals described above) and decreased by the amount of any prior projected payments in respect of the note. You generally must treat any gain as interest income and any loss as ordinary loss to the extent of previous interest inclusions (reduced by the total amount of net negative adjustments previously taken into account as ordinary losses), 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.

In the case of notes with a barrier feature, if a barrier event occurs during the term of the notes, your payment at maturity will become fixed, and special rules may apply. Under these rules, you would be required to account for the difference between the originally projected payment at maturity and the fixed payment at maturity in a reasonable manner over the period to which the difference relates. In addition, you would be required to make adjustments to, among other things, your accrual periods and your adjusted basis in your notes. The character of any gain or loss on a sale or exchange of your notes would also be affected. You should consult your tax adviser concerning the application of these special rules.

## 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 note that is:

- a nonresident alien individual;
- a foreign corporation; or
- a nonresident alien fiduciary of 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 note (including redemption at maturity).

It is possible, in the case of notes linked to certain indices one or more of the issuers of the stocks composing which is treated as a "United States real property holding corporation" within the meaning of Section 897 of the Code, that certain adverse U.S. federal income tax consequences might apply to a Non-U.S. Holder upon the sale or exchange of a note or the redemption of a note at maturity. In this event, the relevant terms supplement will describe the possible application of these rules and withholding with respect to payments made on the sale or settlement of the relevant notes by Non-U.S. Holders. The relevant terms supplement may also describe Davis Polk & Wardwell's comfort on the applicability or non-applicability of these rules. The following discussion assumes that these rules do not apply.

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

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

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

## **UNDERWRITING**

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 Inc., as agent (an "Agent" or "JPMSI") and certain other agents that may be party to the Master Agency Agreement, as amended or supplemented, from time to time (each an "Agent" and collectively with JPMSI, the "Agents"), each Agent participating in an offering of the notes, acting as principal for its own account, has agreed to purchase, and we have agreed to sell, the principal amount of notes set forth on the cover page of the relevant terms supplement. Each such Agent proposes initially to offer the notes directly to the public at the public offering price set forth on the cover page of the relevant terms supplement. JPMSI 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 notes, the Agents may vary the offering price and other selling terms from time to time.

We own, directly or indirectly, all of the outstanding equity securities of JPMSI. The underwriting arrangements for this offering comply with the requirements of NASD Rule 2720 regarding a FINRA member firm's underwriting of securities of an affiliate. In accordance with NASD Rule 2720, no underwriter may make sales in this offering to any discretionary account without the prior written approval of the customer.

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

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

No action has been or will be taken by us, JPMSI or any dealer that would permit a public offering of the notes or possession or distribution of this product supplement no. MS-4-A-I, any related index 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 notes, or distribution of this product supplement no. MS-4-A-I, any related index supplement or the accompanying prospectus supplement, prospectus or terms supplement or any other offering material relating to the notes, may be made in or from any jurisdiction except in circumstances which will result in compliance with any applicable laws and regulations and will not impose any obligations on us, the Agents or any dealer.

Each Agent has represented and agreed, and each dealer through which we may offer the notes has represented and agreed, that it (i) will comply with all applicable laws and regulations in force in each non-U.S. jurisdiction in which it purchases, offers, sells or delivers the notes or possesses or distributes this product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement and (ii) will obtain any consent, approval or permission required by it for the purchase, offer or sale by it of the notes under the laws and regulations in force in each non-U.S. jurisdiction to which it is subject or in which it makes purchases, offers or sales of the notes. We shall not have responsibility for any Agent's or any dealer's compliance with the applicable laws and regulations or obtaining any required consent, approval or permission. For additional information regarding selling restrictions, please see "Notice to Investors" in this product supplement.

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

## **NOTICE TO INVESTORS**

We are offering to sell, and are seeking offers to buy, the notes only in jurisdictions where offers and sales are permitted. Neither this product supplement no. MS-4-A-I nor any related index supplement, the accompanying prospectus supplement, prospectus or terms supplement constitutes an offer to sell, or a solicitation of an offer to buy, any notes by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation. Neither the delivery of this product supplement no. MS-4-A-I nor any related index supplement, the accompanying prospectus supplement, prospectus or terms supplement nor any sale made hereunder implies that there has been no change in our affairs or that the information in this product supplement no. MS-4-A-I, any related index supplement and accompanying prospectus supplement, prospectus and terms supplement is correct as of any date after the date hereof.

You must (i) comply with all applicable laws and regulations in force in any jurisdiction in connection with the possession or distribution of this product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement and the purchase, offer or sale of the notes and (ii) obtain any consent, approval or permission required to be obtained by you for the purchase, offer or sale by you of the notes under the laws and regulations applicable to you in force in any jurisdiction to which you are subject or in which you make such purchases, offers or sales.

# **Argentina**

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

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

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

## The Bahamas

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

The offer of the notes, 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 notes.

#### Bermuda

This product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement have not been registered or filed with any regulatory authority in Bermuda. The offering of the notes pursuant to this product supplement no. MS-4-A-I, any related index supplement, and the accompanying prospectus supplement, prospectus and any terms supplement to persons resident in Bermuda is not prohibited, *provided* we are not thereby carrying on business in Bermuda.

#### Brazil

The notes have not been and will not be registered with the "Comissão de Valores Mobiliários" – the Brazilian Securities and Exchange Commission ("CVM") and accordingly, the notes 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 notes are not being offered into Brazil. Documents relating to an offering of the notes, as well as the information contained herein and therein, may not be supplied or distributed to the public in Brazil nor be used in connection with any offer for subscription or sale of the notes to the public in Brazil.

# **British Virgin Islands**

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

## Cayman Islands

This product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement, and the notes offered hereby and thereby have not been, and will not be, registered under the laws and regulations of the Cayman Islands, nor has any regulatory authority in the Cayman Islands passed comment upon or approved the accuracy or adequacy of this product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement. The notes have not been, and will not be, offered or sold, directly or indirectly, in the Cayman Islands.

## Chile

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

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

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

- 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 notes;
- (ii) to agree that it will only resell the notes in the Republic of Chile in compliance with all applicable laws and regulations; and that it will deliver to each person to whom the notes 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 notes; and
- (iv) to acknowledge that it has not relied upon advice from any Agent and/or us, or its or our respective affiliates, regarding the determination of the convenience or suitability of notes as an investment for the buyer or any other person; and has taken and relied upon independent legal, regulatory, tax and accounting advice.

#### Colombia

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

If the notes 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 notes 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 notes 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 notes 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 notes; or (iv) use (a) non-solicited emails or (b) email distributions lists to market the notes.

## El Salvador

The notes may not be offered to the general public in El Salvador, and according to Article 2 of the Lev 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 notes to indeterminate individuals, nor will it make known this product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement in the territory of El Salvador through any mass media communication such as television, radio, press, or any similar medium, other than publications of an international nature that are received in El Salvador, such as internet access or foreign cable advertisements, which are not directed to the Salvadoran public. The offering of the notes has not been registered with an authorized stock exchange in the Republic of El Salvador. Any negotiation for the purchase or sale of notes in the Republic of El Salvador shall only be negotiated on an individual basis with determinate individuals or entities in strict compliance with the aforementioned Article 2 of the Salvadoran Securities Market Law, and shall in any event be effected in accordance with all securities, tax and exchange control of the Dominican Republic, Central America, and United States Free Trade Agreements, and other applicable laws or regulations of the Republic of El Salvador.

# **European Economic Area**

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), each Agent has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") it has not made and will not make an offer of notes which are the subject of the offering contemplated by this product supplement no. MS-4-A-I and the accompanying prospectus supplement to the public in that Relevant Member State prior to the publication of a prospectus in relation to the notes which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive except that it may, with effect from and including the Relevant Implementation Date, make an offer of such notes to the public in that Relevant Member State:

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

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

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

# **Hong Kong**

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

#### Jersey

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

#### Mexico

The notes have not been, and will not be, registered with the Mexican National Registry of Securities maintained by the Mexican National Banking and Securities Commission nor with the Mexican Stock Exchange and therefore, may not be offered or sold publicly in the United Mexican States. This product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement may not be publicly distributed in the United Mexican States. The notes may be privately placed in Mexico among institutional and qualified investors, pursuant to the private placement exemption set forth in Article 8 of the Mexican Securities Market Law.

# The Netherlands

An offer to the public of any notes which are the subject of the offering and placement contemplated by this product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement may not be made in The Netherlands and each Agent has represented and agreed that it has not made and will not make an offer of such notes to the public in The Netherlands, unless such an offer is made exclusively to one or more of the following categories of investors in accordance with the Dutch Financial Markets Supervision Act (*Wet op het financial toezicht*, the "FMSA"):

- 1. Regulated Entities: (a) any person or entity who or which is subject to supervision by a regulatory authority in any country in order to lawfully operate in the financial markets (which includes: credit institutions, investment firms, financial institutions, insurance companies, collective investment schemes and their management companies, pension funds and their management companies, commodity dealers) ("Supervised Entities"); and (b) any person or entity who or which engages in a regulated activity on the financial markets but who or which is not subject to supervision by a regulatory authority because it benefits from an exemption or dispensation ("Exempt Entities");
- 2. Investment Funds and Entities: any entity whose corporate purpose is solely to invest in securities (which includes, without limitation, hedge funds);
- 3. Governmental institutions: the Dutch State, the Dutch Central Bank, Dutch regional, local or other decentralized governmental institutions, international treaty organizations and supranational organizations;

- 4. Self-certified Small and Medium-Sized Enterprises ("SMEs"): any company having its registered office in The Netherlands which does not meet at least two of the three criteria mentioned in (6) below and which has (a) expressly requested the Netherlands Authority for the Financial Markets (the "AFM") to be considered as a qualified investor, and (b) been entered on the register of qualified investors maintained by the AFM;
- 5. Self-certified Natural Persons: any natural person who is resident in The Netherlands if this person meets at least two (2) of the following criteria:
  - (i) the investor has carried out transactions of a significant size on securities markets at an average frequency of, at least, ten (10) per quarter over the previous four (4) quarters;
  - (ii) the size of the investor's securities portfolio exceeds €500,000;
  - (iii) the investor works or has worked for at least one (1) year in the financial sector in a professional position which requires knowledge of investment in securities,

# provided this person has:

- (a) expressly requested the AFM to be considered as a qualified investor; and
- (b) been entered on the register of qualified investors maintained by the AFM;
- 6. Large Enterprises: any company or legal entity which meets at least two of the following three criteria according to its most recent consolidated or non-consolidated annual accounts:
  - (a) an average number of employees during the financial year of at least 250;
  - (b) total assets of at least €43,000,000; or
  - (c) an annual net turnover of at least €50,000,000.
- 7. Discretionary individual portfolio managers: any portfolio manager in The Netherlands who or which purchases the notes for the account of clients who are not Qualified Investors on the basis of a contract of agency that allows for making investment decisions on the client's behalf without specific instructions of or consultation with any such client;
- 8. Minimum consideration: any person or entity for a minimum consideration of €50,000 or more (or equivalent in foreign currency) for each offer of notes; or
- 9. Fewer than 100 Offerees: fewer than 100 natural or legal persons (other than Qualified Investors).

For the purposes of this provision, the expression:

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

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

#### **Panama**

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

# Singapore

Neither this product supplement no. MS-4-A-I nor any related index supplement nor the accompanying prospectus supplement, prospectus or terms supplement has been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this product supplement no. MS-4-A-I, any related index supplement, the accompanying prospectus supplement, prospectus or terms supplement, and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

#### Switzerland

The notes have not been and will not be offered or sold, directly or indirectly, to the public in Switzerland, and this product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement do not constitute a public offering prospectus as that term is understood pursuant to article 652a or article 1156 of the Swiss Federal Code of Obligations.

We have not applied for a listing of the notes on the SWX Swiss Exchange or on any other regulated securities market and, consequently, the information presented in this product supplement no. MS-4-A-I, any related index supplement and the accompanying prospectus supplement, prospectus and terms supplement does not necessarily comply with the information standards set out in the relevant listing rules.

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

# **United Kingdom**

Each Agent has represented and agreed that:

(a) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business and (ii) it has not offered or sold and will not offer or sell the notes 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 notes 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 notes 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 notes in, from or otherwise involving the United Kingdom.

# Uruguay

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

# Venezuela

The notes comprising this offering have not been registered with the Venezuelan National Securities Commission (*Comisión Nacional de Valores*) and are not being publicly offered in Venezuela. No document related to the offering of the notes 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 notes 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 notes. 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 the Code (in either case, "Parties in Interest") with respect to such Plans. As a result of our business, we may be a Party in Interest with respect to many Plans. Where we 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 notes by or on behalf of the Plan could be a prohibited transaction under Section 406 of ERISA and/or Section 4975 of the Code, unless exemptive relief were available under an applicable exemption (as described below).

Certain prohibited transaction class exemptions ("PTCEs") issued by the U.S. Department of Labor may provide exemptive relief for direct or indirect prohibited transactions resulting from the purchase or holding of the notes. 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 provide a limited exemption for the purchase and sale of the notes and related lending transactions, provided that neither the issuer of the notes nor any of its affiliates have or exercise any discretionary authority or control or render any investment advice with respect to the assets of any Plan involved in the transaction and provided further that the Plan pays no more than adequate consideration in connection with the transaction (the so-called "service provider exemption").

Accordingly, the notes 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 notes will not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code. Each purchaser or holder of the notes or any interest therein will be deemed to have represented by its purchase or holding of the notes that (a) its purchase and holding of the notes is not made on behalf of or with "plan assets" of any Plan or (b) its purchase and holding of the notes will not result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code.

Employee benefit plans that are governmental plans (as defined in Section 3(32) of ERISA), certain church plans (as defined in Section 3(33) of ERISA) and non-U.S. plans (as described in Section 4(b)(4) of ERISA) 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 notes shall be required to represent (and deemed to have represented by its purchase of the notes) 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 notes 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 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.

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