

# JPMORGAN CHASE & CO.

## Notes Linked to a Basket of Return Enhanced Components

### General

- JPMorgan Chase & Co. may from time to time offer and sell notes linked to a weighted basket consisting of one or more return enhanced components, each of which may be subject to a buffer and each of which is linked to an index or a fund. This product supplement no. 103-A-I describes terms that will apply generally to the notes linked to a basket of return enhanced components, 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. A separate index supplement or fund supplement will describe any index or fund not described in this product supplement and that is linked to a return enhanced component included in the Basket. We refer to such index supplement or fund supplement generally as underlying supplements. If the terms described in the relevant terms supplement are inconsistent with those described herein or in any related underlying supplement or in the accompanying prospectus supplement or prospectus, the terms described in the relevant terms supplement shall control.
- The notes are the senior unsecured obligations of JPMorgan Chase & Co.
- Payment is linked to a basket consisting of one or more return enhanced components, each of which may be subject to a buffer and each of which is linked, as described below, to an Index or a Fund.
- For important information about tax consequences, see "Certain U.S. Federal Income Tax Consequences" beginning on page PS-69.
- Minimum denominations of \$1,000 and integral multiples thereof, unless otherwise specified in the relevant terms supplement.
- Investing in the notes is not equivalent to investing in the Basket, any of the Basket Components, any of the Component Underlyings or any of their component stocks.
- The notes will not be listed on any securities exchange unless otherwise specified in the relevant terms supplement.

### Key Terms

**Basket/Basket Components:**

Unless otherwise specified in the relevant terms supplement, the Basket will be composed of one or more return enhanced components (each component a "Basket Component," and together, the "Basket Components"), each of which may be subject to a buffer amount and each of which is linked to one of the Component Underlyings described below.

The relevant terms supplement will specify the Basket Components included in the Basket as well as either (i) the weight of each Basket Component in the Basket, which will be fixed for the term of the notes or (ii) the manner in which the weight of each Basket Component will be determined. We refer to each such weight as a "Component Weighting." For example, the relevant terms supplement may specify that each Basket Component has an equal weight in the Basket, in which case the weight of each Basket Component will equal 100% divided by the number of Basket Components, or the relevant terms supplement may specify a different weighting for each of the Basket Components. Alternatively, the relevant terms supplement may specify that, for a Basket consisting of a buffered return enhanced component linked to a Component Underlying and a return enhanced component linked to a different Component Underlying, the Basket Component with a Component Underlying that has the greater Underlying Return will make up 70% of the value of the Basket, and the Basket Component with a Component Underlying that has the lesser Underlying Return will make up 30% of the value of the Basket.

For each Basket Component, the relevant terms supplement will specify whether the Basket Component is subject to a buffer amount.

**Component Underlying(s):**

The relevant terms supplement will specify the indices or funds linked to each Basket Component. We refer to an index that tracks the performance of equity securities as an "index," and collectively, as "indices" and we refer to an exchange traded fund that tracks the performance of an underlying index or basket of securities, primarily by holding securities or other instruments related to such underlying index or basket, as a "fund," and collectively, as "funds." We refer to an index linked to a Basket Component as a "Component Index," and collectively as the "Component Indices" and a fund linked to a Basket Component as a "Component Fund" and collectively as, the "Component Indices." We refer to each Component Index and each Component Fund, as a "Component Underlying," and collectively as the "Component Underlyings."

**Payment at Maturity:**

Unless otherwise specified in the relevant terms supplement, the amount you will receive at maturity is based on the Basket Return, which in turn is based on the performance of the Basket Components. At maturity, your payment per \$1,000 principal amount note will be calculated, unless otherwise specified in the relevant terms supplement, as follows:

$$\$1,000 + (\$1,000 \times \text{Basket Return})$$

*(continued on next page)*

Investing in the Notes Linked to a Basket of Return Enhanced Components involves a number of risks. See "Risk Factors" beginning on page PS-9.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the notes or passed upon the accuracy or the adequacy of this product supplement no. 103-A-I, 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.***

J.P.Morgan

November 21, 2008

**Key Terms (continued)**

Basket Return:

Unless otherwise specified in the relevant terms supplement, the sum of the products of (a) the Component Return of each Basket Component and (b) the Component Weighting of such Basket Component.

Component Return:

Unless otherwise specified in the relevant terms supplement, **with respect to each Basket Component that is subject to a buffer amount**, the Component Return will be calculated as follows:

Ending Underlying Level	Component Return
<i>is greater than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable)	Underlying Return x upside leverage factor, subject, if applicable, to the Maximum Return
<i>is equal to</i> the Starting Underlying Level (or Underlying Strike Level, if applicable) or <i>less than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable) by not more than the buffer amount	0
<i>is less than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable) by more than the buffer amount	(Underlying Return + buffer amount) x downside leverage factor

Unless otherwise specified in the relevant terms supplement, **with respect to each Basket Component that is not subject to a buffer amount**, the Component Return will be calculated as follows:

Ending Underlying Level	Component Return
<i>is greater than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable)	Underlying Return x upside leverage factor, subject to the Maximum Return, if applicable
<i>is equal to</i> the Starting Underlying Level (or Underlying Strike Level, if applicable)	0
<i>is less than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable)	Underlying Return

Underlying Return:

With respect to each Component Underlying, the Underlying Return is calculated as follows:

$$\frac{\text{Ending Underlying Level} - \text{Starting Underlying Level (or Underlying Strike Level, if applicable)}}{\text{Starting Underlying Level (or Underlying Strike Level, if applicable)}}$$

Maximum Return:

If applicable, unless otherwise specified in the relevant terms supplement, with respect to a Basket Component, a percentage that we will determine on the pricing date and that will be set forth in the relevant terms supplement. Accordingly, if the relevant terms supplement specifies that a particular Basket Component will be subject to a Maximum Return, the appreciation potential for that Basket Component will be limited by the applicable Maximum Return, even if the applicable Underlying Return multiplied by the applicable upside leverage factor is greater than the applicable Maximum Return.

Other Terms Relating  
to the Basket  
Components:

In each case if applicable, the Component Weightings, buffer amount, upside leverage factor and downside leverage factor will be specified in the relevant terms supplement.

**Key Terms (continued)**

Starting Underlying Level:

Unless otherwise specified in the relevant terms supplement, with respect to each Component Index, the "Initial Index Level" is the Index closing level of such Component Index on the pricing date or such other date as specified in the relevant terms supplement, or the arithmetic average of the Index closing levels of such Component Index on each of the Initial Averaging Dates, if so specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, with respect to each Component Fund, the "Initial Share Price" is the closing price of one share of such Component Fund on the pricing date or such other date as specified in the relevant terms supplement, or the arithmetic average of the closing prices of one share of such Component Fund on each of the Initial Averaging Dates, if so specified in the relevant terms supplement. The closing price of a Component Fund on an Initial Averaging Date, if applicable, used to determine its Initial Share Price may be subject to adjustment. See "Description of Notes — Payment at Maturity" and "General Terms of Notes — Anti-Dilution Adjustments."

We refer to each of the Initial Index Level for each Component Index and the Initial Share Price for each Component Fund as a "Starting Underlying Level."

Ending Underlying Level:

Unless otherwise specified in the relevant terms supplement, with respect to each Component Index, the "Ending Index Level" is the Index closing level of such Component Index on the Observation Date or such other date as specified in the relevant terms supplement, or the arithmetic average of the Index closing levels of such Component Index on each of the Ending Averaging Dates, if so specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, with respect to each Component Fund, the "Final Share Price" is the closing price of one share of such Component Fund on the Observation Date or such other date as specified in the relevant terms supplement, multiplied by the Share Adjustment Factor for such Component Fund on such date, or the arithmetic average of the closing prices of one share of such Component Fund on each of the Ending Averaging Dates, each multiplied by the Share Adjustment Factor for such Component Fund on such date. The closing price of a Component Fund on an Ending Averaging Date used to determine its Final Share Price may be subject to adjustment. See "Description of Notes — Payment at Maturity" and "General Terms of Notes — Anti-Dilution Adjustments."

We refer to each of the Ending Index Level for each Component Index and the Final Share Price for each Component Fund as a "Ending Underlying Level."

Share Adjustment Factor:

Unless otherwise specified in the relevant terms supplement, with respect to each Component Fund, the Share Adjustment Factor will be set initially at 1.0, subject to adjustment upon the occurrence of certain events affecting such Component Fund. See "General Terms of Notes — Anti-Dilution Adjustments."

Underlying Strike Level:

With respect to the Component Underlying for a Basket Component, the relevant terms supplement may specify a Component Underlying level other than the Starting Underlying Level to be used for calculating the Underlying Return. For example, the relevant terms supplement may specify that an Underlying Strike Level, equal to 95% of the Starting Underlying Level, shall be used to calculate the Underlying Return for the Component Underlying for a particular Basket Component.

Underlying Valuation Date(s):

The Ending Underlying Level for each Component Underlying will be calculated on a single date, which we refer to as the Observation Date, or on several dates, each of which we refer to as an Ending Averaging Date, as specified in the relevant terms supplement. We refer to such dates generally as Underlying Valuation Dates in this product supplement. Any Underlying Valuation Date is subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Payment at Maturity."

Initial Averaging Dates:

As specified, if applicable, in the relevant terms supplement. Any Initial Averaging Date is subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Payment at Maturity."

Maturity Date:

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

## TABLE OF CONTENTS

	<u>Page</u>
Description of Notes.....	PS-1
Risk Factors.....	PS-9
Use of Proceeds .....	PS-20
The S&P 500® Index .....	PS-21
The Nikkei 225 Index.....	PS-25
The Dow Jones EURO STOXX 50® Index .....	PS-28
The FTSE™ 100 Index .....	PS-32
The MSCI EAFE® Index.....	PS-34
The Russell 1000® Growth Index and the Russell 1000® Value Index .....	PS-45
The TOPIX® Index .....	PS-51
The iShares® MSCI Emerging Markets Index Fund.....	PS-54
Other Component Underlyings .....	PS-59
General Terms of Notes .....	PS-60
Certain U.S. Federal Income Tax Consequences .....	PS-69
Plan of Distribution .....	PS-73
Notice to Investors.....	PS-75
Benefit Plan Investor Considerations .....	PS-83

In making your investment decision, you should rely only on the information contained or incorporated by reference in the terms supplement relevant to your investment, any related underlying supplement, this product supplement no. 103-A-I and the accompanying prospectus supplement and prospectus with respect to the notes offered by the relevant terms supplement, any related underlying supplement and this product supplement no. 103-A-I and with respect to JPMorgan Chase & Co. This product supplement no. 103-A-I, together with the relevant terms supplement, any related underlying supplement and the accompanying prospectus and prospectus supplement, contain the terms of the notes and supersede 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, any related underlying supplement, this product supplement no. 103-A-I and the accompanying prospectus supplement and prospectus may only be accurate as of the dates of each of these documents, respectively.

The notes described in the relevant terms supplement and this product supplement no. 103-A-I are not appropriate for all investors, and involve important legal and tax consequences and investment risks, which should be discussed with your professional advisers. You should be aware that the regulations of the Financial Industry Regulatory Authority, or FINRA, and the laws of certain jurisdictions (including regulations and laws that require brokers to ensure that investments are suitable for their customers) may limit the availability of the notes. The relevant terms supplement, any related underlying supplement, this product supplement no. 103-A-I and the accompanying prospectus supplement and prospectus do not constitute an offer to sell or a solicitation of an offer to buy the notes in any circumstances in which such offer or solicitation is unlawful.

In this product supplement no. 103-A-I, any related underlying supplement, the relevant terms supplement and the accompanying prospectus supplement and prospectus, “we,” “us” and “our” refer to JPMorgan Chase & Co., unless the context requires otherwise.

## DESCRIPTION OF NOTES

*The following description of the terms of the notes supplements the description of the general terms of the debt securities set forth under the headings "Description of Notes" in the accompanying prospectus supplement and "Description of Debt Securities" in the accompanying prospectus. A separate terms supplement will describe the terms that apply specifically to the notes, including any changes to the terms specified below. A separate underlying supplement will describe an index or fund not described in this product supplement and that is linked to a return enhanced component included in the Basket. Capitalized terms used but not defined in this product supplement no. 103-A-I have the meanings assigned in the accompanying prospectus supplement, prospectus, the relevant terms supplement and any related underlying supplement. The term "note" refers to each \$1,000 principal amount of our Notes Linked to a Basket of Return Enhanced Components.*

### General

The Notes Linked to a Basket of Return Enhanced Components are senior unsecured obligations of JPMorgan Chase & Co. that are linked to a Basket (the "Basket") consisting of one or more return enhanced components (each a "Basket Component," and collectively the "Basket Components"), each of which may be subject to a buffer and each of which is linked to an index or a fund. 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 do not pay interest and do not guarantee any return of principal at, or prior to, maturity. Instead, at maturity you will receive a payment in cash, the amount of which will vary depending on the performance of the Basket calculated in accordance with the formula set forth below and whether the Basket Components have an Underlying Strike Level and/or buffer.

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

## Payment at Maturity

The maturity date for the notes will be set forth in the relevant terms supplement and is subject to adjustment if such day is not a business day or if the final Underlying Valuation Date is postponed as described below. We will also specify whether or not any of the Basket Components is subject to a buffer and the amount of any such buffer in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, the Basket will be composed of one or more return enhanced components (each component a "Basket Component," and together, the "Basket Components"), each of which may be subject to a buffer amount and each of which is linked to one of the Component Underlyings described below.

The relevant terms supplement will specify the Basket Components included in the Basket as well as either (i) the weight of each Basket Component in the Basket, which will be fixed for the term of the notes or (ii) the manner in which the weight of each Basket Component will be determined. We refer to each such weight as a "Component Weighting." For example, the relevant terms supplement may specify that each Basket Component has an equal weight in the Basket, in which case the weight of each Basket Component will equal 100% divided by the number of Basket Components, or the relevant terms supplement may specify a different weighting for each of the Basket Components. Alternatively, the relevant terms supplement may specify that, for a Basket consisting of a buffered return enhanced component linked to a Component Underlying and a return enhanced component linked to a different Component Underlying, the Basket Component with a Component Underlying that has the greater Underlying Return will make up 70% of the value of the Basket, and the Basket Component with a Component Underlying that has the lesser Underlying Return will make up 30% of the value of the Basket.

For each Basket Component, the relevant terms supplement will specify whether the Basket Component is subject to a buffer amount.

Unless otherwise specified in the relevant terms supplement, each Basket Component will be linked to an index, which we refer to as a "Component Index," and collectively, the "Component Indices" or a fund, which we refer to as a "Component Fund" and together, the "Component Funds" (each Component Index and each Component Fund, a "Component Underlying," and collectively, the "Component Underlyings").

Unless otherwise specified in the relevant terms supplement, the amount you will receive at maturity is based on the Basket Return, which in turn is based on the performance of the Basket Components. At maturity, your payment per \$1,000 principal amount note will be calculated, unless otherwise specified in the relevant terms supplement, as follows:

$$\$1,000 + (\$1,000 \times \text{Basket Return})$$

Unless otherwise specified in the relevant terms supplement, the Basket Return is the sum of the products of (a) the Component Return of each Basket Component and (b) the Component Weighting of such Basket Component.

### ***Basket Components with a Buffer***

For each Basket Component with a buffer, the Component Return is based on the value of the Ending Underlying Level for the applicable Component Underlying relative to the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying and the buffer amount. Unless otherwise specified in the relevant terms supplement, with respect to each Basket Component that is subject to a buffer amount, the Component Return will be calculated as follows:

<b>Ending Underlying Level</b>	<b>Component Return</b>
<i>is greater than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable)	Underlying Return x upside leverage factor, subject, if applicable, to the Maximum Return
<i>is equal to</i> the Starting Underlying Level (or Underlying Strike Level, if applicable) or <i>less than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable) by not more than the buffer amount	0
<i>is less than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable) by more than the buffer amount	(Underlying Return + buffer amount) x downside leverage factor

For a Basket Component with a buffer, if the Ending Underlying Level for the applicable Component Underlying is greater than the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying, the Component Return will be equal to the Underlying Return multiplied by the upside leverage factor, subject, if applicable, to the Maximum Return. If applicable, with respect to a Basket Component, the "Maximum Total Return" is a percentage that we will determine on the pricing date and that will be set forth in the relevant terms supplement. Accordingly, if the relevant terms supplement specifies that a particular Basket Component will be subject to a Maximum Return, the appreciation potential for that Basket Component will be limited by the applicable Maximum Return, even if the applicable Underlying Return multiplied by the applicable upside leverage factor is greater than the applicable Maximum Return.

For a Basket Component with a buffer, if the Ending Underlying Level for the applicable Component Underlying is equal to the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying or less than the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying by not more than the buffer amount, the Component Return will be equal to zero. Under these circumstances, such Basket Component will be excluded from the calculation of the Basket Return and your final payment at maturity for each \$1,000 principal amount note will be based solely on the other Basket Components that do not have a Component Return of zero.

For a Basket Component with a buffer, if the Ending Underlying Level for the applicable Component Underlying is less than the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying by more than the buffer amount, the Component Return will reflect any decline in the Ending Underlying Level for such Component Underlying beyond the buffer amount. For each such Basket Component, if the Ending Underlying Level for such Component Underlying declines by more than the buffer amount, for every 1% decline of the Ending Underlying Level beyond the buffer amount, the Component Return for such Basket Component will decrease by 1% multiplied by the downside leverage factor.

*For each Basket Component with a buffer, if the Ending Underlying Level for the applicable Component Underlying declines from the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying by more than the buffer amount, your return on the notes at maturity may be adversely affected and you may lose some or all of your investment at maturity.*

### ***Basket Components without a Buffer***

For each Basket Component without a buffer, the Component Return is based on the value of the Ending Underlying Level for the applicable Component Underlying relative to the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying. Unless otherwise specified in the relevant terms supplement, with respect to each Basket Component that is not subject to a buffer amount, the Component Return will be calculated as follows:

<b>Ending Underlying Level</b>	<b>Component Return</b>
<i>is greater than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable)	Underlying Return x upside leverage factor, subject to the Maximum Return, if applicable
<i>is equal to</i> the Starting Underlying Level (or Underlying Strike Level, if applicable)	0
<i>is less than</i> the Starting Underlying Level (or Underlying Strike Level, if applicable)	Underlying Return

For a Basket Component without a buffer, if the Ending Underlying Level for the applicable Component Underlying is greater than the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying, the Component Return will be equal to the Underlying Return multiplied by the upside leverage factor, subject, if applicable, to the Maximum Return. If applicable, with respect to a Basket Component, the “Maximum Total Return” is a percentage that we will determine on the pricing date and that will be set forth in the relevant terms supplement. Accordingly, if the relevant terms supplement specifies that a particular Basket Component will be subject to a Maximum Return, the appreciation potential for that Basket Component will be limited by the applicable Maximum Return, even if the applicable Underlying Return multiplied by the applicable upside leverage factor is greater than the applicable Maximum Return.

For a Basket Component without a buffer, if the Ending Underlying Level for the applicable Component Underlying is equal to the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying, the Component Return will be equal to zero. Under these circumstances, such Basket Component will be excluded from the calculation of the Basket Return and your final payment at maturity for each \$1,000 principal amount note will be based solely on the other Basket Components that do not have a Component Return of zero.

For a Basket Component without a buffer, if the Ending Underlying Level for the applicable Component Underlying is less than the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying, the Component Return will fully reflect any decline in the Ending Underlying Level for such Component Underlying relative to the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying. For each such Basket Component, for every 1% decline of the Ending Underlying Level for such Component Underlying relative to the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying, the Component Return for such Basket Component will decrease by 1%.

*For each Basket Component without a buffer, if the Ending Underlying Level for the applicable Component Underlying declines from the Starting Underlying Level (or Underlying Strike Level, if applicable) for such Component Underlying, your return on the notes at maturity may be adversely affected and you may lose some or all of your investment at maturity.*



In each case if applicable, the Component Weightings, buffer amount, upside leverage factor and downside leverage factor will be specified in the relevant terms supplement.

On any trading day, with respect to each Component Underlying, the Underlying Return is calculated as follows:

$$\frac{\text{Ending Underlying Level} - \text{Starting Underlying Level (or Underlying Strike Level, if applicable)}}{\text{Starting Underlying Level (or Underlying Strike Level, if applicable)}}$$

Unless otherwise specified in the relevant terms supplement, with respect to each Component Index, the "Initial Index Level" is the Index closing level of such Component Index on the pricing date or such other date as specified in the relevant terms supplement, or the arithmetic average of the Index closing levels of such Component Index on each of the Initial Averaging Dates, if so specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, with respect to each Component Fund, the "Initial Share Price" is the closing price of one share of such Component Fund on the pricing date or such other date as specified in the relevant terms supplement, or the arithmetic average of the closing prices of one share of such Component Fund on each of the Initial Averaging Dates, if so specified in the relevant terms supplement. Notwithstanding the foregoing, if the relevant terms supplement specifies that the Initial Share Price for a Component Fund is to be determined based on the arithmetic average of the closing prices of such Component Fund on each of the Initial Averaging Dates and an adjustment to the Share Adjustment Factor for such Component Fund would have become effective in accordance with "General Terms of Notes — Anti-Dilution Adjustments" (an "Adjustment Effective Date") after the first Initial Averaging Date but on or prior to the final Initial Averaging Date, then the closing price of such Component Fund on each Initial Averaging Date occurring on or after the applicable Adjustment Effective Date to be used to determine the Initial Share Price for such Component fund will be deemed to equal such closing price multiplied by the applicable Share Adjustment Factor, as adjusted (assuming that the applicable Share Adjustment Factor prior to such adjustment is equal to 1.0). See "General Terms of Notes — Anti-Dilution Adjustments." The Share Adjustment Factor for such Component Fund will continue to be subject to further adjustments in connection with Adjustment Effective Dates occurring after the final Initial Averaging Date as described under "General Terms of Notes — Anti-Dilution Adjustments."

We refer to each of the Initial Index Level for each Component Index and the Initial Share Price for each Component Fund as a "Starting Underlying Level."

Unless otherwise specified in the relevant terms supplement, with respect to each Component Index, the "Ending Index Level" is the Index closing level of such Component Index on the Observation Date or such other date as specified in the relevant terms supplement, or the arithmetic average of the Index closing levels of such Component Index on each of the Ending Averaging Dates, if so specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, with respect to each Component Fund, the "Final Share Price" is the closing price of one share of such Component Fund on the Observation Date or such other date as specified in the relevant terms supplement, multiplied by the Share Adjustment Factor on such date, or the arithmetic average of the closing prices of one share of such Component Fund on each of the Ending Averaging Dates, each multiplied by the Share Adjustment Factor for such Component Fund on such date. Notwithstanding the foregoing, if the relevant terms supplement specifies that the Final Share Price is to be determined based on the arithmetic average of the closing prices of such Component Fund on each of the Ending Averaging Dates and an adjustment to the Share Adjustment Factor for such Component Fund would have become effective in accordance with "General Terms of Notes — Anti-Dilution Adjustments" after the first Ending Averaging Date but on or prior to the final Ending Averaging Date, the applicable Share Adjustment Factor will be so adjusted for the event giving rise to such Adjustment Effective Date only on the Ending Averaging Dates occurring on or after such Adjustment Effective Date.

We refer to each of the Ending Index Level for each Component Index and the Final Share Price for each Component Fund as an “Ending Underlying Level”.

Unless otherwise specified in the relevant terms supplement, with respect to each Component Fund, the Share Adjustment Factor will be set initially at 1.0, subject to adjustment upon the occurrence of certain events affecting such Component Fund. See “General Terms of Notes — Anti-Dilution Adjustments.”

With respect to the Component Underlying for a Basket Component, the relevant terms supplement may specify a Component Underlying level other than the Starting Underlying Level to be used for calculating the Underlying Return, which we refer to as a “Underlying Strike Level.” For example, the relevant terms supplement may specify that an Underlying Strike Level, equal to 95% of the Starting Underlying Level, shall be used to calculate the Underlying Return for the Component Underlying for a particular Basket Component.

With respect to each Component Index, the “Index closing level” on any trading day will equal the official closing value of such Component Index or any successor index thereto (as described below) published following the regular official weekday close of trading for such Component Index on that trading day. In certain circumstances, the “Index closing level” for a Component Index will be based on the alternative calculation of such Component Index described under “General Terms of Notes — Discontinuation of a Component Index; Alteration of Method of Calculation.”

With respect to each Component Fund, the “closing price” of one share of such Component Fund (or any relevant successor index fund (as defined under “General Terms of Notes — Discontinuation of a Component Fund; Alternate Calculation of Closing Price”) or one unit of any other security for which a price must be determined) on any trading day (as defined below) means:

- if such Component Fund (or any such successor index fund or such other security) is listed or admitted to trading on a national securities exchange, the last reported sale price, regular way (or, in the case of The NASDAQ Stock Market, the official closing price) of the principal trading session on such day on the principal U.S. securities exchange registered under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), on which such Component Fund (or any such successor index fund or such other security) is listed or admitted to trading;
- if such Component Fund (or any such successor index fund or such other security) is not listed or admitted to trading on any national securities exchange but is included in the OTC Bulletin Board Service operated by the Financial Industry Regulatory Authority (the “FINRA”), the last reported sale price of the principal trading session on the OTC Bulletin Board Service on such day;
- if such Component Fund (or any such successor index fund) is de-listed, liquidated or otherwise terminated, the price calculated pursuant to the alternative methods of calculation of price described under “General Terms of Notes — Discontinuation of a Component Fund; Alternate Calculation of Closing Price”; or
- if, because of a market disruption event (as defined under “General Terms of Notes — Market Disruption Events”) or otherwise, the last reported sale price for such Component Fund (or any such successor index fund or such other security) is not available pursuant to the preceding bullet points, the mean, as determined by the calculation agent, of the bid prices for the shares of such Component Fund (or any such successor index fund or such other security) obtained from as many recognized dealers in such security, but not exceeding three, as will make such bid prices available to the calculation agent. Bids of any of our affiliates may be included in the calculation of such mean, but only to the extent that any such bid is not the highest or the lowest of the bids obtained,

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

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

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

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

The maturity date will be set forth in the relevant terms supplement. If the scheduled maturity date (as specified in the relevant terms supplement) is not a business day, then the maturity date will be the next succeeding business day following such scheduled maturity date. If, due to a market disruption event or otherwise, the final Underlying Valuation Date of any Component Underlying is postponed so that it falls less than three business days prior to the scheduled maturity date, the maturity date will be the third business day following that final Underlying Valuation Date, as postponed, unless otherwise specified in the relevant terms supplement. We describe market disruption events under "General Terms of Notes — Market Disruption Events."

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

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

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

## RISK FACTORS

*Your investment in the notes will involve certain risks. The notes do not pay interest or guarantee any return of principal at, or prior to, maturity. Investing in the notes is not equivalent to investing directly in the Basket Components, any of the Component Underlyings, or any of the component securities of the Component Underlyings. In addition, your investment in the notes entails other risks not associated with an investment in conventional debt securities. You should consider carefully the following discussion of risks before you decide that an investment in the notes is suitable for you.*

### Risks Relating to the Notes Generally

#### **The notes do not pay interest or guarantee the return of your investment.**

The notes do not pay interest and may not return any of your investment. The amount payable at maturity will be determined pursuant to the terms described in this product supplement no. 103-A-I, any related underlying supplement and the relevant terms supplement. For notes linked to one or more Basket Components with a buffer, you may lose some or all of your investment at maturity if the Ending Underlying Level for the Component Underlying for such Basket Component declines from its Starting Underlying Level (or the Underlying Strike Level, if applicable) by more than the buffer amount. For notes linked to one or more Basket Components without a buffer, you may lose some or all of your investment at maturity if the Ending Underlying Level for the Component Underlying for such Basket Component declines from the Starting Basket Level (or the Underlying Strike Level, if applicable). You may lose some or all of your investment if the Underlying Return for the Component Underlying for one or more of the Basket Components is negative. The relevant terms supplement will specify whether any particular Basket Component has a buffer and/or Underlying Strike Level.

#### **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, 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.

#### **If a Basket Component is subject to a Maximum Return, the appreciation potential of such Basket Component is limited to the applicable Maximum Return.**

If a Basket Component is subject to a Maximum Return, the appreciation potential of such Basket Component is limited to the applicable Maximum Return. Any applicable Maximum Return will be a percentage that we will determine on the pricing date and that will be set forth in the relevant terms supplement. Accordingly, if the relevant terms supplement specifies a Maximum Return for any Basket Component, the appreciation potential of such Basket Component is limited to the applicable Maximum Return, even if the Underlying Return multiplied by the upside leverage factor is greater than that Maximum Return.

#### **The Basket Components may not be equally weighted.**

Unless otherwise specified in the relevant terms supplement, the Basket is composed of two or more Basket Components, each of which may have a different weight in determining the value of the Basket, depending on the Component Weightings specified in the relevant terms supplement. For example, the relevant terms supplement may specify that for a Basket containing a Basket Component linked to the S&P 500® Index, a Basket Component linked to the Nikkei 225 Index and a Basket Component linked to the Dow Jones EURO STOXX 50® Index, the respective Component Weightings are 30%, 50% and 20%. One consequence of such an unequal weighting of the Basket Components is that the same percentage change in the Component Underlyings for two of the Basket Components may have different effects on the Basket Return. For example, if the Component Weighting for the Basket Component linked to the Nikkei 225 Index is greater than the Component Weighting for the Basket Component linked to the S&P 500® Index and neither of the Basket Components is subject to a buffer amount, a 5% decrease in the Nikkei 225 Index will have a greater effect on the Basket Return than a 5% decrease in the S&P 500® Index.

**The weight of each Basket Component may be determined on a date other than the pricing date.**

If so specified in the relevant terms supplement, the weight of each Basket Component in the Basket may be determined on a date or dates other than the pricing date. For example, the relevant terms supplement may specify that the weights of the Basket Components in the Basket will be determined based on the relative magnitude of the Underlying Return of the Component Underlying for each Basket Component on the Observation Date. As a result, if the relevant terms supplement so specifies, you will not know the weight assigned to each Basket Component until a date later than the pricing date, and you may not know the weight assigned to each Basket Component in the Basket prior to the final Underlying Valuation Date.

**Changes in the value of the Component Underlyings may offset each other.**

Unless otherwise specified in the relevant terms supplement, the notes are linked to a weighted Basket composed of two or more Basket Components, each of which is linked a Component Underlying. Price movements in the Component Underlyings may not correlate with each other. At a time when the value of one or more of the Component Underlyings increases, the value of the other Component Underlyings may not increase as much or may even decline. Therefore, in calculating the Basket Return, increases in the value of one or more of the Component Underlyings may be moderated, or more than offset, by lesser increases or declines in the level of the other Component Underlying or Component Underlyings, particularly if the Component Underlying or Component Underlyings that appreciate are linked to a Basket Component or Basket Components of relatively low weight in the Basket. For example, for a note linked to two equally weighted Basket Components with no buffer and with the same upside leverage factor, a 10% appreciation in the Component Underlying for one Basket Component on any Underlying Valuation Date would be completely offset by a 10% decline in the Component Underlying for the other Basket Component on such Underlying Valuation Date. Similarly, for a note linked to four unequally weighted Basket Components with no buffer and with the same upside leverage factor, an 8% decline in the Component Underlying for a Basket Component that is weighted 50% would more than offset a 5% appreciation in each of the remaining three Component Underlyings. There can be no assurance that the Ending Underlying Level of each Component Underlying will be higher than its Starting Underlying Level, or if applicable, its Underlying Strike Level, or that Basket Return will be positive. You may lose some or all of your investment in the notes if the Ending Underlying Levels for the Component Underlyings for one or more Basket Components are lower than their respective Starting Underlying Levels or, if applicable, their respective Underlying Strike Levels.

**If a Component Underlying is not a total return index, your return on the notes will not reflect dividends on the common stocks of the companies in such Component Underlying.**

If a Component Underlying is not a total return index, your return on the notes will not reflect the return you would realize if you actually owned the common stocks of the companies included in such Component Underlying and received the dividends paid on those stocks. This is because the calculation agent will calculate the amount payable to you at maturity of the notes by reference to the Ending Underlying Level of each Component Underlying. The Ending Underlying Level reflects the prices of the common stocks as calculated in the Component Underlyings without taking into consideration the value of dividends paid on those stocks.

**Secondary trading may be limited.**

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

J.P. Morgan Securities Inc., or JPMSI may act as a market maker for the notes, but is not required to do so. Because we do not expect that other market makers will participate significantly in the secondary market for the notes, the price at which you may be able to trade your notes is likely to depend on the price, if any, at which JPMSI is willing to buy the notes. If at any time JPMSI or another Agent does not act as a market maker, it is likely that there would be little or no secondary market for the notes.

**The Starting Underlying Level for the Component Underlyings may be determined after the issue date of the notes.**

If so specified in the relevant terms supplement, the Starting Underlying Level for a Component Underlying will be determined based on the arithmetic average of the Index closing levels or closing prices of the Component Underlyings on the Initial Averaging Dates specified in that relevant terms supplement. One or more of the Initial Averaging Dates specified may occur on or following the issue date of the notes; as a result, the Starting Underlying Level for a Component Underlying may not be determined, and you may therefore not know such value, until after the issue date. Similarly, the global note certificate constituting the notes, which will be deposited with DTC on the issue date as described under “General Terms of Notes — Book-Entry Only Issuance — The Depository Trust Company,” will not set forth the Starting Underlying Level for the applicable Component Underlying. The Starting Underlying Levels for the Component Underlyings will be used in the calculation of the Underlying Returns for the various Component Underlyings, and the Underlying Returns will be used in calculating the Component Returns for the various Basket Components, the Basket Return and the payment at maturity, if any. If there are any increases in the Index closing levels or closing prices for the Component Underlyings on the Initial Averaging Dates that occur after the issue date and such increases result in the Starting Underlying Levels for one or more of the Component Underlyings being higher than the Index closing level or closing price of such Component Underlying(s) on the issue date, this may establish higher levels that the Component Underlyings must achieve for you to attain a positive return on your investment or to avoid a loss of principal at maturity.

**The Ending Underlying Level for each Component Underlying may be less than the Index closing level or closing price for such Component Underlying at the maturity date of the notes or at other times during the term of the notes.**

Because the Ending Underlying Level for each Component Underlying is calculated based on the Index closing level or closing price, as applicable, of such Component Underlying on one or more Underlying Valuation Dates during the term of the notes, the Index closing level or closing price, as applicable, of each Component Underlying at the maturity date or at other times during the term of the notes, including dates near the Underlying Valuation Date(s), could be higher than the Ending Underlying Level for such Component Underlying. This difference could be particularly large if there is a significant increase in the Index closing levels or closing prices, as applicable, of one or more of the Component Underlyings after the final Underlying Valuation Date, if there is a significant decrease in the Index closing levels or closing prices, as applicable, of one or more of the Component Underlyings around the time of the Underlying Valuation Date(s) or if there is significant volatility in the Index closing levels or closing prices, as applicable, of one or more of the Component Underlyings during the term of the notes (especially on dates near the Underlying Valuation Date(s)). For example, when the Underlying Valuation Date for one or more of the Component Underlyings is near the end of the term of the notes, then if the Index closing level or closing price, as applicable, for a Component Underlying increases or remains relatively constant during the initial term of the notes and then decreases below the Starting Underlying Level (or Underlying Strike Level, if applicable), the Ending Underlying Level may be significantly less than if it were calculated on a date earlier than the Underlying Valuation Date. Under these circumstances, you may receive a lower payment at maturity than you would have received if you had invested in the Basket, the Component Underlyings, the securities underlying the Component Underlyings or contracts relating to the Basket or the Component Underlyings for which there is an active secondary market.

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

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 the Basket has 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.

**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 level or price of the Component Underlyings 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 level of the Basket. 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 Component Underlyings;
- the time to maturity of the notes;
- the dividend rate on the common stocks underlying the Component Underlyings;
- the occurrence of certain events to a Component Fund that may or may not require an adjustment to the Share Adjustment Factor (as defined herein);
- interest and yield rates in the market generally as well as in each of the markets of the securities composing or underlying the Component Underlyings;
- economic, financial, political, regulatory or judicial events that affect the stocks composing the Component Underlyings or stock markets generally and which may affect the Index closing level or closing price of any Component Underlying on any Initial Averaging Date, if applicable, or any Underlying Valuation Date, the Component Return for each Component Underlying and the Underlying Return for each Basket Component, and therefore the Basket Return;
- if a Component Index is a component of primarily foreign equity securities (which we refer to as a foreign Component Index) or a Component Fund holds primarily foreign equity securities (which we refer to as a foreign Component Fund and together with a foreign Component Index each as a foreign Component Underlying), the exchange rate and the volatility of the exchange rate between the U.S. dollar and the currencies in which the stocks composing such foreign Component Underlying are traded, and the correlation between those rates and the levels or prices, as the case may be, of such foreign Component Underlying; and
- our creditworthiness, including actual or anticipated downgrades in our credit ratings.

You cannot predict the future performance of the Basket based on its historical performance. The value of the Basket may decrease such that you may not receive any return of your investment. For notes linked to one or more Basket Components with a buffer, you may lose some or all of your investment at maturity if the Ending Underlying Level for the Component Underlying for such Basket Component declines from its Starting Underlying Level (or the Underlying Strike Level, if applicable) by more than the buffer amount. For notes linked to one or more Basket Components without a buffer, you may lose some or all of your investment at maturity if the Ending Underlying Level for the Component Underlying such Basket Component declines from the Starting Basket Level (or the Underlying Strike Level, if applicable).

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

While the payment at maturity, if any, 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.



**You will have no shareholder rights in issuers of equity securities that compose the Component Indices or equity securities held by a Component Fund.**

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

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

J.P. Morgan Securities Inc. and other affiliates of ours trade the stocks underlying the Component Underlyings and other financial instruments related to the Component Underlyings and their component stocks on a regular basis, for their accounts and for other accounts under their management. J.P. Morgan Securities Inc. 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 one or more of the Component Underlyings. To the extent that we or one of our affiliates serves as issuer, agent or underwriter for such securities or financial instruments, our or their interests with respect to such products may be adverse to those of the holders of the notes. Any of these trading activities could potentially affect the level of one or more of the Component Underlyings and, accordingly, could affect the value of the notes and the amount payable to you at maturity, if any.

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

Additionally, we or one of our affiliates may serve as issuer, agent or underwriter for additional issuances of notes with returns linked or related to changes in the level of the Component Underlyings or the stocks that compose or are held by the Component Underlyings. 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 have hedged 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.

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

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

JPMSI, one of our affiliates, will act as the calculation agent. The calculation agent will determine, among other things, the Starting Underlying Level or the Underlying Strike Level, if applicable, and Ending Underlying Level for each of the Component Underlyings, the Basket Return, the payment at maturity, if any, on the notes, the Index closing level or closing price of each Component Underlying on each Initial Averaging Date, if applicable, the Share Adjustment Factor and anti-dilution adjustments, if any, related to the Component Fund, and the Underlying Return for each of the Component Underlyings and the Component Return for each of the Basket Components on any Underlying Valuation Date. The calculation agent will also be responsible for determining whether a market disruption event has occurred, whether any of the Component Underlyings have been discontinued and whether there has been a material change in the method of calculation of any of the Component Underlyings, as well as which exchange traded fund will be substituted for the Component Fund (or successor index fund, if applicable) if the Component Fund (or successor index fund, if applicable) is de-listed, liquidated or otherwise terminated; whether the index underlying the Component Fund (or the index underlying a successor index fund, if applicable) has been changed in a material respect and whether the Component Fund (or successor index fund, if applicable) has been modified so that the Component Fund (or successor index fund, if applicable) does not, in the opinion of the calculation agent, fairly represent the price of the Component Fund (or successor index fund, if applicable) had those modifications not been made. In performing these duties, JPMSI may have interests adverse to the interests of the holders of the notes, which may affect your return on the notes, particularly where JPMSI, as the calculation agent, is entitled to exercise discretion.

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

The calculation agent may, in its sole discretion, determine that the markets have been affected in a manner that prevents it from properly determining the Ending Underlying Level or the Underlying Return for one or more of the Component Underlyings on any Underlying Valuation Date, and therefore the Basket Return, and calculating the amount that we are required to pay you, if any, at maturity. Market disruptions might also prevent the calculation agent from properly valuing the closing level or closing price of a Component Underlying on an Initial Averaging Date, if applicable. These events may include disruptions or suspensions of trading in the markets as a whole. If the calculation agent, in its sole discretion, determines that any of these events prevents us or any of our affiliates from properly hedging our obligations under the notes, it is possible that one or more of the Underlying Valuation Dates or Initial Averaging Dates, if applicable, and the maturity date will be postponed and your return will be adversely affected. See "General Terms of Notes — Market Disruption Events."

#### **The tax consequences of an investment in the notes are unclear.**

There is no direct legal authority as to the proper U.S. federal income tax characterization of the notes, and we do not intend to request a ruling from the Internal Revenue Service (the "IRS") regarding the notes. No assurance can be given that the IRS will accept, or that a court will uphold, the characterization and tax treatment of the notes described in "Certain U.S. Federal Income Tax Consequences." If the IRS were successful in asserting an alternative characterization or treatment for the notes, the timing and character of income on the notes could differ materially from our description herein. In addition, on December 7, 2007, Treasury and the IRS released a notice requesting comments on the U.S. federal income tax treatment of "prepaid forward contracts" and similar instruments, such as the notes. The notice focuses in particular on whether to require holders of these instruments to accrue income over the term of their investment. It also asks for comments on a number of related topics, including the character of income or loss with respect to these instruments; the relevance of

factors such as the nature of the underlying property to which the instruments are linked; the degree, if any, to which income (including any mandated accruals) realized by Non-U.S. Holders should be subject to withholding tax; and whether these instruments are or should be subject to the “constructive ownership” regime, which very generally can operate to recharacterize certain long-term capital gain as ordinary income that is subject to an interest charge. While the notice requests comments on appropriate transition rules and effective dates, any Treasury regulations or other guidance, promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the notes, possibly with retroactive effect. Both U.S. and Non-U.S. Holders should consult their tax advisers regarding the U.S. federal income tax consequences of an investment in the notes, including possible alternative treatments and the issues presented by this notice. Non-U.S. Holders should also note that they may be withheld upon at a rate of 30% unless they have submitted a properly completed IRS Form W-8BEN or otherwise satisfied the applicable documentation requirements. You should review carefully the section entitled “Certain U.S. Federal Income Tax Consequences” in this product supplement no. 103-A-I and consult your tax adviser regarding your particular circumstances.

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

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

#### **Risks Related to the Component Underlyings**

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

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

**We are currently one of the companies that make up the S&P 500® Index and the Russell 1000® Value Index, but, to our knowledge, we are not currently affiliated with any other company the equity securities of which are included in a Component Index.**

We are currently one of the companies that make up the S&P 500® Index and the Russell 1000® Value Index, but, to our knowledge, we are not currently affiliated with any of the other companies stock of which is represented in the Component Indices. As a result, we will have no ability to control the actions of such other companies, including actions that could affect the value of the stocks underlying the Component Indices or your notes. None of the money you pay us will go to an Index Sponsor or any of the issuers of equity securities included in the S&P 500® Index or the Russell 1000® Value Index, and none of those issuers will be involved in the offering of the notes in any way. Neither those issuers nor we will have any obligation to consider your interests as a holder of the notes in taking any corporate actions that might affect the value of your notes.

**Unless otherwise specified in any related underlying supplement or relevant terms supplement, to our knowledge, we are not currently affiliated with any company the equity securities of which are included in a Component Index (other than the S&P 500® Index or the Russell 1000® Value Index).**

Unless otherwise specified in any related underlying supplement or relevant terms supplement, to our knowledge, we are not currently affiliated with any issuers the equity securities of which are included in the Index (other than the S&P 500® Index or the Russell 1000® Value Index). As a result, we will have no ability to control the actions of the issuers of such equity securities, including actions that could affect the value of the equity securities included in the Index (other than the S&P 500® Index) or your notes. None of the money you pay us will go to the Index Sponsor for the Index or any of the issuers of the equity securities included in the Index (other than the S&P 500® Index or the Russell 1000® Value Index) and none of those issuers will be involved in the offering of the notes in any way. Neither those issuers nor we will have any obligation to consider your interests as a holder of the notes in taking any actions that might affect the value of your notes.

**Unless otherwise specified in any related underlying supplement or relevant terms supplement, to our knowledge, we are not currently affiliated with any of the issuers of the equity securities held by a Component Fund or included in an index underlying such Component Fund.**

Unless otherwise specified in any related underlying supplement or relevant terms supplement, to our knowledge, we are not currently affiliated with any of the equity securities held by a Component Fund. As a result, we will have no ability to control the actions of the issuers of such equity securities, including actions that could affect the value of the equity securities held by a Component Fund or your notes. None of the money you pay us will go to the sponsor of a Component Fund or any of the issuers of the equity securities held by a Component Fund and none of those issuers will be involved in the offering of the notes in any way. Neither those issuers nor we will have any obligation to consider your interests as a holder of the notes in taking any actions that might affect the value of your notes.

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

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

**If the Basket includes a Basket Component linked to a foreign Component Underlying, if the prices of its component securities are converted into U.S. dollars for purposes of calculating the value of the Component Underlying, the notes will be subject to currency exchange risk.**

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

Of particular importance to potential currency exchange risk are:

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

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

**If the Basket includes a Basket Component linked to a foreign Component Underlying, if the prices of its component securities are converted into U.S. dollars for purposes of calculating the value of such Component Underlying, changes in the volatility of exchange rates, and the correlation between those rates and the values of the Component Underlying are likely to affect the market value of the notes.**

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

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

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

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

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

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

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

Some or all of these factors may influence the Index closing level or the closing price or the applicable Component Underlying. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You cannot predict the future performance of a Component Underlying based on its historical performance. The value of a Component Underlying may decrease such that you may not receive any return of your investment. There can be no assurance that the Index closing level will not decrease so that at maturity you will not lose some or all of your investment.

**If the Basket includes a Component Fund, the anti-dilution protection is limited.**

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

**There are risks associated with the iShares® MSCI Emerging Markets Index Fund ("MSCI EM Index Fund").**

The MSCI EM Index Fund has a limited operating history, having commenced trading in April 2003 on the AMEX and having switched to the NYSE in February 2007. Although its shares are listed for trading on the NYSE and a number of similar products have been traded on the NYSE for varying periods of time, there is no assurance that an active trading market will continue for the shares of the MSCI EM Index Fund or that there will be liquidity in the trading market.

In addition, Barclays Global Fund Advisors ("BGFA") is the MSCI EM Index Fund's investment adviser. The MSCI EM Index Fund is subject to management risk, which is the risk that the BGFA's investment strategy, the implementation of which is subject to a number of constraints, may not produce the intended results.

**The performance of the MSCI EM Index Fund may not correlate with the performance of the MSCI Emerging Markets Index.**

The MSCI EM Index Fund uses a representative sampling strategy (as described under "The iShares® MSCI Emerging Markets Index Fund — Representative Sampling") to attempt to track the performance of the MSCI Emerging Markets Index. The Component Fund invests in a representative sample of equity securities included in the MSCI Emerging Markets Index; however, the MSCI EM Index Fund may not hold all or substantially all of the equity securities included in the MSCI Emerging Markets Index. Therefore, while the performance of the MSCI EM Index Fund is linked principally to the performance of the MSCI Emerging Markets Index, the performance of the MSCI EM Index Fund is also generally linked in part to shares of other exchange traded funds because BGFA may invest up to 10% of the Component Fund's assets in other iShares funds that seek to track the performance of equity securities of constituent countries of the MSCI Emerging Markets Index. In addition, the performance of the MSCI EM Index Fund will reflect additional transaction costs and fees that are not included in the calculation of the MSCI Emerging Markets Index. Also, corporate actions with respect to the sample of equity securities (such as mergers and spin-offs) may impact the variance between the MSCI EM Index Fund and the MSCI Emerging Markets Index. Finally, because the shares of the Component Fund are traded on the NYSE and are subject to market supply and investor demand, the market value of one share of the Component Fund may differ from the net asset value per share of the Component Fund.

For all of the foregoing reasons, the performance of the MSCI EM Index Fund may not correlate with the performance of the MSCI Emerging Markets Index. Consequently, the return on the notes will not be the same as investing directly in the MSCI EM Index Fund or in the MSCI Emerging Markets Index or in the equity securities included in the MSCI Emerging Markets Index, and will not be the same as investing in a debt security with a payment at maturity linked to the performance of the MSCI Emerging Markets Index.

**The sponsor of a policies of MSCI Inc. and of BGFA could affect the value and the amount payable on the notes.**

The policies of BGFA concerning the calculation of the Component Fund's net asset value, additions, deletions or substitutions of equity securities held by the Component Fund and manner in which changes affecting the MSCI Emerging Markets Index are reflected in the Component Fund could affect the market price of the shares of the Component Fund and, therefore, affect the amount payable on the notes at maturity, and the value of the notes before maturity. The amount payable on the notes and its value could also be affected if BGFA changes these policies, for example, by changing the manner in which it calculates the Component Fund's net asset value, or if BGFA discontinues or suspends calculation or publication of the Component Fund's net asset value, in which case it may become difficult to determine the value of the note.

In addition, MSCI Inc. ("MSCI") owns the MSCI Emerging Markets Index and is responsible for the design and maintenance of the MSCI Emerging Markets Index. The policies of MSCI concerning the calculation of the MSCI Emerging Markets Index, including decisions regarding the addition, deletion or substitution of the equity securities included in the MSCI Emerging Markets Index, could affect the level of the MSCI Emerging Markets Index and consequently could affect the market prices of the shares of the Component Fund.

## 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 one or more Component Underlyings, the stocks underlying one or more Component Underlyings, or instruments whose value is derived from one or more Component Underlyings or their underlying stocks. While we cannot predict an outcome, such hedging activity or other hedging and investment activities of ours could potentially increase the level of one or more Component Underlyings, and therefore, effectively establish a higher level that the relevant Component Underlying must achieve for you to obtain a return on your investment or avoid a loss of principal at maturity. From time to time, prior to maturity of the notes, we may pursue a dynamic hedging strategy that may involve taking long or short positions in one or more Component Underlyings, the stocks underlying one or more Component Underlyings or instruments whose value is derived from one or more Component Underlyings or their underlying stocks. Although we have no reason to believe that any of these activities will have a material impact on the level of any of the Component Underlyings 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.



## THE S&P 500® INDEX

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

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

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

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

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

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

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

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

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

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

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

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

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

Type of Corporate Action	Comments	Divisor Adjustment
Company added/ deleted	Net change in market value determines divisor adjustment.	Yes
Change in shares outstanding	Any combination of secondary issuance, share repurchase or buy back – share counts revised to reflect change.	Yes
Stock split	Share count revised to reflect new count. Divisor adjustment is not required since the share count and price changes are offsetting.	No

Type of Corporate Action	Comments	Divisor Adjustment
Spin-off	If spun-off company is not being added to the index, the divisor adjustment reflects the decline in index market value ( <i>i.e.</i> , the value of the spun-off unit).	Yes
Spin-off	Spun-off company added to the index, another company removed to keep number of names fixed. Divisor adjustment reflects deletion.	Yes
Change in IWF due to a corporate action or a purchase or sale by an inside holder.	Increasing (decreasing) the IWF increases (decreases) the total market value of the index. The divisor change reflects the change in market value caused by the change to an IWF.	Yes
Special dividend	When a company pays a special dividend the share price is assumed to drop by the amount of the dividend; the divisor adjustment reflects this drop in index market value.	Yes
Rights offering	Each shareholder receives the right to buy a proportional number of additional shares at a set (often discounted) price. The calculation assumes that the offering is fully subscribed. Divisor adjustment reflects increase in market cap measured as the shares issued multiplied by the price paid.	Yes

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

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

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

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

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

## License Agreement with S&P

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

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

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

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## THE NIKKEI 225 INDEX

We have derived all information contained in this product supplement regarding the Nikkei 225 Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by Nikkei Inc. We make no representation or warranty as to the accuracy or completeness of such information. The Nikkei 225 Index was developed by Nikkei Inc. and is calculated, maintained and published by Nikkei Inc. Nikkei Inc. has no obligation to continue to publish, and may discontinue publication of, the Nikkei 225 Index.

The Nikkei 225 Index is a stock index calculated, published and disseminated by Nikkei Inc. that measures the composite price performance of selected Japanese stocks. The Nikkei 225 Index, as of the date of this product supplement, is based on 225 underlying stocks (the "Nikkei Underlying Stocks") trading on the Tokyo Stock Exchange ("TSE") representing a broad cross-section of Japanese industries. The Nikkei 225 Index is reported by Bloomberg L.P. under the ticker symbol "NKY."

All 225 Nikkei Underlying Stocks are stocks listed in the First Section of the TSE. Stocks listed in the First Section of the TSE are among the most actively traded stocks on the TSE. Nikkei Inc. rules require that the 75 most liquid issues (one-third of the component count of the Nikkei 225 Index) be included in the Nikkei 225 Index.

The 225 companies included in the Nikkei 225 Index are divided into six sector categories: Technology, Financials, Consumer Goods, Materials, Capital Goods/Others and Transportation and Utilities. These six sector categories are further divided into 36 industrial classifications as follows:

- Technology — Pharmaceuticals, Electrical Machinery, Automobiles, Precision Machinery, Telecommunications;
- Financials — Banks, Miscellaneous Finance, Securities, Insurance;
- Consumer Goods — Marine Products, Food, Retail, Services;
- Materials — Mining, Textiles, Paper and Pulp, Chemicals, Oil, Rubber, Ceramics, Steel, Nonferrous Metals, Trading House;
- Capital Goods/Others — Construction, Machinery, Shipbuilding, Transportation Equipment, Miscellaneous Manufacturing, Real Estate; and
- Transportation and Utilities — Railroads and Buses, Trucking, Shipping, Airlines, Warehousing, Electric Power, Gas.

The Nikkei 225 Index is a modified, price-weighted index (i.e., a Nikkei Underlying Stock's weight in the Nikkei 225 Index is based on its price per share rather than the total market capitalization of the issuer) which is calculated by (i) multiplying the per share price of each Nikkei Underlying Stock by the corresponding weighting factor for such Nikkei Underlying Stock (a "Weight Factor"), (ii) calculating the sum of all these products and (iii) dividing such sum by a divisor (the "Divisor"). The Divisor was initially set at 225 for the date of May 16, 1949 using historical numbers from May 16, 1949, the date on which the TSE was reopened. The Divisor was 24.394 as of April 2, 2008 and is subject to periodic adjustments as set forth below. Each Weight Factor is computed by dividing ¥50 by the par value of the relevant Nikkei Underlying Stock, so that the share price of each Nikkei Underlying Stock when multiplied by its Weight Factor corresponds to a share price based on a uniform par value of ¥50. The stock prices used in the calculation of the Nikkei 225 Index are those reported by a primary market for the Nikkei Underlying Stocks (currently the TSE). The level of the Nikkei 225 Index is calculated once per minute during TSE trading hours.

In order to maintain continuity in the Nikkei 225 Index in the event of certain changes due to non-market factors affecting the Nikkei Underlying Stocks, such as the addition or deletion of stocks, substitution of stocks, stock splits or distributions of assets to stockholders, the Divisor used in calculating the Nikkei 225 Index is adjusted in a manner designed to prevent any instantaneous change or discontinuity in the level of the Nikkei 225 Index. Thereafter, the Divisor remains at the new value until a further adjustment is necessary as the result of another change. As a result of such change affecting any Nikkei Underlying Stock, the Divisor is adjusted in such a way that the sum of all share prices immediately after such change multiplied by the applicable Weight Factor and divided by the new Divisor (i.e., the level of the Nikkei 225 Index immediately after such change) will equal the level of the Nikkei 225 Index immediately prior to the change.

A Nikkei Underlying Stock may be deleted or added by Nikkei Inc. Any stock becoming ineligible for listing in the First Section of the TSE due to any of the following reasons will be deleted from the Nikkei Underlying Stocks: (i) bankruptcy of the issuer, (ii) merger of the issuer with, or acquisition of the issuer by, another company, (iii) delisting of such stock, (iv) transfer of such stock to the "Seiri-Post" because of excess debt of the issuer or because of any other reason or (v) transfer of such stock to the Second Section. In addition, a component stock transferred to the "Kanri-Post" (Posts for stocks under supervision) is in principle a candidate for deletion. Nikkei Underlying Stocks with relatively low liquidity, based on trading value and rate of price fluctuation over the past five years, may be deleted by Nikkei Inc. Upon deletion of a stock from the Nikkei Underlying Stocks, Nikkei Inc. will select a replacement for such deleted Nikkei Underlying Stock in accordance with certain criteria. In an exceptional case, a newly listed stock in the First Section of the TSE that is recognized by Nikkei Inc. to be representative of a market may be added to the Nikkei Underlying Stocks. In such a case, an existing Nikkei Underlying Stock with low trading volume and deemed not to be representative of a market will be deleted by Nikkei Inc.

A list of the issuers of the Nikkei Underlying Stocks constituting the Nikkei 225 Index is available from the Nikkei Economic Electronic Databank System and from the Stock Market Indices Data Book published by Nikkei Inc. Nikkei Inc. may delete, add or substitute any stock underlying the Nikkei 225 Index. Nikkei Inc. first calculated and published the Nikkei 225 Index in 1970.

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## The Tokyo Stock Exchange

The TSE is one of the world's largest securities exchanges in terms of market capitalization. Trading hours are currently from 9:00 a.m. to 11:00 a.m. and from 12:30 p.m. to 3:00 p.m., Tokyo time, Monday through Friday.

Due to the time zone difference, on any normal trading day the TSE will close prior to the opening of business in New York City on the same calendar day. Therefore, the closing level of the Nikkei 225 Index on a trading day will generally be available in the United States by the opening of business on the same calendar day.

The TSE has adopted certain measures, including daily price floors and ceilings on individual stocks, intended to prevent any extreme short-term price fluctuations resulting from order imbalances. In general, any stock listed on the TSE cannot be traded at a price lower than the applicable price floor or higher than the applicable price ceiling. These price floors and ceilings are expressed in absolute Japanese yen, rather than percentage limits based on the closing price of the stock on the previous trading day. In addition, when there is a major order imbalance in a listed stock, the TSE posts a "special bid quote" or a "special asked quote" for that stock at a specified higher or lower price level than the stock's last sale price in order to solicit counter-orders and balance supply and demand for the stock. Prospective investors should also be aware that the TSE may suspend the trading of individual stocks in certain limited and extraordinary circumstances, including, for example, unusual trading activity in that stock. As a result, changes in the Nikkei 225 Index may be limited by price limitations or special quotes, or by suspension of trading, on individual stocks that make up the Nikkei 225 Index, and these limitations, in turn, may adversely affect the value of the notes.

## THE DOW JONES EURO STOXX 50® INDEX

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

The Dow Jones EURO STOXX 50® Index was created by STOXX Limited, a joint venture between Deutsche Börse AG, Dow Jones & Company and SWX Swiss Exchange. Publication of the Dow Jones EURO STOXX 50® Index began on February 26, 1998, based on an initial Dow Jones EURO STOXX 50® Index value of 1,000 at December 31, 1991. The Dow Jones EURO STOXX 50® Index is published in The Wall Street Journal and disseminated on the STOXX Limited website: [www.stoxx.com](http://www.stoxx.com), which sets forth, among other things, the country and industrial sector weightings of the securities included in the Dow Jones EURO STOXX 50® Index and updates these weightings at the end of each quarter. Information contained in the STOXX Limited website is not incorporated by reference in, and should not be considered a part of, this product supplement or any terms supplement. The Dow Jones EURO STOXX 50® Index is reported by Bloomberg L.P. under the ticker symbol "SX5E."

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

The Dow Jones EURO STOXX 50® Index is composed of 50 component stocks of market sector leaders from within the 18 Dow Jones EURO STOXX® Supersector indices, which represent the Eurozone portion of the Dow Jones STOXX 600® Supersector indices. The Dow Jones STOXX 600® Supersector indices contain the 600 largest stocks traded on the major exchanges of 18 European countries. The component stocks have a high degree of liquidity and represent the largest companies across all market sectors.

The composition of the Dow Jones EURO STOXX 50® Index is reviewed annually, based on the closing stock data on the last trading day in August. The component stocks are announced the first trading day in September. Changes to the component stocks are implemented on the third Friday in September and are effective the following trading day. Changes in the composition of the Dow Jones EURO STOXX 50® Index are made to ensure that the Dow Jones EURO STOXX 50® Index includes the 50 market sector leaders from within the Dow Jones EURO STOXX® Index. A current list of the issuers that comprise the Dow Jones EURO STOXX 50® Index is available on the STOXX Limited website: [www.stoxx.com](http://www.stoxx.com). Information contained in the STOXX Limited website is not incorporated by reference in, and should not be considered a part of, this product supplement or any terms supplement.

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

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



## Dow Jones EURO STOXX 50® Index Calculation

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

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

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

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

<p>(1) Split and reverse split:</p> <p>Adjusted price = closing price * A/B</p> <p>New number of shares = old number of shares * B/A</p> <p>Divisor: no change</p>	<p>(2) <i>Rights offering:</i></p> <p>Adjusted price = (closing price * A + subscription price * B) / (A + B)</p> <p>New number of shares = old number of shares * (A + B) / A</p> <p>Divisor: increases</p>
<p>(3) Stock dividend:</p> <p>Adjusted price = closing price * A / (A + B)</p> <p>New number of shares = old number of shares * (A + B) / A</p> <p>Divisor: no change</p>	<p>(4) Stock dividend of another company:</p> <p>Adjusted price = (closing price * A - price of other company * B) / A</p> <p>Divisor: decreases</p>
<p>(5) Return of capital and share consideration:</p> <p>Adjusted price = (closing price - dividend announced by company * (1-withholding tax)) * A / B</p> <p>New number of shares = old number of shares * B / A</p> <p>Divisor: decreases</p>	<p>(6) Repurchase shares / self tender:</p> <p>Adjusted price = ((price before tender * old number of shares) - (tender price * number of tendered shares)) / (old number of shares - number of tendered shares)</p> <p>New number of shares = old number of shares - number of tendered shares</p> <p>Divisor: decreases</p>

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

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The FTSE™ 100 Index measures the composite price performance of stocks of the largest 100 companies (determined on the basis of market capitalization) traded on the LSE. Publication of the FTSE™ 100 Index began in February 1984. The FTSE™ 100 Index is reported by Bloomberg L.P. under the ticker symbol "UKX."

The FTSE™ 100 Index is calculated by (i) multiplying the per share price of each stock included in the FTSE™ 100 Index by the number of outstanding shares, (ii) calculating the sum of all these products (such sum being hereinafter the "FTSE Aggregate Market Value") as of the starting date of the FTSE™ 100 Index, (iii) dividing the FTSE Aggregate Market Value by a divisor which represents the FTSE Aggregate Market Value on the base date of the FTSE™ 100 Index and which can be adjusted to allow changes in the issued share capital of individual underlying stocks including the deletion and addition of stocks, the substitution of stocks, stock dividends and stock splits to be made without distorting the FTSE™ 100 Index and (iv) multiplying the result by 1,000. Because of such capitalization weighting, movements in share prices of companies with relatively larger market capitalization will have a greater effect on the level of the entire FTSE™ 100 than will movements in share prices of companies with relatively smaller market capitalization.

The 100 stocks included in the FTSE™ 100 Index (the "FTSE Underlying Stocks") were selected from a reference group of stocks trading on the LSE which were selected by excluding certain stocks that have low liquidity based on public float, accuracy and reliability of prices, size and number of trading days. The FTSE Underlying Stocks were selected from this reference group by selecting 100 stocks with the largest market value. A list of the issuers of the FTSE Underlying Stocks is available from FTSE.

The FTSE™ 100 Index is reviewed quarterly by an Index Steering Committee of the LSE in order to maintain continuity in the level. The FTSE Underlying Stocks may be replaced, if necessary, in accordance with deletion/addition rules which provide generally for the removal and replacement of a stock from the FTSE™ 100 Index if such stock is delisted or its issuer is subject to a takeover offer that has been declared unconditional or it has ceased, in the opinion of the Index Steering Committee, to be a viable component of the FTSE™ 100 Index. To maintain continuity, a stock will be added at the quarterly review if it has risen to 90th place or above and a stock will be deleted if at the quarterly review it has fallen to 111th place or below, in each case ranked on the basis of market capitalization.

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## THE MSCI EAFE® INDEX

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### Transition

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

### The MSCI EAFE® Index

The MSCI EAFE® Index is intended to provide performance benchmarks for certain developed equity markets in Europe, Asia, Australia and the Far East. As of November 7, 2008, equity markets in Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom were represented in the MSCI EAFE® Index. The MSCI EAFE® Index is reported by Bloomberg L.P. under the ticker symbol "MXEA."

### Constructing the MSCI Global Investable Market Indices

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

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

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

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

#### *Defining the Equity Universe*

- (i) **Identifying Eligible Equity Securities:** The Equity Universe initially looks at securities listed in any of the countries in the MSCI Global Index Series, which will be classified as either Developed Markets ("DM") or Emerging Markets ("EM"). All listed equity securities, or listed securities that exhibit characteristics of equity securities, except mutual funds, exchange traded funds, equity derivatives, limited partnerships, and most investment trusts, are eligible for inclusion in the Equity Universe. Real Estate Investment Trusts ("REITs") in some countries and certain income trusts in Canada are also eligible for inclusion.
- (ii) **Country Classification of Eligible Securities:** Each company and its securities (i.e., share classes) are classified in one and only one country, which allows for a distinctive sorting of each company by its respective country.

### *Determining the Market Investable Equity Universes*

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

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

- (i) **Equity Universe Minimum Size Requirement:** This investability screen is applied at the company level. In order to be included in a Market Investable Equity Universe, a company must have the required minimum full market capitalization. A company will meet this requirement if its cumulative free float-adjusted market capitalization is within the top 99% of the sorted Equity Universe.
- (ii) **Equity Universe Minimum Float-Adjusted Market Capitalization Requirement:** This investability screen is applied at the individual security level. To be eligible for inclusion in a Market Investable Equity Universe, a security must have a free float-adjusted market capitalization equal to or higher than 50% of the Equity Universe Minimum Size Requirement.
- (iii) **DM and EM Minimum Liquidity Requirement:** This investability screen is applied at the individual security level. To be eligible for inclusion in a Market Investable Equity Universe, a security must have adequate liquidity. The Annualized Traded Value Ratio ("ATVR"), a measure that offers the advantage of screening out extreme daily trading volumes and taking into account the free float-adjusted market capitalization size of securities, is used to measure liquidity. In the calculation of the ATVR, the trading volumes in depository receipts associated with that security, such as ADRs or GDRs, are also considered. A minimum liquidity level of 20% ATVR is required for inclusion of a security in a Market Investable Equity Universe of a Developed Market, and a minimum liquidity level of 15% ATVR is required for inclusion of a security in a Market Investable Equity Universe of an Emerging Market.
- (iv) **Global Minimum Foreign Inclusion Factor Requirement:** This investability screen is applied at the individual security level. To be eligible for inclusion in a Market Investable Equity Universe, a security's Foreign Inclusion Factor ("FIF") must reach a certain threshold. The FIF of a security is defined as the proportion of shares outstanding that is available for purchase in the public equity markets by international investors. This proportion accounts for the available free float of and/or the foreign ownership limits applicable to a specific security (or company). In general, a security must have an FIF equal to or larger than 0.15 to be eligible for inclusion in a Market Investable Equity Universe.
- (v) **Minimum Length of Trading Requirement:** This investability screen is applied at the individual security level. For an initial public offering ("IPO") to be eligible for inclusion in a Market Investable Equity Universe, the new issue must have started trading at least four months before the implementation of the initial construction of the index or at least three months before the implementation of a Semi-Annual Index Review. This requirement is applicable to small new issues in all markets. Large IPOs are not subject to the Minimum Length of Trading Requirement and may be included in a Market Investable Equity Universe and the Standard Index outside of a Quarterly or Semi-Annual Index Review.

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

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

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

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

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

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

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

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

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

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

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



## Maintenance of the MSCI EAFE® Index

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

In particular, index maintenance involves:

- (i) Semi-Annual Index Reviews ("SAIRs") in May and November of the Size Segment and Global Value and Growth Indices which include:
  - Updating the indices on the basis of a fully refreshed Equity Universe.
  - Taking buffer rules into consideration for migration of securities across size and style segments.
  - Updating FIFs and Number of Shares ("NOS").

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

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

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

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

## Announcement Policy

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

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

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

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

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

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

## Index Calculation

### *Price Index Level*

The MSCI EAFE® Index is calculated using the Laspeyres’ concept of a weighted arithmetic average together with the concept of chain-linking. As a general principle, the level of the MSCI EAFE® Index is obtained by applying the change in the market performance to the previous period level for the MSCI EAFE® Index.

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

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

Where:

- *PriceIndexLevelUSD<sub>t-1</sub>* is the Price Index level in USD at time t-1
- *IndexAdjustedMarketCapUSD<sub>t</sub>* is the Adjusted Market Capitalization of the index in USD at time t
- *IndexInitialMarketCapUSD<sub>t</sub>* is the Initial Market Capitalization of the index in USD at time t
- *PriceIndexLevelLocal<sub>t-1</sub>* is the Price Index level in local currency at time t-1
- *IndexAdjustedMarketCapForLocal<sub>t</sub>* is the Adjusted Market Capitalization of the index in USD converted using FX rate as of t-1 and used for local currency index at time t

Note: *IndexInitialMarketCapUSD* was previously called *IndexUnadjustedMarketCapPreviousUSD*  
*Security Price Index Level*

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

$$=$$

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

$$= \frac{SecurityInitialMarketCapUSD_t}{FXrate_{t-1}} \frac{IndexNumberOfShares_{t-1} \times PricePerShare_{t-1} \times InclusionFactor_t}{FXrate_{t-1}}$$

Where:

- *SecurityPriceIndexLevel<sub>t-1</sub>* is Security Price Index level at time t-1
- *SecurityAdjustedMarketCapForLocal<sub>t</sub>* is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t-1.
- *SecurityInitialMarketCapUSD<sub>t</sub>* is the Initial Market Capitalization of security s in USD at time t.
- *IndexNumberOfShares<sub>t-1</sub>* is the number of shares of security s at time t-1.
- *PricePerShare<sub>t</sub>* is the price per share of security s at time t.
- *PricePerShare<sub>t-1</sub>* is the price per share of security s at time t-1.
- *InclusionFactor<sub>t</sub>* is the inclusion factor of security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor.
- *PAF<sub>t</sub>* is the Price Adjustment Factor of security s at time t.
- *FXrate<sub>t-1</sub>* is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- *ICI<sub>t</sub>* is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g. from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- *ICI<sub>t-1</sub>* is the Internal Currency Index of price currency at time t-1.
- Index Market Capitalization.

$$IndexAdjustedMarketCapUSD_t =$$

$$\sum_{s \in I, t} \frac{Index\ Number\ of\ Shares_{t-1} \times Price\ Per\ Share_t \times Inclusion\ Factor_t \times PAF_t}{FXrate_t}$$

$$IndexAdjustedMarketCapForLocal_t =$$

$$\sum_{s \in I, t} \frac{Index\ Number\ of\ Shares_{t-1} \times Price\ Per\ Share_t \times Inclusion\ Factor_t \times PAF_t}{FXrate_{t-1}} \times \frac{ICI_t}{ICI_{t-1}}$$

$$IndexInitialMarketCapUSD_t =$$

$$\sum_{s \in I, t} \frac{Index\ Number\ of\ Shares_{t-1} \times Price\ Per\ Share_t \times Inclusion\ Factor_t}{FXrate_{t-1}}$$

Where:

- *IndexNumberOfShares<sub>t-1</sub>* is the number of shares of security s at time t-1.
- *PricePerShare<sub>t</sub>* is the price per share of security s at time t.
- *PricePerShare<sub>t-1</sub>* is the price per share of security s at time t-1.
- *InclusionFactor<sub>t</sub>* is the inclusion factor of security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor.
- *PAF<sub>t</sub>* is the Price Adjustment Factor of security s at time t.
- *FXrate<sub>t</sub>* is the FX rate of the price currency of security s vs USD at time t. It is the value of 1 USD in foreign currency.
- *FXrate<sub>t-1</sub>* is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- *ICI<sub>t</sub>* is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g. from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- *ICI<sub>t-1</sub>* is the Internal Currency Index of price currency at time t-1.

## Corporate Events

### *Mergers and Acquisitions*

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

### *Tender Offers*

In tender offers, the acquired or merging security is generally deleted from the MSCI EAFE® Index at the end of the initial offer period, when the offer is likely to be successful and/or if the free float of the security is likely to be substantially reduced (this rule is applicable even if the offer is extended), or once the results of the offer have been officially communicated and the offer has been successful and the security's free float has been substantially reduced, if all required information is not available in advance or if the offer's outcome is uncertain. The main factors considered by MSCI when assessing the outcome of a tender offer (not in order of importance) are: the announcement of the offer as friendly or hostile, a comparison of the offer price to the acquired security's market price, the recommendation by the acquired company's board of directors, the major shareholders' stated intention whether to tender their shares, the required level of acceptance, the existence of pending regulatory approvals, market perception of the transaction, official preliminary results if any, and other additional conditions for the offer.

If a security is deleted from an index, the security will not be reinstated immediately after its deletion even when the tender offer is subsequently declared unsuccessful and/or the free float of the security is not substantially reduced. It may be reconsidered for index inclusion in the context of a quarterly index review or annual full country index review. MSCI uses market prices for implementation.

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

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

### *Conversions of Share Classes*

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

### *Spin-Offs*

On the ex-date of a spin-off, a PAF is applied to the price of the security of the parent company. The PAF is calculated based on the terms of the transaction and the market price of the spun-off security. If the spun-off entity qualifies for inclusion, it is included as of the close of its first trading day. If appropriate, MSCI may link the price history of the spun-off security to a security of the parent company.

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

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

### *Corporate Actions*

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

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

### *Share Placements and Offerings*

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

### *Debt-to-Equity Swaps*

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

### *Suspensions and Bankruptcies*

MSCI will remove from the MSCI Equity Index Series as soon as practicable companies that file for bankruptcy, companies that file for protection from their creditors and/or are suspended and for which a return to normal business activity and trading is unlikely in the near future. When the primary exchange price is not available, MSCI will delete securities at an over the counter or equivalent market price when such a price is available and deemed relevant. If no over the counter or equivalent price is available, the security will be deleted at the smallest price (unit or fraction of the currency) at which a security can trade on a given exchange. For securities that are suspended, MSCI will carry forward the market price prior to the suspension during the suspension period.

## **The MSCI EAFE® Index Is Subject to Currency Exchange Risk**

Because the prices of some or all of the stocks that make up the MSCI EAFE® Index (the “EAFE Component Securities”) are converted into U.S. dollars for the purposes of calculating the value of the MSCI EAFE® Index, holders of the notes will be exposed to currency exchange rate risk with respect to the currencies in which the EAFE Component Securities trade. Exposure to currency changes will depend on the extent to which such currencies strengthen or weaken against the U.S. dollar and the relative weight of the EAFE Component Securities in the MSCI EAFE® Index denominated in each such currency. The devaluation of the U.S. dollar against the currencies in which the EAFE Component Securities trade will result in an increase in the value of the MSCI EAFE® Index. Conversely, if the U.S. dollar strengthens against such currencies, the value of the MSCI EAFE® Index will be adversely affected and may reduce or eliminate the payment at maturity, if any, on the notes. Fluctuations in currency exchange rates can have a continuing impact on the value of the MSCI EAFE® Index, and any negative currency impact on the MSCI EAFE® Index may significantly decrease the value of the notes. The return on an index composed of the EAFE Component Securities where the closing price is not converted into U.S. dollars can be significantly different from the return on the MSCI EAFE® Index, which are converted into U.S. dollars.

## **License Agreement with MSCI**

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## THE RUSSELL 1000® GROWTH INDEX AND THE RUSSELL 1000® VALUE INDEX

We have derived all information contained in this product supplement regarding the Russell 1000® Growth Index and the Russell 1000® Value Index, including without limitation, their make-up, method of calculation and changes in their components, from publicly available information. Such information reflects the policies of, and is subject to change by, Russell Investments ("Russell"). We make no representation or warranty as to the accuracy or completeness of such information. The Russell 1000® Growth Index and the Russell 1000® Value Index (together, for the purposes of this section, the "Russell 1000® Style Indices") were developed by Russell Investment Group (formerly, Frank Russell Company) and are calculated, maintained and published by Russell, a subsidiary of Russell Investment Group. Russell has no obligation to publish, and may discontinue the publication of, the Russell 1000® Style Indices.

The Russell 1000® Growth Index is an index calculated, published and disseminated by Frank Russell, and measures the capitalization-weighted price performance of the stocks included in the Russell 1000® Index (each, a "Russell 1000 Component Stock" and collectively, the "Russell 1000 Component Stocks"), determined by Frank Russell to be growth oriented, with higher price-to-book ratios and higher forecasted growth values. The Russell 1000® Value Index is an index calculated, published and disseminated by Frank Russell, and measures the capitalization-weighted price performance of the Russell 1000 Component Stocks, determined by Frank Russell to be value oriented, with lower price-to-book ratios and lower forecasted growth values. All stocks included in the Russell 1000® Style Indices are traded on the NYSE, the AMEX, The NASDAQ Stock Market or in the over-the-counter stock market. The Russell 1000® Index consists of the 1,000 largest companies included in the Russell 3000E™ Index, and is designed to track the performance of the large capitalization segment of the U.S. equity market. The Russell 3000E™ Index is composed of the 4,000 largest U.S. companies as determined by market capitalization and represents approximately 99% of the U.S. equity market.

The Russell 1000® Growth Index and the Russell 1000® Value Index are reported by Bloomberg L.P. under the ticker symbols "RLG" and "RLV," respectively.

### Selection of Stocks Underlying the Russell 1000® Index

Each of the Russell 1000® Growth Index and the Russell 1000® Value Index is a sub-group of the Russell 1000® Index, which in turn is a subgroup of the Russell 3000E™ Index. To be eligible for inclusion in the Russell 3000E™ Index and the Russell 1000® Index, and, consequently, the Russell 1000® Growth Index or the Russell 1000® Value Index, a company's stocks must be listed on May 31<sup>st</sup> of a given year and Frank Russell must have access to documentation verifying the company's eligibility for inclusion. Beginning September 2004, eligible initial public offerings are added to Russell U.S. indices at the end of each calendar quarter, based on total market capitalization rankings within the market-adjusted capitalization breaks established during the most recent reconstitution. To be added to any Russell U.S. index during a quarter outside of reconstitution, initial public offerings must meet additional eligibility criteria.

U.S.-incorporated companies are eligible for inclusion in the Russell 1000® Index and, consequently, the Russell 1000® Style Indices. Companies incorporated in the following countries/regions are also reviewed for eligibility: Anguilla, Antigua, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Channel Islands, Cook Islands, Faroe Islands, Gibraltar, Isle of Man, Liberia, Marshall Islands, Netherlands Antilles, Panama and Turks and Caicos Islands. However, not all companies incorporated in these regions are eligible for inclusion in the Russell 3000E™ Index, and, consequently, the Russell 1000® Index. Companies incorporated in these regions are specifically considered eligible for the Russell 1000® Index only if the company meets one of the following criteria: (i) the company headquarters are in the U.S. or (ii) the company headquarters are also in the designated region/country, and the primary exchange for local shares is in the United States. ADRs are not eligible for inclusion in the Russell 1000® Index, and, consequently, are not eligible for inclusion in the Russell 1000® Style Indices.

The following securities are specifically excluded from the Russell 1000® Index, and, consequently, from the Russell 1000® Style Indices: (i) stocks that are not traded on a major U.S. exchange; (ii) preferred stock, convertible preferred stock, redeemable shares, participating preferred stock, warrants rights and trust receipts; (iii) royalty trusts, limited liability companies, OTC Bulletin Board companies, pink sheets, over-the-counter traded securities, closed-end investment companies (business development companies or BDCs are eligible), blank check companies, special purpose acquisition companies (SPACs) and limited partnerships. The exclusion of blank check companies and SPACs became effective with the first quarter of 2008, but existing members are grandfathered until the 2008 annual reconstitution. In addition, Berkshire Hathaway is excluded as a special exception.

The primary criteria used to determine the initial list of securities eligible for the Russell 3000E™ Index is total market capitalization, which is defined as the price of the shares times the total number of available shares. All common stock share classes are combined in determining market capitalization. If multiple share classes have been combined, the price of the primary trading vehicle (usually the most liquid) is used in the calculations. In cases where the common stock share classes act independently of each other (*e.g.*, tracking stocks), each class is considered for inclusion separately. Stocks must trade at or above \$1.00 on May 31<sup>st</sup> of each year to be eligible for inclusion in the Russell 1000® Index, and, consequently, the Russell 1000® Style Indices. However, if a stock falls below \$1.00 intra-year, it will not be removed until the next reconstitution if it is still trading below \$1.00.

Companies with only a small portion of their shares available in the marketplace are not eligible for inclusion in the Russell 1000® Index and, consequently, the Russell 1000® Index Russell 1000® Style Indices. Large capitalization companies with 1% or less float, and small capitalization companies with 5% or less, will be removed from eligibility.

The Russell 1000® Index is reconstituted annually to reflect changes in the marketplace. The list of companies is ranked based on total market capitalization as of May 31<sup>st</sup>, with the actual reconstitution effective on the first trading day following the final Friday of June each year, except that if the last Friday of June of any year is the 28<sup>th</sup>, 29<sup>th</sup> or 30<sup>th</sup>, reconstitution will occur on the preceding Friday. Changes in the constituents are pre-announced and subject to change if any corporate activity occurs or if any new information is received prior to release.

### **Capitalization Adjustments**

As a capitalization-weighted index, the Russell 1000® Index reflects changes in the capitalization, or market value, of the Russell 1000 Component Stocks relative to the capitalization on a base date. The current Russell 1000® Index value is calculated by adding the market values of the Russell 1000 Component Stocks, which are derived by multiplying the price of each stock by the number of available shares, to arrive at the total market capitalization of the 1,000 stocks. The total market capitalization is then divided by a divisor, which represents the “adjusted” capitalization of the Russell 1000® Index on the base date of December 31, 1986. To calculate the Russell 1000® Index, last sale prices will be used for exchange-traded and NASDAQ stocks. If a Russell 1000 Component Stock is not open for trading, the most recently traded price for that security will be used in calculating the Russell 1000® Index. In order to provide continuity for the Russell 1000® Index’s value, the divisor is adjusted periodically to reflect events including changes in the number of common shares outstanding for Russell 1000 Component Stocks, company additions or deletions, corporate restructurings and other capitalization changes.

Available shares are assumed to be shares available for trading. Exclusion of capitalization held by other listed companies and large holdings of private investors (10% or more) is based on information recorded in SEC corporate filings. Other sources are used in cases of missing or questionable data.

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

- ESOP or LESOP shares – corporations that have Employee Stock Ownership Plans that comprise 10% or more of the shares outstanding are adjusted;
- Corporate cross-owned shares – corporate cross-ownership occurs when shares of a company in the Russell 1000® Index are held by another member of a Russell index (including Russell Global Indexes). Any percentage held in this class will be adjusted;
- Large private and corporate shares – large private and corporate holdings are defined as those shares held by an individual, a group of individuals acting together or a corporation not in the Russell 1000® Index that own 10% or more of the shares outstanding. However, not to be included in this class are institutional holdings, which are: investment companies not in the Russell 1000® Index, partnerships, insurance companies not in the Russell 1000® Index, mutual funds, banks not in the Russell 1000® Index or venture capital funds;
- Unlisted share classes – classes of common stock that are not traded on a U.S. securities exchange;
- Initial public offering lock-ups – shares locked-up during an initial public offering are not available to the public and will be excluded from the market value at the time the initial public offering enters the index; and
- Government Holdings:
  - Direct government holders: Those holdings listed as “government of” are considered unavailable and will be removed entirely from available shares;
  - Indirect government holders: Shares held by government investment boards and/or investment arms will be treated similar to large private holdings and removed if the holding is greater than 10%; and
  - Government pensions: Any holding by a government pension plan is considered institutional holdings and will not be removed from available shares.

### **Selection of Stocks Underlying the Russell 1000® Style Indices**

Stocks that belong to the Russell 1000® Index are assigned to the Russell 1000® Growth Index and/or the Russell 1000® Value Index. While the Russell 1000® Growth Index includes those stocks that have been determined by Frank Russell to be growth-oriented, with higher price-to-book ratios and higher forecasted growth values, the Russell 1000® Value Index includes those stocks that have been determined by Frank Russell to be value-oriented, with lower price-to-book ratios and lower forecasted growth values.

The market value of each security in each of the two Russell 1000® Style Indices is determined as a percentage of the market value within the Russell 1000® Index. Stocks are always fully represented by the combination of their growth and value weights, *e.g.*, a stock that is given a 20% weight in the Russell 1000® Growth Index will have an 80% weight in the Russell 1000® Value Index. A stock that is given a 100% weight in the Russell 1000® Growth Index will hold the same value in the Russell 1000® Growth Index as it holds in the Russell 1000® Index, and will not be represented in the Russell 1000® Value Index.

Frank Russell uses a “non-linear probability” method to assign stocks to the Russell 1000® Style Indices. The term “probability” is used to indicate the degree of certainty that a stock is value or growth based on its relative book-to-price ratio and Institutional Brokers’ Estimate System (“I/B/E/S”) forecast long-term growth mean. This allows stocks to be represented as having both growth and value characteristics, while preserving the additive nature of the Russell 1000® Growth Index. The stocks included in the Russell 1000® Index are ranked by their adjusted book-to-price ratio and I/B/E/S forecast long-term growth mean. These ranks are converted to standardized units and combined to produce a Composite Value Score (“CVS”). Stocks are then ranked by their CVS, and a probability algorithm is applied to the CVS distribution to assign growth and value weights to each stock. In general, stocks with a lower CVS are considered growth, stocks with a higher CVS are considered value, and stocks with a CVS in the middle range are considered to have both growth and value characteristics, and are weighted proportionately in the Russell 1000® Style Indices. However, if a stock’s weight is more than 95% in one of the two Russell 1000® Style Indices, Frank Russell increases its weight to 100% in that index. In addition, the market capitalization of each of the Russell 1000® Style Indices may not equal 50% of the Russell 1000® Index, due to asymmetry in the capitalization distributions that result in a skewed distribution of CVS.

### **Corporate Actions Affecting the Russell 1000® Style Indices**

The following summarizes the types of maintenance adjustments to which the Russell 1000® Style Indices may be subject, and indicates whether or not an adjustment to the Russell 1000® Growth Index and/or the Russell 1000® Value Index is required.

- “No Replacement” Rule – Securities that leave either of the Russell 1000® Style Indices between reconstitution dates for any reason (*e.g.*, mergers, acquisitions or other similar corporate activity) are not replaced. Thus, the number of securities in the Russell 1000® Growth Index and the Russell 1000® Value Index over a year will fluctuate according to corporate activity.
- Rules for Deletions – When a stock is acquired, delisted or moves to the pink sheets or bulletin boards on the floor of a U.S. securities exchange, the stock is deleted from the Russell 1000® Growth Index and/or the Russell 1000® Value Index, as applicable, at the market close on the effective date or when the stock is no longer trading on the exchange if the corporate action is considered to be final prior to 2:00 p.m. Eastern Standard Time, or the following day if the corporate action is considered to be final after 2:00 p.m. Eastern Standard Time. Companies that file for a Chapter 7 liquidation bankruptcy will be removed from the Russell 1000® Growth Index and/or the Russell 1000® Value Index, as applicable, at the time of the bankruptcy filing; whereas, companies filing for a Chapter 11 reorganization bankruptcy will remain a member of the Russell 1000® Growth Index and/or the Russell 1000® Value Index, as applicable, unless the company is de-listed from the primary exchange, in which case normal de-listing rules apply. Members of the Russell 1000® Style Indices that are re-incorporated in another country are deleted when the re-incorporation is final.
- Rules for Additions – The only additions between reconstitution dates are as a result of spin-offs, reincorporations and initial public offerings. Spin-off companies are added to the parent company’s index and capitalization tier of membership, *if* the spin-off company is sufficiently large. To be eligible, the spun-off company’s total market capitalization must be greater than the market-adjusted total market capitalization of the smallest security in the Russell 3000E™ Index at the latest reconstitution. The spin-off company’s “Growth” and/or “Value” designation is determined by the characteristics of its parent entity. If a U.S. spin-off occurs from a Russell Global ex-U.S. Index member, the spun-off company will be placed in the parent’s index and capitalization tier of the Russell Global Index. A member of the Russell Global Index that is reincorporating to the United States or one of the eligible countries/regions described above will be added to the Russell 3000 ETM Index when the reincorporation is final.

- **Merger and Acquisition** – When mergers or acquisitions occur, changes to the membership and weighting of members within the Russell 1000® Index occur. In the event a merger or acquisition occurs between members of the Russell 1000® Index, the acquired company is deleted and its market capitalization moves to the acquiring stock according to the terms of the merger, hence, mergers have no effect on the Russell 1000® Index total capitalization. Shares are updated for the acquiring stock at the time the transaction is final. Cross ownership and the level of “Growth” or “Value” of the surviving entity is determined by a weighted average of the cross ownership and the level of “Growth” or “Value” of the two companies prior to the merger. If the acquiring company is a member of the Russell 1000® Index, but the acquired company is not, the shares for the acquiring stock are adjusted at month-end. If the acquiring company is not a member of any of the Russell Indexes, there are two possibilities:
  - **Reverse Merger** – If the acquiring company is a private, non-publicly traded company, or OTC company, Frank Russell will review the action to determine if it is considered a reverse merger, defined as a transaction that results in a publicly traded company that meets all requirements for inclusion in a Russell Index. If it is determined that an action is a reverse merger, the newly formed entity will be placed in the appropriate market capitalization index after the close of the day following the completion of the merger. The acquired company will be removed from the current index simultaneously. The “Value” and “Growth” designations for the surviving entity will be determined by the industry average, and cross ownership will be determined based on the most recent SEC filings.
  - **Standard Action** – The acquired company is deleted after the action is final.
- **De-listed Stocks** – When stocks from the Russell 1000® Style Indices are deleted as a result of exchange de-listing or reconstitution, the price used will be the closing primary exchange price on the day of deletion, or the following day using the closing OTC bulletin board price. However, there may be corporate events, such as mergers or acquisitions, that result in the lack of current market price for the deleted security and in such an instance the latest primary exchange closing price available will be used.
- **Rule for Re-Classification and Re-Incorporation** – For re-classification of shares, adjustments will be made at the open of the ex-date using previous day closing prices. For re-incorporations, deleted entities will be removed either after the close of the current day using the last traded price, if the re-incorporation achieves final status prior to 2:00 p.m. Eastern Standard Time, or after the close of the following day at the last traded price, if the re-incorporation achieves final status after 2:00 p.m. Eastern Standard Time.

### **Updates to Share Capital Affecting the Russell 1000® Style Indices**

Each month, the Russell 1000® Style Indices are updated for changes to shares outstanding as companies report changes in share capital to the SEC. Effective April 30, 2002, only cumulative changes to shares outstanding greater than 5% are reflected in the Russell 1000® Style Indices. This does not affect treatment of major corporate events, which are effective on the ex-date.

### **Pricing of Securities Included in the Russell 1000® Style Indices**

Effective on January 1, 2002, primary exchange closing prices are used in the daily Russell 1000® Growth Index and Russell 1000® Value Index calculations. FT Interactive Data is used as the primary source for U.S. security prices, income, and total shares outstanding. Prior to January 1, 2002, composite closing prices, which are the last trade price on any U.S. exchange, were used in the daily calculations of the Russell 1000® Style Indices.

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## THE TOPIX® INDEX

We have derived all information contained in this product supplement regarding the Tokyo Stock Price Index, or the TOPIX® Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information, including the websites of the TSE and other sources we believe to be reliable. Such information reflects the policies of, and is subject to change by, the TSE. The TOPIX® Index was developed by the TSE and is calculated, maintained and published by the TSE. We make no representation or warranty as to the accuracy or completeness of such information.

The TOPIX® Index was developed by the TSE. Publication of the TOPIX® Index began on July 1, 1969, based on an initial Index value of 100 at January 4, 1968, which was reset at 1,000 on April 1, 1998. The TOPIX® Index is computed and published every 15 seconds via TSE's Market Information System, and is reported to securities companies across Japan and available worldwide through computerized information networks.

The component stocks of the TOPIX® Index consist of all Japanese common stocks listed on the First Section of the TSE which have an accumulative length of listing of at least six months. The TOPIX® Index measures changes in the aggregate market value of these stocks. The TSE Japanese stock market is divided into two sections: the First Section and the Second Section. Listings of stocks on the TSE are divided between these two sections, with stocks listed on the First Section typically being limited to larger, longer established and more actively traded issues and the Second Section to smaller and newly listed companies. The component stocks of the TOPIX® Index are determined based on market capitalization and liquidity. Review and selection of component stocks is conducted semiannually, based on market data as of the base date for selection.

The TOPIX® Index is a weighted index, with the market price of each component stock multiplied by the number of shares listed. The TSE is responsible for calculating and maintaining the TOPIX® Index, and can add, delete or substitute the stocks underlying the TOPIX® Index or make other methodological changes that could change the value of the TOPIX® Index. The underlying stocks may be removed, if necessary, in accordance with deletion/addition rules which provide generally for the deletion of a stock from the TOPIX® Index if such stock ceases to meet the criteria for inclusion. Stocks listed on the Second Section of the TSE may be transferred to the First Section if they satisfy applicable criteria. Such criteria include numerical minimum values for number of shares listed, number of shareholders and average monthly trading volume, among others. Similarly, when a First Section stock falls within the coverage of TSE rules prescribing reassignment thereof to the Second Section, such stock will be removed from the First Section. As of October 15, 2007, stocks of 1,744 Japanese companies were assigned to the First Section of the TSE and stocks of 469 companies were assigned to the Second Section.

The TOPIX® Index is not expressed in Japanese Yen, but is presented in terms of points (as a decimal figure) rounded off to the nearest one-hundredth. The TOPIX® Index is calculated by multiplying 100 by the figure obtained by dividing the current free-float adjusted market value (the current market price per share at the time of the index calculation multiplied by the number of free-float adjusted common shares listed on the First Section of the TSE at the same instance) (the "Current Market Value") by the base market value (*i.e.*, the Current Market Value on the base date) (the "Base Market Value").

The calculation of the Index can be represented by the following formula:

$$\text{Index} = \frac{\text{Current Market Value}}{\text{Base Market Value}} \times 100$$

In order to maintain continuity, the Base Market Value is adjusted from time to time to ensure that it reflects only price movements resulting from auction market activity, and to eliminate the effects of other factors and prevent any instantaneous change or discontinuity in the level of the TOPIX® Index. Such factors include, without limitation: new listings, delistings, new share issues either through public offerings or through rights offerings to shareholders, issuance of shares as a consequence of exercise of convertible bonds or warrants, and transfer of listed securities from the First Section to the Second Section of the TSE.

The formula for the adjustment is as follows:

$$\frac{\text{Adjusted Market Value on Adjustment Date}}{\text{Base Market Value before adjustment}} = \frac{(\text{Adjusted Market Value on Adjustment Date} \pm \text{Adjustment Amount})}{\text{Base Market Value after adjustment}}$$

Where Adjustment Amount is equal to the changes in the number of shares included in the calculation of the TOPIX® Index *multiplied* by the price of those shares used for the purposes of the adjustment.

Therefore,

$$\text{New Base Market Value} = \frac{\text{Old Base Market Value} \times (\text{Adjusted Market Value on Adjustment Date} \pm \text{Adjustment Amount})}{\text{Adjusted Market Value on Adjustment Date}}$$

The Base Market Value remains at the new value until a further adjustment is necessary as a result of another change. As a result of such change affecting the Current Market Value or any stock underlying the TOPIX® Index, the Base Market Value is adjusted in such a way that the new value of the TOPIX® Index will equal the level of the TOPIX® Index immediately prior to such change.

No adjustment is made to the Base Market Value, however, in the case of events such as stock splits or decreases in capital without compensation, which theoretically do not affect market value.

### License Agreement with the TSE

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

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### **The Tokyo Stock Exchange**

The TSE is one of the world's largest securities exchanges in terms of market capitalization. Trading hours are currently from 9:00 a.m. to 11:00 a.m. and from 12:30 p.m. to 3:00 p.m., Tokyo time, Monday through Friday.

Due to the time zone difference, on any normal trading day the TSE will close prior to the opening of business in New York City on the same calendar day. Therefore, the closing level of the TOPIX® Index on a trading day will generally be available in the United States by the opening of business on the same calendar day.

The TSE has adopted certain measures, including daily price floors and ceilings on individual stocks, intended to prevent any extreme short-term price fluctuations resulting from order imbalances. In general, any stock listed on the TSE cannot be traded at a price lower than the applicable price floor or higher than the applicable price ceiling. These price floors and ceilings are expressed in absolute Japanese yen, rather than percentage limits based on the closing price of the stock on the previous trading day. In addition, when there is a major order imbalance in a listed stock, the TSE posts a "special bid quote" or a "special asked quote" for that stock at a specified higher or lower price level than the stock's last sale price in order to solicit counter-orders and balance supply and demand for the stock. Prospective investors should also be aware that the TSE may suspend the trading of individual stocks in certain limited and extraordinary circumstances, including, for example, unusual trading activity in that stock. As a result, changes in the TOPIX® Index may be limited by price limitations or special quotes, or by suspension of trading, on individual stocks that make up the TOPIX® Index, and these limitations, in turn, may adversely affect the value of the notes.

## THE iSHARES® MSCI EMERGING MARKETS INDEX FUND

We have derived all information contained in this product supplement regarding the iShares® MSCI Emerging Markets Index Fund, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by, iShares®, Inc. (“iShares®”), Barclays Global Investors, N.A. (“BGI”), and Barclays Global Fund Advisors (“BGFA”). We make no representation or warranty as to the accuracy or completeness of such information. The iShares® MSCI Emerging Markets Index Fund is an investment portfolio maintained and managed by iShares®. BGFA is the investment adviser to the iShares® MSCI Emerging Markets Index Fund. The iShares® MSCI Emerging Markets Index Fund is an exchange traded fund (“ETF”) that trades on the New York Stock Exchange (the “NYSE”) under the ticker symbol “EEM.”

iShares® is a registered investment company that consists of numerous separate investment portfolios, including the iShares® MSCI Emerging Markets Index Fund. Information provided to or filed with the SEC by iShares® pursuant to the Securities Act of 1933 and the Investment Company Act of 1940 can be located by reference to SEC file numbers 033-97598 and 811-09102, respectively, through the SEC’s website at <http://www.sec.gov>. For additional information regarding iShares®, BGFA, the iShares® MSCI Emerging Markets Index Fund, please see the Prospectus, dated January 1, 2008 (as supplemented on January 16, 2008). In addition, information about iShares and the iShares® MSCI Emerging Markets Index Fund may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents and the iShares® website at [www.ishares.com](http://www.ishares.com). We make no representation or warranty as to the accuracy or completeness of such information. Information contained in the iShares® website is not incorporated by reference in, and should not be considered a part of, this product supplement or any terms supplement.

### Investment Objective and Strategy

The iShares® MSCI Emerging Markets Index Fund seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of publicly traded securities in emerging markets, as measured by the MSCI Emerging Markets Index (the “MSCI Underlying Index”). The iShares® MSCI Emerging Markets Index Fund holds equity securities traded primarily in the global emerging markets. The MSCI Underlying Index was developed by MSCI Inc. (“MSCI”) as an equity benchmark for international stock performance, and is designed to measure equity market performance in the global emerging markets.

As of November 7, 2008, the iShares® MSCI Emerging Markets Index Fund holdings by country consisted of the following 23 countries: Argentina, Brazil, Chile, China, Czech Republic, Egypt, Hong Kong, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Peru, Philippines, Russia, South Africa, South Korea, Taiwan, Thailand, Turkey, the United States and Columbia. In addition, as of such date, the iShares® MSCI Emerging Markets Index Fund’s three largest holdings by country were China, Brazil and South Korea. As of March 31, 2008, its three largest equity securities were OAO Gazprom, Samsung Electronics Co., Ltd. and Taiwan Semiconductor Manufacturing Co., Ltd. and its three largest sectors were financials, energy and materials.

The iShares® MSCI Emerging Markets Index Fund uses a representative sampling strategy (as described below under “— Representative Sampling”) to try to track the MSCI Underlying Index. In addition, in order to improve its portfolio liquidity and its ability to track the MSCI Underlying Index, iShares® MSCI Emerging Markets Index Fund may invest up to 10% of its assets in shares of other iShares® funds that seek to track the performance of equity securities of constituent countries of the MSCI Underlying Index. BGFA will not charge portfolio management fees on that portion of the iShares® MSCI Emerging Markets Index Fund’s assets invested in shares of other iShares® funds.

## Representative Sampling

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

## Correlation

The MSCI Underlying Index is a theoretical financial calculation, while the iShares® MSCI Emerging Markets Index Fund is an actual investment portfolio. The performance of the iShares® MSCI Emerging Markets Index Fund and the MSCI Underlying Index will vary somewhat due to transaction costs, market impact, corporate actions (such as mergers and spin-offs) and timing variances. A figure of 100% would indicate perfect correlation. Any correlation of less than 100% is called “tracking error.” The iShares® MSCI Emerging Markets Index Fund, using a representative sampling strategy, can be expected to have a greater tracking error than a fund using replication strategy. Replication is a strategy in which a fund invests in substantially all of the securities in its underlying index in approximately the same proportions as in the MSCI Underlying Index.

## Industry Concentration Policy

The iShares® MSCI Emerging Markets Index Fund will not concentrate its investments (*i.e.*, hold 25% or more of its total assets in the stocks of a particular industry or group of industries), except that, to the extent practicable, the iShares® MSCI Emerging Markets Index Fund will concentrate to approximately the same extent that the MSCI Underlying Index concentrates in the stocks of such particular industry or group of industries.

## Holdings Information

As of March 31, 2008, 99.29% of the iShares® MSCI Emerging Markets Index Fund’s holdings consisted of equity securities, 0.24% consisted of cash and 0.47% was in other assets, including dividends booked but not yet received. The following tables summarize the iShares® MSCI Emerging Markets Index Fund’s top holdings in individual companies and by sector as of such date.

### Top holdings in individual securities as of March 31, 2008

Company	Percentage of Total Holdings
OAQ Gazprom	3.80%
Samsung Electronics Co., Ltd.	3.45%
Taiwan Semiconductor Manufacturing Co., Ltd.	2.63%
China Mobile, Ltd.	2.55%
Petroleo Brasileiro S.A.	2.41%
Chunghwa Telecom Co., Ltd.	2.38%
POSCO.	2.37%
Petroleo Brasileiro S.A.	2.24%
Compania Vale do Rio Doce (preferred class A shares)	2.02%
Compania Vale do Rio Doce	1.72%

### Top holdings by sector as of March 31, 2008

Sector	Percentage of Total Holdings
Financials	18.29%
Energy	17.90%
Materials	16.09%
Information Technology	14.16%
Telecommunication Services	13.24%
Industrials	6.53%
Utilities	4.22%
Consumer Staples	3.39%
Consumer Discretionary	3.17%
Health Care	1.82%

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

#### Historical Performance of the iShares® MSCI Emerging Markets Index Fund

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

#### Disclaimer

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#### The MSCI Emerging Markets Index

We have derived all information contained in this product supplement regarding the MSCI Underlying Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. The MSCI Underlying Index is a stock index calculated, published and disseminated daily by MSCI, a majority-owned subsidiary of Morgan Stanley, through numerous data vendors, on the MSCI website and in real time on Bloomberg Financial Markets and Reuters Limited. Neither MSCI nor Morgan Stanley has any obligation to continue to calculate and publish, and may discontinue calculation and publication of the MSCI Underlying Index.

The MSCI Underlying Index was developed by MSCI as an equity benchmark for international stock performance, and is designed to measure equity market performance in the global emerging markets. On March 28, 2007, MSCI announced changes to the methodology used by MSCI to calculate its Standard and Small Cap Indices. The transition of the Standard and Small Cap Indices to the MSCI Underlying Index occurred in two phases, the first completed as of November 30, 2007 and the second completed as of May 30, 2008. The current index calculation methodology used to formulate the MSCI Underlying Index (and which is also used to formulate the indices included in the MSCI Global Index Series) (the "MSCI Global Investable Market Indices Methodology") was implemented as of June 1, 2008.

### *Index Calculation*

The performance of the MSCI Underlying Index is a free float-adjusted average of the U.S. dollar values of all of the equity securities (the "component securities") constituting the MSCI indices for the selected countries (the "component country indices"). The MSCI Underlying Index has a base date of December 31, 1987. As of November 7, 2008, the MSCI Underlying Index consisted of the following 25 component country indices: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand and Turkey. Each of the component country indices is a sampling of equity securities across industry groups in such country's equity markets.

Prices used to calculate the component securities are the official exchange closing prices or prices accepted as such in the relevant market. In general, all prices are taken from the main stock exchange in each market. The MSCI Underlying Index is rebalanced quarterly, calculated in U.S. dollars on a real time basis, and disseminated every 60 seconds during market trading hours. It is also calculated on an end of day basis.

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## **OTHER COMPONENT UNDERLYINGS**

If the Basket includes a return enhanced component linked to an index or a fund not described in this product supplement, a separate underlying supplement will provide additional information relating to such index or fund.

## GENERAL TERMS OF NOTES

### Calculation Agent

J.P. Morgan Securities Inc. will act as the calculation agent. The calculation agent will determine, among other things, the Starting Underlying Level or the Underlying Strike Level, if applicable, and Ending Underlying Level for each of the Component Underlyings, the Basket Return, the payment at maturity, if any, on the notes, the Index closing level or closing price of each Component Underlying on each Initial Averaging Date, if applicable, the Share Adjustment Factor and anti-dilution adjustments, if any, related to a Component Fund, and the Underlying Return for each of the Component Underlyings and the Component Return for each of the Basket Components on any Underlying Valuation Date. The calculation agent will also be responsible for determining whether a market disruption event has occurred, whether any of the Component Underlyings have been discontinued and whether there has been a material change in the method of calculation of any of the Component Underlyings, as well as which exchange-traded fund will be substituted for a Component Fund (or successor index fund, if applicable) if such Component Fund (or successor index fund, if applicable) is de-listed, liquidated or otherwise terminated; whether the index underlying a Component Fund (or the index underlying a successor index fund, if applicable) has been changed in a material respect and whether a Component Fund (or successor index fund, if applicable) has been modified so that such Component Fund (or successor index fund, if applicable) does not, in the opinion of the calculation agent, fairly represent the price of such Component Fund (or successor index fund, if applicable) had those modifications not been made. All determinations made by the calculation agent will be at the sole discretion of the calculation agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different calculation agent from time to time after the date of the 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 or prior to 11:00 a.m., New York City time, on the business day preceding the maturity date.

All calculations with respect to the Starting Underlying Level and Ending Underlying Level for each of the Component Underlyings, the Underlying Strike Level, if applicable, the Basket Return, the Index closing level or closing price of each Component Underlying on the pricing date or each Initial Averaging Date, if applicable, will be rounded to the nearest one hundred-thousandth, with five one-millionths rounded upward (*e.g.*, .876545 would be rounded to .87655); all dollar amounts related to determination of the payment per \$1,000 principal amount note at maturity, 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 on the aggregate principal amount of notes per holder will be rounded to the nearest cent, with one-half cent rounded upward.

### Market Disruption Events

Certain events may prevent the calculation agent from calculating the Index closing level or closing price of a Component Underlying on any Initial Averaging Date, if applicable, or any Underlying Valuation Date, and consequently, the Basket Return or the amount, if any, that we will pay to you at maturity of the notes. These events may include disruptions or suspensions of trading on the markets as a whole. We refer to these events individually as a "market disruption event."

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

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



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

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

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

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

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

in each case immediately before that suspension or limitation.

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

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

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

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

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

With respect to a Component Fund and any relevant successor index fund, a “market disruption event,” unless otherwise specified in the relevant terms supplement, means:

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

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

- the occurrence or existence of a suspension, absence or material limitation of trading of equity securities then constituting 20% or more of the level of the relevant Underlying Index (or the relevant underlying index related to the successor index fund) on the relevant exchanges for such securities for more than two hours of trading during, or during the one-half hour period preceding the close of, the principal trading session on such relevant exchange, in each case as determined by the calculation agent in its sole discretion; or
- the occurrence or existence of a suspension, absence or material limitation of trading on any major U.S. securities market for trading in futures or options contracts related to the Underlying Index (or the underlying index related to the relevant successor index fund) or shares of such Component Fund (or such successor index fund) for more than two hours of trading during, or during the one-half hour period preceding the close of, the principal trading session on such market, in each case as determined by the calculation agent in its sole discretion; and

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

An “Underlying Index,” with respect to a Component Fund, means the index underlying such Component Fund.

For the purpose of determining whether a relevant market disruption event with respect to a Component Fund (or the relevant successor index fund) exists at any time, if trading in a security included in the Underlying Index (or the underlying index related to the relevant successor index fund) is materially suspended or materially limited at that time, then the relevant percentage contribution of that security to the level of the Underlying Index (or the underlying index related to the relevant successor index fund) shall be based on a comparison of (x) the portion of the level of the Underlying Index (or the underlying index related to the relevant successor index fund) attributable to that security relative to (y) the overall level of the Underlying Index (or the underlying index related to the relevant successor index fund), in each case immediately before that suspension or limitation.

For the purpose of determining whether a market disruption event with respect to a Component Fund (or the successor index fund) has occurred:

- (1) a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange or market;
- (2) a decision to permanently discontinue trading in the relevant futures or options contract or exchange traded fund will not constitute a market disruption event;
- (3) limitations pursuant to the rules of any relevant exchange similar to NYSE Rule 80B (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B as determined by the calculation agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading;
- (4) a suspension of trading in futures or options contracts on the Underlying Index (or the underlying index related to the relevant successor index fund) or shares of such Component Fund (or such successor index fund) by the primary securities market trading in such contracts by reason of (a) a price change exceeding limits set by such securities exchange or market, (b) an imbalance of orders relating to such contracts or (c) a disparity in bid and ask quotes relating to such contracts, will constitute a suspension, absence or material limitation of trading in futures or options contracts related to the Underlying Index (or the underlying index related to the relevant successor index fund) or the shares of such Component Fund (or such successor index fund); and
- (5) a suspension, absence or material limitation of trading on any relevant exchange or on the primary market on which futures or options contracts related to the Underlying Index (or the underlying index related to the relevant successor index fund) or the shares of such Component Fund (or such successor index fund) are traded will not include any time when such securities market is itself closed for trading under ordinary circumstances.

“Relevant exchange” means, with respect to a Component Fund or any successor index fund, the primary exchange or market of trading for the shares of a Component Fund, or such successor index fund, as applicable, or with respect to an Underlying Index or any underlying index relevant to any successor index fund any security (or any combination thereof) then included in such Underlying Index or underlying index, as applicable.

#### **Discontinuation of a Component Index; Alteration of Method of Calculation**

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

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

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

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

#### **Discontinuation of a Component Fund; Alternate Calculation of Closing Price**

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

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

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

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

The calculation agent will provide information as to the method of calculating the closing price of the shares of a Component Fund upon written request by any investor in the notes.

### **Anti-Dilution Adjustments**

With respect to a Component Fund, anti-dilution adjustments shall be calculated as follows:

#### *Share Splits and Reverse Share Splits*

If the shares of a Component Fund are subject to a share split or reverse share split, then once such split has become effective, the Share Adjustment Factor for such Component Fund will be adjusted so that the new Share Adjustment Factor will equal the product of:

- the prior Share Adjustment Factor, and
- the number of shares that a holder of one share of such Component Fund before the effective date of the share split or reverse share split would have owned or been entitled to receive immediately following the applicable effective date.

#### *Share Dividends or Distributions*

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

- the prior Share Adjustment Factor, and
- the number of additional shares issued in the share dividend or distribution with respect to one share of such Component Fund.

### *Non-Cash Distributions*

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

- the prior Share Adjustment Factor, and
- a fraction, the numerator of which is the Current Market Price of one share of such Component Fund and the denominator of which is the amount by which such Current Market Price exceeds the Fair Market Value of such distribution.

The “Current Market Price” of a Component Fund means the closing price of one share of such Component Fund on the trading day immediately preceding the ex-dividend date of the dividend or distribution requiring an adjustment to the Share Adjustment Factor for such Component Fund.

“Ex-dividend date,” with respect to a dividend or other distribution, means the first trading day on which transactions in the shares of a Component Fund trade on the relevant exchange without the right to receive that dividend or other distribution.

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

### *Cash Dividends or Distributions*

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

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

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

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

The “dividend period” means any period during the term of the notes for which dividends are paid on a regular and consistent basis to shareholders of a Component Fund.

The calculation agent will provide information as to any adjustments to the Share Adjustment Factor for a Component Fund upon written request by any investor in the notes.

### **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 shall be determined by the calculation agent and shall be an amount in cash equal to the amount payable at maturity per \$1,000 principal amount note as described under the caption “Description of Notes — Payment at Maturity,” calculated as if the date of acceleration were the final Underlying Valuation Date for each Component Underlying. If the notes are linked to Basket Components that have more than one Underlying Valuation Date, then, for each Underlying Valuation Date scheduled to occur after the date of acceleration, the trading days immediately preceding the date of acceleration (in such number equal to the number of Underlying Valuation Dates in excess of one) shall be the corresponding Underlying Valuation Dates, 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 shall, or shall 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 depository 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 Depository.”

**Registrar, Transfer Agent and Paying Agent**

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

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

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

**Governing Law**

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



## CERTAIN U.S. FEDERAL INCOME TAX CONSEQUENCES

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

This summary does not address all aspects of U.S. federal income and estate taxation of the notes that may be relevant to you in light of your particular circumstances, nor does it address all of your tax consequences if you are a holder of notes who is subject to special treatment under the U.S. federal income tax laws, such as:

- one of certain financial institutions;
- a tax-exempt entity, including an "individual retirement account" or "Roth IRA" as defined in Code Section 408 or 408A, respectively;
- a dealer in securities;
- a "regulated investment company" as defined in Code Section 851;
- a "real estate investment trust" as defined in Code Section 856;
- a person holding the notes as part of a hedging transaction, straddle, conversion transaction or integrated transaction or entering 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 who elects to apply a mark-to-market method of tax accounting; or
- a partnership or other entity classified as a partnership for U.S. federal income tax purposes.

This summary is based on the Code, administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations as of the date of this product supplement, changes to any of which, subsequent to the date of this product supplement, may affect the tax consequences described herein. **You should consult your tax adviser concerning the application of U.S. federal income and estate tax laws to your particular situation (including the possibility of alternative characterizations of the notes), as well as any tax consequences arising under the laws of any state, local or foreign jurisdictions.**

### Tax Treatment of the Notes

The tax consequences of an investment in the notes are unclear. There is no direct legal authority as to the proper U.S. federal income tax characterization of the notes, and we do not intend to request a ruling from the IRS regarding the notes.

We intend to seek an opinion from Davis Polk & Wardwell, our special tax counsel, which will be based upon the terms of the notes at the time of the relevant offering and certain factual representations to be received from us, regarding the treatment of the notes as "open transactions" for U.S. federal income tax purposes. Whether Davis Polk & Wardwell expresses an opinion regarding the characterization of the notes will be indicated in the relevant terms supplement. In either case, we and you will agree to treat the notes for U.S. federal income tax purposes as "open transactions." While other characterizations of the notes could be asserted by the IRS, as discussed below, the following discussion assumes that the notes are treated for U.S. federal income tax purposes as "open transactions" and not as debt instruments, unless otherwise indicated.

In general, we will not attempt to ascertain whether any of the issuers of the component stocks of the Basket Components would be treated as “passive foreign investment companies” (“PFICs”) within the meaning of Section 1297 of the Code or as “U.S. real property holding corporations” (“USRPHCs”) within the meaning of Section 897 of the Code (“FIRPTA”). If any of the issuers of the component stocks were so treated, certain adverse U.S. federal income tax consequences might apply, to a U.S. Holder in the case of a PFIC and to a Non-U.S. Holder in the case of a USRPHC, upon the sale or exchange of a note (including redemption of a note at maturity). You should refer to information filed with the SEC or another governmental authority by the issuers of the component stocks and consult your tax adviser regarding the possible consequences to you if any of the issuers of the component stocks is or becomes a PFIC or USRPHC, as applicable. Depending on the nature of the Basket Components in a particular offering, the relevant terms supplement may include further disclosure regarding these issues.

In addition, it is possible, due to the nature of the Basket Components, that a particular offering of notes could under current law constitute “constructive ownership transactions” within the meaning of Section 1260 of the Code. Section 1260 very generally operates to recharacterize certain long-term capital gain as ordinary income that is subject to an interest charge. In this event, the relevant terms supplement will include disclosure regarding that issue. The remainder of this discussion assumes that the notes are not subject to the constructive ownership rules.

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

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

- 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 or any political subdivision thereof; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

### ***Tax Treatment of the Notes***

***Tax Treatment Prior to Maturity.*** You should not recognize taxable income or loss over the term of the notes prior to maturity, other than pursuant to a sale, exchange or redemption as described below.

***Sale, Exchange or Redemption of the Notes.*** Upon a sale or exchange of a note (including redemption of the notes at maturity), you should recognize capital gain or loss equal to the difference between the amount realized on the sale, exchange or redemption and your tax basis in the note, which should equal the amount you paid to acquire the note. This gain or loss should be long-term capital gain or loss if you have held the note for more than one year at that time. The deductibility of capital losses, however, is subject to limitations.

### ***Possible Alternative Tax Treatments of an Investment in the Notes***

Due to the absence of authorities that directly address the proper characterization of the notes and because we are not requesting a ruling from the IRS with respect to the notes, no assurance can be given that the IRS will accept, or that a court will uphold, the characterization and tax treatment of the notes described above. If the IRS were successful in asserting an alternative characterization or treatment of the notes, the timing and character of income on the notes could differ materially and adversely from our description herein. For example, the IRS might treat the notes as debt instruments issued by us, in which event the taxation of the notes would be governed by certain Treasury regulations relating to the taxation of contingent payment debt instruments if the term of the notes from issue to maturity (including the last possible date that the notes could be outstanding) is more than one year. In this event, regardless of whether you are an accrual-method or cash-method taxpayer, you would be required to accrue into income original issue discount, or “OID,” on the notes at our “comparable yield” for similar noncontingent debt, determined at the time of the issuance of the notes, in each year that you hold the notes (even though you will not receive any cash with respect to the notes during their term) and any gain recognized upon a sale or exchange of the notes (including redemption of the notes at maturity) would generally be treated as ordinary income. Additionally, if you were to recognize a loss above certain thresholds, you could be required to file a disclosure statement with the IRS.

Other alternative U.S. federal income tax characterizations of the notes might also require you to include amounts in income during the term of the notes and/or might treat all or a portion of the gain or loss on the sale or settlement of the notes as ordinary income or loss or as short-term capital gain or loss, without regard to how long you held the notes. In addition, on December 7, 2007, Treasury and the IRS released a notice requesting comments on the U.S. federal income tax treatment of “prepaid forward contracts” and similar instruments, such as the notes. The notice focuses in particular on whether to require holders of these instruments to accrue income over the term of their investment. It also asks for comments on a number of related topics, including the character of income or loss with respect to these instruments; the relevance of factors such as the nature of the underlying property to which the instruments are linked; and whether these instruments are or should be subject to the constructive ownership regime. While the notice requests comments on appropriate transition rules and effective dates, any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the notes, possibly with retroactive effect. Accordingly, you should consult your tax adviser regarding the U.S. federal income tax consequences of an investment in the notes, including possible alternative treatments and the issues presented by this notice.

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

You are a “Non-U.S. Holder” for purposes of this discussion if you are a beneficial owner of notes for U.S. federal income tax purposes that is:

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

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

If you are a Non-U.S. Holder of the notes and if the characterization of the notes as open transactions is respected, any payments on the notes should not be subject to U.S. federal income or withholding tax, except that gain from the sale or exchange of a note (including redemption of a note at maturity) will be subject to U.S. federal income tax if this gain is effectively connected with your conduct of a U.S. trade or business. However, among the issues addressed in the notice described above in “Certain U.S. Federal Income Tax Consequences – Tax Consequences to U.S. Holders – Possible Alternative Tax Treatments of an Investment in the Notes” is the degree, if any, to which income with respect to instruments such as the notes should be subject to U.S. withholding tax. It is possible that any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the withholding tax consequences of an investment in the notes, possibly with retroactive effect.

If the notes were recharacterized as indebtedness, any payments or accruals on the notes nonetheless would not be subject to U.S. withholding tax, provided generally that the certification requirement described below has been fulfilled. Because the characterization of the notes is unclear, payments made to you with respect to the notes may be withheld upon at a rate of 30% unless 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.

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

## **Federal Estate Tax**

Individual Non-U.S. Holders, and entities the property of which is potentially includible in those individuals' gross estates for U.S. federal estate tax purposes (for example, a trust funded by such an individual and with respect to which the individual has retained certain interests or powers), should note that, absent an applicable treaty benefit, a note is likely to be treated as U.S. situs property, subject to U.S. federal estate tax. These individuals and entities should consult their tax advisers regarding the U.S. federal estate tax consequences of investing in a note.

## **Backup Withholding and Information Reporting**

You may be subject to information reporting, and you may also be subject to backup withholding at the rates specified in the Code on the amounts paid to you, unless you provide proof of an applicable exemption or a correct taxpayer identification number and otherwise comply with applicable requirements of the backup withholding rules. If you are a Non-U.S. Holder, you will not be subject to backup withholding if you comply with the certification procedures described in the preceding section. Amounts withheld under the backup withholding rules are not additional taxes and may be refunded or credited against your U.S. federal income tax liability, provided the required information is furnished to the IRS.

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

## 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. 103-A-I, any related underlying supplement or the accompanying prospectus supplement, prospectus or terms supplement, other than in the United States, where action for that purpose is required. No offers, sales or deliveries of the notes, or distribution of this product supplement no. 103-A-I, any related underlying supplement or the accompanying prospectus supplement, prospectus or terms supplement or any other offering material relating to the notes, may be made in or from any jurisdiction except in circumstances which will result in compliance with any applicable laws and regulations and will not impose any obligations on us, the Agents or any dealer.

Each Agent has represented and agreed, and each dealer through which we may offer the notes has represented and agreed, that it (i) will comply with all applicable laws and regulations in force in each non-U.S. jurisdiction in which it purchases, offers, sells or delivers the notes or possesses or distributes this product supplement no. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement and (ii) will obtain any consent, approval or permission required by it for the purchase, offer or sale by it of the 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. 103-A-I nor any related underlying supplement, the accompanying prospectus supplement, prospectus or terms supplement constitutes an offer to sell, or a solicitation of an offer to buy, any 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. 103-A-I, nor any related underlying supplement, 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. 103-A-I, any related underlying supplement and accompanying prospectus supplement, prospectus and terms supplement is correct as of any date after the date hereof.

You must (i) comply with all applicable laws and regulations in force in any jurisdiction in connection with the possession or distribution of this product supplement no. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement and the purchase, offer or sale of the notes and (ii) obtain any consent, approval or permission required to be obtained by you for the purchase, offer or sale by you of the notes under the laws and regulations applicable to you in force in any jurisdiction to which you are subject or in which you make such purchases, offers or sales.

### Argentina

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

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

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

## **The Bahamas**

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

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

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

## **Bermuda**

This product supplement no. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement have not been registered or filed with any regulatory authority in Bermuda. The offering of the notes pursuant to this product supplement no. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and any terms supplement to persons resident in Bermuda is not prohibited, *provided* we are not thereby carrying on business in Bermuda.

## **Brazil**

The 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. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement, and the notes offered hereby and thereby have not been, and will not be, registered under the laws and regulations of the Cayman Islands, nor has any regulatory authority in the Cayman Islands passed comment upon or approved the accuracy or adequacy of this product supplement no. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement. The notes have not been, and will not be, offered or sold, directly or indirectly, in the Cayman Islands.



## Chile

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

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

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

- (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. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement in the territory of El Salvador through any mass media communication such as television, radio, press, or any similar medium, other than publications of an international nature that are received in El Salvador, such as internet access or foreign cable advertisements, which are not directed to the Salvadoran public. The offering of the 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. 103-A-I, any related underlying supplement and the accompanying prospectus supplement to the public in that Relevant Member State prior to the publication of a prospectus in relation to the 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. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement may not be publicly distributed in the United Mexican States. The 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. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement may not be made in The Netherlands and each Agent has represented and agreed that it has not made and will not make an offer of such 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. 103-A-I, nor any related underlying supplement nor the accompanying prospectus supplement, prospectus or terms supplement has been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this product supplement no. 103-A-I, any related underlying supplement, the accompanying prospectus supplement, prospectus or terms supplement, and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the 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. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement do not constitute a public offering prospectus as that term is understood pursuant to article 652a or article 1156 of the Swiss Federal Code of Obligations.

We have not applied for a listing of the notes on the SWX Swiss Exchange or on any other regulated securities market and, consequently, the information presented in this product supplement no. 103-A-I, any related underlying supplement and the accompanying prospectus supplement, prospectus and terms supplement does not necessarily comply with the information standards set out in the relevant listing rules.

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

## United Kingdom

Each Agent has represented and agreed that:

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

## **Uruguay**

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

## **Venezuela**

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

## BENEFIT PLAN INVESTOR CONSIDERATIONS

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

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

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

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

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

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

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