## JPMorgan Chase \& Co.

## Leveraged Floating Rate Notes Linked to the Spread Between Two Reference Rates General

- JPMorgan Chase \& Co. may from time to time offer and sell leveraged floating rate notes linked to the spread between two reference rates, as described below (which we refer to as the "Spread"). This product supplement no. 129-A-II describes terms that will apply generally to the leveraged floating rate notes, and supplements the terms described in the accompanying prospectus supplement and prospectus. A separate term 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 and pricing supplements generally as terms supplements. If the terms described in the relevant terms supplement are inconsistent with those described herein 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.
- We will pay interest on the notes that is linked to the Spread, except to the extent an Initial Interest Rate applies, as described below.
- If so specified in the relevant terms supplement, at our option, we may redeem the notes, in whole or in part, on any of the specified Redemption Dates.
- For important information about tax consequences, see "Certain U.S. Federal Income Tax Consequences" beginning on page PS-15.
- Minimum denominations of $\$ 1,000$ and integral multiples thereof, unless otherwise specified in the relevant terms supplement.
- The notes will not be listed on any securities exchange, unless otherwise specified in the relevant terms supplement.


## Key Terms

Maturity Date:

Payment at Maturity: Unless otherwise specified in the relevant terms supplement, if the notes have not been redeemed (if applicable), at maturity you will receive a cash payment for each $\$ 1,000$ principal amount note equal to $\$ 1,000$ plus any accrued and unpaid interest.

Payment upon
Redemption
(if applicable):

Redemption Date(s)
(if applicable):
As specified in the relevant terms supplement; provided that the maturity date will not be less than one year and one day (counting for this purpose the issue date but not the maturity date) after the issue date. The maturity date of the notes is subject to postponement as described under "Description of Notes - Payment at Maturity."

If so specified in the relevant terms supplement, at our option, we may redeem the notes, in whole or in part, on any of the specified Redemption Dates. Unless otherwise specified in the relevant terms supplement, if the notes are redeemed, you will receive on the applicable Redemption Date a cash payment equal to $\$ 1,000$ for each $\$ 1,000$ principal amount note redeemed. Any accrued and unpaid interest on notes redeemed will be paid to the person who is the holder of record of such notes at the close of business on the $15^{\text {th }}$ calendar day prior to the applicable Redemption Date.

As specified in the relevant terms supplement. Any Redemption Date is subject to postponement as described under "Description of Notes - Payment upon Redemption."

Investing in the Leveraged Floating Rate Notes involves a number of risks. See "Risk Factors" beginning on page PS-6.
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. 129-A-II, the accompanying prospectus supplement and prospectus, or any related 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.

February 5, 2009

Initial Interest Rate (if applicable):

Initial Interest Period(s) (if applicable):

Initial Interest Reset Date(s)
(if applicable):
Determination Date:

Interest Period(s):

Unless otherwise specified in the relevant terms supplement, with respect to each Interest Period, for each $\$ 1,000$ principal amount note, the interest payment will be calculated as follows:

$$
\$ 1,000 \times \text { Interest Rate } \times \text { Day Count Fraction }
$$

Unless otherwise specified in the relevant terms supplement:
(1) if the relevant terms supplement specifies an Initial Interest Rate, with respect to each Initial Interest Period, the Initial Interest Rate, and with respect to each subsequent Interest Period, a rate per annum equal to (a) the product of (i) the Leverage Factor and (ii) the Spread on the applicable Determination Date plus (b) the Additional Rate, if applicable; or
(2) if the relevant terms supplement does not specify an Initial Interest Rate, with respect to each Interest Period, a rate per annum equal to (a) the product of (i) the Leverage Factor and (ii) the Spread on the applicable Determination Date plus (b) the Additional Rate, if applicable.
Unless otherwise specified in the relevant terms supplement, the Interest Rate for each Interest Period, other than the Initial Interest Period(s), if applicable, will be calculated as follows:

$$
\text { (Leverage Factor } \times \text { Spread) + Additional Rate (if applicable) }
$$

Notwithstanding the foregoing, in no event will the Interest Rate for any Interest Period be less than the Minimum Rate or, if applicable, greater than the Maximum Rate.

With respect to any Initial Interest Period, a rate per annum (or, if more than one Initial Interest Period is specified, a rate per annum for each such Initial Interest Period) as specified in the relevant terms supplement, which may be a fixed rate or a floating rate linked to a rate specified in the relevant terms supplement and, if so specified in the relevant terms supplement, multiplied by a multiplier and/or plus or minus a spread. If the Initial Interest Rate is specified as a fixed rate in the relevant terms supplement, such Initial Interest Rate may increase or decrease on one or more specified Initial Interest Reset Dates during the Initial Interest Period(s). If the Initial Interest Rate is determined by reference to a floating rate, for purposes of the determination of the Initial Interest Rate for an Initial Interest Period, that floating rate will be reset on each Initial Interest Reset Date, as specified in the relevant terms supplement. For example, the relevant terms supplement may specify that the Initial Interest Rate on the notes will be (1) $5.00 \%$ from and including the issue date to but excluding the first Initial Interest Reset Date, (2) $5.25 \%$ from and including the first Initial Interest Reset Date to but excluding the second Initial Interest Reset Date and (3) 6.00\% from and including the second Initial Interest Reset Date to but excluding the Interest Payment Date for the final Initial Interest Period. Alternatively, for example, the relevant terms supplement may specify that the Initial Interest Rate for each Initial Interest Period will be equal to the sum of (1) the 3 -month LIBOR on the applicable Initial Interest Reset Date and (2) a spread of $4.00 \%$. For the avoidance of doubt, the Initial Interest Rate may be one or more rates per annum that can be fixed or floating (multiplied by a multiplier and/or plus or minus a spread, if applicable), and each such rate per annum may be specified with respect to an Initial Interest Period. In addition, an Initial Interest Rate may change from one Initial Interest Period to another from one fixed or floating rate to another fixed or floating rate (in each case, multiplied by a multiplier and/or plus or minus a spread, if applicable).
The Interest Period(s) as specified in the relevant terms supplement to which the Initial Interest Rate is applicable.

As specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, for each Interest Period (other than the Initial Interest Period(s), if applicable), two business days immediately prior to the beginning of the applicable Interest Period (but no earlier than three months prior to the beginning of the applicable Interest Period).
Unless otherwise specified in the relevant terms supplement, the period beginning on and including the issue date of the notes and ending on but excluding the first Interest Payment Date or, if the notes are subject to redemption by us and have been redeemed prior to the first Interest Payment Date, ending on but excluding the applicable Redemption Date, and each successive period beginning on and including an Interest Payment Date and ending on but excluding the next succeeding Interest Payment Date or, if the notes are subject to redemption by us and have been redeemed prior to such next succeeding Interest Payment Date, ending on but excluding the applicable Redemption Date.

Day Count Fraction
(if applicable):

Interest Payment Dates(s):

Additional Rate (if applicable):

Additional Rate Reset Date(s)
(if applicable):

## Leverage Factor:

Minimum Rate:
Maximum Rate (if applicable):

Spread:

## Reference Rate 1:

Unless otherwise specified in the relevant terms supplement, a fraction, the numerator of which is the actual number of calendar days in the interest Period and the denominator of which is 365 , which will not be adjusted for any leap year.

As specified in the relevant terms supplement.
For each Interest Period (other than the Initial Interest Period(s), if applicable), a rate per annum as specified in the relevant terms supplement, which may be a fixed rate or a floating rate linked to a rate specified in the relevant terms supplement and, if so specified in the relevant terms supplement, multiplied by a multiplier and/or plus or minus a spread. If the Additional Rate is specified as a fixed rate in the relevant terms supplement, such Additional Rate may increase or decrease on one or more specified Additional Rate Reset Dates. If the Additional Rate is determined by reference to a floating rate (if applicable), for purposes of the determination of the Additional Rate for an Interest Period, that floating rate will be reset on each Additional Rate Reset Date. For example, the relevant terms supplement may specify that the Additional Rate on the notes will be (1) $2.00 \%$ from and including a specified Interest Payment Date (or the issue date, if an Initial Interest Rate is not applicable) to but excluding the first Additional Rate Reset Date, (2) 2.25\% from and including the first Additional Rate Reset Date to but excluding the second Additional Rate Reset Date and (3) $2.50 \%$ from and including the second Additional Rate Reset Date to but excluding the third Additional Rate Reset Date. Alternatively, for example, the relevant terms supplement may specify that the Additional Rate for each Interest Period will be equal to the sum of (1) the 3month LIBOR on the applicable Additional Rate Reset Date and (2) a spread of 2.00\%. For the avoidance of doubt, the Additional Rate may be one or more rates per annum that can be fixed or floating (multiplied by a multiplier and/or plus or minus a spread, if applicable), and each such rate per annum may be specified with respect to certain Interest Period(s). In addition, the Additional Rate may change from one Interest Period to another from one fixed or floating rate to another fixed or floating rate (in each case, multiplied by a multiplier and/or plus or minus a spread, if applicable).

As specified in the relevant terms supplement.

As specified in the relevant terms supplement.
$0.00 \%$ per annum, unless otherwise specified in the relevant terms supplement.
For each Interest Period (other than the Initial Interest Period(s), if applicable), a rate per annum as specified in the relevant terms supplement.
Unless otherwise specified in the relevant terms supplement, on each Determination Date:

## Reference Rate 1 - Reference Rate 2

For each Determination Date, a rate per annum as specified in the relevant terms supplement, which may be a fixed rate or a floating rate linked to a rate specified in the relevant terms supplement and, if so specified in the relevant terms supplement, multiplied by a multiplier and/or plus or minus a spread. If the Reference Rate 1 is specified as a fixed rate in the relevant terms supplement, such Reference Rate 1 may increase or decrease on one or more specified Reference Rate 1 Reset Dates. If the Reference Rate 1 is determined by reference to a floating rate (if applicable), for purposes of the determination of the Reference Rate 1 for an Interest Period, that floating rate will be reset on each Reference Rate 1 Reset Date. For example, the relevant terms supplement may specify that the Reference Rate 1 on the notes will be (1) $2.00 \%$ from and including a specified Interest Payment Date (or the issue date, if an Initial Interest Rate is not applicable) to but excluding the first Reference Rate 1 Reset Date, (2) $2.25 \%$ from and including the first Reference Rate 1 Reset Date to but excluding the second Reference Rate 1 Reset Date and (3) $2.50 \%$ from and including the second Reference Rate 1 Reset Date to but excluding the third Reference Rate 1 Reset Date. Alternatively, for example, the relevant terms supplement may specify that the Reference Rate 1 for each Interest Period will be equal to the sum of (1) the U.S. Dollar 10-year Constant Maturity Swap Rate on the applicable Reference Rate 1 Reset Date plus (2) a spread of $2.00 \%$. For the avoidance of doubt, the Reference Rate 1 may be one or more rates per annum that can be fixed or floating (multiplied by a multiplier and/or plus or minus a spread, if applicable), and each such rate per annum may be specified with respect to certain Interest Period(s). In addition, the Reference Rate 1 may change from one Interest Period to another from one fixed or floating rate to another fixed or floating rate (in each case, multiplied by a multiplier and/or plus or minus a spread, if applicable).
Reference Rate 2:
For each Determination Date, a rate per annum as specified in the relevant terms supplement, which may be a fixed rate or a floating rate linked to a rate specified in the relevant terms supplement and, if so specified in the relevant terms supplement, multiplied by a multiplier and/or plus or minus a spread. If the Reference Rate 2 is specified as a fixed rate in the relevant terms supplement, such Reference Rate 2 may increase or decrease on one or more specified Reference Rate 2 Reset Dates. If the Reference Rate 2 is determined by reference to a floating rate (if applicable), for purposes of the determination of the Reference Rate 2 for an Interest Period, that floating rate will be reset on each Reference Rate 2 Reset Date. For example, the relevant terms supplement may specify that the Reference Rate 2 on the notes will be (1) $2.00 \%$ from and including a specified Interest Payment Date (or the issue date, if an Initial Interest Rate is not applicable) to but excluding the first Reference Rate 2 Reset Date, (2) $2.25 \%$ from and including the first Reference Rate 2 Reset Date to but excluding the second Reference Rate 2 Reset Date and (3) $2.50 \%$ from
and including the second Reference Rate 2 Reset Date to but excluding the third Reference Rate 2 Reset Date. Alternatively, for example, the relevant terms supplement may specify that the Reference Rate 2 for each Interest Period will be equal to the sum of (1) the U.S. Dollar 10-year Constant Maturity Swap Rate on the applicable Reference Rate 2 Reset Date plus (2) a spread of $2.00 \%$. For the avoidance of doubt, the Reference Rate 2 may be one or more rates per annum that can be fixed or floating (multiplied by a multiplier and/or plus or minus a spread, if applicable), and each such rate per annum may be specified with respect to certain Interest Period(s). In addition, the Reference Rate 2 may change from one Interest Period to another from one fixed or floating rate to another fixed or floating rate (in each case, multiplied by a multiplier and/or plus or minus a spread, if applicable).
We refer to Reference Rate 1 and Reference Rate 2, each, as a "Reference Rate", and together, as "Reference Rates". Notwithstanding the foregoing, in no event will both Reference Rates be fixed rates.

Reference Rate 1 Reset Date(s)
(if applicable):
Reference Rate 2 Reset Date(s)
(if applicable):
Other Key Terms: In the course of defining features related to the Reference Rates, we may add additional Key Terms to the relevant terms supplement.

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#### Abstract

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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, this product supplement no. 129-A-II and the accompanying prospectus supplement and prospectus with respect to the notes offered by the relevant terms supplement and this product supplement no. 129-A-II and with respect to JPMorgan Chase \& Co. This product supplement no. 129-A-II, together with the relevant terms 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, fact sheets, brochures or other educational materials of ours. The information in the relevant terms supplement, this product supplement no. 129-A-II 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. 129-A-II 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, this product supplement no. 129-A-II 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. 129-A-II, 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. Capitalized terms used but not defined in this product supplement no. 129-A-II have the meanings assigned in the accompanying prospectus supplement, prospectus and the relevant terms supplement. The term "note" refers to each \$1,000 principal amount of our Leveraged Floating Rate Notes linked to the Spread Between Two Reference Rates.

## General

The Leveraged Floating Rate Notes are senior unsecured obligations of JPMorgan Chase \& Co. that are linked to the spread between two Reference Rates (which we refer to as the "Spread"). The notes are a series of securities referred to in the accompanying prospectus supplement, prospectus and the relevant terms 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.

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 \$1,000 and integral multiples thereof, unless otherwise specified in the relevant terms supplement. The principal amount and issue price of each note is $\$ 1,000$, 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. 129-A-II. The terms described in that document supplement those described herein and in the accompanying prospectus and prospectus supplement. If the terms described in the relevant terms supplement are inconsistent with those described herein or in the accompanying prospectus or prospectus supplement, the terms described in the relevant terms supplement will control.

## Payment at Maturity

The maturity date for the notes will be set forth in the relevant terms supplement; provided that the maturity date will not be less than one year and one day (counting for this purpose the issue date but not the maturity date) after the issue date. If the scheduled maturity date is not a business day, then the maturity date will be the next succeeding business day following such scheduled maturity date, and the payment of principal and any accrued and unpaid interest will be made with the same force and effect on such next succeeding business day, provided that any interest payable on the maturity date, as postponed, will accrue to but excluding the maturity date, as postponed.

Unless otherwise specified in the relevant terms supplement, if the notes have not been redeemed (if applicable), at maturity you will receive a cash payment for each $\$ 1,000$ principal amount note of $\$ 1,000$ plus any accrued and unpaid interest up to but excluding the maturity date.

## Payment upon Redemption

If so specified in the relevant terms supplement, at our option, we may redeem the notes, in whole or in part, on any of the specified Redemption Dates. Unless otherwise specified in the relevant terms supplement, if the notes are redeemed, you will receive on the applicable Redemption Date a cash payment equal to $\$ 1,000$ for each $\$ 1,000$ principal amount note redeemed. Any accrued and unpaid
interest on notes redeemed will be paid to the person who is the holder of record of such notes at the close of business on the $15^{\text {th }}$ calendar day prior to the applicable Redemption Date.

The Redemption Date(s), if applicable, will be specified in the relevant terms supplement, and any such date is subject to adjustment as described below. If a Redemption Date is not a business day, the payment due on such Redemption Date will be made with the same force and effect on the next succeeding business day, provided that any interest payable on such Redemption Date, as postponed, will accrue to but excluding such Redemption Date, as postponed.

Unless otherwise specified in the relevant terms supplement, to redeem the notes, we will mail a notice of redemption to DTC, as holder of the global notes, by first-class mail, postage prepaid, at least 5 business days and not more than 15 business days prior to the applicable Redemption Date. In case the notes are to be redeemed in part, the notice of redemption will state the portion of the principal amount of the notes to be redeemed. If less than all of the notes are to be redeemed, the trustee will select, in such manner as it deems appropriate and fair, the notes to be redeemed. Notes may be redeemed in part only in multiples equal to the authorized denomination for the notes, which, unless otherwise specified in the relevant terms supplement, will be $\$ 1,000$.

If notice of redemption has been given as provided above, the notes that are subject to redemption will become due and payable on the Redemption Date at the applicable redemption price plus accrued and unpaid interest, and interest on such notes will cease to accrue from and after the Redemption Date, and holders of such notes will have no rights in respect of such notes except the right to receive the redemption price and accrued and unpaid interest on the Redemption Date.

## Interest

The notes will bear interest from the issue date of the notes to but excluding the maturity date. The amount of interest payable on the notes on each Interest Payment Date will be linked to the Spread, except to the extent the relevant terms supplement specifies an Initial Interest Rate.

Unless otherwise specified in the relevant terms supplement, with respect to each Interest Period, for each $\$ 1,000$ principal amount note, the interest payment will be calculated as follows:

$$
\$ 1,000 \times \text { Interest Rate } \times \text { Day Count Fraction }
$$

Unless otherwise specified in the relevant terms supplement, with respect to each Interest Period, the notes will bear interest at a rate per annum, which we refer to as the "Interest Rate," determined as follows:
(1) if the relevant terms supplement specifies an Initial Interest Rate, with respect to each Initial Interest Period, the Initial Interest Rate, and with respect to each subsequent Interest Period, a rate per annum equal to (a) the product of (i) the Leverage Factor and (ii) the Spread on the applicable Determination Date plus (b) the Additional Rate, if applicable; or
(2) if the relevant terms supplement does not specify an Initial Interest Rate, with respect to each Interest Period, a rate per annum equal to (a) the product of (i) the Leverage Factor and (ii) the Spread on the applicable Determination Date plus (b) the Additional Rate, if applicable.

Unless otherwise specified in the relevant terms supplement, the "Day Count Fraction," if applicable, will be a fraction, the numerator of which is the actual number of calendar days in the Interest Period and the denominator of which is 365 , which will not be adjusted for any leap year.

Unless otherwise specified in the relevant terms supplement, the Interest Rate for each Interest Period, other than the Initial Interest Period(s), if applicable, will be calculated as follows:

$$
\text { Leverage Factor } \times \text { Spread +Additional Rate (if applicable) }
$$

Notwithstanding the foregoing, in no event will the Interest Rate for any Interest Period be less than the Minimum Rate or, if applicable, greater than the Maximum Rate.

For each Determination Date, the "Spread" will be calculated as follows:
Reference Rate 1 - Reference Rate 2

The "Reference Rate 1" for each Determination Date will be a rate per annum as specified in the relevant terms supplement, which may be a fixed rate or a floating rate linked to a rate specified in the relevant terms supplement and, if so specified in the relevant terms supplement, multiplied by a multiplier and/or plus or minus a spread. If the Reference Rate 1 is specified as a fixed rate in the relevant terms supplement, such Reference Rate 1 may increase or decrease on one or more specified Reference Rate 1 Reset Dates. If the Reference Rate 1 is determined by reference to a floating rate (if applicable), for purposes of the determination of the Reference Rate 1 for an Interest Period, that floating rate will be reset on each Reference Rate 1 Reset Date. For example, the relevant terms supplement may specify that the Reference Rate 1 on the notes will be (1) $2.00 \%$ from and including a specified Interest Payment Date (or the issue date, if an Initial Interest Rate is not applicable) to but excluding the first Reference Rate 1 Reset Date, (2) $2.25 \%$ from and including the first Reference Rate 1 Reset Date to but excluding the second Reference Rate 1 Reset Date and (3) $2.50 \%$ from and including the second Reference Rate 1 Reset Date to but excluding the third Reference Rate 1 Reset Date. Alternatively, for example, the relevant terms supplement may specify that the Reference Rate 1 for each Interest Period will be equal to the sum of (1) the U.S. Dollar 10-year Constant Maturity Swap Rate on the applicable Reference Rate 1 Reset Date and (2) a spread of $2.00 \%$. For the avoidance of doubt, the Reference Rate 1 may be one or more rates per annum that can be fixed or floating (multiplied by a multiplier and/or plus or minus a spread, if applicable), and each such rate per annum may be specified with respect to certain Interest Period(s). In addition, the Reference Rate 1 may change from one Interest Period to another from one fixed or floating rate to another fixed or floating rate (in each case, multiplied by a multiplier and/or plus or minus a spread, if applicable).

The "Reference Rate 1 Reset Date(s)," if applicable, will be as specified in the relevant terms supplement.

The "Reference Rate 2" for each Determination Date will be a rate per annum as specified in the relevant terms supplement, which may be a fixed rate or a floating rate linked to a rate specified in the relevant terms supplement and, if so specified in the relevant terms supplement, multiplied by a multiplier and/or plus or minus a spread. If the Reference Rate 2 is specified as a fixed rate in the relevant terms supplement, such Reference Rate 2 may increase or decrease on one or more specified Reference Rate 2 Reset Dates. If the Reference Rate 2 is determined by reference to a floating rate (if applicable), for purposes of the determination of the Reference Rate 2 for an Interest Period, that floating rate will be reset on each Reference Rate 2 Reset Date. For example, the relevant terms supplement may specify that the Reference Rate 2 on the notes will be (1) $2.00 \%$ from and including a specified Interest Payment Date (or the issue date, if an Initial Interest Rate is not applicable) to but excluding the first Reference Rate 2 Reset Date, (2) $2.25 \%$ from and including the first Reference Rate 2 Reset Date to but excluding the second Reference Rate 2 Reset Date and (3) $2.50 \%$ from and including the second Reference Rate 2 Reset Date to but excluding the third Reference Rate 2 Reset Date. Alternatively, for example, the relevant terms supplement may specify that the Reference Rate 2 for each Interest Period will be equal to the sum of (1) the U.S. Dollar 10 -year Constant Maturity Swap Rate on the applicable Reference Rate 2 Reset Date and (2) a spread of $2.00 \%$. For the avoidance of doubt, the Reference Rate 2 may be one or more rates per annum that can be fixed or floating (multiplied by a multiplier and/or plus or minus a spread, if applicable), and each such rate per annum may be specified with respect to certain Interest Period(s). In addition, the Reference Rate 2 may change from one Interest Period to another from one fixed or floating rate to another fixed or floating rate (in each case, multiplied by a multiplier and/or plus or minus a spread, if applicable).

The "Reference Rate 2 Reset Date(s)," if applicable, will be as specified in the relevant terms supplement.

We refer to Reference Rate 1 and Reference Rate 2, each, as a "Reference Rate", and together, as "Reference Rates". Notwithstanding the foregoing, in no event will both Reference Rates be fixed rates.

The "Initial Interest Rate," if applicable, will be a rate per annum (or, if more than one Initial Interest Period is specified, a rate per annum for each such Initial Interest Period) as specified in the relevant terms supplement, which may be a fixed rate or a floating rate linked to a rate specified in the relevant terms supplement and, if so specified in the relevant terms supplement, multiplied by a multiplier and/or plus or minus a spread. If the Initial Interest Rate is specified as a fixed rate in the relevant terms supplement, such Initial Interest Rate may increase or decrease on one or more specified Initial Interest Reset Dates during the Initial Interest Period(s). If the Initial Interest Rate is determined by reference to a floating rate, for purposes of the determination of the Initial Interest Rate for an Initial Interest Period, that floating rate will be reset on each Initial Interest Reset Date, as specified in the relevant terms supplement. For example, the relevant terms supplement may specify that the Initial Interest Rate on the
notes will be (1) $5.00 \%$ from and including the issue date to but excluding the first Initial Interest Reset Date, (2) $5.25 \%$ from and including the first Initial Interest Reset Date to but excluding the second Initial Interest Reset Date and (3) 6.00\% from and including the second Initial Interest Reset Date to but excluding the Interest Payment Date for the final Initial Interest Period. Alternatively, for example, the relevant terms supplement may specify that the Initial Interest Rate for each Initial Interest Period will be equal to the sum of (1) the 3-month LIBOR on the applicable Initial Interest Reset Date and (2) a spread of $4.00 \%$. For the avoidance of doubt, the Initial Interest Rate may be one or more rates per annum that can be fixed or floating (multiplied by a multiplier and/or plus or minus a spread, if applicable), and each such rate per annum may be specified with respect to an Initial Interest Period. In addition, an Initial Interest Rate may change from one Initial Interest Period to another from one fixed or floating rate to another fixed or floating rate (in each case, multiplied by a multiplier and/or plus or minus a spread, if applicable).

The "Initial Interest Period(s)," if applicable, will be the Interest Period(s) as specified in the relevant terms supplement to which the Initial Interest Rate is applicable.

The "Initial Interest Reset Date(s)," if applicable, will be as specified in the relevant terms supplement.
Unless otherwise specified in the relevant terms supplement, for each Interest Period (other than the Initial Interest Period(s), if applicable), the "Determination Date" will be two business days immediately prior to the beginning of the applicable Interest Period (but no earlier than three months prior to the beginning of the applicable Interest Period).

For each Interest Period (other than the Initial Interest Period(s), if applicable), the "Additional Rate" will be a rate per annum as specified in the relevant terms supplement, which may be a fixed rate or a floating rate linked to a rate specified in the relevant terms supplement and, if so specified in the relevant terms supplement, multiplied by a multiplier and/or plus or minus a spread. If the Additional Rate is specified as a fixed rate in the relevant terms supplement, such Additional Rate may increase or decrease on one or more specified Additional Rate Reset Dates. If the Additional Rate is determined by reference to a floating rate (if applicable), for purposes of the determination of the Additional Rate for an Interest Period, that floating rate will be reset on each Additional Rate Reset Date. For example, the relevant terms supplement may specify that the Additional Rate on the notes will be (1) $2.00 \%$ from and including a specified Interest Payment Date (or the issue date, if an Initial Interest Rate is not applicable) to but excluding the first Additional Rate Reset Date, (2) 2.25\% from and including the first Additional Rate Reset Date to but excluding the second Additional Rate Reset Date and (3) $2.50 \%$ from and including the second Additional Rate Reset Date to but excluding the third Additional Rate Reset Date. Alternatively, for example, the relevant terms supplement may specify that the Additional Rate for each Interest Period will be equal to the sum of (1) the 3-month LIBOR on the applicable Additional Rate Reset Date and (2) a spread of $2.00 \%$. For the avoidance of doubt, the Additional Rate may be one or more rates per annum that can be fixed or floating (multiplied by a multiplier and/or plus or minus a spread, if applicable), and each such rate per annum may be specified with respect to certain Interest Period(s). In addition, the Additional Rate may change from one Interest Period to another from one fixed or floating rate to another fixed or floating rate (in each case, multiplied by a multiplier and/or plus or minus a spread, if applicable).

The "Additional Rate Reset Date(s)," if applicable, will be as specified in the relevant terms supplement.

The "Leverage Factor" will be specified in the relevant terms supplement.
The "Minimum Rate" will be $0.00 \%$ per annum, unless otherwise specified in the relevant terms supplement.

For each Interest Period (other than the Initial Interest Period(s), if applicable), the "Maximum Rate," if applicable, will be a rate per annum as specified in the relevant terms supplement.

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.

If the notes are not subject to redemption by us or are subject to redemption by us but have not been redeemed, interest will accrue from the issue date of the notes to but excluding the maturity date. Interest will be paid in arrears on each Interest Payment Date and on 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 15th calendar day is a business day, unless otherwise specified in the relevant terms supplement. If the maturity date is adjusted due to a non-business day, 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, provided that any interest payable on the maturity date, as postponed, will accrue to but excluding the maturity date, as postponed.

If the notes are subject to redemption by us and have been redeemed, interest will accrue from the issue date of the notes to but excluding the applicable Redemption Date. Interest will be paid in arrears on each Interest Payment Date occurring before the applicable Redemption Date and on the applicable Redemption Date, to the holders of record at the close of business on the date 15 calendar days prior to that Interest Payment Date or the applicable Redemption Date, as applicable, whether or not such 15th calendar day is a business day, unless otherwise specified in the relevant terms supplement. If the applicable Redemption Date is adjusted due to a non-business day, the payment of interest due on that Redemption Date will be made on that Redemption Date, as adjusted, with the same force and effect as if that Redemption Date had not been adjusted, provided that any interest payable on such Redemption Date, as postponed, will accrue to but excluding such Redemption Date, as postponed.

Unless otherwise specified in the relevant terms supplement, an "Interest Period" is the period beginning on and including the issue date of the notes and ending on but excluding the first Interest Payment Date or, if the notes are subject to redemption by us and have been redeemed prior to the first Interest Payment Date, ending on but excluding the applicable Redemption Date, and each successive period beginning on and including an Interest Payment Date and ending on but excluding the next succeeding Interest Payment Date or, if the notes are subject to redemption by us and have been redeemed prior to such next succeeding Interest Payment Date, ending on but excluding the applicable Redemption Date.

An "Interest Payment Date" will be as specified in the relevant terms supplement. If any day on which a payment of interest is due is not a business day, the payment will be made with the same force and effect on the next succeeding business day, provided that any interest payable on such Interest Payment Date, as postponed, will accrue to but excluding such Interest Payment Date, as postponed, and the next Interest Period, if applicable, will commence on such Interest Payment Date, as postponed.

## Other Terms

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, 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.

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.

## RISK FACTORS

Your investment in the notes will involve certain risks. You should consider carefully the following discussion of risks before you decide that an investment in the notes is suitable for you.

## Floating rate notes present different investment considerations than fixed rate notes or similar floating rate securities.

The rate of interest paid by us on the notes for each Interest Period (other than Initial Interest Period(s) with a fixed Initial Interest Rate, if applicable) is not fixed, but will vary depending, in part, on the Spread, and, for notes with an Additional Rate or Initial Interest Rate linked to a floating rate, the other specified floating rate(s), which may be less than returns otherwise payable on debt securities issued by us with similar maturities. The variable interest rate on the notes, while determined, in part, by reference to the applicable Reference Rates and the other specified floating rate(s), does not actually pay at such rates. You should consider, among other things, the overall annual percentage rate of interest to maturity as compared to other equivalent investment alternatives. We have no control over any fluctuations in the applicable Reference Rates or the other specified floating rates(s).

## 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 interest rate on the notes is based on the Spread, which may result in an interest rate of zero.
Reference Rates, which are not a fixed rate, may be influenced by a number of factors, including (but not limited to) monetary policies, fiscal policies, inflation, general economic conditions and public expectations with respect to such factors. The effect that any single factor may have on such Reference Rates may be partially offset by other factors. We cannot predict the factors that may cause the Spread to increase or decrease. A decrease in a positive Spread will result in a reduction of the interest rate per annum payable for the corresponding Interest Period (other than the Initial Interest Period(s), if applicable). A negative Spread will cause the interest rate for the corresponding Interest Period to be equal to the Minimum Rate (which may be equal to zero), or, if an Additional Rate applies, to be less than the Additional Rate. The amount of interest you accrue on the notes in any Interest Period (other than the Initial Interest Period(s), if applicable) may decrease even if either or both of the Reference Rates increase. Interest during any Interest Period (other than the Initial Interest Period(s), if applicable) may be equal to zero, and you will not be compensated for any loss in value due to inflation and other factors relating to the value of money over time during such period.

The interest rate on the notes for any Interest Period (other than the Initial Interest Period(s), if applicable) may be subject to a Maximum Rate.

If so specified in the relevant terms supplement, the Interest Rate for any Interest Period (other than the Initial Interest Period(s), if applicable) may be subject to a Maximum Rate. This Maximum Rate will limit the amount of interest you may receive for each Interest Period. As a result, if the Interest Rate for any Interest Period (other than the Initial Interest Period(s), if applicable) without taking into consideration the Maximum Rate would have been greater than the Maximum Rate, the notes will provide you less interest income than an investment in a similar instrument that is not subject to a maximum interest rate.

If the notes are subject to redemption and are redeemed by us, the aggregate amount of interest paid to you will be less than the aggregate amount of interest payable over the term of the notes if held to maturity.

If the relevant terms supplement specifies that the notes are subject to redemption by us, and if we redeem all or part of your notes, for the notes that are redeemed, you will receive the principal amount of such notes and, assuming you are the record holder of the notes at the close of business on the $15^{\text {th }}$
calendar date prior to the Redemption Date, accrued and unpaid interest to but excluding the Redemption Date. The aggregate amount of interest paid to you will be less than the aggregate amount of interest payable over the term of the notes if held to maturity. We may choose to redeem the notes early or choose not to redeem the notes early on any Redemption Date, in our sole discretion. For example, if either or both Reference Rates are U.S. Dollar Constant Maturity Swap Rates ("CMS Rates"), We may choose to redeem the notes early if U.S. interest rates decrease significantly or if the volatility of U.S. interest rates decreases significantly. If we redeem the notes early, your return may be less than the yield that the notes would have earned if they had been held to maturity, and you may not be able to reinvest your funds at the same rate as provided by the notes.

## If either or both Reference Rates are CMS Rates, the Spread will be affected by a number of factors.

The amount of interest, if any, payable on notes (other than interest payable with respect to the Initial Interest Period(s), if applicable) will depend on the Spread. If either or both Reference Rates are CMS Rates, a number of factors can affect the Spread by causing changes in the relative values of the applicable Reference Rates including, but not limited to:

- changes in, or perceptions about, future CMS Rates: generally, fluctuations in, or a perception that there will be fluctuations in, the levels of the CMS Rates will affect the Spread, since increased interest rate volatility is historically associated with an increased spread between long and short-term interest rates and, conversely, decreased volatility is historically associated with tighter spreads;
- general economic conditions: the economic, financial, political, regulatory or judicial events that affect financial markets generally will affect the interest payable on the notes as well, since the interest payable is a function of fluctuations in underlying rates that will generally be affected by such events;
- prevailing interest rates: CMS Rates are subject to daily fluctuations depending on the levels of prevailing interest rates in the market generally, in addition, lower overall interest rates are historically associated with an increased spread between long and short-term interest rates and, conversely, higher overall interest rates are historically associated with tighter spreads; and
- policy of the Federal Reserve Board regarding interest rates: an easing of monetary policy is historically associated with an increased spread between long and short-term interest rates and, conversely, a tightening of monetary policy is historically associated with tighter spreads.

These and other factors may have a negative impact on the payment of interest on the notes. In addition, these and other factors may have a negative impact on the value of your notes in the secondary market.

## The method of determining the variable interest rate for any Interest Period may not directly correlate with the actual Reference Rates.

The determination of the interest rate per annum payable for any Interest Period (other than the Initial Interest Period(s), if applicable) will be based, in part, on the Spread, but it may not directly correlate with the actual Reference Rates. We will use the applicable Reference Rates on each Determination Date to determine the Spread on such Determination Date, which is in turn used to determine the interest rate for the Interest Period corresponding to such Determination Date.

## The manner in which floating rate Reference Rates are calculated may change in the future.

There can be no assurance that the method by which floating rates Reference Rates on each Determination Date are calculated will not change. Such changes in the method of calculation could reduce the corresponding Spread. Accordingly, the value of the notes may be significantly reduced. If Reference Rates are substantially altered, or are not quoted on the applicable Reuters or Bloomberg
page, or any substitute page thereto, on the Determination Date(s), a substitute rate may be employed by the calculation agent to determine the Reference Rates and that substitution may adversely affect the value of the notes.

## If either or both Reference Rates are floating rates, the floating rates may be volatile.

The floating rates, such as the CMS rates, the CMT rates, or LIBOR, are subject to volatility due to a variety of factors affecting interest rates generally, including:

- sentiment regarding underlying strength in the U.S. and global economies;
- expectation regarding the level of price inflation;
- $\quad$ sentiment regarding credit quality in U.S. and global credit markets;
- central bank policy regarding interest rates; and
- performance of capital markets.

Increases or decreases in the floating rates could result in the corresponding Spread decreasing or being negative and thus in the reduction of interest payable on notes, if any.

## 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 for the notes, 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.

The notes are designed to be held to maturity, unless redeemed prior to maturity.
The price at which you will be able to sell your notes to us or our affiliates prior to maturity, if at all, may be at a substantial discount from the principal amount of the notes, even in cases where one or both of the Reference Rates have appreciated since the pricing date. The potential returns described in the relevant terms supplement assume that your notes, which are not designed to be short-term trading instruments, are held to maturity unless redeemed prior to maturity.

## 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 Reference Rates 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 applicable Reference Rates. 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 Reference Rates;
- the Spread;
- the time to maturity of the notes;
- interest and yield rates in the market generally, as well as the volatility of those rates;
- if the notes are subject to redemption by us, the likelihood, or expectation, that the notes will be redeemed by us, based on prevailing market interest rates or otherwise;
- economic, financial, political, regulatory or judicial events that affect the debt markets generally; and
- our creditworthiness, including actual or anticipated downgrades in our credit ratings.

You cannot predict the future performance of floating rate Reference Rates based on their historical performance. The Spread may decrease or be negative such that you may not receive any return on your initial investment.

## 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 upon early redemption or at maturity will be based on the full 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.

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

JPMSI and other affiliates of ours trade financial instruments related to U.S. Dollar Constant Maturity Swap Rates and other floating rates 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 with returns linked to U.S. Dollar Constant Maturity Swap Rates and other floating rates. 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 floating rate Reference Rates and other relevant floating rates and, accordingly, could affect the value of the notes, the likelihood that the notes will be redeemed and the amount of interest, if any, payable on each Interest Payment Date.

We or one or more of our affiliates may publish research reports, or otherwise express views about the debt market and interest rates, including U.S. Dollar Constant Maturity Swap Rates. Any prospective purchaser of notes should undertake an independent investigation of the debt markets and interest rates, including the U.S. Dollar Constant Maturity Swap Rates as in its judgment is appropriate to make an informed decision with respect to any 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 to (or related to spreads between), U.S. Dollar Constant Maturity Swap Rates and other floating rates. 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, 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.

JPMSI, one of our affiliates, will act as the calculation agent. The calculation agent will determine, among other things: the Reference Rates, the applicable Interest Rate for each Interest Period, the

Interest Payment Dates, the amount of interest payable on each Interest Payment Date and the amount of cash that we are required to pay to you at maturity or upon redemption. In addition, the calculation agent will determine whether a day is a business day. 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.

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.

If either of both Reference Rates are floating rates other than CMS Rates, the relevant terms supplement may provide additional risk factors relating to such floating rates.

## 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.

Unless otherwise specified in the relevant terms supplement, each agent's commissions will include the projected profit 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 securities or instruments the value of which is derived from the Reference Rates. While we cannot predict an outcome, such hedging activities or other hedging or investment activities of ours could potentially affect the applicable Reference Rates and, therefore, effectively decrease the interest rate payable on the notes. 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 securities or instruments the value of which is derived from the Reference Rates. Although we have no reason to believe that any of these activities will have a material impact on the Reference Rates, 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 may take in connection with our hedging activity.

## REFERENCE RATES

## U.S. Dollar Constant Maturity Swap Rates

The U.S. Dollar Constant Maturity Swap Rate is a measurement of the fixed rate leg of a hypothetical fixed rate-for-floating rate swap transaction, which we refer to as a constant maturity swap. In this hypothetical swap transaction, the fixed rate payment stream is reset each period relative to a regularly available fixed maturity market rate (such as the 10-Year or 2-Year U.S. dollar swap rate, payable semiannually on the basis of a 360 -day year consisting of twelve 30 -day months) and is exchangeable for a floating 3-month LIBOR-based payment stream, payable quarterly on the basis of the actual number of days elapsed in a 360 -day year. LIBOR is the London interbank offered rate, and is a common rate of interest used in the swaps industry. The constant maturity side of the swap, represents the yield on an instrument with a longer life than the length of the fixed rate reset period. The value of the constant maturity swap is determined based on the comparison of the expected future LIBOR rates versus the fixed constant maturity swap rate, so the parties to a constant maturity swap have exposure to changes in a longer-term market rate.

## Other Reference Rates

If either of both Reference Rates are floating rates other than CMS Rates, the relevant terms supplement will provide additional information relating to such floating rates.

## GENERAL TERMS OF NOTES

## Calculation Agent

JPMSI will act as the calculation agent. The calculation agent will determine, among other things: the rates of the Reference Rates, the applicable Interest Rate for each Interest Period, the Interest Payment Dates, the amount of interest payable on each Interest Payment Date and the amount of cash that we are required to pay to you at maturity or upon redemption. In addition, the calculation agent will determine whether a day is a business day. 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, on a Redemption Date, if applicable, and each Interest Payment Date on or prior to 11:00 a.m., New York City time, on the business day preceding the maturity date, Redemption Date or Interest Payment Date, as applicable.

All calculations with respect to the Reference Rates, as well as any successor or substitute rate calculation described above, will be rounded to the nearest one hundred-thousandth, with five onemillionths rounded upward (e.g., .876545 would be rounded to .87655 ); all dollar amounts related to determination of the interest payment per $\$ 1,000$ principal amount note on each Interest Payment Date, at maturity or on a Redemption Date, if any, 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, if any, on the aggregate principal amount of notes per holder will be rounded to the nearest cent, with one-half cent rounded upward.

## Events of Default

Under the heading "Description of Debt Securities - Events of Default, Waiver, Debt Securities in Foreign Currencies" in the accompanying prospectus is a description of events of default relating to debt securities including the notes.

## Payment upon 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 $\$ 1,000$ principal amount note upon any acceleration of the notes will be determined by the calculation agent and will be an amount in cash equal to $\$ 1,000$ per $\$ 1,000$ principal amount note plus accrued and unpaid interest, calculated as if the date of acceleration were the maturity date. In such case, interest will be calculated on the basis of a 365 -day year and the actual number of days in such adjusted Interest Period and will be based on (1) the Interest Rate on the Determination Date immediately preceding such adjusted Interest Period or (2) if such adjusted Interest Period falls within an Initial Interest Period, the Initial Interest Rate, and if such Initial Interest Rate is based on a floating rate, as determined on the Initial Interest Reset Date immediately preceding such adjusted Interest Period, unless otherwise specified in the relevant terms supplement.

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 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 general discussion of certain U.S. federal income tax consequences of the ownership and disposition of notes. This discussion 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 is based on the Code, existing and proposed Treasury regulations, revenue rulings, administrative interpretations and judicial decisions, in each case as currently in effect, all of which are subject to change, possibly with retroactive effect. This summary does not address all aspects of the U.S. federal income 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:

- a financial institution;
- an insurance company;
- a "regulated investment company" as defined in Section 851 of the Code;
- a "real estate investment trust" as defined in Section 856 of the Code;
- a tax-exempt entity, including an "individual retirement account" or "Roth IRA" as defined in Section 408 or Section 408A of the Code, respectively;
- a dealer in securities or foreign currencies;
- a person holding the notes as part of a hedging transaction, "straddle," conversion transaction, or integrated transaction, or who has entered into a "constructive sale" with respect to the notes;
- a U.S. Holder (as defined below) whose functional currency is not the U.S. dollar;
- a trader in securities or foreign currencies 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.

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 U.S. federal income tax consequences of owning and disposing of the notes, as well as any consequences under the laws of any state, local or foreign taxing jurisdiction.

## Tax Treatment of the Notes

We expect to seek an opinion from Sidley Austin LLP, our special tax counsel, regarding the treatment of the notes as either "variable rate debt instruments" or "contingent payment debt instruments" for U.S. federal income tax purposes. If special tax counsel is able to provide an opinion regarding the tax treatment of the notes, then the relevant terms supplement will describe its 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. In any event, the relevant terms supplement will specify whether we intend to treat the notes as variable rate debt instruments or as contingent payment debt instruments. By purchasing the notes, you will agree to treat the notes consistently with that treatment.

## Tax Consequences to U.S. Holders

The following discussion applies to you only if you are a "U.S. Holder" of notes. You are a "U.S. Holder" if you are a beneficial owner of a note for U.S. federal income tax purposes and you are:

- a citizen or resident of the United States;
- a corporation or other entity taxable as a corporation created or organized in or under the laws of the United States, any State thereof or the District of Columbia; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.


## Notes Treated as Variable Rate Debt Instruments

The following discussion does not apply to notes that are issued at price that is less than their "stated redemption price at maturity" by more than a de minimis threshold ("OID notes"). If relevant, prospective holders of OID notes will be provided with a supplemental disclosure statement in the relevant terms supplement, describing the tax consequences relating to OID notes.

Interest paid on a note that is treated as a "variable rate debt instrument" (a "VRDI") for U.S. federal income tax purposes will generally be taxable to you as ordinary income at the time it accrues or is received in accordance with your method of tax accounting.

Upon the sale, exchange, redemption or retirement of a VRDI (including at its maturity), you will recognize taxable gain or loss equal to the difference between the amount realized and your adjusted tax basis in the note. For this purpose, the amount realized does not include any amount attributable to accrued interest, which will be treated as ordinary income as described in the preceding paragraph. In general, gain or loss realized upon the sale or exchange of a VRDI (including redemption of a VRDI at maturity or early redemption) will be capital gain or loss and will be long-term capital gain or loss if you have held the VRDI for more than one year at that time. The deductibility of capital losses, however, is subject to limitations.

## Notes Treated as Contingent Payment Debt Instruments

Notes that are treated as "contingent payment debt instruments" ("CPDI") for U.S. federal income tax purposes 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 CPDI as described below.

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

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 a CPDI, unless you timely disclose and justify the use of other estimates to the Internal Revenue Service (the "IRS"). Regardless of your accounting method, you will be required to accrue as interest income OID on the CPDI at the comparable yield, adjusted upward or downward to reflect the difference, if any, between the actual and the projected amount of the contingent payments on the CPDI (as described below).

The amount of interest (i.e., OID) accrued on a CPDI for each accrual period is determined by multiplying the comparable yield of the CPDI, adjusted for the length of the accrual period, by the CPDI's adjusted issue price at the beginning of the accrual period, determined in accordance with the rules set forth in the Treasury regulations applicable to contingent payment debt instruments. The amount of OID so determined is then allocated on a ratable basis to each day in the accrual period that you held the CPDI.

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 CPDI for a taxable year. A net negative adjustment, i.e., the excess of projected payments over actual payments, in respect of a CPDI for a taxable year:

- will first reduce the amount of interest in respect of the CPDI 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 CPDI exceeds the total amount of your net negative adjustments treated as ordinary loss on the CPDI 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 CPDI or to reduce the amount realized on a sale, exchange, redemption or retirement of the CPDI (including at its maturity).

Upon a sale, exchange, redemption or retirement of a CPDI (including at its maturity), you generally will recognize taxable gain or loss equal to the difference between the amount received from the sale, exchange or retirement and your adjusted tax basis in the note. Your adjusted tax basis in a CPDI will equal the cost thereof, increased by the amount of interest income previously accrued by you in respect of the CPDI (determined without regard to any of the positive or negative adjustments to interest accruals described above) and decreased by the amount of any projected payments in respect of the CPDI previously made to you. 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.

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

The following discussion applies to you only if you are a "Non-U.S. Holder" of either a VRDI or a CPDI. You are a "Non-U.S. Holder" if you are a beneficial owner of a note for U.S. federal income tax purposes and you are:

- 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 own tax adviser regarding the U.S. federal income tax consequences of the sale, exchange or other disposition of a note (including redemption of a note at maturity or early redemption).

Payments of interest (including OID) made to you on the notes will be exempt from U.S. federal income tax (including withholding tax) provided generally that (i) you are not a bank receiving interest on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of your trade or business, (ii) you do not actually or constructively own 10 percent or more of the total combined voting power of our stock entitled to vote, (iii) you are not a controlled foreign corporation related, directly or indirectly, to us through stock ownership, (iv) you certify on IRS Form W-8BEN, under penalties of perjury, that you are not a United States person and provide your name and address or otherwise satisfy applicable documentation requirements, and (v) such amounts are not effectively connected with your conduct of a U.S. trade or business.

Any gain realized on a sale, exchange or other disposition of the notes (including redemption of the notes at maturity or early redemption), will be exempt from U.S. federal income tax (including withholding tax) provided generally that you certify on IRS Form W-8BEN, under penalties of perjury, that you are not a United States person and provide your name and address or otherwise satisfy applicable documentation requirements, and such 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 on the note, if any, is effectively connected with your conduct of that trade or business, although exempt from the withholding tax discussed above, you will generally be subject to regular U.S. income tax on such 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 tax. 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 the 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) paid or accrued on the notes and the proceeds received from a sale, exchange, redemption or other disposition of notes (including 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 timely furnished to the IRS.

## PLAN OF DISTRIBUTION

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"), JPMSI has agreed and any additional Agents will agree to use reasonable efforts to solicit offers to purchase the principal amount of notes set forth in the cover page of the relevant terms supplement. We will have the sole right to accept offers to purchase the notes and may reject any offer in whole or in part. Each Agent may reject, in whole or in part, any offer it solicited to purchase notes. We will pay an Agent, in connection with sales of these notes resulting from a solicitation that Agent made or an offer to purchase the Agent received, a commission as set forth in the relevant terms supplement. An Agent 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.

We may also sell notes to an Agent as principal for its own account at discounts to be agreed upon at the time of sale as disclosed in the relevant terms supplement. That Agent may resell notes to investors and other purchasers at a fixed offering price or at prevailing market prices, or prices related thereto at the time of resale or otherwise, as that Agent determines and as we will specify in the relevant terms supplement. An Agent may offer the notes it has purchased as principal to other dealers. That Agent may sell the notes to any dealer at a discount and, unless otherwise specified in the relevant terms supplement, the discount allowed to any dealer will not be in excess of the discount that Agent will receive from us. After the initial public offering of notes that the Agent is to resell on a fixed public offering price basis, the Agent may change the public offering price, concession and discount.

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, 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. 129-A-II 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. 129-A-II 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. 129-A-II 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. 129-A-II nor 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. 129-A-II nor 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. 129-A-II 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. 129-A-II 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 resale 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. 129-A-II 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. 129-A-II 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. 129-A-II 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. 129-A-II 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:
(i) to be a financial institution and/or an institutional investor or a qualified investor with such knowledge and experience in financial and business matters as to be capable of evaluating the risks and merits of an investment in the 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 Ley de Mercado de Valores (Securities Market Law) of the Republic of El Salvador, Legislative Decree number 809 dated 16 February 1994, published on the Diario Oficial (Official Gazette) number 73-BIS, Number 323, dated 21 April 1994, and in compliance with the aforementioned regulation, each Agent has represented and agreed that it will not make an invitation for subscription or purchase of the notes to indeterminate individuals, nor will it make known this product supplement no. 129-A-II 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. 129-A-II 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. 129-A-II 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. 129-A-II 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 financieel toezicht, the "FMSA"):

1. Regulated Entities: (a) any person or entity who or which is subject to supervision by a regulatory authority in any country in order to lawfully operate in the financial markets (which includes: credit institutions, investment firms, financial institutions, insurance companies, collective investment schemes and their management companies, pension funds and their management companies, commodity dealers) ("Supervised Entities"); and (b) any person or entity who or which engages in a regulated activity on the financial markets but who or which is not subject to supervision by a regulatory authority because it benefits from an exemption or dispensation ("Exempt Entities");
2. Investment Funds and Entities: any entity whose corporate purpose is solely to invest in securities (which includes, without limitation, hedge funds);
3. Governmental institutions: the Dutch State, the Dutch Central Bank, Dutch regional, local or other decentralized governmental institutions, international treaty organizations and supranational organizations;
4. Self-certified Small and Medium-Sized Enterprises ("SMEs"): any company having its registered office in The Netherlands which does not meet at least two of the three criteria mentioned in (6) below and which has (a) expressly requested the Netherlands Authority for the Financial Markets (the "AFM") to be considered as a qualified investor, and (b) been entered on the register of qualified investors maintained by the AFM;
5. Self-certified Natural Persons: any natural person who is resident in The Netherlands if this person meets at least two (2) of the following criteria:
(i) the investor has carried out transactions of a significant size on securities markets at an average frequency of, at least, ten (10) per quarter over the previous four (4) quarters;
(ii) the size of the investor's securities portfolio exceeds $€ 500,000$;
(iii) the investor works or has worked for at least one (1) year in the financial sector in a professional position which requires knowledge of investment in securities,
provided this person has:
(a) expressly requested the AFM to be considered as a qualified investor; and
(b) been entered on the register of qualified investors maintained by the AFM;
6. Large Enterprises: any company or legal entity which meets at least two of the following three criteria according to its most recent consolidated or non-consolidated annual accounts:
(a) an average number of employees during the financial year of at least 250 ;
(b) total assets of at least $€ 43,000,000$; or
(c) an annual net turnover of at least $€ 50,000,000$.
7. Discretionary individual portfolio managers: any portfolio manager in The Netherlands who or which purchases the 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. 129-A-II 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. 129-A-II, 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. 129-A-II 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. 129-A-II 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 inhouse 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, the service provider exemption, or some other basis on which the acquisition and holding will not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or a violation of any applicable Similar Laws.

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.

