

**JPMORGAN CHASE & CO.****Notes Linked to One or More Reference Stocks, Indices or Funds****JPMORGAN CHASE FINANCIAL COMPANY LLC****Notes, Fully and Unconditionally Guaranteed by JPMorgan Chase & Co., Linked to One or More Reference Stocks, Indices or Funds****General**

- Each of JPMorgan Chase & Co. and JPMorgan Chase Financial Company LLC may from time to time offer and sell notes that are linked to one or more Reference Stocks, Indices or Funds (each, as defined below). Investing in the notes is not equivalent to investing (or taking a short position) directly in any Reference Stock, Index or Fund or any of the securities or other assets or market measures underlying any Index or Fund.
- The notes issued by JPMorgan Chase & Co. are unsecured and unsubordinated obligations of JPMorgan Chase & Co. **Any payment on the notes issued by JPMorgan Chase & Co. is subject to the credit risk of JPMorgan Chase & Co.**
- The notes issued by JPMorgan Chase Financial Company LLC are unsecured and unsubordinated obligations of JPMorgan Chase Financial Company LLC, the payment on which is fully and unconditionally guaranteed by JPMorgan Chase & Co. **Any payment on the notes issued by JPMorgan Chase Financial Company LLC is subject to the credit risk of JPMorgan Chase Financial Company LLC, as issuer of the notes, and the credit risk of JPMorgan Chase & Co., as guarantor of the notes.**
- This product supplement describes terms that will apply generally to the notes and supplements the terms described in the prospectus supplement and the prospectus. A separate term sheet or pricing supplement, as the case may be, will describe terms that apply to specific issuances of the notes, including any changes to the terms specified below. These term sheets and pricing supplements are referred to generally in this product supplement as terms supplements. A separate underlying supplement or the relevant terms supplement will describe any Index or Fund to which the notes are linked. If the terms described in the relevant terms supplement are inconsistent with those described in this product supplement, any accompanying underlying supplement, the prospectus supplement or the prospectus, the terms described in the relevant terms supplement will govern your notes.
- The notes are not appropriate for all investors and involve a number of risks and important legal and tax consequences that should be discussed with your professional advisers.
- For important information about tax consequences relating to the notes, see "Material U.S. Federal Income Tax Consequences" beginning on page PS-63 of this product supplement.
- The notes will not be listed on any securities exchange unless otherwise specified in the relevant terms supplement.

**Key Terms**

Issuer:	The issuer of the notes, as specified in the relevant terms supplement, is referred to in this product supplement as the <b>"Issuer."</b> The Issuer will be either JPMorgan Chase & Co. or JPMorgan Chase Financial Company LLC.
Guarantor:	For notes issued by JPMorgan Chase Financial Company LLC, JPMorgan Chase & Co., in its capacity as guarantor of those notes, is referred to in this product supplement as the <b>"Guarantor."</b>
Underlyings:	Any common stock (each, a <b>"Reference Stock"</b> ), index (each, an <b>"Index"</b> ) or exchange-traded fund (each, a <b>"Fund"</b> ) referenced in the determination of any payment on the notes is referred to in this product supplement as an <b>"Underlying"</b> and, collectively, as the <b>"Underlyings."</b> The issuer of a Reference Stock is referred to in this product supplement as a "Reference Stock Issuer." See "The Underlyings" in this product supplement.
Payments on the Notes:	Any amount payable on the notes will be determined pursuant to the terms set forth in the relevant terms supplement. If the amount of any payment calculated as set forth in the relevant terms supplement is less than zero, the amount of that payment will be \$0.
Determination Date(s):	The relevant terms supplement will specify each date on which the value of any Underlying is to be referenced in the determination of any payment on the notes (each, a <b>"Determination Date"</b> ). Unless otherwise specified in the relevant terms supplement, each Determination Date is subject to postponement as described under "General Terms of Notes — Postponement of a Determination Date."
Payment Date(s):	The relevant terms supplement will specify the maturity date and any other date on which amounts will or may be payable on the notes (each, a <b>"Payment Date"</b> ). Unless otherwise specified in the relevant terms supplement, each Payment Date is subject to postponement as described under "General Terms of Notes — Postponement of a Payment Date."

**Investing in the notes involves a number of risks. See "Risk Factors" beginning on page S-2 of the prospectus supplement and "Risk Factors" beginning on page PS-11 of this product supplement.**

Neither the Securities and Exchange Commission (the **"SEC"**) nor any state securities commission has approved or disapproved of the notes or passed upon the accuracy or the adequacy of the relevant terms supplement, this product supplement, any underlying supplement, the prospectus supplement or the prospectus. Any representation to the contrary is a criminal offense.

**The notes are not bank deposits, are not insured by the Federal Deposit Insurance Corporation or any other governmental agency and are not obligations of, or guaranteed by, a bank.**

**J.P.Morgan**

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The Issuer and the Guarantor (if applicable) have not authorized anyone to provide any information other than that contained or incorporated by reference in the relevant terms supplement, this product supplement, any underlying supplement, the prospectus supplement or the prospectus with respect to the notes offered by the relevant terms supplement and with respect to the Issuer and the Guarantor (if applicable). The Issuer and the Guarantor (if applicable) take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The relevant terms supplement, together with this product supplement, any underlying supplement, the prospectus supplement and the prospectus, will contain the terms of the notes and will 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 the Issuer. The information in each of the relevant terms supplement, this product supplement, any underlying supplement, the prospectus supplement and the prospectus may be accurate only as of the date of that document.

The notes are not appropriate for all investors and involve a number of risks and important legal and tax consequences that should be discussed with your professional advisers. You should be aware that the regulations of Financial Industry Regulatory Authority, Inc., or FINRA, and the laws of certain jurisdictions (including regulations and laws that require brokers to ensure that investments are suitable for their customers) may limit the availability of the notes. The relevant terms supplement, this product supplement, any underlying supplement, the prospectus supplement and the prospectus do not constitute an offer to sell or a solicitation of an offer to buy the notes under any circumstances in which that offer or solicitation is unlawful.

In this product supplement, “JPMorgan Financial” refers to JPMorgan Chase Financial Company LLC.

## **RISK FACTOR SUMMARY**

*Your investment in the notes will involve certain risks. Set forth below is only a summary of the principal risks associated with an investment in the notes. You should refer to the more detailed discussion of these and other risks set forth under “Risk Factors” in this product supplement, as well as the discussion of risks included in the relevant terms supplement and any accompanying underlying supplement, before you decide that an investment in the notes is appropriate for you.*

### **Risks Relating to the Notes Generally**

- The notes differ from conventional debt securities and may not pay interest or return your principal.
- The notes are subject to the credit risks of JPMorgan Financial and/or JPMorgan Chase & Co.
- As a finance subsidiary, JPMorgan Financial has no independent operations and has limited assets.
- JPMorgan Financial-issued notes will not benefit from any cross-default or cross-acceleration to other debt; a covenant default or bankruptcy, insolvency or reorganization event with respect to the Guarantor does not constitute an event of default with respect to JPMorgan Financial-issued notes.
- The appreciation potential of the notes may be limited.
- If the notes are redeemed early or accelerated, you will be exposed to reinvestment risk and may receive less than the market value of the notes.
- The notes are designed to be held to maturity and secondary trading may be limited.
- You will have no ownership rights in any Underlying or any of the securities or other assets or market measures underlying any Index or Fund.
- Concentration risks may adversely affect the value of the notes.
- Regulatory developments and investigations may result in changes to the rules or methodology used to determine the value of an Underlying, which may adversely affect any payment on the notes.
- Governmental legislative and regulatory actions, including sanctions, could adversely affect your investment in the notes.
- Market disruptions or suspensions may adversely affect your return.
- Generally, if the term of the notes is not more than one year, the Issuer expects to treat the notes as short-term obligations for U.S. federal income tax purposes. If the term of the notes is more than one year and the notes provide for a single Additional Amount, the issuer generally expects to treat the notes as “contingent payment debt instruments” for U.S. federal income tax purposes. The tax treatment of notes that do not provide for a single Additional Amount and that have a term of more than one year will be unclear.

### **Risks Relating to Conflicts of Interest**

- The Issuer, the Guarantor (if applicable) or their affiliates may have interests that are adverse to those of the holders of the notes.

### **Risks Relating to the Estimated Value and Secondary Market Prices of the Notes**

- The estimated value of the notes will be lower than the original issue price of the notes, and secondary market prices of the notes will be impacted by many economic and market factors.

### **Risks Relating to Basket Notes**

- The Basket Underlyings may not be equally weighted.
- Changes in the values of the Basket Underlyings may not be correlated and may offset each other, or changes in value may be correlated in a manner that adversely affects any payment on the notes.

### **Risks Relating to Least Performing Underlying Notes and Greatest Performing Underlying Notes**

- You are exposed to the risks associated with each Underlying.
- Any payment on the notes may be determined by reference to the performance of the Underlying that will result in the worst performance of the notes.

**Risks Relating to Relative Performance Notes**

- The return on the notes is based on the relative performance of the Underlyings.
- Changes in the values of the Underlyings may be partially offset or entirely negated by each other.
- You are exposed to the risks associated with each Underlying.

**Risks Relating to a Reference Stock**

- The Issuer and the Guarantor (if applicable) have no affiliation with any Reference Stock issuer.
- ADS-linked notes will be subject to currency exchange risk.
- Non-U.S. equity security- or ADS-linked notes will be subject to non-U.S. securities market risk.
- There are important differences between the rights of holders of ADSs and the foreign common stock.
- The notes may become linked to the common stock of a company other than an original Reference Stock Issuer.
- The anti-dilution protection is limited and may be discretionary.

**Risks Relating to an Index**

- An Index sponsor may adjust an Index without any obligation to consider your interests.
- The reported level of an Index may include the deduction of index fees or other adjustments.

**Risks Relating to a Fund**

- The policies of the investment adviser for a Fund, and the sponsor of its Underlying Index, if applicable, could adversely affect the notes.
- There are risks associated with a Fund, including management risks.
- The anti-dilution protection is limited and may be discretionary.
- The performance and market value of a Fund, particularly during periods of market volatility, may not correlate with the performance of the net asset value per share of the Fund as well as, with respect to a Fund designed to track an Underlying Index, its Underlying Index.

**Risks Relating to a Non-U.S. Index or a Non-U.S. Fund**

- If the prices of the non-U.S. components of a Non-U.S. Index or Non-U.S. Fund are not converted into U.S. dollars for purposes of calculating the value of that Index or Fund, any amount payable on the notes will not be adjusted for changes in exchange rates that might affect that Index or Fund.
- If the prices of the non-U.S. components of a Non-U.S. Index or Non-U.S. Fund are converted into U.S. dollars for purposes of calculating the value of that Index or Fund, the notes will be subject to currency exchange risk.
- An investment in the notes is subject to risks associated with non-U.S. securities markets.

## 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 prospectus supplement and “Description of Debt Securities” in the prospectus. The term “note” refers to each Principal Amount (as defined below) of the Issuer’s Notes Linked to One or More Reference Stocks, Indices or Funds.*

### General

This product supplement describes terms that will apply generally to the notes and supplements the terms described in the prospectus supplement and the prospectus. A separate term sheet or pricing supplement, as the case may be, will describe terms that apply to specific issuances of the notes, including any changes to the terms specified below. These term sheets and pricing supplements are referred to generally in this product supplement as terms supplements. A separate underlying supplement or the relevant terms supplement will describe any Index or Fund (each, as defined below) to which the notes are linked. If the terms described in the relevant terms supplement are inconsistent with those described in this product supplement, any accompanying underlying supplement, the prospectus supplement or the prospectus, the terms described in the relevant terms supplement will govern your notes.

The issuer of the notes, as specified in the relevant terms supplement, is referred to in this product supplement as the “**Issuer**.” The Issuer will be either JPMorgan Chase & Co. or JPMorgan Chase Financial Company LLC, which is referred to in this product supplement as “**JPMorgan Financial**.” For notes issued by JPMorgan Chase Financial Company LLC, JPMorgan Chase & Co., in its capacity as guarantor of those notes, is referred to in this product supplement as the “**Guarantor**.”

The notes issued by JPMorgan Chase & Co. are unsecured and unsubordinated obligations of JPMorgan Chase & Co. and will rank *pari passu* with all of JPMorgan Chase & Co.’s other unsecured and unsubordinated obligations. **Any payment on the notes issued by JPMorgan Chase & Co. is subject to the credit risk of JPMorgan Chase & Co.**

The notes issued by JPMorgan Financial are unsecured and unsubordinated obligations of JPMorgan Financial, the payment of which is fully and unconditionally guaranteed by JPMorgan Chase & Co. The notes will rank *pari passu* with all of JPMorgan Financial’s other unsecured and unsubordinated obligations. JPMorgan Chase & Co.’s guarantee of the notes will rank *pari passu* with all of JPMorgan Chase & Co.’s other unsecured and unsubordinated obligations. **Any payment on the notes issued by JPMorgan Financial is subject to the credit risk of JPMorgan Financial, as issuer of the notes, and the credit risk of JPMorgan Chase & Co., as guarantor of the notes.**

The notes issued by JPMorgan Chase & Co. are a series of debt securities issued by JPMorgan Chase & Co. referred to in the prospectus supplement and the prospectus and 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 JPMorgan Chase & Co. and Deutsche Bank Trust Company Americas (formerly Bankers Trust Company), as trustee.

The notes issued by JPMorgan Financial are a series of debt securities issued by JPMorgan Financial referred to in the prospectus supplement and the prospectus and will be issued by JPMorgan Financial under an indenture dated February 19, 2016, as may be amended or supplemented from time to time, among JPMorgan Financial, the Guarantor and Deutsche Bank Trust Company Americas, as trustee.

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 — Book-Entry System” in the prospectus. Unless otherwise specified in the relevant terms supplement, notes issued by JPMorgan Financial will

initially be represented by a type of global note referred to as a master note. A master note represents multiple securities that may be issued at different times and that may have different terms. Unless otherwise specified in the relevant terms supplement, in connection with each issuance of notes by JPMorgan Financial, the trustee and/or paying agent will, in accordance with instructions from the Issuer, make appropriate entries or notations in its records relating to the master note representing the notes to indicate that the master note evidences the notes of that issuance.

The notes will be issued in minimum denominations specified in the relevant terms supplement, and the principal amount of each note (the **"Principal Amount"**) and the original issue price of each note will be specified in the relevant terms supplement.

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

The notes are not bank deposits, are not insured by the Federal Deposit Insurance Corporation or any other governmental agency and are not obligations of, or guaranteed by, a bank.

### **The Underlying(s)**

The notes will be linked to one or more common stocks (each, a **"Reference Stock"**), indices (each, an **"Index"**) or exchange-traded funds (each, a **"Fund"**) as specified in the relevant terms supplement. Any Reference Stock, Index or Fund referenced in the determination of any payment on the notes is referred to in this product supplement as an **"Underlying"** and, collectively, as the **"Underlyings."** The issuer of a Reference Stock is referred to in this product supplement as a "Reference Stock Issuer." The relevant terms supplement may refer to an Underlying as a Market Measure. See "The Underlyings" below for additional information.

The relevant terms supplement will specify the manner in which the Underlying(s) will be referenced in the determination of any payment on the notes. Payments on the notes may reflect long (or bullish) exposure to one or more Underlyings (meaning that an increase in the value of the relevant Underlying(s) would generally be expected to have a positive effect on payments on the notes) and/or short (or bearish) exposure to one or more Underlyings (meaning that a decrease in the value of the relevant Underlying(s) would generally be expected to have a positive effect on payments on the notes).

In addition, the notes may be Single Underlying Notes, Basket Notes, Least Performing Underlying Notes, Greatest Performing Underlying Notes or Relative Performance Notes or the relevant terms supplement may specify that, in the determination of any payments on the notes, the Underlyings will be referenced in a manner that does not directly correspond with any of these types of notes.

*Single Underlying Notes.* **"Single Underlying Notes"** reference the performance of a single Underlying in the determination of one or more payments on the notes.

*Basket Notes.* **"Basket Notes"** reference the performance of a weighted basket composed of two or more Underlyings (a **"Basket"**) in the determination of one or more payments on the notes.

*Least Performing Underlying Notes.* **"Least Performing Underlying Notes"** reflect long (or bullish) exposure to the Underlying with the lowest performance out of the Underlyings specified in the relevant terms supplement in the determination of one or more payments on the notes. Payments on Least Performing Underlying Notes will generally be determined by reference to the performance of the Underlying that would result in the worst performance of the notes.

*Greatest Performing Underlying Notes.* **"Greatest Performing Underlying Notes"** reflect short (or bearish) exposure to the Underlying with the highest performance out of the Underlyings specified in the relevant terms supplement in the determination of one or more payments on the notes. Payments on

Greatest Performing Underlying Notes will generally be determined by reference to the performance of the Underlying that would result in the worst performance of the notes.

*Relative Performance Notes.* “**Relative Performance Notes**” reference the relative performance of two or more Underlyings, with long exposure to one or more Underlyings (each, a “**Long Underlying**”) and short exposure to one or more other Underlying(s) (each, a “**Short Underlying**”), in the determination of one or more payments on the notes.

### ***Terms Relating to Valuation of the Underlying(s)***

The relevant terms supplement will specify the manner in which the initial value, the final value and, if applicable, the strike value of Underlying(s) will be determined. The relevant terms supplement will also specify the manner in which values of the Underlying(s) will be used in the determination of any payment on the notes.

*Initial Value.* The relevant terms supplement will specify the manner in which the initial value of any Underlying will be determined. For example, with respect to any Underlying, the relevant terms supplement may specify that the initial value of that Underlying will be determined by reference to the value of that Underlying on the pricing date or on multiple dates near the beginning of the term of the notes or may specify that the initial value will be equal to a fixed value. Unless otherwise specified in the relevant terms supplement, the initial value of any Underlying will be determined near the beginning of the term of the notes and will be used in determining the performance of that Underlying or as a reference point against which later values of that Underlying will be compared.

*Final Value.* The relevant terms supplement will specify the manner in which the final value of any Underlying with respect to any day will be determined. For example, with respect to any Underlying, the relevant terms supplement may specify that the final value of that Underlying will be determined by reference to the value of that Underlying on that day or on multiple dates during the term of the notes. Unless otherwise specified in the relevant terms supplement, the final value of any Underlying with respect to any day will be determined after the determination of the initial value and will be used in determining the performance of that Underlying or as a reference point to be compared to the initial value of that Underlying or to other values specified in the relevant terms supplement.

*Strike Value.* The relevant terms supplement may specify a value to be used instead of, or in addition to, the initial value of an Underlying to be used in determining the performance of that Underlying or as a reference point against which later values of that Underlying will be compared. If applicable, the relevant terms supplement will specify the manner in which the strike value of any Underlying will be determined. For example, with respect to any Underlying, the relevant terms supplement may specify a fixed value for the strike value of that Underlying or may specify that the strike value of that Underlying will be equal to a specified percentage of the initial value of that Underlying.

*Determination Dates.* The relevant terms supplement will specify each date on which the value of any Underlying is to be referenced in the determination of any payment on the notes (each, a “**Determination Date**”). The relevant terms supplement may refer to a Determination Date as a Calculation Day or a Valuation Date. Unless otherwise specified in the relevant terms supplement, each Determination Date is subject to postponement as described under “General Terms of Notes — Postponement of a Determination Date” below.

See “The Underlyings” in this product supplement for a description of how the value of each Underlying will be determined. Each Underlying and the value of each Underlying are subject to adjustment under certain circumstances. See “General Terms of Notes — Postponement of a Determination Date” and “The Underlyings” below for additional information.

### ***Additional Terms Relating to Underlyings***

In this product supplement, the following terms are used in connection with the Underlyings.

*American Depositary Shares.* As used in this product supplement, the term “**common stock**” includes securities issued through depositary arrangements that represent non-U.S. equity securities, such as American depositary shares, or ADSs. If a Reference Stock is an ADS, references to the “issuer” of that Reference Stock refer to the issuer of the shares underlying the ADS.

*Non-U.S. Fund.* A Fund that invests primarily in securities issued by non-U.S. companies is referred to in this product supplement as a “**Non-U.S. Fund**.”

*Non-U.S. Index.* An Index that is designed to track primarily securities issued by non-U.S. companies is referred to in this product supplement as a “**Non-U.S. Index**.”

*Underlying Index.* An index tracked by a Fund (or a successor fund, if applicable) is referred to in this product supplement as an “**Underlying Index**.” The relevant terms supplement may refer to an Underlying Index as a fund underlying index.

*Underlying Stock.* The common stock represented by an ADS is referred to in this product supplement as an “**ADS Underlying Stock**.”

## **Payments on the Notes**

Any amount payable on the notes will be determined pursuant to the terms set forth in the relevant terms supplement. If the amount of any payment calculated as set forth in the relevant terms supplement is less than zero, the amount of that payment will be \$0. *Any payment on the notes is subject to the credit risks of the Issuer and, with respect to notes issued by JPMorgan Financial, the Guarantor.*

The relevant terms supplement will specify the maturity date and any other date on which amounts will or may be payable on the notes (each, a “**Payment Date**”). Unless otherwise specified in the relevant terms supplement, each Payment Date is subject to postponement as described under “General Terms of Notes — Postponement of a Payment Date” below.

The “**calculation agent**” or “**note calculation agent**” is the agent appointed by the Issuer to make certain calculations with respect to the notes, which, unless otherwise specified in the relevant terms supplement, will be J.P. Morgan Securities LLC (“**JPMS**”). See “General Terms of Notes — Calculation Agent” below. JPMS is an affiliate of the Issuer and, with respect to notes issued by JPMorgan Financial, the Guarantor and, accordingly, may have interests adverse to yours. Please see “Risk Factors — Risks Relating to Conflicts of Interest — The Issuer, the Guarantor (if applicable) or their affiliates may have economic interests that are adverse to those of the holders of the notes due to JPMS’s role as calculation agent.”

The Issuer 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, if any, payable with respect to the notes on the applicable date or dates. The Issuer will give DTC irrevocable instructions and authority to pay the applicable amount to the holders of the notes entitled thereto.

## **Interest Payments**

If the relevant terms supplement specifies that the notes will bear periodic interest, the notes will pay interest in arrears at the per annum rate, or such other rate or rates, including rates that reference the performance of the Underlying(s), as specified in the relevant terms supplement. The relevant terms supplement may also specify that the payment of interest is contingent on the performance of the Underlying(s).

Unless otherwise specified in the relevant terms supplement, the interest payment due on each interest payment date specified in the relevant terms supplement for each note, if payable under the terms specified in the relevant terms supplement, will be calculated as follows:

$$\text{Principal Amount} \times \text{Interest Rate} \times 1 / \text{number of interest payment dates per year}$$

where the number of interest payment dates per year is determined by the frequency of the interest payment dates and how many interest payment dates would occur over the course of a full year regardless of the actual term of the notes.

If the payment of interest is not contingent on the performance of the Underlying(s), interest will accrue from and including the issue date of the notes to but excluding the maturity date or the date on which the notes are redeemed or repurchased early, if applicable. Unless otherwise specified in the relevant terms supplement, interest will be payable in arrears on each interest payment date to and including the maturity date or the date on which the notes are redeemed or repurchased early, if applicable, to the holders of record at the close of business on the business day prior to that interest payment date.

### ***Payment upon Early Redemption, Acceleration or Early Repurchase***

The relevant terms supplement may specify that the notes will be subject to early redemption or acceleration or that investors may submit a request for the Issuer to repurchase the notes. **No further payments will be made on the notes after they have been redeemed early, accelerated or repurchased early.**

*Optional Redemption.* If the relevant terms supplement specifies that the notes include an optional redemption feature, the Issuer will have the right, at its election, to redeem the notes in whole but not in part on any of the dates specified in the relevant terms supplement for a cash payment that will be determined as set forth in the relevant terms supplement. If the Issuer intends to redeem your notes, the Issuer will deliver notice to DTC, as holder of the notes, at least such number of business days specified in the relevant terms supplement prior to the date on which the notes are to be redeemed.

*Automatic Redemption.* If the relevant terms supplement specifies that the notes include an automatic redemption feature, the notes will be automatically redeemed under the circumstances set forth in the relevant terms supplement for a cash payment that will be determined as set forth in the relevant terms supplement on a Payment Date specified in the relevant terms supplement.

*Acceleration.* If the relevant terms supplement specifies that the notes include an acceleration feature, the maturity date and the determination of the payment at maturity will be accelerated under the circumstances set forth in the relevant terms supplement and in the manner set forth in the relevant terms supplement.

*Early Repurchase.* If the relevant terms supplement specifies that the notes include an early repurchase feature, you may submit a request to have the Issuer repurchase your notes, subject to the procedures and terms set forth below. **Any repurchase request that the Issuer accepts in accordance with the procedures and terms set forth below will be irrevocable.**

Unless otherwise specified in the relevant terms supplement, to request that the Issuer repurchase your notes, you must instruct your broker or other person through which you hold your notes to take the following steps:

- Send a notice of repurchase, substantially in the form attached as Annex A to the relevant terms supplement (a “**Repurchase Notice**”), to the Issuer via email at [dlr\\_repurchase@jpmchase.com](mailto:dlr_repurchase@jpmchase.com) by no later than 4:00 p.m., New York City time, on the business day prior to the relevant Determination Date. The subject line of the email should include the title of the notes and the CUSIP for those notes. The Issuer or its affiliate must acknowledge receipt of the Repurchase Notice on the same business day for it to be effective, which acknowledgment will be deemed to evidence its acceptance of your repurchase request;
- Instruct your DTC custodian to book a delivery versus payment trade with respect to your notes on the relevant Determination Date at a price equal to the amount payable upon early repurchase of the notes; and

- Cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m., New York City time, on the day on which the notes will be repurchased.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, you should consult the brokerage firm through which you own your interest in the notes in respect of those deadlines. Unless otherwise specified in the relevant terms supplement, if the Issuer does not receive your Repurchase Notice by 4:00 p.m. on the business day prior to the relevant Determination Date OR the Issuer (or its affiliates) does not acknowledge receipt of the Repurchase Notice on the same day, your Repurchase Notice will not be effective, and the Issuer will not repurchase your notes. Once given, a Repurchase Notice may not be revoked.

The calculation agent will, in its sole discretion, resolve any questions that may arise as to the validity of a Repurchase Notice and the timing of receipt of a Repurchase Notice or as to whether and when the required deliveries have been made. Questions about the repurchase requirements should be directed to [dl\\_n\\_repurchase@jpmchase.com](mailto:dl_n_repurchase@jpmchase.com).

### ***Payment at Maturity***

The relevant terms supplement will specify the manner in which any payment at maturity will be determined. **You may lose some of your principal amount at maturity.**

For notes issued by JPMorgan Chase & Co. linked to one or more References Stocks or Funds, the relevant terms supplement may specify that the payment at maturity will consist of the delivery of a predetermined number of shares of a Reference Stock or Fund (or the cash value of those shares), which is referred to in this product supplement as the **“Physical Delivery Amount.”** **The market value of shares delivered as the Physical Delivery Amount (or the cash value of those shares) may be less than your principal amount and may be zero.**

Notes that may permit the delivery of the Physical Delivery Amount at maturity are referred to in this product supplement as **“Physically Settled Notes.”** ***JPMorgan Financial does not currently intend to issue Physically Settled Notes.***

***No Fractional Shares.*** If the Issuer delivers shares of a Reference Stock to you at maturity or if the Issuer delivers reorganization property (as defined in “The Underlyings — Reference Stocks — Adjustments for Reorganization Events”) that includes shares, the Issuer will pay cash in lieu of delivering any fractional shares in an amount equal to the product of the stock closing price of one of those shares on the final Determination Date *times* the applicable fractional amount, unless otherwise specified in the relevant terms supplement.

***Delivery of Shares or Reorganization Property.*** The Issuer may designate any of its affiliates to deliver any shares of a Reference Stock or any reorganization property pursuant to the terms of the notes, and the Issuer will be discharged of any obligation to deliver those shares or that reorganization property to the extent of that performance by its affiliates. References in this product supplement to delivery of shares of a Reference Stock or any reorganization property by the Issuer will be deemed to include delivery of those shares or that reorganization property by its affiliates.

## ESTIMATED VALUE AND SECONDARY MARKET PRICES OF THE NOTES

### The Estimated Value of the Notes

Unless otherwise specified in the relevant terms supplement, the estimated value of the notes when the terms of the notes are set, which is referred to as the estimated value of the notes, will be set forth on the cover of the relevant terms supplement and will be equal to the sum of the values of the following hypothetical components: (1) a fixed-income debt component with the same maturity as the notes, valued using the internal funding rate described below, and (2) the derivative or derivatives underlying the economic terms of the notes. The estimated value of the notes will not represent a minimum price at which JPMS would be willing to buy your notes in any secondary market (if any exists) at any time.

For notes issued by JPMorgan Chase & Co. or JPMorgan Financial, the internal funding rate used in the determination of the estimated value of the notes will be the Issuer's internal funding rate for structured debt, which will generally represent a discount from the credit spreads for JPMorgan Chase & Co.'s conventional fixed-rate debt. This internal funding rate may differ from the market-implied funding rate for vanilla fixed income instruments of a similar maturity issued by JPMorgan Chase & Co. or its affiliates. Any difference may be based on, among other things, the Issuer's and its affiliates' view of the funding value of the notes as well as the higher issuance, operational and ongoing liability management costs of the notes in comparison to those costs for the conventional fixed income instruments of JPMorgan Chase & Co. This internal funding rate is based on certain market inputs and assumptions, which may prove to be incorrect, and is intended to approximate the prevailing market replacement funding rate for the notes. The use of an internal funding rate and any potential changes to that rate may have an adverse effect on the terms of the notes and any secondary market prices of the notes. For additional information, see "Risk Factors — Risks Relating to the Estimated Value and Secondary Market Prices of the Notes — The estimated value of the notes will be derived by reference to an internal funding rate and will not be determined by reference to credit spreads for JPMorgan Chase & Co.'s conventional fixed income instruments" below in this product supplement.

The value of the derivative or derivatives underlying the economic terms of the notes will be derived from internal pricing models of the Issuer's affiliates. These models are dependent on inputs such as the traded market prices of comparable derivative instruments and on various other inputs, some of which are market-observable, and which can include volatility, correlation, dividend rates, interest rates and other factors, as well as assumptions about future market events and/or environments. Accordingly, the estimated value of the notes will be determined when the terms of the notes are set based on market conditions and other relevant factors and assumptions existing at that time. See "Risk Factors — Risks Relating to the Estimated Value and Secondary Market Prices of the Notes — The estimated value of the notes will not represent future values of the notes and may differ from others' estimates" below in this product supplement.

Unless otherwise specified in the relevant terms supplement, the estimated value of the notes will be lower than the original issue price of the notes because costs associated with selling, structuring and hedging the notes will be included in the original issue price of the notes. These costs include the selling commissions, referral fees, if any, and structuring fees, if any, paid to JPMS and/or other affiliated or unaffiliated dealers, the projected profits, if any, that the Issuer's affiliates expect to realize for assuming risks inherent in hedging its obligations under the notes and the estimated cost of hedging its obligations under the notes. Because hedging the Issuer's obligations entails risk and may be influenced by market forces beyond its control, this hedging may result in a profit that is more or less than expected, or it may result in a loss. The Issuer or one or more of its affiliates will retain any profits realized in hedging the Issuer's obligations under the notes unless a portion of the hedging profits is allowed to other affiliated or unaffiliated dealers. Under those circumstances, the Issuer or one or more of its affiliates will retain any remaining hedging profits. See "Risk Factors — Risks Relating to the Estimated Value and Secondary Market Prices of the Notes — The estimated value of the notes will be lower than the original issue price (price to public) of the notes" below in this product supplement.

## **Secondary Market Prices of the Notes**

For information about factors that will impact any secondary market prices of the notes, see “Risk Factors — Risks Relating to the Estimated Value and Secondary Market Prices of the Notes — Secondary market prices of the notes will be impacted by many economic and market factors” below in this product supplement. In addition, the relevant terms supplement may specify that the Issuer will generally expect some of the costs included in the original issue price of the notes to be partially paid back to you in connection with any repurchases of your notes by JPMS in an amount that will decline to zero over an initial predetermined period that will be specified in the relevant terms supplement. The length of any such initial period will reflect the structure of the notes, whether the Issuer’s affiliates expect to earn a profit in connection with the Issuer’s hedging activities, the estimated costs of hedging the notes and when these costs are incurred, all as determined by JPMS. See “Risk Factors — Risks Relating to the Estimated Value and Secondary Market Prices of the Notes — The value of the notes as published by JPMS (and which may be reflected on customer account statements) may be higher than the then-current estimated value of the notes for a limited time period” below in this product supplement.

## RISK FACTORS

*Your investment in the notes will involve certain risks. Unless otherwise specified in the relevant terms supplement, the notes do not pay interest and do not guarantee any return of principal at, or prior to, maturity. Investing in the notes is not equivalent to investing (or taking a short position) directly in any Reference Stock, Index or Fund or any of the securities or other assets or market measures underlying any Index or Fund. 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, as well as the discussion of risks included in the relevant terms supplement and any accompanying underlying supplement, before you decide that an investment in the notes is appropriate for you.***

### **Risks Relating to the Notes Generally**

**The notes differ from conventional debt securities and may not pay interest or return all of your principal amount.**

Any amount payable on the notes will be determined pursuant to the terms set forth in the relevant terms supplement. The notes will not pay interest unless specified in the relevant terms supplement. The relevant terms supplement may specify that you may lose some of your principal amount at maturity. Even if the relevant terms supplement provides for payment of at least your principal amount at maturity (subject to the credit risks of the Issuer and the Guarantor (if applicable)), you may receive no return on your investment at maturity or the return on your investment at maturity may be less than the amount that would be paid on a conventional debt security of comparable maturity. Under these circumstances, you will not be compensated or fully compensated for any loss in value due to inflation and other factors relating to the value of money over time.

**The notes issued by JPMorgan Chase & Co. are subject to the credit risk of JPMorgan Chase & Co.**

The notes issued by JPMorgan Chase & Co. are subject to the credit risk of JPMorgan Chase & Co., and its credit ratings and credit spreads may adversely affect the market value of the notes. Investors in notes issued by JPMorgan Chase & Co. are dependent on its ability to pay all amounts due on the notes. Any actual or potential change in JPMorgan Chase & Co.'s creditworthiness or the credit spreads, as determined by the market for taking JPMorgan Chase & Co.'s credit risk, is likely to affect adversely the value of the notes. Any payment on the notes issued by JPMorgan Chase & Co. is subject to its creditworthiness. If JPMorgan Chase & Co. were to default on its payment obligations, you may not receive any amounts owed to you under the notes and you could lose your entire investment.

**The notes issued by JPMorgan Financial are subject to the credit risks of JPMorgan Financial and the Guarantor.**

The notes issued by JPMorgan Financial are subject to the credit risk of JPMorgan Financial, as issuer of the notes, and the credit risk of JPMorgan Chase & Co., as guarantor of the notes. JPMorgan Financial's and the Guarantor's credit ratings and credit spreads may adversely affect the market value of the notes. Investors in notes issued by JPMorgan Financial are dependent on its ability and on the ability of the Guarantor to pay all amounts due on the notes. Any actual or potential change in JPMorgan Financial's or the Guarantor's creditworthiness or the credit spreads, as determined by the market for taking that credit risk, is likely to affect adversely the value of the notes. Any payment on the notes issued by JPMorgan Financial is subject to its creditworthiness and the creditworthiness of the Guarantor. If JPMorgan Financial and the Guarantor were to default on their payment obligations, you may not receive any amounts owed to you under the notes and you could lose your entire investment.

**As a finance subsidiary, JPMorgan Financial has no independent operations and has limited assets.**

As a finance subsidiary of JPMorgan Chase & Co., JPMorgan Financial has no independent operations beyond the issuance and administration of its securities. Aside from the initial capital contribution from JPMorgan Chase & Co., substantially all of the assets of JPMorgan Financial are expected to relate to obligations of one or more of its affiliates to make payments under loans made by JPMorgan Financial or under other intercompany agreements with JPMorgan Financial. As a result, JPMorgan Financial's ability to make payments in respect of the notes is limited. JPMorgan Financial is dependent upon payments from one or more of its affiliates under intercompany loans and other intercompany agreements to meet its obligations under the notes it issues. If these affiliates do not make payments to JPMorgan Financial and JPMorgan Financial fails to make payments on the notes, holders of the notes may have to seek payment under the related guarantee by JPMorgan Chase & Co. and that guarantee will rank *pari passu* with all other unsecured and unsubordinated obligations of JPMorgan Chase & Co.

**Notes issued by JPMorgan Financial will not have the benefit of any cross-default or cross-acceleration with other indebtedness of JPMorgan Financial or the Guarantor; a covenant default or bankruptcy, insolvency or reorganization event with respect to the Guarantor does not constitute an event of default with respect to notes issued by JPMorgan Financial.**

Unless otherwise stated in the applicable terms supplement, the notes issued by JPMorgan Financial will not have the benefit of any cross-default or cross-acceleration with other indebtedness of JPMorgan Financial or the Guarantor. In addition, a covenant default by the Guarantor, or an event of bankruptcy, insolvency or reorganization of the Guarantor, does not constitute an event of default with respect to any notes issued by JPMorgan Financial.

**The appreciation potential of the notes may be limited.**

The relevant terms supplement may specify that the return or payment at maturity on the notes in excess of the principal amount will not exceed a specified value. Under these circumstances, the appreciation potential of the notes will be limited to that specified value, regardless of the performance of the Underlying(s). In addition, if the relevant terms supplement specifies that the notes will or may pay interest, the appreciation potential of the notes may be limited to any interest payments, regardless of the performance of the Underlying(s).

**The Issuer, the Guarantor (if applicable) or their affiliates may have interests that are adverse to those of the holders of the notes.**

The Issuer, the Guarantor (if applicable) or their affiliates may have interests that are adverse to those of the holders of the notes. See “— Risks Relating to Conflicts of Interest” below.

**If the notes are redeemed early or accelerated, you will be exposed to reinvestment risk.**

The term of the notes may be limited by any optional or automatic redemption or acceleration feature set forth in the relevant terms supplement. No further payments will be made on the notes after they have been redeemed early or accelerated. If the notes are redeemed early or accelerated, the term of your investment in the notes will be limited to a period that is shorter than the original term of the notes. There is no guarantee that you would be able to reinvest the proceeds from an investment in the notes at a comparable return for a similar level of risk in the event that the notes are redeemed early or accelerated.

**The payment upon an early redemption or acceleration may be substantially less than the market value of the notes.**

If the notes include an optional or automatic redemption or acceleration feature, the notes may be redeemed early or accelerated at a time when prevailing interest rates are relatively low or at a time when

the performance of the Underlying(s) has caused the value of the notes to increase substantially since issuance. Accordingly, any payment upon early redemption or acceleration determined in the manner set forth in the relevant terms supplement may be substantially less than the market value of the notes.

**If the relevant terms supplement provides for early repurchases at the option of the holders, there will be restrictions on your ability to request that the Issuer repurchase your notes.**

Unless otherwise specified in the relevant terms supplement, if you elect to request that the Issuer repurchase your notes, your request will be valid only if the Issuer receives your Repurchase Notice by 4:00 p.m., New York City time, on the business day prior to the relevant Determination Date and the Issuer (or its affiliates) acknowledges receipt of the Repurchase Notice that same day (which will evidence its acceptance of your repurchase request). If the Issuer does not receive that notice or the Issuer (or its affiliates) does not acknowledge receipt of that notice (which means that the Issuer has declined to accept your repurchase request), your repurchase request will not be effective and the Issuer will not repurchase your notes.

Because of the timing requirements of the Repurchase Notice (and the Issuer's acknowledgment of receipt), settlement of the repurchase will be prolonged when compared to a sale and settlement in the secondary market. As your request that the Issuer repurchase your notes is irrevocable, this will subject you to market risk in the event that the market fluctuates after the Issuer receives your request. Furthermore, if the Issuer accepts your repurchase request, its obligation to repurchase the notes prior to maturity may be postponed upon the occurrence of a market disruption event.

**If the relevant terms supplement provides for early repurchases at the option of the holders, you will not know the amount you will receive upon an early repurchase at the time you elect to request that the Issuer repurchase your notes.**

You will not know the amount payable upon early repurchase at the time you elect to request that the Issuer repurchase your notes. As a result, you will be exposed to market risk in the event that the market fluctuates after the Issuer accepts your repurchase request and prior to the date on which the payment you will receive upon repurchase is determined.

**If you receive shares of a Reference Stock or Fund at maturity, the value of those shares may be less on the maturity date than on the final Determination Date.**

For Physically Settled Notes, the market value of shares delivered as the Physical Delivery Amount may be less than your principal amount on the final Determination Date and could decrease further during the period between the final Determination Date and the maturity date. The Issuer will make no adjustments to the Physical Delivery Amount to account for any fluctuations in the value of the shares to be delivered at maturity, and you will bear the risk of any decrease in the value of those shares between the final Determination Date and the maturity date.

**The values of the Underlying(s) will be referenced only on the Determination Date(s) for purposes of determining any payment on the notes.**

The relevant terms supplement will specify each Determination Date on which the value of any Underlying is to be referenced in the determination of any payment on the notes. The value of the notes and any payment on the notes may be adversely affected by referencing the values of the Underlying(s) only on Determination Dates. For example, for notes that provide for a single payment at maturity based on the long (or bullish) performance of an Underlying, as measured from the pricing date to a single Determination Date near the end of the term of the notes, if the value of that Underlying increases or remains relatively constant during the initial term of the notes and then decreases below the initial value of that Underlying, the final value of that Underlying may be significantly less than if it were calculated on a date earlier than the Determination Date. Under these circumstances, you may receive a lower return on the notes than you would have received if you had invested directly in any Reference Stock, Index or

Fund, the securities or other assets or market measures underlying any Index or Fund or any exchange-traded or over-the-counter instruments based on any of the foregoing.

**The estimated value of the notes will be lower than the original issue price (price to public) of the notes, and secondary market prices of the notes will be impacted by many economic and market factors.**

The estimated value of the notes will be lower than the original issue price (price to public) of the notes, and secondary market prices of the notes will be impacted by many economic and market factors. See “— Risks Relating to the Estimated Value and Secondary Market Prices of the Notes” below.

**The notes are designed to be held to maturity.**

The notes are not designed to be short-term trading instruments. The price at which you will be able to sell your notes to the Issuer or its affiliates prior to maturity, if at all, may be at a substantial discount from the principal amount of the notes, even in cases where any Underlying to which the notes provide long (or bullish) exposure has appreciated from its initial value (or its strike value, if applicable) and/or any Underlying to which the notes provide short (or bearish) exposure has depreciated from its initial value (or its strike value, if applicable). The potential returns described in the relevant terms supplement assume that your notes are held to maturity unless redeemed or repurchased early or accelerated, if applicable.

**Secondary trading may be limited.**

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

JPMS may act as a market-maker for the notes, but is not required to do so. Because the Issuer does 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 JPMS is willing to buy the notes. If at any time JPMS or another agent does not act as a market-maker, it is likely that there would be little or no secondary market for the notes.

**If the value of an Underlying changes, the market value of your notes may not change proportionately.**

Owning the notes is not the same as investing (or taking a short position) directly in any Reference Stock, Index or Fund or any of the securities or other assets or market measures underlying any Index or Fund. Accordingly, changes in the value of an Underlying may not result in a proportionate change in the market value of the notes. For example, for notes that provide long (or bullish) exposure to an Underlying, if the value of that Underlying on any day has increased, the value of the notes may not increase comparably, if at all. It is possible for the value of that Underlying to increase moderately while the value of those notes declines.

**You will have no ownership rights in any Reference Stock, Index or Fund or any of the securities or other assets or market measures underlying any Index or Fund.**

Investing in the notes is not equivalent to investing (or taking a short position) directly in any Reference Stock, Index or Fund or any of the securities or other assets or market measures underlying any Index or Fund, the ADS Underlying Stock underlying a Reference Stock that is an ADS or exchange-traded or over-the-counter instruments based on any of the foregoing. As an investor in the notes, you will not have any ownership interests or rights in any of the foregoing.

**Concentration risks may adversely affect the value of the notes.**

If any payment on the notes will be based on the performance of a single Reference Stock, Index or Fund or on a small number of Reference Stocks, Indices or Funds that are concentrated in a single or a limited number of industry sectors or geographical regions, you will not benefit, with respect to the notes, from the advantages of a diversified investment, and you will bear the risks of a concentrated investment, including the risk of greater volatility than may be experienced in connection with a diversified investment. You should be aware that other investments may be more diversified than the notes in terms of the number and variety of industry sectors or geographical regions.

**Regulatory developments and investigations may result in changes to the rules or methodology used to determine the value of an Underlying, which may adversely affect any payment on the notes.**

The methodologies used to determine the value of certain “benchmarks,” which may include one or more Underlyings, are the subject of recent national, international and other regulatory guidance, proposals for reform and investigations. These reforms or changes made in response to these investigations may cause those benchmarks to perform differently than in the past and may have other consequences that cannot be predicted. In addition, market participants may elect not to continue to participate in the administration of certain benchmarks if these reforms and investigations increase the costs and risks associated with those activities, which could cause changes in the rules or methodologies used in certain benchmarks or lead to the disappearance of certain benchmarks. Any of these changes could adversely affect the value of the notes and any payment on the notes.

**Governmental legislative and regulatory actions, including sanctions, could adversely affect your investment in the notes.**

Governmental legislative and regulatory actions, including, without limitation, sanctions-related actions by the U.S. or a foreign government, could prohibit or otherwise restrict persons from holding the notes, any Reference Stock or Fund or any of the securities underlying any Index or Fund, or engaging in transactions in them, and any such action could adversely affect the value of the notes. These legislative and regulatory actions could result in restrictions on the notes. You may lose a significant portion or all of your initial investment in the notes, including if you are forced to divest the notes due to the government mandates, especially if such divestment must be made at a time when the value of the notes has declined.

**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 determining the value of any Underlying on any Determination Date and the amount of any payment on the notes. These events may include disruptions or suspensions of trading in the markets as a whole. If such an event occurs, it is possible that one or more Determination Dates and Payment Dates will be postponed and that your return will be adversely affected. Market disruption events are defined in the relevant sections of “The Underlyings” below. In addition, if any Determination Date is postponed to the last possible day and the value of any Underlying is not available on that day because of a market disruption event, the calculation agent will nevertheless determine the value of that Underlying on that last possible day. See “General Terms of Notes — Postponement of a Determination Date” and “General Terms of Notes — Postponement of a Payment Date” for more information.

**Generally, if the term of the notes is not more than one year, the Issuer expects to treat the notes as short-term obligations for U.S. federal income tax purposes.**

If the term of the notes is not more than one year (including either the issue date or the last possible date that the notes could be outstanding, but not both), the Issuer expects to treat the notes as “short-term obligations” for U.S. federal income tax purposes. No statutory, judicial or administrative authority directly addresses the treatment of these notes or similar instruments for U.S. federal income tax

purposes, and the Issuers do not intend to request a ruling from the Internal Revenue Service (the “IRS”) with respect to these notes. As a result, certain aspects of the U.S. federal income tax consequences of an investment in the notes are uncertain. You should review carefully the section entitled “Material U.S. Federal Income Tax Consequences” in this product supplement and consult your tax adviser regarding your particular circumstances.

**Generally, for notes that provide for a single Additional Amount and have a term of more than one year, the Issuer expects to treat the notes as “contingent payment debt instruments” for U.S. federal income tax purposes.**

If the term of the notes is more than one year (including either the issue date or the last possible date that the notes could be outstanding, but not both) and the notes provide for a cash payment in addition to the Principal Amount determined as specified in the relevant terms supplement (the “Additional Amount”), the Issuer expects to treat the notes as “contingent payment debt instruments” for U.S. federal income tax purposes. Under this treatment, you generally will be required to recognize interest income in each year at the “comparable yield,” as determined by the Issuer, adjusted to take account of the difference between actual and projected payments in that year. Interest included in income will increase your basis in your notes and the projected amount of interest payments, if any, will reduce your basis in your notes. Special rules may apply if the Additional Amount and/or contingent payment(s) are determined early. Generally, amounts received at maturity or on earlier sale or exchange in excess of your basis will be treated as additional interest income. Any loss generally will be treated as an ordinary loss to the extent of all previous inclusions with respect to your notes, with the balance treated as capital loss, which may be subject to limitations. Losses may be subject to special reporting requirements. You should review carefully the section entitled “Material U.S. Federal Income Tax Consequences” in this product supplement and consult your tax adviser regarding your particular circumstances.

**Generally, the tax treatment of notes that do not provide for a single Additional Amount and that have a term of more than one year will not be clear.**

The Issuer expects to treat notes that do not provide for a single Additional Amount and have a term of more than one year as either contingent payment debt instruments or variable rate debt instruments, depending on the terms of the particular offering. In either case, the Issuer expects that there will be some risk that the IRS could determine that the treatment of these notes was incorrect. Any such determination could have adverse U.S. federal income tax consequences for you. You should review carefully the section entitled “Material U.S. Federal Income Tax Consequences” in this product supplement and consult your tax adviser regarding your particular circumstances.

**Historical performance of any Underlying should not be taken as an indication of the future performance of that Underlying during the term of the notes.**

The actual performance of any Underlying over the term of the notes, as well as any payment on the notes, may bear little relation to the historical performance of that Underlying. The future performance of any Underlying may differ significantly from its historical performance, and no assurance can be given as to the value of any Underlying during the term of the notes, including on any Determination Date. It is impossible to predict whether the value of any Underlying will rise or fall. There is no assurance that the performance of the Underlying(s) will not adversely affect any payment on the notes.

**Employees of JPMorgan Chase & Co. or one of its affiliates, including JPMorgan Financial, holding the notes must comply with policies that limit their ability to purchase or sell the notes.**

If you are an employee of JPMorgan Chase & Co. or one of its affiliates, including JPMorgan Financial, you may acquire the notes only for investment purposes, and you must comply with all of JPMorgan Chase & Co.’s 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 the notes from the Issuer, and your ability to trade or sell the notes in the secondary market may be limited.

## **Risks Relating to Conflicts of Interest**

**The Issuer's offering of the notes does not constitute an expression of its views (or the Guarantor's views, if applicable) about, or a recommendation of, any Reference Stock, Index or Fund or the securities or other assets or market measures underlying any Index or Fund.**

You should not take the Issuer's offering of the notes as an expression of its views (or the Guarantor's views, if applicable) about how any Reference Stock, Index or Fund or the securities or other assets or market measures underlying any Index or Fund will perform in the future or as a recommendation to invest (directly or indirectly, by taking a long or short position) in any of the foregoing, including through an investment in the notes. As a global financial institution, the Issuer, the Guarantor (if applicable) and their affiliates may, and often do, have positions (long, short or both) in one or more of the foregoing that conflict with an investment in the notes. See "— The Issuer, the Guarantor (if applicable) or their affiliates may have economic interests that are adverse to those of the holders of the notes as a result of their hedging and other trading activities" below and "Use of Proceeds and Hedging" in this product supplement for some examples of potential conflicting positions the Issuer may have. You should undertake an independent determination of whether an investment in the notes is appropriate for you in light of your specific investment objectives, risk tolerance and financial resources.

**The Issuer, the Guarantor (if applicable) or their affiliates may have economic interests that are adverse to those of the holders of the notes as a result of their hedging and other trading activities.**

In anticipation of the sale of the notes, the Issuer expects to hedge its obligations under the notes through certain affiliates or unaffiliated counterparties by taking positions in one or more Reference Stocks or Funds, the securities or other assets underlying the Indices and the Funds or related currency exchange rates or instruments the value of which is derived from one or more Reference Stocks, Indices or Funds, the securities or other assets or market measures underlying one or more Indices or Funds or related currency exchange rates. The Issuer may also adjust its hedge by, among other things, purchasing or selling any of the foregoing at any time and from time to time and close out or unwind its hedge by selling any of the foregoing on or before any Determination Date. In addition, JPMS and other affiliates of the Issuer or the Guarantor (if applicable) also trade the foregoing on a regular basis (taking long or short positions or both), for their accounts, for other accounts under their management and to facilitate transactions, including block transactions, on behalf of customers. While the Issuer cannot predict an outcome, any of these hedging or other trading activities could potentially affect the value of the Underlying(s) and may adversely affect the value of the notes or any payment on the notes. See "Use of Proceeds and Hedging" below for additional information about the Issuer's hedging activities.

This hedging and trading activity may present a conflict of interest between your interests as a holder of the notes and the interests of the Issuer's affiliates in hedging and other trading activities. These hedging and trading activities could also affect the price at which JPMS is willing to purchase your notes in the secondary market. In addition, the Issuer's hedging counterparties expect to make a profit. Because hedging the Issuer's obligations entails risk and may be influenced by market forces beyond its control, this hedging may result in a profit that is more or less than expected, or it may result in a loss. It is possible that these hedging or trading activities could result in substantial returns for the Issuer or its affiliates while the value of the notes declines.

**The Issuer, the Guarantor (if applicable) or their affiliates may have economic interests that are adverse to those of the holders of the notes as a result of their business activities.**

The Issuer, the Guarantor (if applicable) or their affiliates may currently or from time to time engage in business with the issuer of a Reference Stock or companies the securities of which are included in an Index, held by a Fund or included in a relevant Underlying Index (the "**underlying companies**"), including extending loans to, making equity investments in or providing advisory services to the underlying companies, including merger and acquisition advisory services. The Issuer and the Guarantor (if

applicable) do not make any representation or warranty to any purchaser of notes with respect to any matters whatsoever relating to its business with the underlying companies.

In addition, in the course of the Issuer's or the Guarantor's (if applicable) business, it or its affiliates may acquire nonpublic information about one or more Reference Stocks, Indices or Funds or the securities or other assets or market measures underlying one or more Indices or Funds or currency exchange rates relating to any of the foregoing, and the Issuer will not disclose any such information to you.

Furthermore, the Issuer, the Guarantor (if applicable) or one of their affiliates may serve as issuer, agent or underwriter for issuances of other securities or financial instruments with returns linked or related to changes in the value of a Reference Stock, an Index or a Fund or the securities or other assets or market measures underlying an Index or Fund. To the extent that the Issuer, the Guarantor (if applicable) or one of their affiliates serves as issuer, agent or underwriter for these securities or financial instruments, the Issuer, the Guarantor (if applicable) or their affiliate's interests with respect to these securities or financial instruments may be adverse to those of the holders of the notes. By introducing competing products into the marketplace in this manner, the Issuer, the Guarantor (if applicable) or one or more of their affiliates could adversely affect the value of the notes.

The value of one or more Underlyings may be determined in whole or in part by reference to the value of a benchmark that is established based on quotes, prices, values or other data provided by market participants, including, in some cases, the Issuer, the Guarantor (if applicable) or their affiliates. In addition, the Issuer, the Guarantor (if applicable) or their affiliates may take part in, or have a supervisory role in connection with, the administration of certain benchmarks. The Issuer, the Guarantor (if applicable) and their affiliates will have no obligation to consider your interests as a holder of the notes in taking any actions that might affect the value of any Underlying or the notes.

**The Issuer, the Guarantor (if applicable) or their affiliates may have economic interests that are adverse to those of the holders of the notes due to JPMS's role as calculation agent.**

JPMS, one of the Issuer's and the Guarantor's (if applicable) affiliates, will act as the calculation agent. The calculation agent makes all necessary calculations and determinations in connection with the notes, including with respect to any payments on the notes and the assumptions used to determine the pricing and estimated value of the notes. In performing these duties, JPMS may have interests adverse to the interests of the holders of the notes, which may affect your return on the notes, particularly where JPMS, as the calculation agent, is entitled to exercise discretion. See "General Terms of Notes — Postponement of a Determination Date" and "The Underlyings" in this product supplement.

**JPMS and its affiliates may have published research, expressed opinions or provided recommendations that are inconsistent with investing in or holding the notes or that may adversely affect the value of the notes, and may do so in the future.**

JPMS and its affiliates may publish research reports, express opinions or provide recommendations from time to time that relate to one or more Reference Stocks, Indices or Funds, the securities or other assets underlying one or more Indices and the Funds or currency exchange rates relating to any of the foregoing. These research reports, opinions or recommendations may be inconsistent with purchasing or holding the notes and could adversely affect the value of the notes. Any research, opinions or recommendations expressed by JPMS or its affiliates may not be consistent with each other and may be modified from time to time without notice. Investors should make their own independent investigation of the merits of investing in the notes and any Underlying to which the notes are linked.

## **Risks Relating to the Estimated Value and Secondary Market Prices of the Notes**

**The estimated value of the notes will be lower than the original issue price (price to public) of the notes.**

The estimated value of the notes is only an estimate determined by reference to several factors. Unless otherwise specified in the relevant terms supplement, the original issue price of the notes will exceed the estimated value of the notes because costs associated with selling, structuring and hedging the notes are included in the original issue price of the notes. These costs include the selling commissions, referral fees, if any, structuring fees, if any, the projected profits, if any, that the Issuer's affiliates expect to realize for assuming risks inherent in hedging its obligations under the notes and the estimated cost of hedging its obligations under the notes. See "Estimated Value and Secondary Market Prices of the Notes — The Estimated Value of the Notes" above in this product supplement.

**The estimated value of the notes will not represent future values of the notes and may differ from others' estimates.**

The estimated value of the notes will be determined by reference to the internal pricing models of one or more of the Issuer's affiliates when the terms of the notes are set. This estimated value of the notes will be based on market conditions and other relevant factors existing at that time and assumptions about market parameters, which can include volatility, correlation, dividend rates, interest rates and other factors. Different pricing models and assumptions could provide valuations for notes that are greater than or less than the estimated value of the notes. In addition, market conditions and other relevant factors may change after the estimated value of the notes has been determined, and any assumptions may prove to be incorrect. The value of the notes could change significantly after the estimated value of the notes has been determined based on, among other things, changes in market conditions, the Issuer's or the Guarantor's (if applicable) creditworthiness, interest rate movements and other relevant factors, which may impact the price, if any, at which JPMS would be willing to buy notes from you in secondary market transactions. See "Estimated Value and Secondary Market Prices of the Notes — The Estimated Value of the Notes" above in this product supplement.

**The estimated value of the notes will be derived by reference to an internal funding rate and will not be determined by reference to credit spreads for JPMorgan Chase & Co.'s conventional fixed income instruments.**

The internal funding rate used in the determination of the estimated value of the notes will generally represent a discount from the credit spreads for JPMorgan Chase & Co.'s conventional fixed income instruments. This internal funding rate may differ from the market-implied funding rate for vanilla fixed income instruments of a similar maturity issued by JPMorgan Chase & Co. or its affiliates. Any difference may be based on, among other things, the Issuer's and its affiliates' view of the funding value of the notes as well as the higher issuance, operational and ongoing liability management costs of the notes in comparison to those costs for the conventional fixed income instruments of JPMorgan Chase & Co. This internal funding rate is based on certain market inputs and assumptions, which may prove to be incorrect, and is intended to approximate the prevailing market replacement funding rate for the notes. If the interest rate implied by JPMorgan Chase & Co.'s conventional fixed income credit spreads were used, the Issuer would expect the economic terms of the notes to be more favorable to you. In addition, the estimated value of the notes might be lower if it were based on the interest rate implied by JPMorgan Chase & Co.'s conventional fixed income credit spreads. Consequently, the use of an internal funding rate and any potential changes to that rate may have an adverse effect on the terms of the notes and any secondary market prices of the notes. See "Estimated Value and Secondary Market Prices of the Notes — The Estimated Value of the Notes" above in this product supplement.

**The value of the notes as published by JPMS (and which may be reflected on customer account statements) may be higher than the then-current estimated value of the notes for a limited time period.**

The relevant terms supplement may specify that the Issuer will generally expect that some of the costs included in the original issue price of the notes will be partially paid back to you in connection with any repurchases of your notes by JPMS in an amount that will decline to zero over an initial predetermined period. These costs can include selling commissions and structuring fees, if any, projected hedging profits, if any, and, in some circumstances, estimated hedging costs and the Issuer's internal secondary market funding rates for structured debt issuances. See "Estimated Value and Secondary Market Prices of the Notes — Secondary Market Prices of the Notes" above in this product supplement. Accordingly, the estimated value of your notes during this initial period may be lower than the value of the notes as published by JPMS (and which may be shown on your customer account statements).

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

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

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

The secondary market price of the notes during their term will be impacted by a number of economic and market factors, which may either offset or magnify each other, aside from the selling commissions, referral fees, if any, and structuring fees, if any, projected hedging profits, if any, estimated hedging costs and the value of the Underlying(s), including:

- any actual or potential change in the Issuer's creditworthiness or credit spreads and, for notes issued by JPMorgan Financial, the Guarantor's creditworthiness or credit spreads;
- customary bid-ask spreads for similarly sized trades;
- the Issuer's internal secondary market funding rates for structured debt issuances;
- the actual and expected frequency and magnitude of changes in the value of any Underlying (*i.e.*, volatility);
- prevailing market prices, volatility and liquidity of any option or futures contracts relating to any Underlying;
- the time to maturity of the notes;
- the dividend rate on a Reference Stock or on the equity securities underlying an Index or a Fund (while not paid to holders of the notes, dividend payments on a Reference Stock or on any equity securities underlying an Index or a Fund may influence the value of the Underlying(s) and the market value of options on the Underlying(s) and therefore affect the market value of the notes);
- the occurrence of certain corporate events to the shares of a Reference Stock that may or may not require an adjustment to the applicable adjustment factor or the selection of a replacement stock;

- the occurrence of certain events to the shares of a Fund that may or may not require an adjustment to the applicable adjustment factor;
- interest and yield rates in the market generally, as well as in the markets of a Reference Stock and the markets of the securities or other assets or market measures underlying an Index or a Fund;
- economic, financial, political, regulatory and judicial events that affect a Reference Stock, the securities underlying an Index or a Fund or stock markets generally;
- for notes linked to two or more Underlyings, changes in correlation (the extent to which the values of the Underlyings increase or decrease to the same degree at the same time) between the Underlyings; and
- the exchange rates and the volatility of the exchange rates between the U.S. dollar and the currencies in which an ADS Underlying Stock (with respect to a Reference Stock that is an ADS) or the equity securities underlying a Non-U.S. Index or a Non-U.S. Fund are traded, and, if a Non-U.S. Index or a Non-U.S. Fund is calculated in one currency and the equity securities underlying that Non-U.S. Index or Non-U.S. Fund are traded in one or more other currencies, the correlation between those rates and the value of that Non-U.S. Index or Non-U.S. Fund.

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

Some or all of these factors will influence the price you will receive if you choose to sell your notes prior to maturity. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You may have to sell your notes at a substantial discount from the principal amount.

## **Risks Relating to Basket Notes**

### **The Underlyings included in a Basket may not be equally weighted.**

If so specified in the relevant terms supplement, the Underlyings included in a Basket may have different weights in determining the value of the Basket. For example, the relevant terms supplement may specify that the Basket consists of five Underlyings and that the weights of the Underlyings are 25%, 30%, 15%, 20% and 10%. One consequence of an unequal weighting of the Underlyings is that the same percentage change in two of the Underlyings may have different effects on the value of the Basket. For example, if the weight for Underlying A is greater than the weight for Underlying B, a 5% decrease in the value of Underlying A will have a greater effect on the value of the Basket than a 5% decrease in the value of Underlying B.

### **The weights of the Underlyings included in a Basket may be determined on a date other than the pricing date.**

If so specified in the relevant terms supplement, the weights of the Underlyings included in a 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 Underlyings will be determined based on the relative magnitude of the return of each Underlying as of the final Determination Date. As a result, if the relevant terms supplement so specifies, you will not know the weight assigned to each Underlying until a date later than the pricing date, and you may not know the weight assigned to each Underlying in the Basket prior to the final Determination Date.

**Changes in the values of the Underlyings included in a Basket may not be correlated and may offset each other, or changes in value may be correlated in a manner that adversely affects any payment on the notes.**

Movements in the values of the Underlyings included in a Basket may not be correlated with each other. For notes that provide long (or bullish) exposure to the Basket, at a time when the value of one or more of the Underlyings increases, the value of the other Underlyings may not increase as much or may even decline. Therefore, in calculating the performance of the Basket, increases in the value of one or more of the Underlyings may be moderated, or more than offset, by lesser increases or declines in the value of the other Underlying or Underlyings, particularly if the Underlying or Underlyings that appreciate are of relatively low weight in the Basket. In addition, high correlation of movements in the values of the Underlyings during periods of negative returns among the Underlyings could have an adverse effect on any payment on the notes.

Similarly, for notes that provide short (or bearish) exposure to the Basket, at a time when the value of one or more of the Underlyings decreases, the value of the other Underlyings may not decrease as much or may even increase. Therefore, in calculating the performance of the Basket, declines in the value of one or more of the Underlyings may be moderated, or more than offset, by lesser declines or increases in the value of the other Underlying or Underlyings, particularly if the Underlying or Underlyings that depreciate are of relatively low weight in the Basket. In addition, high correlation of movements in the values of the Underlyings during periods of positive returns among the Underlyings could have an adverse effect on any payment on the notes.

### **Risks Relating to Least Performing Underlying Notes and Greatest Performing Underlying Notes**

**You are exposed to the risks associated with each Underlying.**

The return on Least Performing Underlying Notes or Greatest Performing Underlying Notes is contingent upon the individual performance of each Underlying and not the performance of a basket of the Underlyings. Unlike an instrument with a return linked to a basket of underlying assets, in which risk is diversified among all the components of the basket, you will be exposed equally to the risks related to any of the Underlyings. The performance of the Underlyings may not be correlated, and the performance of any one of the Underlyings over the term of the notes may negatively affect any payment on the notes and will not be offset by the performance of any or all of the other Underlyings. Accordingly, your investment is subject to the risks associated with each Underlying.

**Any payment on the notes may be determined by reference to the performance of the Underlying that will result in the worst performance of the notes.**

Any payment on the notes may be determined by reference to the performance of the Underlying that will result in the worst performance of the notes, and you will not benefit from the performance of any other Underlying. For example, for Least Performing Underlying Notes, which provide long (or bullish) exposure, any payment on the notes may be determined solely by reference to the Underlying with the lowest return. Similarly, for Greatest Performing Underlying Notes, which provide short (or bearish) exposure, any payment on the notes may be determined solely by reference to the Underlying with the highest return. Accordingly, the performance of a single Underlying can adversely affect the value of the notes and any payment on the notes, regardless of the performance of any other Underlying.

### **Risks Relating to Relative Performance Notes**

**The return on the notes is based on the relative performance of the Underlyings.**

You may receive a lower return on the notes than you could receive by taking directly a long position in the Long Underlying(s) or a short position in the Short Underlying(s). Unlike a long position in the Long Underlying(s) or a short position in the Short Underlying(s), you may not earn a positive return even if each Long Underlying appreciates or each Short Underlying depreciates over the term of the notes.

Unless otherwise specified in the relevant terms supplement, it is possible that you will not earn a positive return when all the Underlyings appreciate or when all the Underlyings depreciate, if, in either case, the return of the Long Underlying(s) is less than the return of the Short Underlying(s). The notes will be linked to the performance of the Long Underlying(s) as compared to the performance of the Short Underlying(s) and thus are affected by the relative, not absolute, performance of the Underlyings. Unless otherwise specified in the relevant terms supplement, in order to receive a positive return on the notes, the return of the Long Underlying(s) must be greater than the return of the Short Underlying(s), in each case calculated as set forth in the relevant terms supplement.

**Changes in the value of any Long Underlying may be partially offset or entirely negated by changes in the value of any Short Underlying.**

Changes in the value of any Long Underlying may be partially offset or entirely negated by changes in the value of any Short Underlying. If the returns of the Underlyings are strongly correlated, you may not receive a positive return on the notes, unless otherwise specified in the relevant terms supplement. Conversely, if the returns of the Underlyings are not correlated, your investment will be exposed to the return of the Long Underlying(s) relative to the return of the Short Underlying(s), in each case calculated as set forth in the relevant terms supplement. Your notes may not generate a positive return even if the return of the Long Underlying is positive or the return of the Short Underlying is negative.

**You are exposed to the risks associated with each Underlying.**

The return on Relative Performance Notes is contingent upon the individual performance of each Underlying and not the performance of a basket of the Underlyings. Unlike an instrument with a return linked to a basket of underlying assets, in which risk is diversified among all the components of the basket, you will be exposed equally to the risks related to all of the Underlyings. Poor performance by the Long Underlying(s) or strong performance by the Short Underlying(s) over the term of the notes may negatively affect your return on the notes. Accordingly, your investment is subject to the risks associated with each Underlying.

**Risks Relating to a Reference Stock**

**The Issuer and the Guarantor (if applicable) have no affiliation with the issuer of any Reference Stock.**

The issuer of any Reference Stock is not an affiliate of the Issuer or the Guarantor (if applicable) and will not be involved in any of the Issuer's offerings of notes pursuant to this product supplement in any way. As a result, the Issuer and the Guarantor (if applicable) will have no ability to control the actions of the issuer of any Reference Stock, including actions that could affect the value of any Reference Stock or your notes. No Reference Stock issuer will have an obligation to consider your interest as an investor in the notes in taking any actions that might affect the value of your notes.

**Your return on the notes will not reflect dividends or other distributions on a Reference Stock.**

Your return on the notes will not reflect the return you would realize if you actually owned a Reference Stock and received the dividends or other distributions paid on that Reference Stock (except in the limited circumstances set forth under "The Underlyings — Reference Stocks — Adjustment Events — No Adjustments for Other Dividends or Distributions"). This is because the calculation agent will calculate any payment on the notes, in whole or in part, by reference to the values of that Reference Stock. The values of that Reference Stock will reflect the price of that Reference Stock on the relevant Determination Date(s) without taking into consideration the value of dividends or other distributions paid on that Reference Stock.

**If a Reference Stock is a non-U.S. equity security, any amount payable on the notes will not be adjusted for changes in exchange rates that might affect that Reference Stock.**

Although the non-U.S. equity security serving as the Reference Stock is traded in a currency other than U.S. dollars and the notes are denominated in U.S. dollars, amounts payable on the notes, if any, will not be adjusted for changes in the exchange rate between the U.S. dollar and the non-U.S. currency in which a non-U.S. equity security serving as a Reference Stock is denominated. Changes in exchange rates, however, may affect the value of the notes. In addition, changes in exchange rates reflect changes in various non-U.S. economies that in turn may affect any payment on the notes.

**The Issuer, the Guarantor (if applicable) or one of their affiliates may serve as the depositary for the American depositary shares representing the common stock of an issuer.**

The Issuer, the Guarantor (if applicable) or one of their affiliates may serve as depositary for some foreign companies that issue ADSs. If a Reference Stock is an ADS, and the Issuer, the Guarantor (if applicable) or one of their affiliates serves as depositary for those ADSs, the Issuer's, the Guarantor's (if applicable) or their affiliate's interests, as depositary for the ADSs, may be adverse to your interests as a holder of the notes.

**If a Reference Stock is an ADS, the notes will be subject to currency exchange risk.**

Because the price of an ADS is quoted and traded in U.S. dollars while the ADS Underlying Stock represented by that ADS is quoted and traded in a non-U.S. currency, the holders of the notes will be exposed to currency exchange rate risk with respect to the currency in which the ADS Underlying Stock trades. An investor's net exposure will depend on the extent to which that currency strengthens or weakens against the U.S. dollar. If the U.S. dollar changes in value relative to that currency, the value of the relevant ADSs and any payment on the notes may be adversely affected.

Of particular importance to potential currency exchange risk are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments in the countries issuing those currencies and the United States and between each country and its major trading partners;
- political, civil or military unrest in the countries issuing those currencies and the United States; and
- the extent of governmental surpluses or deficits in the component countries and the United States.

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

**The Issuer and the Guarantor (if applicable) have no control over exchange rates.**

Foreign exchange rates can either float or be fixed by sovereign governments. Exchange rates of the currencies used by most economically developed nations are permitted to fluctuate in value relative to the U.S. dollar and to each other. However, from time to time governments and, in the case of countries using the euro, the European Central Bank, may use a variety of techniques, such as intervention by a central bank, the imposition of regulatory controls or taxes or changes in interest rates to influence the exchange rates of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or relative exchange characteristics by a devaluation or revaluation of a currency. These governmental actions could change or interfere with currency valuations and currency

fluctuations that would otherwise occur in response to economic forces, as well as in response to the movement of currencies across borders. As a consequence, these governmental actions could adversely affect an investment in a note that is linked, in whole or in part, to the ADSs of one or more foreign issuers, which are quoted and traded in U.S. dollars, each representing an ADS Underlying Stock that is quoted and traded in a foreign currency.

The Issuer and the Guarantor (if applicable) will not make any adjustment or change in the terms of the notes in the event that exchange rates become fixed, or in the event of any devaluation or revaluation or imposition of exchange or other regulatory controls or taxes, or in the event of other developments affecting the U.S. dollar or any relevant foreign currency. You will bear those risks.

**If a Reference Stock is a non-U.S. equity security or an ADS, an investment in the notes is subject to risks associated with non-U.S. securities markets.**

An investment in the notes linked, in whole or in part, to the value of a non-U.S. equity security, or the value of the ADSs of one or more foreign issuers representing interests in non-U.S. equity securities, involves risks associated with the securities markets in those countries where the relevant non-U.S. equity securities are traded, 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 SEC, and generally non-U.S. companies are subject to accounting, auditing and financial reporting standards and requirements and securities trading rules different from those applicable to U.S. reporting companies.

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

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

Some or all of these factors may influence the price of the non-U.S. equity security or ADSs. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You cannot predict the future performance of the non-U.S. equity security or ADSs based on their historical performance. The value of the non-U.S. equity security or ADSs may change in a manner that would adversely affect any payment on the notes.

**There are important differences between the rights of holders of ADSs and the rights of holders of the common stock of the foreign company.**

If your note is linked, in whole or in part, to the performance of the ADSs of one or more foreign issuers, you should be aware that your note is linked, in whole or in part, to the prices of the ADSs and not to the applicable ADS Underlying Stocks, and there exist important differences between the rights of holders of ADSs and those of the ADS Underlying Stocks. Each ADS is a security evidenced by

American Depositary Receipts that represents a specified number of shares of common stock of a foreign issuer. Generally, the ADSs are issued under a deposit agreement, which sets forth the rights and responsibilities of the depositary, the foreign issuer and holders of the ADSs, which may be different from the rights of holders of common stock of the foreign issuer. For example, the foreign issuer may make distributions in respect of its common stock that are not passed on to the holders of its ADSs. Any such differences between the rights of holders of the ADSs and holders of the applicable ADS Underlying Stock may be significant and may materially and adversely affect the value of the notes.

**The notes may become linked to the common stock of a company other than an original Reference Stock Issuer.**

Following certain corporate events relating to a Reference Stock, such as a stock-for-stock merger where the applicable Reference Stock Issuer is not the surviving entity, the shares of a successor corporation to that Reference Stock Issuer will be substituted for that Reference Stock for all purposes of the notes. Following certain other corporate events relating to a Reference Stock in which holders of that Reference Stock would receive all of their consideration in cash and the surviving entity has no marketable securities outstanding or there is no surviving entity (including, but not limited to, a leveraged buyout or other going private transaction involving that Reference Stock Issuer, or a liquidation of that Reference Stock Issuer), the common stock of another company in the same industry group as that Reference Stock Issuer will be substituted for that Reference Stock for all purposes of the notes. This substitution may also occur if a Reference Stock consists of ADSs and those ADSs are delisted or the applicable ADS facility is terminated. In any of these events, the equity-linked nature of the notes would be significantly altered. We describe the specific events that can lead to these adjustments and the procedures for selecting a replacement stock in the section entitled “The Underlyings — Reference Stocks — Adjustment Events.” The occurrence of these events and the consequent adjustments may materially and adversely affect the value of the notes and any payments on the notes.

**The anti-dilution protection is limited and may be discretionary.**

The calculation agent will, in its sole discretion, adjust the adjustment factor, which will be set initially at 1.0, of a Reference Stock for certain events affecting that Reference Stock, such as stock splits and stock dividends, and certain other corporate actions involving the applicable Reference Stock Issuer, such as mergers. However, the calculation agent is not required to make an adjustment for every corporate event that can affect a Reference Stock. For example, the calculation agent is not required to make any adjustments to the adjustment factor of a Reference Stock if the applicable Reference Stock Issuer or anyone else makes a partial tender or partial exchange offer for such Reference Stock. If such a dilution event occurs and the calculation agent is not required to make an adjustment, the value of the notes may be materially and adversely affected. Subject to the foregoing, the calculation agent is under no obligation to consider your interests as a holder of the notes in making these determinations. See “The Underlyings — Reference Stocks — Adjustment Events” for a description of the general circumstances in which the calculation agent will make adjustments to the adjustment factor of a Reference Stock.

**The Issuer or the Guarantor (if applicable) may exercise any and all rights it may have as a lender to, or a security holder of, the issuer of a Reference Stock.**

If the Issuer, the Guarantor (if applicable) or any of their affiliates are lenders to, or hold securities of, the issuer of a Reference Stock, the Issuer or the Guarantor (if applicable) will have the right, but not the obligation, to exercise or refrain from exercising its rights as a lender to, or holder of securities of, that issuer. Any exercise of the Issuer’s or Guarantor’s (if applicable) rights as a lender or holder of securities of the issuer of a Reference Stock, or its refraining from such exercise, will be made without regard to your interests and could affect the value of the notes.

**There can be no assurance that publicly available information provided about the issuer of a Reference Stock is accurate or complete.**

All disclosures contained in the relevant terms supplement regarding the issuer of any Reference Stock will be derived from publicly available documents and other publicly available information, without independent verification. The Issuer and the Guarantor (if applicable) have not participated, and will not participate, in the preparation of those documents, and the Issuer and the Guarantor (if applicable) have not made, and will not make, any due diligence inquiry with respect to the issuer of any Reference Stock in connection with the offering of the notes. The Issuer and the Guarantor (if applicable) do not make any representation that those publicly available documents or any other publicly available information regarding the issuer of any Reference Stock is accurate or complete, and the Issuer and the Guarantor (if applicable) are not responsible for public disclosure of information by the issuer of any Reference Stock, whether contained in filings with the SEC or otherwise. The Issuer and the Guarantor (if applicable) also cannot give any assurance that all events occurring prior to the date of the relevant terms supplement (including events that would affect the accuracy or completeness of the publicly available documents of the issuer of any Reference Stock) that would affect the value of any Reference Stock will have been publicly disclosed. Subsequent disclosure of any of these events or the disclosure of, or failure to disclose, material future events concerning the issuer of any Reference Stock could affect the market value of the notes or any payment on the notes. Any prospective purchaser of the notes should undertake an independent investigation of the issuer of any Reference Stock as in its judgment is appropriate to make an informed decision with respect to an investment in the notes.

In addition, there can be no assurance that a Reference Stock Issuer will continue to be subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), and will distribute any reports, proxy statements, and other information required thereby to its shareholders. In the event that a Reference Stock Issuer ceases to be subject to such reporting requirements and the notes continue to be outstanding, pricing information for the notes may be more difficult to obtain and the value and liquidity of the notes may be adversely affected. None of the Issuer, the Guarantor and any agent is responsible for the public disclosure of information by any Reference Stock Issuer, whether contained in filings with the SEC or otherwise.

**Risks Relating to an Index**

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

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

**The reported level of an Index may include the deduction of index fees or other adjustments.**

Any accompanying underlying supplement or the relevant terms supplement may specify that the reported levels of an Index may include a deduction from the aggregate performance of the relevant securities or other assets or market measures underlying that Index of index fees or other adjustments. Under these circumstances, as a result of these deductions, the value of that Index will trail the value of a hypothetical identically constituted synthetic portfolio that is not subject to those index fees or other adjustments.

**For notes linked to an Index, unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, to the Issuer's and the Guarantor's (if applicable) knowledge, their securities are not currently included in an Index.**

As a general matter, none of the issuers the securities of which are included in an Index will be involved in the offering of the notes in any way. As a result, the Issuer and the Guarantor (if applicable) will have no ability to control the actions of the issuers of those securities, including actions that could affect the value of the securities underlying an Index or your notes. None of those issuers will have any obligation to consider your interests as a holder of the notes in taking any actions that might affect the value of your notes. See any accompanying underlying supplement or the relevant terms supplement for additional information about whether the Issuer or the Guarantor (if applicable) is one of the companies included in an Index.

In the event that the Issuer's or the Guarantor's (if applicable) securities are included in an Index, the Issuer and the Guarantor (if applicable) will have no obligation to consider your interests as a holder of the notes in taking any action that might affect the level of that Index or the value of your notes.

**For notes that provide long (or bullish) exposure to an Index that is not a total return index, your return on the notes will not reflect dividends, interest payments or other distributions on the securities underlying that Index.**

For notes that provide long (or bullish) exposure to an Index that is not a total return index, your return on the notes will not reflect the return you would realize if you actually owned the securities underlying that Index and received the dividends, interest payments or other distributions paid on those securities. This is because the calculation agent will calculate any payment on the notes, in whole or in part, by reference to the values of that Index. The values of that Index will reflect the prices of the securities underlying that Index on the relevant Determination Date(s) without taking into consideration the value of dividends, interest payments or other distributions paid on those securities.

**For notes that provide short (or bearish) exposure to an Index that is a total return index, your return on the notes will be adversely affected by dividends, interest payments or other distributions on the securities underlying that Index.**

The level of a total return index reflects the prices of the securities included in that index, as well as the value of dividends, interest payments or other distributions on the securities underlying that Index on those securities. Accordingly, if the notes are linked to a total return index, any dividends, interest payments or other distributions on the securities underlying that Index will have a positive effect on the level of that index, which will adversely affect the value of the short (or bearish) notes.

**Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, we and our affiliates have no affiliation with any Index Sponsor and have not independently verified their public disclosure of information.**

Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, we and our affiliates are not affiliated in any way with any Index Sponsor and have no ability to control or predict their actions, including any errors in or discontinuation of disclosure regarding the methods or policies relating to the calculation of the applicable Index. We have derived the information about any Index and its Index Sponsor contained in any applicable underlying supplement or terms supplement from publicly available information, without independent verification. You, as an investor in the notes, should make your own investigation into any applicable Index and its Index Sponsor. Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, any applicable Index Sponsor will not be involved in the offering of the notes in any way, and that Index Sponsor will not have any obligation to consider your interests as an owner of the notes in taking any actions that might affect the value of the notes.

**For notes linked in whole or in part to a Non-U.S. Index, the notes will be subject to risks associated with Non-U.S. Indices.**

For notes linked in whole or in part to a Non-U.S. Index, the notes will be subject to risks associated with Non-U.S. Indices. See “— Risks Relating to a Non-U.S. Index or a Non-U.S. Fund” below.

**Risks Relating to a Fund**

**The policies of the investment adviser for a Fund, and the sponsor of its Underlying Index, if applicable, could affect the value of, and any amount payable on, the notes.**

The policies of the investment adviser for a Fund concerning the calculation of the Fund’s net asset value; additions, deletions or substitutions of securities or other assets or market measures underlying that Fund; substitutions of its Underlying Index, if applicable; and the manner in which changes affecting an Underlying Index, if applicable, are reflected in that Fund, could affect the market price of the shares of that Fund and, therefore, affect any payment on the notes and the value of the notes before maturity. Any amount payable on the notes and their value could also be affected if the investment adviser changes these policies, for example, by changing the manner in which it calculates the Fund’s net asset value, or if the investment adviser discontinues or suspends calculation or publication of the Fund’s net asset value, in which case it may become difficult to determine the value of the notes.

In addition, the sponsor of an Underlying Index, if applicable, is responsible for the design and maintenance of the Underlying Index. The policies of the sponsor concerning the calculation of the Underlying Index, including decisions regarding the addition, deletion or substitution of the securities or other assets or market measures included in the Underlying Index, if applicable, could affect the value of the Underlying Index and, consequently, the market prices of the shares of the Fund and, therefore, any payment on the notes and the value of the notes.

**There are risks associated with a Fund.**

A Fund may have a limited operating history. Although the shares of a Fund may be listed for trading on a securities exchange and a number of similar products have been traded on securities exchanges for varying periods of time, there is no assurance that an active trading market will continue for the shares of any Fund or that there will be liquidity in the trading market.

In addition, a Fund is subject to management risk, which is the risk that the applicable investment adviser’s investment strategy, the implementation of which is subject to a number of constraints, may not produce the intended results. These constraints could affect the market prices of the shares of a Fund and, consequently, could adversely affect the value of the notes. See any applicable Fund description in the relevant terms supplement or any accompanying underlying supplement for additional information.

Further, under continuous listing standards adopted by the applicable exchange on which it is listed, a Fund will be required to confirm on an ongoing basis that the components of the Underlying Index satisfy the applicable listing requirements. In the event that a Fund’s Underlying Index does not comply with the applicable listing requirements, the Fund would be required to rectify the non-compliance by requesting that the sponsor of the Underlying Index modify the Underlying Index, adopting a new Underlying Index or obtaining relief from the SEC. There can be no assurance that the sponsor of the Underlying Index would modify the Underlying Index or that relief would be obtained from the SEC and, therefore, non-compliance with the continuous listing standards may result in a Fund being delisted by the applicable exchange. If a Fund were delisted by the applicable exchange, the calculation agent would (i) substitute an exchange-traded fund that it determines, in its sole discretion, to be comparable to that Fund or (ii) if no successor fund is available, in its sole discretion, calculate the appropriate fund closing price of that Fund by a computation methodology that it determines will as closely as reasonably possible replicate that Fund, which may adversely affect the value of the notes and any payment on the notes.

**The anti-dilution protection is limited and may be discretionary.**

The calculation agent will, in its sole discretion, adjust the adjustment factor, which will be set initially at 1.0, of a Fund for certain events affecting that Fund, such as stock splits. However, the calculation agent is not required to make an adjustment for every event that can affect a Fund. If such a dilution event occurs and the calculation agent is not required to make an adjustment, the value of the notes may be materially and adversely affected. You should also be aware that the calculation agent may make adjustments in response to events that are not described in this product supplement to account for any dilutive or concentrative effect, but the calculation agent is under no obligation to do so.

**For notes linked in whole or in part to a Fund, the performance and market value of a Fund, particularly during periods of market volatility, may not correlate with the performance of the net asset value per share of the Fund as well as, with respect to a Fund designed to track an Underlying Index, its Underlying Index.**

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

In addition, the performance of a Fund designed to track an Underlying Index will reflect additional transaction costs and fees that are not included in the calculation of its Underlying Index. Also, the component securities or other assets or market measures of a Fund designed to track an Underlying Index may be unavailable in the secondary market due to other extraordinary circumstances. Corporate actions with respect to any of the securities (such as mergers and spin-offs) also may impact the variance between a Fund designed to track an Underlying Index and its Underlying Index.

Because the shares of a Fund may be traded on a securities exchange and may be subject to market supply and investor demand, the market value of one share of a Fund may differ from the net asset value per share of the Fund. During periods of market volatility, the component securities or other assets or market measures of a Fund may be unavailable in the secondary market, market participants may be unable to calculate accurately the net asset value per share of a Fund and the liquidity of a Fund may be adversely affected. This kind of market volatility may also disrupt the ability of market participants to create and redeem shares in a Fund. Further, market volatility may adversely affect, sometimes materially, the prices at which market participants are willing to buy and sell shares of a Fund. As a result, under these circumstances, the market value of shares of a Fund may vary substantially from the net asset value per share of that Fund.

For all of the foregoing reasons, the performance of a Fund may not correlate with the performance of the net asset value per share of that Fund as well as, with respect to a Fund designed to track an Underlying Index, its Underlying Index, which could materially and adversely affect the value of the notes in the secondary market and/or reduce any payments on the notes. Consequently, the return on the notes will not be the same as investing (or taking a short position) directly in any Fund or any relevant

Underlying Index or in the securities or other assets or market measures held by any Fund or included in any relevant Underlying Index, and will not be the same as investing in a debt security linked to the performance of any relevant Underlying Index.

Additionally, if market volatility or these events were to occur on any of the Determination Date(s), the calculation agent would maintain discretion to determine whether such market volatility or events have caused a market disruption event to occur, and such determination may affect payments on the notes. If the calculation agent determines that no market disruption event has occurred, payments on the notes would be based on the fund closing price of the shares of the applicable Fund on the Determination Date(s), even if the relevant Fund is trading below the net asset value per share of that Fund and/or underperforming any relevant Underlying Index or the component securities included in any relevant Underlying Index.

**Funds that are actively managed are subject to risks that are different from those of passively managed funds.**

Unlike a passively managed Fund, an actively managed Fund may not attempt to track an index or other benchmark, and the investment decisions for an actively managed Fund are instead made by its portfolio manager. The portfolio manager of an actively managed Fund may change during the term of your notes, and any replacement portfolio manager may not achieve the same results as prior portfolio managers. The portfolio manager of an actively managed Fund may adopt a strategy or strategies that are significantly higher risk than the indexing strategy employed by a passively managed Fund.

**Your return on the notes will not reflect dividends or other distributions on a Fund.**

Your return on the notes will not reflect the return you would realize if you actually owned a Fund and received the dividends or other distributions paid on that Fund (except in the limited circumstances set forth under “The Underlyings — Funds — Anti-Dilution Adjustments — (C) Extraordinary Dividends”). This is because the calculation agent will calculate any payment on the notes, in whole or in part, by reference to the values of that Fund. The values of that Fund will reflect the price of that Fund on the relevant Determination Date(s) without taking into consideration the value of dividends or other distributions paid on that Fund.

**There can be no assurance that publicly available information provided about any Fund is accurate or complete.**

All disclosures contained in the relevant terms supplement regarding any Fund will be derived from publicly available documents and other publicly available information, without independent verification. The Issuer and the Guarantor (if applicable) have not participated, and will not participate, in the preparation of those documents, and the Issuer and the Guarantor (if applicable) have not made, and will not make, any due diligence inquiry with respect to any Fund in connection with the offering of the notes. The Issuer and the Guarantor (if applicable) do not make any representation that those publicly available documents or any other publicly available information regarding any Fund is accurate or complete, and the Issuer and the Guarantor (if applicable) are not responsible for public disclosure of information by any Fund, whether contained in filings with the SEC or otherwise. The Issuer and the Guarantor (if applicable) also cannot give any assurance that all events occurring prior to the date of the relevant terms supplement (including events that would affect the accuracy or completeness of the publicly available documents of any Fund) that would affect the value of any Fund will have been publicly disclosed. Subsequent disclosure of any of these events or the disclosure of, or failure to disclose, material future events concerning any Fund could affect the market value of the notes or any payment on the notes. Any prospective purchaser of the notes should undertake an independent investigation of any Fund as in its judgment is appropriate to make an informed decision with respect to an investment in the notes.

**For notes linked to a Fund, unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, to the Issuer's and the Guarantor's (if applicable) knowledge, their securities are not currently held by a Fund.**

As a general matter, none of the issuers the securities of which are held by a Fund will be involved in the offering of the notes in any way. As a result, the Issuer and the Guarantor (if applicable) will have no ability to control the actions of the issuers of those securities, including actions that could affect the value of the securities held by a Fund or your notes. None of those issuers will have any obligation to consider your interests as a holder of the notes in taking any actions that might affect the value of your notes. See any accompanying underlying supplement or the relevant terms supplement for additional information about whether the Issuer or the Guarantor (if applicable) is one of the companies whose securities are held by a Fund.

In the event that the Issuer's or the Guarantor's (if applicable) securities are held by a Fund, the Issuer and the Guarantor (if applicable) will have no obligation to consider your interests as a holder of the notes in taking any action that might affect the price of that Fund or the value of your notes.

**Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, we and our affiliates have no affiliation with the sponsor of any Fund and have not independently verified their public disclosure of information.**

We and our affiliates are not affiliated in any way with the sponsor of any Fund or its Underlying Index (collectively, the “**sponsors**”) and have no ability to control or predict their actions, including any errors in or discontinuation of disclosure regarding their methods or policies relating to the management or calculation of the applicable Fund or its Underlying Index. We have derived the information about any Fund, its Underlying Index and the related sponsors contained in any applicable underlying supplement or terms supplement from publicly available information, without independent verification. You, as an investor in the notes, should make your own investigation into any applicable Fund, its Underlying Index and the sponsors. The sponsors will not be involved in the offering of the notes in any way, and the Sponsors will have no obligation to consider your interests as an owner of the notes in taking any actions that might affect the value of the notes.

**For notes linked in whole or in part to a Non-U.S. Fund, the notes will be subject to risks associated with Non-U.S. Funds.**

For notes linked in whole or in part to a Non-U.S. Fund, the notes will be subject to risks associated with Non-U.S. Funds. See “— Risks Relating to a Non-U.S. Index or a Non-U.S. Fund” below.

#### **Risks Relating to a Non-U.S. Index or a Non-U.S. Fund**

**For notes linked in whole or in part to a Non-U.S. Index or a Non-U.S. Fund, if the prices of its component non-U.S. securities are not converted into U.S. dollars for purposes of calculating the value of that Non-U.S. Index or Non-U.S. Fund, any amount payable on the notes will not be adjusted for changes in exchange rates that might affect that Non-U.S. Index or Non-U.S. Fund.**

Because the prices of the non-U.S. securities underlying the applicable Non-U.S. Index or Non-U.S. Fund are not converted into U.S. dollars for purposes of calculating the value of that Non-U.S. Index or Non-U.S. Fund and although the non-U.S. securities underlying that Non-U.S. Index or Non-U.S. Fund are traded in currencies other than U.S. dollars, and the notes, which are linked in whole or in part to that Non-U.S. Index or Non-U.S. Fund, are denominated in U.S. dollars, amounts payable on the notes, if any, will not be adjusted for changes in the exchange rate between the U.S. dollar and each of the currencies in which the non-U.S. securities underlying that Non-U.S. Index or Non-U.S. Fund are denominated. Changes in exchange rates, however, may affect the value of the notes. In addition, changes in exchange rates reflect changes in various non-U.S. economies that in turn may affect any payment on the notes.

**For notes linked in whole or in part to a Non-U.S. Index or a Non-U.S. Fund, if the prices of its component non-U.S. securities are converted into U.S. dollars for purposes of calculating the value of that Non-U.S. Index or Non-U.S. Fund, the notes will be subject to currency exchange risk.**

Because the prices of the non-U.S. securities underlying the applicable Non-U.S. Index or Non-U.S. Fund are converted into U.S. dollars for the purposes of calculating the value of that Non-U.S. Index or Non-U.S. Fund, the holders of the notes will be exposed to currency exchange rate risk with respect to each of the currencies in which the non-U.S. securities underlying that Non-U.S. Index or Non-U.S. Fund trade. An investor's net exposure will depend on the extent to which those currencies strengthen or weaken against the U.S. dollar and the relative weight of the non-U.S. securities underlying that Non-U.S. Index or Non-U.S. Fund denominated in each applicable currency. If, taking into account the weighting, the U.S. dollar changes in value relative to those currencies, the value of that Non-U.S. Index or Non-U.S. Fund and any payment on the notes may be adversely affected.

Of particular importance to potential currency exchange risk are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments in the countries issuing those currencies and in the United States and between each country and its major trading partners;
- political, civil or military unrest in the countries issuing those currencies and in the United States; and
- the extent of governmental surpluses or deficits in the component countries and the United States.

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

**For notes linked in whole or in part to a Non-U.S. Index or a Non-U.S. Fund, if the prices of its component non-U.S. securities are converted into U.S. dollars for purposes of calculating the value of that Non-U.S. Index or Non-U.S. Fund, changes in the volatility of exchange rates and the correlation between those rates and the values of that Non-U.S. Index or Non-U.S. Fund 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 non-U.S. securities underlying the applicable Non-U.S. Index or Non-U.S. Fund are denominated refers to a foreign exchange spot rate that measures the relative values of two currencies — the particular currency in which a security composing that Non-U.S. Index or Non-U.S. Fund is denominated and the U.S. dollar. This exchange rate reflects the amount of the particular currency in which a security composing a Non-U.S. Index or Non-U.S. Fund is denominated that can be purchased for one U.S. dollar and thus increases when the U.S. dollar appreciates relative to the particular currency in which that security is denominated. The volatility of the exchange rate between the U.S. dollar and each of the currencies in which the non-U.S. securities underlying a Non-U.S. Index or Non-U.S. Fund are denominated refers to the size and frequency of changes in that exchange rate.

Because the applicable Non-U.S. Index or Non-U.S. Fund is calculated, in part, by converting the closing prices of the non-U.S. securities underlying that Non-U.S. Index or Non-U.S. Fund into U.S. dollars, the volatility of the exchange rate between the U.S. dollar and each of the currencies in which those non-U.S. securities are denominated could affect the market value of the notes.

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

**The Issuer and the Guarantor (if applicable) have no control over exchange rates.**

Foreign exchange rates can either float or be fixed by sovereign governments. Exchange rates of the currencies used by most economically developed nations are permitted to fluctuate in value relative to the U.S. dollar and to each other. However, from time to time governments and, in the case of countries using the euro, the European Central Bank, may use a variety of techniques, such as intervention by a central bank, the imposition of regulatory controls or taxes or changes in interest rates to influence the exchange rates of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or relative exchange characteristics by a devaluation or revaluation of a currency. These governmental actions could change or interfere with currency valuations and currency fluctuations that would otherwise occur in response to economic forces, as well as in response to the movement of currencies across borders. As a consequence, these governmental actions could adversely affect an investment in a note that is linked, in whole or in part, to a Non-U.S. Index or Non-U.S. Fund.

The Issuer and the Guarantor (if applicable) will not make any adjustment or change in the terms of the notes in the event that exchange rates become fixed, or in the event of any devaluation or revaluation or imposition of exchange or other regulatory controls or taxes, or in the event of other developments affecting the U.S. dollar or any relevant foreign currency. You will bear those risks.

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

Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, the securities that compose a Non-U.S. Index or Non-U.S. Fund have been issued by non-U.S. companies. Investments in securities linked to the value of securities of non-U.S. issuers involve risks associated with the securities markets in those countries where the relevant non-U.S. securities are traded, 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 SEC, and generally non-U.S. companies are subject to accounting, auditing and financial reporting standards and requirements and securities trading rules different from those applicable to U.S. reporting companies.

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

The economies of emerging market countries in particular face several concerns, including relatively unstable governments that may present the risks of nationalization of businesses, restrictions on foreign ownership and prohibitions on the repatriation of assets, and which may have less protection of property rights than more developed countries. These economies may also be based on only a few industries, be highly vulnerable to changes in local and global trade conditions and may suffer from extreme and volatile debt burdens or inflation rates. In addition, local securities markets may trade a small number of

securities and may be unable to respond effectively to increases in trading volume, potentially making prompt liquidation of holdings difficult or impossible at times. The risks of the economies of emerging market countries are relevant for notes linked to a Non-U.S. Index or Non-U.S. Fund composed of securities traded in one or more emerging market countries.

Some or all of these factors may influence the closing level of a Non-U.S. Index or the fund closing price of one share of a Non-U.S. Fund. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You cannot predict the future performance of an Index or a Fund based on its historical performance. The level of a Non-U.S. Index or the price of a Non-U.S. Fund may change in a manner that would adversely affect any payment on the notes.

**A separate underlying supplement or the relevant terms supplement may provide additional risk factors relating to any Underlying to which the notes are linked.**

## USE OF PROCEEDS AND HEDGING

Unless otherwise specified in the relevant terms supplement, JPMorgan Chase & Co. will contribute the net proceeds that it receives from the sale of the notes it issues to its “intermediate holding company” subsidiary, JPMorgan Chase Holdings LLC, which will use those net proceeds for general corporate purposes, in connection with hedging JPMorgan Chase & Co.’s obligations under its notes or for any other purpose described in the relevant terms supplement. General corporate purposes may include investments in JPMorgan Chase & Co.’s subsidiaries, payments of dividends to JPMorgan Chase & Co., extensions of credit to JPMorgan Chase & Co. or its subsidiaries or the financing of possible acquisitions or business expansion. Net proceeds may be temporarily invested pending application for their stated purpose. Interest on JPMorgan Chase & Co.’s debt securities and dividends on its equity securities, as well as redemptions or repurchases of its outstanding securities, will be made using amounts it receives as dividends or extensions of credit from JPMorgan Chase Holdings LLC or as dividends from JPMorgan Chase Bank, N.A. Unless otherwise specified in the relevant terms supplement, JPMorgan Financial intends to lend the net proceeds from the sale of the notes it issues to the Guarantor and/or its affiliates. The Guarantor expects that it and/or its affiliates will use the proceeds from these loans to provide additional funds for its and/or their operations and for other general corporate purposes. The notes will be offered to meet investor demand for products that reflect the risk-return profile and market exposure provided by the notes as set forth in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, the original issue price of the notes will be equal to the estimated value of the notes plus the selling commissions, referral fees, if any, and structuring fees, if any, paid to each agent and/or other affiliated or unaffiliated dealers (as shown on the cover page of the relevant terms supplement), plus (minus) the projected profits (losses) that the Issuer’s affiliates expect to realize for assuming risks inherent in hedging its obligations under the notes, plus the estimated cost of hedging its obligations under the notes. See “Estimated Value and Secondary Market Prices of the Notes — The Estimated Value of the Notes” and the relevant terms supplement for additional information about the estimated value of the notes. See also “Use of Proceeds” in the prospectus.

On or prior to the date of the relevant terms supplement, the Issuer, through its affiliates or others, expects to hedge some or all of its anticipated exposure in connection with the notes. In addition, from time to time after the notes are issued, the Issuer, through its affiliates or others, may enter into additional hedging transactions and close out or unwind those the Issuer has entered into, in connection with the notes and possibly in connection with its or its affiliates’ exposure to one or more Reference Stocks, Indices or Funds or the securities or other assets or market measures underlying one or more Indices or Funds or related currency exchange rates. To accomplish this, the Issuer, through its affiliates or others, may take positions in one or more Reference Stocks, Indices or Funds, the securities or other assets or market measures underlying one or more Indices or Funds or related currency exchange rates, or instruments the value of which is derived from one or more Reference Stocks, Indices or Funds or the securities or other assets or market measures underlying one or more Indices or Funds or related currency exchange rates. From time to time, prior to maturity of the notes, the Issuer may pursue a dynamic hedging strategy that may involve taking long or short positions in the instruments described above.

While the Issuer cannot predict an outcome, any of these hedging activities or other trading activities of the Issuer could potentially affect the value of the Underlying(s) in a manner that adversely affects the value of the notes or any payment on the notes. Because hedging the Issuer’s obligations entails risk and may be influenced by market forces beyond its control, this hedging may result in a profit that is more or less than expected, or it may result in a loss. It is possible that these hedging or trading activities could result in substantial returns for the Issuer or its affiliates while the value of the notes declines. See “Risk Factors — Risks Relating to Conflicts of Interest — The Issuer, the Guarantor (if applicable) or their affiliates may have economic interests that are adverse to those of the holders of the notes as a result of their hedging and other trading activities” above.

The Issuer has no obligation to engage in any manner of hedging activity and will do so solely at its discretion and for its own account. The Issuer may hedge its exposure on the notes directly or it may aggregate this exposure with other positions taken by it and its affiliates with respect to its exposure to one or more Reference Stocks, Indices or Funds or the securities or other assets or market measures underlying one or more Indices or Funds or related currency exchange rates. No note holder will have any rights or interest in the Issuer's hedging activity or any positions that the Issuer, any of its affiliates or any unaffiliated counterparties may take in connection with the Issuer's hedging activity.

## GENERAL TERMS OF NOTES

### Calculation Agent

Unless otherwise specified in the relevant terms supplement, J.P. Morgan Securities LLC, one of the Issuer's and the Guarantor's (if applicable) affiliates, will act as the calculation agent. The Issuer and the Guarantor (if applicable) 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 make all necessary calculations and determinations in connection with the notes, including calculations and determinations relating to any payments on the notes and the assumptions used to determine the pricing and estimated value of the notes. 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 the Issuer and the Guarantor (if applicable).

The calculation agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of any amount payable on the notes at or prior to 11:00 a.m., New York City time, on the date on which payment is to be made.

Unless otherwise specified in the relevant terms supplement, all values with respect to calculations in connection with the notes will be rounded to the nearest one hundred-thousandth, with five one-millionths rounded upward (e.g., 0.876545 would be rounded to 0.87655). Notwithstanding the foregoing, all dollar amounts related to determination of any payment on the notes per note will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., 0.76545 would be rounded up to 0.7655), and all dollar amounts payable, if any, on the aggregate principal amount of notes per holder will be rounded to the nearest cent, with one-half cent rounded upward unless otherwise specified in the relevant terms supplement.

### Postponement of a Payment Date

If any scheduled Payment Date is not a business day, then that Payment Date will be the next succeeding business day following the scheduled Payment Date. If, due to a market disruption event or otherwise, any Determination Date (other than the final Determination Date) referenced in the determination of a payment on the notes that will or may be payable on any Payment Date is postponed, that Payment Date will be the business day that follows that Determination Date, as postponed, by a number of business days equal to the number of business days between the originally scheduled Determination Date and the originally scheduled Payment Date, unless otherwise specified in the relevant terms supplement. If the final Determination Date is postponed so that it falls less than three business days prior to the scheduled maturity date, the maturity date will be the third business day following the final Determination Date, as postponed. If the notes are linked to more than one Underlying and a Determination Date is postponed, the related Payment Date will be postponed as described in this paragraph based on the last such Determination Date, as postponed. Notwithstanding the foregoing, for notes with a term of one year or less, the maturity date will not be postponed to a date that is more than one year (counting for this purpose either the issue date or the last possible date that the notes could be outstanding, but not both) after the issue date. If any Payment Date is adjusted as the result of a non-business day, a market disruption event or otherwise, any payment of interest due on that Payment Date will be made on that Payment Date as adjusted, with the same force and effect as if that Payment Date had not been adjusted, but no interest will accrue or be payable as a result of the delayed payment.

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 U.S. dollars are not conducted.

## Postponement of a Determination Date

For notes linked to an Index, the relevant terms supplement or an accompanying underlying supplement may provide a formulation of the postponement provisions that will apply to the notes instead of the relevant provisions set forth below.

Unless otherwise specified in the relevant terms supplement, the “**closing value**” of an Underlying means, on any date of determination, (i) with respect to an Index, its closing level (as defined under “The Underlyings”) on that day; (ii) with respect to a Fund, its fund closing price (as defined under “The Underlyings”) on that day; and (iii) with respect to a Reference Stock, its stock closing price (as defined under “The Underlyings”) on that day.

Please see “The Underlyings” for the meaning of certain terms used in this section that are not defined in this section, including, but not limited to, “trading day,” “market disruption event” and “relevant stock exchange.”

### *Notes Linked to a Single Underlying*

If any Determination Date is not a trading day with respect to the Underlying, that Determination Date will be postponed to the next succeeding day that is a trading day with respect to the Underlying.

If a market disruption event occurs or is continuing with respect to the Underlying on any Determination Date, then that Determination Date will be postponed to the first succeeding trading day for the Underlying on which a market disruption event for the Underlying has not occurred and is not continuing; however, if that first succeeding trading day has not occurred as of the Final Disrupted Determination Date, the Final Disrupted Determination Date will be deemed to be the Determination Date. If a Determination Date is or has been postponed to the Final Disrupted Determination Date and a market disruption event occurs or is continuing with respect to the Underlying on that day, the calculation agent will determine the closing value of the Underlying on the Final Disrupted Determination Date:

- (i) in the case of an Index, in accordance with the formula for and method of calculating the closing level of that Index last in effect prior to commencement of the market disruption event, using the closing price (or, with respect to any relevant security, if trading in that security has been materially suspended or materially limited, its good faith estimate of the value of that security at (a) with respect to an Index that is not a multiple exchange index, the scheduled closing time of the relevant stock exchange for that security or, if earlier, the actual closing time of the regular trading session of that relevant stock exchange or (b) with respect to a multiple exchange index, the time at which the official closing level of that Index is calculated and published by the relevant index sponsor) on that day of each security included in that Index;
- (ii) in the case of a Fund, based on its good faith estimate of the value of the shares (or other applicable securities) of that Fund as of the close of trading on that day; and
- (iii) in the case of a Reference Stock, by using its good faith estimate of the closing price that would have prevailed for that Reference Stock on that day.

As used in (i) above, “**closing price**” means, with respect to any security on any day, the relevant stock exchange traded or quoted price of that security as of (a) with respect to an Index that is not a multiple exchange index, the scheduled closing time of the relevant stock exchange for that security or, if earlier, the actual closing time of the regular trading session of that relevant stock exchange or (b) with respect to a multiple exchange index, the time at which the official closing level of that Index is calculated and published by the relevant index sponsor.

For purposes of this “— Notes Linked to a Single Underlying” section, with respect to a Determination Date, unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, the “**Final Disrupted Determination Date**” means the earlier of:

- (a) the eighth trading day (or, in the case of a Reference Stock, the eighth scheduled trading day) after that Determination Date, as originally scheduled; and
- (b) for notes with a term of one year or less, the last date that could serve as the final Determination Date without causing the maturity date to be more than one year (counting for this purpose either the issue date or the last possible date that the notes could be outstanding, but not both) after the issue date.

A “**scheduled trading day**” with respect to a Reference Stock means a day, as determined by the calculation agent, on which the principal trading market for that Reference Stock (as determined by the calculation agent, in its sole discretion), the Chicago Mercantile Exchange, the Chicago Board Options Exchange and the over-the-counter market for equity securities in the United States are scheduled to be open for trading for their respective regular trading sessions.

### ***Notes Linked to Multiple Underlyings***

If any Determination Date is not a trading day with respect to any Underlying, that Determination Date for each Underlying will be postponed to the next succeeding day that is a trading day with respect to each Underlying.

If a market disruption event occurs or is continuing with respect to any Underlying on any Determination Date, then that Determination Date for that Underlying will be postponed to the first succeeding trading day for that Underlying on which a market disruption event for that Underlying has not occurred and is not continuing; however, if that first succeeding trading day has not occurred as of the Final Disrupted Determination Date for that Underlying, that Final Disrupted Determination Date will be deemed to be the Determination Date for that Underlying. If a Determination Date for an Underlying is or has been postponed to the Final Disrupted Determination Date for that Underlying and a market disruption event occurs or is continuing with respect to that Underlying on that Final Disrupted Determination Date, the calculation agent will determine the closing value of that Underlying on that Final Disrupted Determination Date:

- (i) in the case of an Index, in accordance with the formula for and method of calculating the closing level of that Index last in effect prior to commencement of the market disruption event, using the closing price (or, with respect to any relevant security, if trading in that security has been materially suspended or materially limited, its good faith estimate of the value of that security at (a) with respect to an Index that is not a multiple exchange index, the scheduled closing time of the relevant stock exchange for that security or, if earlier, the actual closing time of the regular trading session of that relevant stock exchange or (b) with respect to a multiple exchange index, the time at which the official closing level of that Index is calculated and published by the relevant index sponsor) on that day of each security included in that Index;
- (ii) in the case of a Fund, based on its good faith estimate of the value of the shares (or other applicable securities) of that Fund as of the close of trading on that day; and
- (iii) in the case of a Reference Stock, by using its good faith estimate of the closing price that would have prevailed for that Reference Stock on that day.

As used in (i) above, “**closing price**” means, with respect to any security on any day, the relevant stock exchange traded or quoted price of that security as of (a) with respect to an Index that is not a multiple exchange index, the scheduled closing time of the relevant stock exchange for that security or, if earlier, the actual closing time of the regular trading session of that relevant stock exchange or (b) with respect to a multiple exchange index, the time at which the official closing level of that Index is calculated and published by the relevant index sponsor.

For purposes of this “— Notes Linked to Multiple Underlyings” section, with respect to a Determination Date for an Underlying, unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, the **“Final Disrupted Determination Date”** means the earlier of:

- (a) the eighth trading day (or, in the case of an Underlying that is a Reference Stock, the eighth scheduled trading day) after that Determination Date, as originally scheduled; and
- (b) for notes with a term of one year or less, the last date that could serve as the final Determination Date without causing the maturity date to be more than one year (counting for this purpose either the issue date or the last possible date that the notes could be outstanding, but not both) after the issue date.

A **“scheduled trading day”** with respect to a Reference Stock means a day, as determined by the calculation agent, on which the principal trading market for that Reference Stock (as determined by the calculation agent, in its sole discretion), the Chicago Mercantile Exchange, the Chicago Board Options Exchange and the over-the-counter market for equity securities in the United States are scheduled to be open for trading for their respective regular trading sessions.

Notwithstanding the postponement of a Determination Date for an Underlying due to a market disruption event with respect to that Underlying on that Determination Date, the originally scheduled Determination Date will remain the Determination Date for any Underlying not affected by a market disruption event on that day.

## **Events of Default**

Under the heading “Description of Debt Securities — Events of Default and Waivers” in the 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, if the notes do not include an automatic redemption feature, the amount declared due and payable per note upon any acceleration of the notes will be determined by the calculation agent and will be an amount in cash equal to the amount payable at maturity per note calculated in the manner described in the relevant terms supplement and calculated as if the date of acceleration were the final Determination Date (for each Underlying if there are more than one Underlyings) and (b) if that final Determination Date would have been postponed pursuant to “— Postponement of a Determination Date,” the Final Disrupted Determination Date for that final Determination Date.

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, if the notes include an automatic redemption feature, the amount declared due and payable per note upon any acceleration of the notes will be determined by the calculation agent and will be (1) if (a) the date of acceleration is a Determination Date (for each Underlying if there are more than one Underlyings) for the automatic redemption feature and the conditions for an automatic redemption would have been satisfied on the date of acceleration or (b) the date of acceleration is not a Determination Date (for any Underlying if there are more than one Underlyings) for the automatic redemption feature, but the conditions for an automatic redemption would have been satisfied on the date of acceleration if the date of acceleration were the next succeeding Determination Date (for each Underlying if there are more than one Underlyings) for the automatic redemption feature, an amount in cash equal to the amount payable upon an automatic redemption per note calculated in the manner described in the relevant terms supplement and calculated as if the date of acceleration were (i) that Determination Date (for each Underlying if there are more than one Underlyings) and (ii) if that final Determination Date would have been postponed pursuant to “— Postponement of a Determination Date,” the Final Disrupted Determination Date for that Determination Date, or (2) in all other circumstances, an amount in cash equal to the amount payable at maturity per note calculated in

the manner described in the relevant terms supplement and calculated as if the date of acceleration were (a) the final Determination Date (for each Underlying if there are more than one Underlyings) and (b) if that final Determination Date would have been postponed pursuant to “— Postponement of a Determination Date,” the Final Disrupted Determination Date for that Determination Date.

Unless otherwise specified in the relevant terms supplement, any amount payable as described in the two immediately preceding paragraphs will include any accrued and unpaid interest on the notes, *provided* that any interest payable will be prorated based on the ratio of the actual number of days from and including the previous interest payment date to but excluding the date of acceleration over the number of days from and including the previous interest payment date to but excluding the next scheduled interest payment date.

If the final value of an Underlying is determined on more than one Determination Date, then, for each Determination 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 the Determination Dates in excess of one) will be the corresponding Determination Dates, unless otherwise specified in the relevant terms supplement.

The amount determined as described above will constitute the final payment on the notes, and no additional amounts will accrue with respect to the notes following the date of acceleration, regardless of any performance of the Underlying(s) following the date of acceleration.

If the maturity of the notes is accelerated because of an event of default as described above, the Issuer will, or will cause the calculation agent to, provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, and to DTC, as holder of the notes, 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 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 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 note 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 prospectus supplement under the heading “Description of Notes — Forms of Notes” and in the prospectus under the heading “Forms of Securities — Book-Entry System.”

## **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 for the notes 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.

## **Reopening Issuances**

The Issuer may, in its sole discretion, "reopen" the notes based upon market conditions and the value of the Underlying(s) at that time. The Issuer intends to issue the notes initially in an amount having the aggregate offering price specified on the cover of the relevant terms supplement. However, the Issuer may issue additional notes in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The notes do not limit the Issuer's ability to incur other indebtedness or to issue other securities. Also, the Issuer is not subject to financial or similar restrictions by the terms of the notes. These further issuances, if any, will be consolidated to form a single sub-series with the originally issued notes, will have the same CUSIP number and will trade interchangeably with the notes immediately upon settlement. Any notes bearing the same CUSIP number that are issued pursuant to any future additional issuances of notes bearing the same CUSIP number will increase the aggregate principal amount of the outstanding notes of this series. The price of any additional offering will be determined at the time of pricing of that offering.

***The Issuer has no obligation to take your interests into account when deciding whether to issue additional notes. In addition, the Issuer is under no obligation to reopen any series of notes or to issue any additional notes.***

## THE UNDERLYINGS

### Reference Stocks

If the notes are linked to any Reference Stock, the relevant terms supplement will provide summary information regarding the business of the issuer of that Reference Stock based on its publicly available documents, without independent verification.

Unless otherwise specified in the relevant terms supplement, companies with securities registered under the Exchange Act are required to file periodically certain financial and other information specified by the SEC. Information provided to or filed with the SEC electronically can be accessed through a website maintained by the SEC. The address of the SEC's website is <http://www.sec.gov>.

**This product supplement and the relevant terms supplement relate only to the notes offered thereby and do not relate to any Reference Stock or other securities of the issuer of any Reference Stock. All disclosures contained in the relevant terms supplement regarding the issuer of any Reference Stock will be derived from publicly available documents and other publicly available information, without independent verification. The Issuer and the Guarantor (if applicable) have not participated, and will not participate, in the preparation of those documents, and the Issuer and the Guarantor (if applicable) have not made, and will not make, any due diligence inquiry with respect to the issuer of any Reference Stock in connection with the offering of the notes. The Issuer and the Guarantor (if applicable) do not make any representation that those publicly available documents or any other publicly available information regarding the issuer of any Reference Stock is accurate or complete, and the Issuer and the Guarantor (if applicable) are not responsible for public disclosure of information by the issuer of any Reference Stock, whether contained in filings with the SEC or otherwise. The Issuer and the Guarantor (if applicable) also cannot give any assurance that all events occurring prior to the date of the relevant terms supplement (including events that would affect the accuracy or completeness of the publicly available documents of the issuer of any Reference Stock) that would affect the value of any Reference Stock will have been publicly disclosed. Subsequent disclosure of any of these events or the disclosure of, or failure to disclose, material future events concerning the issuer of any Reference Stock could affect the market value of the notes or any payment on the notes. Any prospective purchaser of the notes should undertake an independent investigation of the issuer of any Reference Stock as in its judgment is appropriate to make an informed decision with respect to an investment in the notes.**

### *Certain Definitions*

A **"trading day"** with respect to a Reference Stock means a day, as determined by the calculation agent, on which trading is conducted on the principal trading market for that Reference Stock (as determined by the calculation agent, in its sole discretion), the Chicago Mercantile Exchange, the Chicago Board Options Exchange and in the over-the-counter market for equity securities in the United States.

The **"closing price"** for one share of a Reference Stock (or one unit of any other security for which a closing price must be determined) on any trading day means:

- if that Reference Stock (or that other security) is listed or admitted to trading on a national securities exchange, the official closing price on that day published by the principal United States securities exchange registered under the Exchange Act on which that Reference Stock (or that other security) is listed or admitted to trading; or
- if that Reference Stock (or that 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, Inc. ("**FINRA**"), the last reported sale price of the principal trading session on the OTC Bulletin Board Service on that day.

If that Reference Stock (or that other security) is listed or admitted to trading on any national securities exchange but the official closing price is not available pursuant to the preceding sentence, then the closing price for one share of that Reference Stock (or one unit of that other security) on any trading day will mean the last reported sale price of the principal trading session on the over-the-counter market as reported on the OTC Bulletin Board Service on that day.

If the official closing price or the last reported sale price, as applicable, for that Reference Stock (or that other security) is not available pursuant to either of the two preceding sentences, then the closing price per share for any trading day will be the mean, as determined by the calculation agent, of the bid price for that Reference Stock (or that other security) obtained from as many recognized dealers in that security, but not exceeding three, as will make those bid prices available to the calculation agent. Bids of any of the Issuer's or the Guarantor's (if applicable) affiliates may be included in the calculation of that mean, but only to the extent that any of those bids is the highest of the bids obtained. The term "**OTC Bulletin Board Service**" will include any successor service thereto or, if the OTC Bulletin Board Service is discontinued and there is no successor service thereto, the OTC Reporting Facility operated by FINRA.

The "**stock closing price**" with respect to a Reference Stock on a trading day, means the product of the closing price of that Reference Stock and the adjustment factor for that Reference Stock, each on that trading day.

The "**adjustment factor**" for a Reference Stock is initially 1.0. The adjustment factor for a Reference Stock will remain constant for the term of the notes, subject to adjustment for certain corporate events relating to the applicable Reference Stock Issuer as described in the section entitled "—Adjustment Events" below.

### ***Market Disruption Events***

A "**market disruption event**" with respect to a Reference Stock means, unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, the occurrence or existence of any of the following events:

- a suspension, absence or material limitation of trading in that Reference Stock on its primary market for more than two hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion;
- a suspension, absence or material limitation of trading in option or futures contracts relating to that Reference Stock, if available, in the primary market for those contracts for more than two hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion;
- that Reference Stock does not trade on the New York Stock Exchange, the Nasdaq Global Select Market, the Nasdaq Global Market or what was the primary market for that Reference Stock, as determined by the calculation agent in its sole discretion; or
- any other event, if the calculation agent determines in its sole discretion that the event materially interferes with the Issuer's ability or the ability of any of its affiliates to unwind all or a material portion of a hedge with respect to the notes that it or its affiliates have effected or may effect.

The following events will not be a market disruption event with respect to a Reference Stock:

- a limitation on the hours or number of days of trading in that Reference Stock in its primary market, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- a decision to permanently discontinue trading in the option or futures contracts relating to that Reference Stock.

For this purpose, a “suspension, absence or material limitation of trading” in the applicable market will not include any time when that market is itself closed for trading under ordinary circumstances. In contrast, a “suspension, absence or material limitation of trading” in the applicable market for a Reference Stock or option or futures contracts relating to that Reference Stock, as applicable, by reason of any of:

- a price change exceeding limits set by that market;
- an imbalance of orders relating to that Reference Stock or those contracts; or
- a disparity in bid and asked quotes relating to that Reference Stock or those contracts

will constitute a “suspension, absence or material limitation of trading” in that Reference Stock or those contracts, as the case may be, in the applicable market.

### ***Adjustment Events***

The adjustment factor for a Reference Stock is initially 1.0. However, the adjustment factor for a Reference Stock is subject to adjustment by the calculation agent as a result of the dilution and reorganization events described in this section. The adjustments described below do not cover all events that could affect a Reference Stock and, consequently, the value of your notes, such as a tender or exchange offer by the applicable Reference Stock Issuer for that Reference Stock at a premium to its market price or a tender or exchange offer made by a third party for less than all outstanding shares of that Reference Stock. We describe the risks relating to dilution above under “Risk Factors — Risks Factors Relating to a Reference Stock — The anti-dilution protection is limited and may be discretionary.”

### ***How Adjustments Will Be Made***

If one of the events described below occurs with respect to a Reference Stock and the calculation agent determines that the event has a dilutive or concentrative effect on the market price of that Reference Stock, the calculation agent will calculate a corresponding adjustment to the adjustment factor for that Reference Stock as the calculation agent deems appropriate to account for that dilutive or concentrative effect. For example, if an adjustment is required because of a two-for-one stock split, then the adjustment factor for that Reference Stock will be adjusted by the calculation agent by multiplying the existing adjustment factor by a fraction whose numerator is the number of shares of that Reference Stock outstanding immediately after the stock split and whose denominator is the number of shares of that Reference Stock outstanding immediately prior to the stock split. Consequently, the adjustment factor for that Reference Stock will be adjusted to double the prior adjustment factor, due to the corresponding decrease in the market price of that Reference Stock. Adjustments to the adjustment factor for a Reference Stock will be made for events with an effective date or ex-dividend date, as applicable, from but excluding the pricing date (or, if the initial value or strike value, as applicable, of that Reference Stock is determined based on the value of that Reference Stock on another date, from but excluding that date) to and including the applicable Determination Date for that Reference Stock (the “**adjustment period**”).

The calculation agent will also determine the effective date of that adjustment, and the replacement of a Reference Stock, if applicable, in the event of a consolidation or merger or certain other events in respect of the applicable Reference Stock Issuer. Upon making any such adjustment, the calculation agent will give notice as soon as practicable to the trustee and the paying agent, stating the adjustment to the adjustment factor of that Reference Stock. The calculation agent will not be required to make any adjustments to the adjustment factor for purposes of calculating the stock closing price for a Determination Date after the close of business on that Determination Date; *provided* that any such adjustments to the adjustment factor will be taken into account for purposes of determining the stock closing price for any subsequent Determination Date. In no event, however, will an anti-dilution adjustment to the adjustment factor of a Reference Stock during the term of the notes be deemed to change the principal amount per note.

If more than one event requiring adjustment occurs with respect to a Reference Stock, the calculation agent will make an adjustment for each event in the order in which the events occur, and on a cumulative basis. Thus, having made an adjustment for the first event, the calculation agent will adjust the adjustment factor for that Reference Stock for the second event, applying the required adjustment to the adjustment factor for that Reference Stock as already adjusted for the first event, and so on for any subsequent events.

For any dilution event described below, other than a consolidation or merger, the calculation agent will not have to adjust the adjustment factor for a Reference Stock unless the adjustment would result in a change to the adjustment factor of that Reference Stock then in effect of at least 0.10%. The adjustment factor of that Reference Stock resulting from any adjustment will be rounded up or down, as appropriate, to the nearest one-hundred thousandth.

If an event requiring an anti-dilution adjustment occurs with respect to a Reference Stock, the calculation agent will make the adjustment with a view to offsetting, to the extent practical, any change in your economic position relative to your notes that results solely from that event. The calculation agent may, in its sole discretion, modify the anti-dilution adjustments as necessary to ensure an equitable result.

The calculation agent will make all determinations with respect to anti-dilution adjustments, including any determination as to whether an event requiring adjustment has occurred with respect to a Reference Stock, as to the nature of the adjustment required for that Reference Stock and how it will be made or as to the value of any property distributed in a reorganization event, and will do so in its sole discretion. In the absence of manifest error, those determinations will be conclusive for all purposes and will be binding on you, the Issuer and the Guarantor, without any liability on the part of the calculation agent. You will not be entitled to any compensation from the Issuer or the Guarantor for any loss suffered as a result of any of these determinations by the calculation agent. The calculation agent will provide information about the adjustments that it makes upon your written request.

If any of the adjustments specified below is required to be made with respect to an amount or value of any cash or other property that is distributed by a Reference Stock Issuer organized outside the United States, that amount or value will be converted to U.S. dollars, as applicable, and will be reduced by any applicable foreign withholding taxes that would apply to that distribution if that distribution were paid to a U.S. person that is eligible for the benefits of an applicable income tax treaty, if any, between the United States and the jurisdiction of organization of that Reference Stock Issuer, as determined by the calculation agent, in its sole discretion.

No adjustments will be made for certain other events, such as offerings of common stock by a Reference Stock Issuer for cash or in connection with the occurrence of a partial tender or exchange offer for a Reference Stock by the Reference Stock Issuer of that Reference Stock or any other person.

#### *Stock Splits and Reverse Stock Splits*

A stock split is an increase in the number of a corporation's outstanding shares of stock without any change in its stockholders' equity. Each outstanding share will be worth less as a result of a stock split.

A reverse stock split is a decrease in the number of a corporation's outstanding shares of stock without any change in its stockholders' equity. Each outstanding share will be worth more as a result of a reverse stock split.

If a Reference Stock is subject to a stock split or a reverse stock split, then once the split has become effective, the calculation agent will adjust the adjustment factor for that Reference Stock to equal the product of the prior adjustment factor of that Reference Stock and the number of securities that a holder of one share (or other applicable security) of that Reference Stock before the effective date of that stock split or reverse stock split would have owned or been entitled to receive immediately following the applicable effective date.

### *Stock Dividends*

In a stock dividend, a corporation issues additional shares of its stock to all holders of its outstanding stock in proportion to the shares they own. Each outstanding share will be worth less as a result of a stock dividend.

If a Reference Stock is subject to a stock dividend payable in shares of that Reference Stock that is given ratably to all holders of shares of that Reference Stock, then once the dividend has become effective, the calculation agent will adjust the adjustment factor for that Reference Stock on the ex-dividend date to equal the sum of the prior adjustment factor for that Reference Stock and the product of:

- the number of shares issued with respect to one share of that Reference Stock, and
- the prior adjustment factor for such Reference Stock.

The “**ex-dividend date**” for any dividend or other distribution with respect to a Reference Stock is the first day on and after which that Reference Stock trades without the right to receive that dividend or distribution.

### *No Adjustments for Other Dividends and Distributions*

Unless otherwise specified in the applicable terms supplement, the adjustment factor for a Reference Stock will not be adjusted to reflect dividends, including cash dividends, or other distributions paid with respect to that Reference Stock, other than:

- stock dividends described above,
- issuances of transferable rights and warrants as described in “ — Transferable Rights and Warrants” below,
- distributions that are spin-off events described in “ — Reorganization Events” below, and
- extraordinary dividends described below.

An “**extraordinary dividend**” means each of (a) the full amount per share of a Reference Stock of any cash dividend or special dividend or distribution that is identified by the applicable Reference Stock Issuer as an extraordinary or special dividend or distribution, (b) the excess of any cash dividend or other cash distribution (that is not otherwise identified by the applicable Reference Stock Issuer as an extraordinary or special dividend or distribution) distributed per share of that Reference Stock over the immediately preceding cash dividend or other cash distribution, if any, per share of that Reference Stock that did not include an extraordinary or special dividend (as adjusted for any subsequent corporate event requiring an adjustment as described in this section, such as a stock split or reverse stock split) if that excess portion of the dividend or distribution is more than 5.00% of the closing price of that Reference Stock on the trading day preceding the ex-dividend date for the payment of that cash dividend or other cash distribution (such closing price, the “**extraordinary dividend base closing price**”) and (c) the full cash value of any non-cash dividend or distribution per share of that Reference Stock (excluding marketable securities, as defined below).

If a Reference Stock is subject to an extraordinary dividend, then once the extraordinary dividend has become effective, the calculation agent will adjust the adjustment factor for that Reference Stock on the ex-dividend date to equal the product of:

- the prior adjustment factor for that Reference Stock, and
- a fraction, the numerator of which is the extraordinary dividend base closing price of that Reference Stock on the trading day preceding the ex-dividend date and the denominator of which

is the amount by which the extraordinary dividend base closing price of that Reference Stock on the trading day preceding the ex-dividend date exceeds the extraordinary dividend.

Notwithstanding anything to the contrary in this product supplement, the initiation by a Reference Stock Issuer of an ordinary dividend on that Reference Stock or any announced increase in the ordinary dividend on that Reference Stock will not constitute an extraordinary dividend requiring an adjustment.

To the extent an extraordinary dividend is not paid in cash or is paid in a currency other than U.S. dollars, the value of the non-cash component or non-U.S. currency will be determined by the calculation agent, in its sole discretion. A distribution on a Reference Stock that is a dividend payable in shares of that Reference Stock, an issuance of rights or warrants or a spin-off event and also an extraordinary dividend will result in an adjustment to the number of shares of that Reference Stock only as described in “— Stock Dividends” above, “— Transferable Rights and Warrants” below or “— Reorganization Events” below, as the case may be, and not as described here.

#### *Transferable Rights and Warrants*

If a Reference Stock Issuer of a Reference Stock issues transferable rights or warrants to all holders of that Reference Stock to subscribe for or purchase that Reference Stock at an exercise price per share that is less than the closing price of that Reference Stock on the trading day before the ex-dividend date for the issuance, then the adjustment factor for that Reference Stock will be adjusted to equal the product of:

- the prior adjustment factor for that Reference Stock, and
- a fraction, (1) the numerator of which will be the number of shares of that Reference Stock outstanding at the close of trading on the trading day before the ex-dividend date (as adjusted for any subsequent event requiring an adjustment hereunder) *plus* the total number of shares of that Reference Stock offered for subscription or purchase pursuant to the rights or warrants and (2) the denominator of which will be the number of shares of that Reference Stock outstanding at the close of trading on the trading day before the ex-dividend date (as adjusted for any subsequent event requiring an adjustment hereunder) *plus* the number of additional shares of that Reference Stock (referred to here as the “**additional shares**”) that the aggregate offering price of the total number of shares of that Reference Stock so offered for subscription or purchase pursuant to the rights or warrants would purchase at the closing price on the trading day before the ex-dividend date for the issuance.

The number of additional shares will be equal to:

- the product of (1) the total number of shares of that Reference Stock offered for subscription or purchase pursuant to the rights or warrants and (2) the exercise price of the rights or warrants, *divided by*
- the closing price of that Reference Stock on the trading day before the ex-dividend date for the issuance.

If the number of shares of that Reference Stock actually delivered in respect of the rights or warrants differs from the number of shares of that Reference Stock offered in respect of the rights or warrants, then the adjustment factor for that Reference Stock will promptly be readjusted to the adjustment factor for that Reference Stock that would have been in effect had the adjustment been made on the basis of the number of shares of that Reference Stock actually delivered in respect of the rights or warrants.

#### *Reorganization Events*

Each of the following is a reorganization event with respect to a Reference Stock:

- that Reference Stock is reclassified or changed (other than in a stock split or reverse stock split),

- the applicable Reference Stock Issuer has been subject to a merger, consolidation or other combination and either is not the surviving entity or is the surviving entity but all outstanding shares of that Reference Stock are exchanged for or converted into other property,
- a statutory share exchange involving outstanding shares of that Reference Stock and the securities of another entity occurs, other than as part of an event described above,
- the applicable Reference Stock Issuer sells or otherwise transfers its property and assets as an entirety or substantially as an entirety to another entity,
- the applicable Reference Stock Issuer effects a spin-off, other than as part of an event described above (in a spin-off, a corporation issues to all holders of its common stock equity securities of another issuer), or
- the applicable Reference Stock Issuer is liquidated, dissolved or wound up or is subject to a proceeding under any applicable bankruptcy, insolvency or other similar law, or another entity completes a tender or exchange offer for all the outstanding shares of that Reference Stock.

#### *Adjustments for Reorganization Events*

If a reorganization event occurs with respect to a Reference Stock, then the calculation agent will make adjustments for that Reference Stock as described below to reflect the amount and type of property or properties — whether cash, securities, other property or a combination thereof — that a holder of one share of that Reference Stock would have been entitled to receive in relation to the reorganization event. We refer to this new property as the “**reorganization property**.”

Reorganization property can be classified into two categories:

- an equity security listed on a national securities exchange, which we refer to generally as a “**marketable security**” and, in connection with a particular reorganization event, “**new stock**,” which may include any tracking stock, any stock received in a spin-off (“**spin-off stock**”) or any marketable security received in exchange for the applicable Reference Stock; and
- cash and any other property, assets or securities other than marketable securities (including equity securities that are not listed, that are traded over the counter or that are listed on a non-U.S. securities exchange), which we refer to as “**non-stock reorganization property**.”

For the purpose of making an adjustment required by a reorganization event, the calculation agent, in its sole discretion, will determine the value of each type of the reorganization property. For purposes of valuing any new stock, the calculation agent will use the closing price of the security on the relevant trading day. The calculation agent will value non-stock reorganization property in any manner it determines, in its sole discretion, to be appropriate. In connection with a reorganization event in which reorganization property includes new stock, for the purpose of determining the adjustment factor for any new stock as described below, the term “**new stock reorganization ratio**” means the product of (i) the number of shares of the new stock received with respect to one share of the applicable Reference Stock and (ii) the adjustment factor for the applicable Reference Stock on the trading day immediately prior to the effective date of the reorganization event.

If a holder of shares of the applicable Reference Stock may elect to receive different types or combinations of types of reorganization property in the reorganization event, the reorganization property will consist of the types and amounts of each type distributed to a holder of shares of that Reference Stock that makes no election, as determined by the calculation agent in its sole discretion.

If any reorganization event occurs with respect to a Reference Stock, then on and after the effective date for that reorganization event (or, if applicable, in the case of spin-off stock, the ex-dividend date for the distribution of that spin-off stock), the term “**Reference Stock**” in this product supplement will be

deemed to mean the following with respect to that Reference Stock, and for each share of that Reference Stock, new stock and/or replacement stock so deemed to constitute that Reference Stock, the adjustment factor for that Reference Stock will be equal to the applicable number indicated:

(a) if that Reference Stock continues to be outstanding:

- (1) that Reference Stock (if applicable, as reclassified upon the issuance of any tracking stock) at the adjustment factor for that Reference Stock in effect on the trading day immediately prior to the effective date of the reorganization event; and
- (2) if the reorganization property includes new stock, a number of shares of new stock equal to the new stock reorganization ratio;

*provided that*, if any non-stock reorganization property is received in the reorganization event, the results of (a)(1) and (a)(2) above will each be multiplied by the “**gross-up multiplier**,” which will be equal to a fraction, the numerator of which is the closing price of the original Reference Stock on the trading day immediately prior to the effective date of the reorganization event and the denominator of which is the amount by which that closing price of the original Reference Stock exceeds the value of the non-stock reorganization property received per share of that Reference Stock as determined by the calculation agent as of the close of trading on that trading day; or

(b) if that Reference Stock is surrendered for reorganization property:

- (1) that includes new stock, a number of shares of new stock equal to the new stock reorganization ratio; *provided that*, if any non-stock reorganization property is received in the reorganization event, that number will be multiplied by the gross-up multiplier; or
- (2) that consists exclusively of non-stock reorganization property:
  - (i) if the surviving entity has marketable securities outstanding following the reorganization event and either (A) those marketable securities were in existence prior to that reorganization event or (B) those marketable securities were exchanged for previously outstanding marketable securities of the surviving entity or its predecessor (“**predecessor stock**”) in connection with that reorganization event (in either case of (A) or (B), the “**successor stock**”), a number of shares of the successor stock determined by the calculation agent on the trading day immediately prior to the effective date of that reorganization event equal to the adjustment factor for that Reference Stock in effect on the trading day immediately prior to the effective date of that reorganization event *multiplied* by a fraction, the numerator of which is the value of the non-stock reorganization property per share of that Reference Stock on that trading day and the denominator of which is the closing price of the successor stock on that trading day (or, in the case of predecessor stock, the closing price of the predecessor stock *multiplied* by the number of shares of the successor stock received with respect to one share of the predecessor stock); or
  - (ii) if the surviving entity does not have marketable securities outstanding, or if there is no surviving entity (in each case, a “**replacement stock event**”), a number of shares of replacement stock (selected as defined below) with an aggregate value on the effective date of that reorganization event equal to the value of the non-stock reorganization property *multiplied* by the adjustment factor for that Reference Stock in effect on the trading day immediately prior to the effective date of that reorganization event.

If a reorganization event occurs with respect to the shares of a Reference Stock and the calculation agent makes adjustments for that Reference Stock to reflect the reorganization property in the event as described above, the calculation agent will make further anti-dilution adjustments for any later events that affect that Reference Stock (including any reorganization property). The calculation agent will do so to

the same extent that it would make adjustments if the shares of that Reference Stock were outstanding and were affected by the same kinds of events. If a subsequent reorganization event affects only a particular component of that Reference Stock (including any reorganization property), the required adjustment will be made with respect to that component as if it alone were that Reference Stock.

For purposes of adjustments for reorganization events, in the case of a consummated tender or exchange offer or going-private transaction involving reorganization property of a particular type, reorganization property will be deemed to include the amount of cash or other property paid by the offeror in the tender or exchange offer with respect to that reorganization property (in an amount determined on the basis of the rate of exchange in that tender or exchange offer or going-private transaction). In the event of a tender or exchange offer or a going-private transaction with respect to reorganization property in which an offeree may elect to receive cash or other property, reorganization property will be deemed to include the kind and amount of cash and other property received by offerees who elect to receive cash.

### *Replacement Stock Events*

Following the occurrence of a replacement stock event described in paragraph (b)(2)(ii) under “— Adjustments for Reorganization Events” above or in “— Delisting of American Depositary Shares or Termination of American Depositary Receipt Facility” below with respect to a Reference Stock, the stock closing price of the applicable Reference Stock on any Determination Date on or after the effective date of the replacement stock event will be determined by reference to a replacement stock and an adjustment factor (subject to any further anti-dilution adjustments) for that replacement stock as determined in accordance with the following paragraphs.

The “**replacement stock**” will be the stock having the closest “option period volatility” to the applicable original Reference Stock among the stocks that then compose the replacement stock selection index (or, if publication of that index is discontinued, any successor or substitute index selected by the calculation agent in its sole discretion) with the same GICS Code (as defined below) as the applicable original Reference Stock Issuer; *provided, however*, that a replacement stock will not include (i) any stock that is subject to a trading restriction under the trading restriction policies of the Issuer, the Guarantor, the hedging counterparties of the Issuer or the Guarantor or any of their affiliates that would materially limit the ability of the Issuer, the Guarantor, the hedging counterparties of the Issuer or the Guarantor or any of their affiliates to hedge the notes with respect to that stock or (ii) any stock for which the aggregate number of shares to be referenced by the notes (equal to the product of (a) (i) the aggregate principal amount outstanding *divided* by (ii) the initial value of the applicable Reference Stock and (b) the adjustment factor that would be in effect immediately after selection of that stock as the replacement stock) exceeds 25% of the ADTV (as defined in Rule 100(b) of Regulation M under the Exchange Act) for that stock as of the effective date of the replacement stock event (an “**excess ADTV stock**”).

If a replacement stock is selected in connection with a reorganization event for an original Reference Stock, the adjustment factor with respect to that replacement stock will be equal to the number of shares of that replacement stock with an aggregate value, based on the closing price on the effective date of that reorganization event, equal to the product of (a) the value of the non-stock reorganization property received per share of that original Reference Stock and (b) the adjustment factor of that Reference Stock in effect on the trading day immediately prior to the effective date of that reorganization event. If a replacement stock is selected in connection with an ADS termination event (as defined below), the adjustment factor with respect to that replacement stock will be equal to the number of shares of that replacement stock with an aggregate value, based on the closing price on the change date (as defined below), equal to the product of (x) the closing price of the original Reference Stock on the change date and (y) the adjustment factor in effect on the trading day immediately prior to the change date.

The “**option period volatility**” means, in respect of any trading day, the volatility (calculated by referring to the closing price of the applicable Reference Stock on its primary exchange) for a period equal to the 125 trading days immediately preceding the announcement date of the reorganization event, as determined by the calculation agent.

**“GICS Code”** means the Global Industry Classification Standard (**“GICS”**) sub-industry code assigned to the applicable Reference Stock Issuer; *provided, however*, if (i) there is no other stock in the replacement stock selection index in the same GICS sub-industry or (ii) a replacement stock (a) for which there is no trading restriction and (b) that is not an excess ADTV stock cannot be identified from the replacement stock selection index in the same GICS sub-industry, the GICS Code will mean the GICS industry code assigned to that original Reference Stock Issuer. If no GICS Code has been assigned to that original Reference Stock Issuer, the applicable GICS Code will be determined by the calculation agent to be the GICS sub-industry code assigned to companies in the same sub-industry (or, subject to the proviso in the preceding sentence, industry, as applicable) as that original Reference Stock Issuer at the time of the relevant replacement stock event.

The **“replacement stock selection index”** means the S&P 500® Index.

*Delisting of American Depositary Shares or Termination of American Depositary Receipt Facility.* If a Reference Stock is an American Depositary Share and that Reference Stock is no longer listed or admitted to trading on a U.S. securities exchange registered under the Exchange Act or included in the OTC Bulletin Board Service operated by FINRA, or if the American depositary receipt facility between the applicable Reference Stock Issuer and the depositary is terminated for any reason (each, an **“ADS termination event”**), then, on the last trading day on which the applicable Reference Stock is listed or admitted to trading or the last trading day immediately prior to the date of such termination, as applicable (the **“change date”**), a replacement stock event will be deemed to occur.

## Indices

If the notes are linked to any Index, a separate underlying supplement or the relevant terms supplement will provide additional information relating to that Index. Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, all information regarding any Index, including, without limitation, its make-up, method of calculation and changes in its components, will be derived from publicly available information, without independent verification.

### Certain Definitions

A **“multiple exchange index”** means the EURO STOXX 50® Index, the MSCI ACWI® Index, the MSCI EAFE® Index, the MSCI Emerging Markets Index, and any other equity index designated as a multiple exchange index in the applicable terms supplement.

A **“trading day”** with respect to an Index (other than a multiple exchange index) means a day, as determined by the calculation agent, on which (i) the relevant stock exchanges with respect to each security underlying that Index are scheduled to be open for trading for their respective regular trading sessions and (ii) each related futures or options exchange with respect to that Index is scheduled to be open for trading for its regular trading session.

A **“trading day”** with respect to a multiple exchange index means a day, as determined by the calculation agent, on which (i) the relevant index sponsor is scheduled to publish the level of that Index and (ii) each related futures or options exchange with respect to that Index is scheduled to be open for trading for its regular trading session.

The **“relevant stock exchange”** for any security underlying an Index means the primary exchange or quotation system on which that security is traded, as determined by the calculation agent.

The **“related futures or options exchange”** for an Index means an exchange or quotation system where trading has a material effect (as determined by the calculation agent) on the overall market for futures or options contracts relating to that Index.

Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, the **“closing level”** of an Index or any relevant successor index (as defined under “—

Discontinuation of an Index; Alteration of Method of Calculation” below) on any relevant day will equal the closing level of that Index or successor index, as applicable, as published on the applicable page (or any successor page) of Bloomberg Professional® service (“**Bloomberg**”) or any successor service, for that Index or successor index, as applicable. In certain circumstances, the closing level of an Index or any relevant successor index will be based on the alternative calculation of that Index described under “General Terms of Notes — Postponement of a Determination Date” above or “— Discontinuation of an Index; Alteration of Method of Calculation” below. The relevant terms supplement may refer to the closing level of an Index as the closing value of that Index.

The closing level of an Index as published by Bloomberg or any successor service may be published to greater or fewer decimal places than the official closing level of that Index as published by its sponsor. Accordingly, the closing level of an Index as published by Bloomberg may be slightly different from the official closing level of that Index as published by its sponsor.

### ***Market Disruption Events***

A “**market disruption event**” with respect to an Index (other than a multiple exchange index) means, unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, any of the following events as determined by the calculation agent in its sole discretion:

- (A) The occurrence or existence of a material suspension of or limitation imposed on trading by the relevant stock exchanges or otherwise relating to securities that then constitute 20% or more of the level of that Index or any successor equity index at any time during the one-hour period that ends at the close of trading on the relevant day, whether by reason of movements in price exceeding limits permitted by those relevant stock exchanges or otherwise.
- (B) The occurrence or existence of a material suspension of or limitation imposed on trading by any related futures or options exchange or otherwise in futures or options contracts relating to that Index or any successor equity index on any related futures or options exchange at any time during the one-hour period that ends at the close of trading on the relevant day, whether by reason of movements in price exceeding limits permitted by the related futures or options exchange or otherwise.
- (C) The occurrence or existence of any event, other than an early closure, that materially disrupts or impairs the ability of market participants in general to effect transactions in, or obtain market values for, securities that then constitute 20% or more of the level of that Index or any successor equity index on their relevant stock exchanges at any time during the one-hour period that ends at the close of trading on the relevant day.
- (D) The occurrence or existence of any event, other than an early closure, that materially disrupts or impairs the ability of market participants in general to effect transactions in, or obtain market values for, futures or options contracts relating to that Index or any successor equity index on any related futures or options exchange at any time during the one-hour period that ends at the close of trading on the relevant day.
- (E) The closure on any exchange business day of the relevant stock exchanges on which securities that then constitute 20% or more of the level of that Index or any successor equity index are traded or any related futures or options exchange with respect to that Index or any successor equity index prior to its scheduled closing time unless the earlier closing time is announced by the relevant stock exchange or related futures or options exchange, as applicable, at least one hour prior to the earlier of (1) the actual closing time for the regular trading session on that relevant stock exchange or related futures or options exchange, as applicable, and (2) the submission deadline for orders to be entered into the relevant stock exchange or related futures or options exchange, as applicable, system for execution at that actual closing time on the relevant day.

- (F) The relevant stock exchange for any security underlying that Index or successor equity index or any related futures or options exchange with respect to that Index or successor equity index fails to open for trading during its regular trading session.

For purposes of determining whether a market disruption event has occurred with respect to an Index (other than a multiple exchange index):

- (1) the relevant percentage contribution of a security to the level of that Index or any successor equity index will be based on a comparison of (x) the portion of the level of that Index or successor equity index attributable to that security and (y) the overall level of that Index or successor equity index, in each case immediately before the occurrence of the market disruption event;
- (2) the “**close of trading**” on any trading day for that Index or any successor equity index means the scheduled closing time of the relevant stock exchanges with respect to the securities underlying that Index or successor equity index on that trading day; *provided* that, if the actual closing time of the regular trading session of any such relevant stock exchange is earlier than its scheduled closing time on that trading day, then (x) for purposes of clauses (A) and (C) of the definition of “market disruption event” above, with respect to any security underlying that Index or successor equity index for which that relevant stock exchange is its relevant stock exchange, the “close of trading” means that actual closing time and (y) for purposes of clauses (B) and (D) of the definition of “market disruption event” above, with respect to any futures or options contract relating to that Index or successor equity index, the “close of trading” means the latest actual closing time of the regular trading session of any of the relevant stock exchanges, but in no event later than the scheduled closing time of the relevant stock exchanges;
- (3) the “**scheduled closing time**” of any relevant stock exchange or related futures or options exchange on any trading day for such Index or any successor equity index means the scheduled weekday closing time of that relevant stock exchange or related futures or options exchange on that trading day, without regard to after hours or any other trading outside the regular trading session hours; and
- (4) an “**exchange business day**” means any trading day for that Index or any successor equity index on which each relevant stock exchange for the securities underlying that Index or any successor equity index and each related futures or options exchange with respect to that Index or any successor equity index are open for trading during their respective regular trading sessions, notwithstanding any such relevant stock exchange or related futures or options exchange closing prior to its scheduled closing time.

A “**market disruption event**” with respect to a multiple exchange index, unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, means, any of (A), (B), (C) or (D) below, as determined by the calculation agent in its sole discretion:

- (A) Any of the following events occurs or exists with respect to any security included in that Index or any successor equity index, and the aggregate of all securities included in that Index or successor equity index with respect to which any such event occurs constitute 20% or more of the level of that Index or successor equity index:
  - a material suspension of or limitation imposed on trading by the relevant stock exchange for that security or otherwise at any time during the one-hour period that ends at the scheduled closing time for the relevant stock exchange for that security on the relevant day, whether by reason of movements in price exceeding limits permitted by the relevant stock exchange or otherwise;
  - any event, other than an early closure, that materially disrupts or impairs the ability of market participants in general to effect transactions in, or obtain market values for, that security on its

relevant stock exchange at any time during the one-hour period that ends at the scheduled closing time for the relevant stock exchange for that security on that day; or

- the closure on any exchange business day of the relevant stock exchange for that security prior to its scheduled closing time unless the earlier closing is announced by that relevant stock exchange at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on that relevant stock exchange and (ii) the submission deadline for orders to be entered into the relevant stock exchange system for execution at the scheduled closing time for that relevant stock exchange on the relevant day.

(B) Any of the following events occurs or exists with respect to futures or options contracts relating to that Index or any successor equity index:

- a material suspension of or limitation imposed on trading by any related futures or options exchange or otherwise at any time during the one-hour period that ends at the close of trading on that related futures or options exchange on the relevant day, whether by reason of movements in price exceeding limits permitted by the related futures or options exchange or otherwise;
- any event, other than an early closure, that materially disrupts or impairs the ability of market participants in general to effect transactions in, or obtain market values for, futures or options contracts relating to that Index or successor equity index on any related futures or options exchange at any time during the one-hour period that ends at the close of trading on that related futures or options exchange on the relevant day; or
- the closure on any exchange business day of any related futures or options exchange prior to its scheduled closing time unless the earlier closing time is announced by that related futures or options exchange at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on that related futures or options exchange and (ii) the submission deadline for orders to be entered into the related futures or options exchange system for execution at the close of trading for that related futures or options exchange on the relevant day.

(C) The relevant index sponsor fails to publish the level of that Index or any successor equity index (other than as a result of the relevant index sponsor having discontinued publication of that Index or successor equity index and no successor equity index being available).

(D) Any related futures or options exchange fails to open for trading during its regular trading session.

For purposes of determining whether a market disruption event has occurred with respect to a multiple exchange index:

- (1) the relevant percentage contribution of a security included in that Index or any successor equity index to the level of that Index will be based on a comparison of (x) the portion of the level of that Index or any successor equity index attributable to that security to (y) the overall level of that Index or successor equity index, in each case using the official opening weightings as published by the relevant index sponsor as part of the market opening data;
- (2) the “**scheduled closing time**” of any relevant stock exchange or related futures or options exchange on any trading day means the scheduled weekday closing time of that relevant stock exchange or related futures or options exchange on that trading day, without regard to after hours or any other trading outside the regular trading session hours; and
- (3) an “**exchange business day**” means any trading day on which (i) the relevant index sponsor publishes the level of that Index or any successor equity index and (ii) each related futures or

options exchange is open for trading during its regular trading session, notwithstanding any related futures or options exchange closing prior to its scheduled closing time.

### ***Adjustments to an Index***

Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, if at any time the method of calculating an Index or a successor equity index, or the closing level of that Index or successor equity index, is changed in a material respect, or if an Index or a successor equity index is in any other way modified so that that Index or successor equity index does not, in the opinion of the calculation agent, fairly represent the level of that index or successor equity index had those changes or modifications not been made, then the calculation agent will, at the close of business in New York, New York, on each date that the closing level of that Index or successor equity index is to be calculated, 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 that Index or successor equity index as if those changes or modifications had not been made, and the calculation agent will calculate the closing level of that Index or successor equity index with reference to that Index or successor equity index, as so adjusted. Accordingly, if the method of calculating an Index or successor equity index is modified so that the level of that Index or successor equity index is a fraction or a multiple of what it would have been if it had not been modified (e.g., due to a split or reverse split in that Index or successor equity index), then the calculation agent will adjust that Index or successor equity index in order to arrive at a level of that Index or successor equity index as if it had not been modified (e.g., as if the split or reverse split had not occurred).

### ***Discontinuance of an Index***

Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, if the index sponsor of an Index discontinues publication of that Index, and that index sponsor or another entity publishes a successor or substitute equity index that the calculation agent determines, in its sole discretion, to be comparable to that Index (a “**successor equity index**”), then, upon the calculation agent’s notification of that determination as described below, the calculation agent will substitute the successor equity index as calculated by the relevant index sponsor or any other entity for purposes of calculating the closing level of that Index on any date of determination, with such adjustments as the calculation agent determines are appropriate to account for the economic effect of that substitution on holders of the notes.

Upon any selection by the calculation agent of a successor equity index, the calculation agent will cause written notice thereof to be promptly furnished to the trustee, the Issuer, the Guarantor (if applicable) and DTC, as holder of the notes.

Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, in the event that the index sponsor of an Index discontinues publication of that Index prior to, and the discontinuance is continuing on, a Determination Date and the calculation agent determines that no successor equity index is available at that time, the calculation agent will calculate a substitute closing level for that Index in accordance with the formula for and method of calculating that Index last in effect prior to the discontinuance, but using only those securities that composed that Index immediately prior to that discontinuance. If a successor equity index is selected for an Index or the calculation agent calculates a level as a substitute for an Index, the successor equity index or level will be used as a substitute for that Index for all purposes, including the purpose of determining whether a market disruption event exists.

Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, if on a Determination Date the index sponsor of an Index fails to calculate and announce the level of that Index, the calculation agent will calculate a substitute closing level of that Index in accordance with the formula for and method of calculating that Index last in effect prior to the failure, but using only those securities that composed that Index immediately prior to that failure; *provided* that, if a market disruption event occurs or is continuing on that day with respect to that Index, then the provisions

set forth below under “General Terms of Notes — Postponement of a Determination Date” will apply in lieu of the foregoing.

Notwithstanding these alternative arrangements, discontinuance of the publication of, or the failure by the relevant index sponsor to calculate and announce the level of, an Index may adversely affect the value of the notes.

## **Funds**

If the notes are linked to any Fund, a separate underlying supplement or the relevant terms supplement will provide additional information relating to that Fund.

Registered investment companies are required to file periodically certain financial and other information specified by the SEC. Information provided to or filed with the SEC electronically can be accessed through a website maintained by the SEC. The address of the SEC’s website is <http://www.sec.gov>.

**This product supplement and the relevant terms supplement relate only to the notes offered thereby and do not relate to any Fund. All disclosures contained in the relevant terms supplement regarding any Fund will be derived from publicly available documents and other publicly available information, without independent verification. The Issuer and the Guarantor (if applicable) have not participated, and will not participate, in the preparation of those documents, and the Issuer and the Guarantor (if applicable) have not made, and will not make, any due diligence inquiry with respect to any Fund in connection with the offering of the notes. The Issuer and the Guarantor (if applicable) do not make any representation that those publicly available documents or any other publicly available information regarding any Fund is accurate or complete, and the Issuer and the Guarantor (if applicable) are not responsible for public disclosure of information by any Fund, whether contained in filings with the SEC or otherwise. The Issuer and the Guarantor (if applicable) also cannot give any assurance that all events occurring prior to the date of the relevant terms supplement (including events that would affect the accuracy or completeness of the publicly available documents of any Fund) that would affect the value of any Fund will have been publicly disclosed. Subsequent disclosure of any of these events or the disclosure of, or failure to disclose, material future events concerning any Fund could affect the market value of the notes or any payment on the notes. Any prospective purchaser of the notes should undertake an independent investigation of any Fund as in its judgment is appropriate to make an informed decision with respect to an investment in the notes.**

### ***Certain Definitions***

A “**trading day**” with respect to a Fund means a day, as determined by the calculation agent, on which the relevant stock exchange and each related futures or options exchange with respect to that Fund or any successor fund (as defined under “— Liquidation Events” below), if applicable, are scheduled to be open for trading for their respective regular trading sessions.

The “**relevant stock exchange**” for a Fund means the primary exchange or quotation system on which shares (or other applicable securities) of that Fund are traded, as determined by the calculation agent.

The “**related futures or options exchange**” for a Fund means each exchange or quotation system where trading has a material effect (as determined by the calculation agent) on the overall market for futures or options contracts relating to that Fund.

The “**closing price**” for one share of a Fund (or one unit of any other security for which a closing price must be determined) on any trading day means the official closing price on that day published by the principal United States securities exchange registered under the Exchange Act, on which that Fund (or any such other security) is listed or admitted to trading.

The “**fund closing price**” with respect to a Fund (or one unit of any other security for which a fund closing price must be determined) on any trading day means the product of (i) the closing price of one share of that Fund (or one unit of that security for which a fund closing price must be determined) on that trading day and (ii) the adjustment factor applicable to that Fund on that trading day.

The “**adjustment factor**” means, with respect to a share of a Fund (or one unit of any other security for which a fund closing price must be determined), 1.0, subject to adjustment in the event of certain events affecting the shares of that Fund (or one unit of that security for which a fund closing price must be determined). See “—Anti-dilution Adjustments Relating to a Fund; Alternate Calculation” below.

### ***Market Disruption Events***

A “market disruption event” with respect to a Fund means, unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, any of the following events as determined by the calculation agent in its sole discretion:

- (A) The occurrence or existence of a material suspension of or limitation imposed on trading by the relevant stock exchange or otherwise relating to the shares (or other applicable securities) of that Fund or any successor fund on the relevant stock exchange at any time during the one-hour period that ends at the close of trading on the relevant day, whether by reason of movements in price exceeding limits permitted by that relevant stock exchange or otherwise.
- (B) The occurrence or existence of a material suspension of or limitation imposed on trading by any related futures or options exchange or otherwise in futures or options contracts relating to the shares (or other applicable securities) of that Fund or any successor fund on any related futures or options exchange at any time during the one-hour period that ends at the close of trading on the relevant day, whether by reason of movements in price exceeding limits permitted by the related futures or options exchange or otherwise.
- (C) The occurrence or existence of any event, other than an early closure, that materially disrupts or impairs the ability of market participants in general to effect transactions in, or obtain market values for, shares (or other applicable securities) of that Fund or any successor fund on the relevant stock exchange at any time during the one-hour period that ends at the close of trading on the relevant day.
- (D) The occurrence or existence of any event, other than an early closure, that materially disrupts or impairs the ability of market participants in general to effect transactions in, or obtain market values for, futures or options contracts relating to shares (or other applicable securities) of that Fund or any successor fund on any related futures or options exchange at any time during the one-hour period that ends at the close of trading on the relevant day.
- (E) The closure of the relevant stock exchange or any related futures or options exchange with respect to that Fund or any successor fund prior to its scheduled closing time unless the earlier closing time is announced by the relevant stock exchange or related futures or options exchange, as applicable, at least one hour prior to the earlier of (1) the actual closing time for the regular trading session on such relevant stock exchange or related futures or options exchange, as applicable, and (2) the submission deadline for orders to be entered into the relevant stock exchange or related futures or options exchange, as applicable, system for execution at the close of trading on the relevant day.
- (F) The relevant stock exchange or any related futures or options exchange with respect to such Fund or any successor fund fails to open for trading during its regular trading session.

For purposes of determining whether a market disruption event has occurred with respect to a Fund:

- (1) “**close of trading**” means the scheduled closing time of the relevant stock exchange with respect to that Fund or any successor fund; and
- (2) the “**scheduled closing time**” of the relevant stock exchange or any related futures or options exchange on any trading day for that Fund or any successor fund means the scheduled weekday closing time of that relevant stock exchange or related futures or options exchange on that trading day, without regard to after hours or any other trading outside the regular trading session hours.

### ***Anti-Dilution Adjustments Relating to a Fund; Alternate Calculation***

#### ***Anti-Dilution Adjustments***

The calculation agent will adjust the adjustment factor with respect to a Fund as specified below if any of the events specified below occurs with respect to that Fund and the effective date or ex-dividend date, as applicable, for that event is after the pricing date (or, if the initial value or strike value, as applicable, of that Fund is determined based on the value of that Fund on another date, after that date) and on or prior to the final Determination Date for that Fund.

The adjustments specified below do not cover all events that could affect a Fund, and there may be other events that could affect a Fund for which the calculation agent will not make any adjustments, including, without limitation, an ordinary cash dividend. Nevertheless, the calculation agent may, in its sole discretion, make additional adjustments to any terms of the notes upon the occurrence of other events that affect or could potentially affect the market price of, or shareholder rights in, a Fund, with a view to offsetting, to the extent practical, any such change, and preserving the relative investment risks of the notes. In addition, the calculation agent may, in its sole discretion, make adjustments or a series of adjustments that differ from those described below if the calculation agent determines that the adjustments described below do not properly reflect the economic consequences of the events specified below or would not preserve the relative investment risks of the notes. All determinations made by the calculation agent in making any adjustments to the terms of the notes, including adjustments that are in addition to, or that differ from, those described below, will be made in good faith and a commercially reasonable manner, with the aim of ensuring an equitable result. In determining whether to make any adjustment to the terms of the notes, the calculation agent may consider any adjustment made by the Options Clearing Corporation or any other equity derivatives clearing organization on options contracts on the affected Fund.

For any event described below, the calculation agent will not be required to adjust the adjustment factor for a Fund unless the adjustment would result in a change to that adjustment factor then in effect of at least 0.10%. The adjustment factor resulting from any adjustment will be rounded up or down, as appropriate, to the nearest one-hundred thousandth.

#### ***(A) Stock Splits and Reverse Stock Splits***

If a stock split or reverse stock split has occurred with respect to a Fund, then once that split has become effective, the adjustment factor for that Fund will be adjusted to equal the product of the prior adjustment factor for that Fund and the number of securities that a holder of one share (or other applicable security) of that Fund before the effective date of that stock split or reverse stock split would have owned or been entitled to receive immediately following the applicable effective date.

#### ***(B) Stock Dividends***

If a dividend or distribution of shares (or other applicable securities) of a Fund has been made by that Fund ratably to all holders of record of those shares (or other applicable security), then the adjustment factor for that Fund will be adjusted on the ex-dividend date to equal the prior adjustment factor for that Fund *plus* the product of the prior adjustment factor for that Fund and the additional number of shares (or other applicable security) of that Fund that a holder of one

share (or other applicable security) of that Fund before the ex-dividend date would have been entitled to receive immediately following that date; *provided, however*, that no adjustment will be made for a distribution for which the number of securities of that Fund paid or distributed is based on a fixed cash equivalent value.

(C) *Extraordinary Dividends*

If an extraordinary dividend (as defined below) has occurred with respect to a Fund, then the adjustment factor for that Fund will be adjusted on the ex-dividend date to equal the product of the prior adjustment factor for that Fund and a fraction, the numerator of which is the closing price per share (or other applicable security) of that Fund on the trading day preceding the ex-dividend date, and the denominator of which is the amount by which the closing price per share (or other applicable security) of that Fund on the trading day preceding the ex-dividend date exceeds the extraordinary dividend amount (as defined below).

For purposes of determining whether an extraordinary dividend has occurred:

- (1) “**extraordinary dividend**” means any cash dividend or distribution (or portion thereof) that the calculation agent determines, in its sole discretion, is extraordinary or special; and
- (2) “**extraordinary dividend amount**” with respect to an extraordinary dividend for the securities of a Fund will equal the amount per share (or other applicable security) of that Fund of the applicable cash dividend or distribution that is attributable to the extraordinary dividend, as determined by the calculation agent in its sole discretion.

A distribution on the securities of a Fund described below under the section entitled “— Reorganization Events” below that also constitutes an extraordinary dividend will only cause an adjustment pursuant to that “— Reorganization Events” section.

(D) *Other Distributions*

If a Fund declares or makes a distribution to all holders of the shares (or other applicable security) of that Fund of any non-cash assets, excluding dividends or distributions described under the section entitled “— Stock Dividends” above, then the calculation agent may, in its sole discretion, make such adjustment (if any) to the adjustment factor as it deems appropriate in the circumstances. If the calculation agent determines to make an adjustment pursuant to this paragraph, it will do so with a view to offsetting, to the extent practical, any change in the economic position of a holder of the notes that results solely from the applicable event.

(E) *Reorganization Events*

If a Fund is subject to a merger, combination, consolidation or statutory exchange of securities with another exchange-traded fund, and that Fund is not the surviving entity (a “**reorganization event**”), then, on or after the date of that event, the calculation agent will, in its sole discretion, make an adjustment to the adjustment factor for that Fund or the method of determining any payment on the notes or any other terms of the notes as the calculation agent determines appropriate to account for the economic effect on the notes of that event and determine the effective date of that adjustment. If the calculation agent determines that no adjustment that it could make will produce a commercially reasonable result, then the calculation agent may deem that event a liquidation event (as defined below).

*Liquidation Events*

If a Fund is de-listed, liquidated or otherwise terminated (a “**liquidation event**”), and a successor or substitute exchange-traded fund exists that the calculation agent determines, in its sole discretion, to be comparable to that Fund, then, upon the calculation agent’s notification of that determination as described

below, any subsequent fund closing price for that Fund will be determined by reference to the fund closing price of that successor or substitute exchange-traded fund (that exchange-traded fund being referred to in this product supplement as a “**successor fund**”), with such adjustments as the calculation agent determines are appropriate to account for the economic effect of that substitution on holders of the notes.

Upon any selection by the calculation agent of a successor fund, the calculation agent will cause written notice thereof to be promptly furnished to the trustee, the Issuer, the Guarantor (if applicable) and DTC, as holder of the notes.

If a Fund undergoes a liquidation event prior to, and that liquidation event is continuing on, the date that any fund closing price of that Fund is to be determined and the calculation agent determines that no successor fund is available at that time, then the calculation agent will, in its discretion, calculate the fund closing price for that Fund on that date by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate that Fund, *provided* that if the calculation agent determines in its discretion that it is not practicable to replicate that Fund (including but not limited to the instance in which an Underlying Index sponsor discontinues publication of the relevant Underlying Index), then the calculation agent will calculate the fund closing price for that Fund on such date by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate the performance of that Fund’s portfolio as constituted immediately prior to such liquidation event, without any rebalancing or substitution of securities following such liquidation event.

If a successor fund is selected or the calculation agent calculates the fund closing price as a substitute for a Fund, that successor fund or fund closing price will be used as a substitute for that Fund for all purposes, including for purposes of determining whether a market disruption event exists with respect to that Fund. Notwithstanding these alternative arrangements, a liquidation event with respect to a Fund may adversely affect the value of the notes.

If any event is both a reorganization event and a liquidation event, that event will be treated as a reorganization event for purposes of the notes unless the calculation agent makes the determination referenced in the last sentence of the section entitled “— Anti-Dilution Adjustments — (E) Reorganization Events” above.

#### *Alternate Calculation*

Unless otherwise specified in the relevant terms supplement or any accompanying underlying supplement, if at any time the method of calculating a Fund or a successor fund, or the related Underlying Index, is changed in a material respect, or if a Fund or a successor fund is in any other way modified so that that Fund or successor fund does not, in the opinion of the calculation agent, fairly represent the price of the securities of that Fund or successor fund had those changes or modifications not been made, then the calculation agent may, at the close of business in New York City on the date that any fund closing price 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 that Fund or successor fund, as the case may be, as if those changes or modifications had not been made, and calculate the fund closing price of that Fund or successor fund and determine any payment on the notes and any other terms of the notes with reference to that adjusted closing price of that Fund or successor fund, as applicable.

## MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a discussion of the material U.S. federal income and certain estate tax consequences of owning and disposing of the notes. It applies to you only if you are an initial investor who purchases a note at its issue price for cash and holds it as a capital asset within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the "Code"). This discussion does not address the U.S. federal income tax consequences of the ownership or disposition of any Reference Stock that you may receive at maturity. You should consult your tax adviser regarding the potential U.S. federal income tax consequences of owning and disposing of the Reference Stock.

For U.S. federal income tax purposes, notes issued by JPMorgan Financial will be treated as if they were issued by JPMorgan Chase & Co. Accordingly, throughout this discussion, references to the Issuer are generally to JPMorgan Chase & Co., unless the context otherwise requires.

This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to you in light of your particular circumstances, including alternative minimum tax consequences, the consequences to taxpayers subject to special tax accounting rules under Section 451(b) of the Code, the potential application of the provision of the Code known as the Medicare contribution tax and the different consequences that may apply if you are an investor subject to special treatment under the U.S. federal income tax laws, such as:

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

If you are a partnership for U.S. federal income tax purposes, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and your activities.

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

The following discussion does not apply to notes with fixed payments. The tax consequences of an investment in these notes will be described in the relevant terms supplement.

## **Tax Treatment of the Notes**

The tax treatment of the notes for U.S. federal income tax purposes will depend upon the facts at the time of the relevant offering. The following discussion applies to notes properly treated as indebtedness for U.S. federal income tax purposes, which will be the case unless otherwise stated in an applicable terms supplement. In the case of notes with a term of not more than one year, the Issuer expects to treat the notes as “short-term obligations,” as described below. In the case of notes that provide for a single Additional Amount and have a term of more than one year, the Issuer expects to treat the notes as “contingent payment debt instruments,” as described below.

The Issuer expects to treat notes that do not provide for a single Additional Amount and that have a term of more than one year as either contingent payment debt instruments or “variable rate debt instruments” (as described below) depending on the terms of the particular offering. In either case, the Issuer expects that there will be some risk that the IRS could determine that the treatment of these notes was incorrect. For example, if the Issuer treats an offering of these notes as variable rate debt instruments, the Issuer expects that there will be some risk that the IRS could determine that they were in fact contingent payment debt instruments, or *vice versa*. Any such determination could have adverse U.S. federal income tax consequences for you.

At the time of the relevant offering, the Issuer may seek an opinion of counsel regarding the tax consequences of owning and disposing of the notes. In this event, whether or not counsel is able to opine regarding the correctness of the treatment the Issuer intends to apply to a particular offering of notes, the Issuer generally expects that counsel will be able to opine that the tax consequences described in the applicable sections below are the material tax consequences of owning and disposing of the notes if that treatment is respected, as well as material tax consequences that may apply if it is not respected. Unless otherwise indicated in the relevant terms supplement, the Issuer expects that counsel will not be able to opine regarding issues identified below as uncertain unless and except to the extent that a treatment is described below as more likely than not or one that should apply.

The following discussion assumes the treatment described in an applicable section below is respected, except where otherwise indicated. The relevant terms supplement may indicate other issues applicable to a particular offering of notes.

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

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

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

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

The following discussion applies to notes with a term of not more than one year (including either the issue date or the last possible date that the notes could be outstanding, but not both) that do not provide for payments prior to maturity. The tax consequences of an investment in notes with a term of not more than one year that provide for periodic interest payments will be described in the relevant terms supplement.

No statutory, judicial or administrative authority directly addresses the treatment of these notes or similar instruments for U.S. federal income tax purposes, and the Issuer does not intend to request a

ruling from the IRS with respect to these notes. Because the term of these notes is not more than one year, the Issuer expects to treat the notes as “short-term obligations.” Generally, a short-term obligation is treated for U.S. federal income tax purposes as issued at a discount equal to the difference between the payments due thereon and the instrument’s issue price, and this discount is treated as interest income when received or accrued, as described further below. There is no authority, however, regarding the accrual of discount on short-term obligations, such as the notes, that provide for contingent payments, and no ruling will be requested from the IRS with respect to the notes. As a result, several aspects of the U.S. federal income tax consequences of an investment in these notes are uncertain, as discussed below.

*Tax Treatment Prior to Maturity.* If you are a cash-method taxpayer, you will not be required to recognize income with respect to the notes prior to maturity, other than pursuant to a sale or exchange, as described below. You may, however, elect to accrue discount into income on a current basis, in which case you would be subject to the rules described in the following paragraph. Generally, if you own a short-term obligation and do not make this election, you will be required to defer deductions with respect to any interest paid on indebtedness incurred to purchase or carry the short-term obligation, to the extent of accrued discount that you have not yet included in income. As noted above, however, there is no authority regarding the accrual of discount on short-term obligations such as the notes. It is therefore unclear how, if at all, the rules regarding deferral of interest deductions would apply to your notes.

Generally, accrual-method owners and certain other owners of a short-term obligation (including electing cash-method owners) are required to accrue discount on the obligation into income on a straight-line basis. As noted above, however, there is no authority regarding the accrual of discount on short-term obligations such as the notes. Consequently, the timing and amounts of the discount to be accrued on these notes is generally unclear. If the overall amount of discount that will be received has become fixed (or the likelihood of this amount not being a fixed amount has become remote) prior to maturity, it is more likely than not that the amount of discount to be accrued will be determined based on the fixed amount.

*Tax Treatment upon Sale, Exchange or Redemption.* Upon a sale or exchange of a note (including early redemption or repurchase, acceleration or redemption at maturity), you will recognize gain or loss in an amount equal to the difference between the amount you receive and your adjusted basis in the note. Your adjusted basis in the note will equal the amount you paid to acquire the note, increased by any discount that you have previously included in income but not received. The amount of any resulting loss will be treated as a capital loss. A loss in excess of certain thresholds may be subject to special reporting requirements, although this is unclear. Gain resulting from redemption at maturity should be treated as ordinary interest income.

Generally, if you are a cash-method taxpayer who has not elected an accrual method of tax accounting in respect of the notes, gain recognized on a sale or exchange prior to maturity will be treated as ordinary interest income in an amount not exceeding the accrued but unpaid discount. As noted above, however, there is no authority regarding the accrual of discount on short-term obligations such as the notes. If the overall amount of discount that will be received at maturity has become fixed (or the likelihood of this amount not being a fixed amount has become remote) prior to the sale or exchange, it is more likely than not that the portion of your gain on the sale or exchange that will be treated as accrued discount (and, therefore, taxed as ordinary income) will be determined based on the fixed amount. If you are a cash-method U.S. Holder, any portion of gain attributable to fixed but unpaid interest will be treated as interest income to you.

Generally, if you own a short-term obligation and you are subject to an accrual method of tax accounting, gain recognized on a sale or exchange will be short-term capital gain, because accrued discount will already have been included in your income. As noted above, however, there is no authority regarding the accrual of discount on short-term obligations such as the notes. Consequently, there is uncertainty regarding what portion, if any, of gain recognized upon the sale or exchange prior to maturity of a note subject to an accrual method of tax accounting will be treated as short-term capital gain. Notwithstanding this uncertainty, if you are an accrual-method taxpayer, you will recognize interest

income no later than, and in an amount not less than, if the notes were subject to cash-method accounting.

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

#### ***Notes Treated as Contingent Payment Debt Instruments***

The following discussion applies to notes that are properly treated as “contingent payment debt instruments” for U.S. federal income tax purposes (“**CPDI Notes**”). CPDI Notes will generally be subject to the original issue discount (“**OID**”) provisions of the Code and the Treasury regulations issued thereunder, and you will be required to accrue as interest income the OID on the CPDI Notes as described below.

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

Unless otherwise provided in the relevant terms supplement, the Issuer will provide, and you may obtain, the comparable yield for a particular offering of CPDI Notes, and the related projected payment schedule (or information about how to obtain them), in the final terms supplement for these CPDI Notes, which the Issuer will file with the SEC.

**Neither the comparable yield nor the projected payment schedule constitutes a representation by the Issuer regarding the actual amount(s) or timing of any contingent payment(s) that the Issuer will make on the CPDI Notes.**

For U.S. federal income tax purposes, you are required to use the Issuer’s determination of the comparable yield and projected payment schedule in determining interest accruals and adjustments in respect of your CPDI Notes, unless you timely disclose and justify the use of other estimates to the IRS. Regardless of your method of tax accounting, you will be required to accrue as interest income OID on your CPDI Notes in each taxable year at the comparable yield, adjusted upward or downward to reflect the difference, if any, between the actual and the projected amount(s) of the contingent payment(s), if any, on the CPDI Notes during the year (as described below).

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

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

A net negative adjustment is not subject to the limitation imposed on miscellaneous itemized deductions under Section 67 of the Code. Any net negative adjustment in excess of the amounts described above will be carried forward to offset future interest income in respect of the CPDI Note or to

reduce the amount realized on a sale or exchange of the CPDI Note (including early redemption or repurchase, acceleration or redemption at maturity).

Upon a sale or exchange of a CPDI Note, you generally will recognize taxable income or loss equal to the difference between the amount received from the sale or exchange (reduced by any net negative adjustment carryforward, as described in the preceding paragraph) and your adjusted tax basis in the CPDI Note. Your adjusted tax basis in the CPDI Note will equal the amount you paid to acquire the CPDI Note, increased by the amount of interest income you have previously accrued in respect of the CPDI Note (determined without regard to any of the positive or negative adjustments to interest accruals described above) and decreased by the amount of any projected payments in respect of the CPDI Note through the date of the sale or exchange. You generally must treat any income as interest income and any loss as ordinary loss to the extent of previous interest inclusions (reduced by the total amount of net negative adjustments previously taken into account as ordinary losses), and the balance as capital loss. As with net negative adjustments, these ordinary losses are not subject to the limitation imposed on miscellaneous itemized deductions under Section 67 of the Code. The deductibility of capital losses, however, is subject to limitations. Additionally, if you recognize a loss above certain thresholds, you might be required to file a disclosure statement with the IRS, although this is uncertain.

Special rules may apply if one or more contingent payments becomes fixed prior to maturity. The applicability of these rules, and their potential consequences, will depend upon the specific terms of the relevant offering. Additional details regarding this issue may be provided in the relevant terms supplement.

#### *Notes Treated as Variable Rate Debt Instruments*

The following discussion applies to notes that are properly treated as “variable rate debt instruments” for U.S. federal income tax purposes (“**VRDI Notes**”). It does not apply to VRDI Notes issued at a price that is less than or equal to their “stated redemption price at maturity” by more than a *de minimis* threshold (“**OID VRDI Notes**”). If applicable, the relevant terms supplement will describe the tax consequences relating to OID VRDI Notes.

Interest paid on a VRDI Note generally will be taxable to you as ordinary income at the time it accrues or is received in accordance with your method of tax accounting.

Upon the sale or exchange of a VRDI Note (including early redemption or repurchase, acceleration or redemption at maturity), you will recognize taxable gain or loss in an amount equal to the difference between the amount realized and your adjusted tax basis in the VRDI Note. In general, gain or loss recognized upon the sale or exchange of a VRDI Note will be capital gain or loss and will be long-term capital gain or loss if you have held the VRDI Note for more than one year at that time. The deductibility of capital losses is subject to limitations.

For purposes of determining the amount of gain recognized upon the sale or exchange of a VRDI Note, the amount realized does not include any amount attributable to accrued interest, which will be treated as a payment of interest.

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

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

- a nonresident alien individual;
- a foreign corporation; or
- a 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 of a note. In this case, you should consult your tax adviser regarding the U.S. federal income tax consequences of the sale or exchange of a note (including early redemption or repurchase, acceleration or redemption at maturity).

Subject to the discussion below, income and gain from a note generally will be exempt from U.S. federal income tax (including withholding tax) if these amounts are not effectively connected with your conduct of a U.S. trade or business and you provide a properly completed IRS Form W-8 appropriate to your circumstances.

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

Regulations under Section 871(m) impose a 30% withholding tax on certain “dividend equivalents” paid or deemed paid with respect to derivatives linked to U.S. stocks or indices that include U.S. stocks under certain circumstances, even in cases where the derivatives do not provide for payments explicitly linked to dividends. In general, this withholding regime applies to derivatives that substantially replicate the economic performance of one or more underlying U.S. stocks, as determined on the derivatives’ issue date, based on one of two tests set forth in the regulations. The regulations provide certain exceptions to the withholding requirements, for example for derivatives linked to certain broad-based indices. Additionally, an IRS notice excludes from the scope of Section 871(m) instruments issued prior to January 1, 2025 that do not have a delta of one with respect to underlying securities that could pay U.S.-source dividends for U.S. federal income tax purposes.

The Issuer will disclose further information regarding the application of Section 871(m) in the relevant terms supplement. The Issuer’s determination as to whether Section 871(m) applies to a series of notes is binding on Non-U.S. Holders, but it is not binding on the IRS. The Section 871(m) regulations require complex calculations to be made with respect to derivatives linked to U.S. stocks, and their application to a specific series of notes may be uncertain. Accordingly, even if the Issuer determines that Section 871(m) does not apply to a series of notes, the IRS could challenge the Issuer’s determination and assert that withholding is required in respect of those notes. Additionally, the application of Section 871(m) may be affected by a Non-U.S. Holder’s particular circumstances (for example, where a Non-U.S. Holder enters into two or more transactions that reference the same underlying security and the transactions were entered into in connection with each other). You should consult your tax adviser regarding the potential application of Section 871(m) to a series of notes.

The Issuer will not pay additional amounts with respect to any withholding taxes.

### ***Federal Estate Tax***

If you are an individual Non-U.S. Holder, your notes will not be treated as U.S.-situs property subject to U.S. federal estate tax, provided that your income from the notes is not then effectively connected with your conduct of a U.S. trade or business.

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

Interest (including OID) accrued or paid on your notes and the proceeds received from a sale or exchange of your notes (including early redemption or repurchase, acceleration or redemption at maturity) will generally be subject to information reporting unless you are an “exempt recipient.” You may also be subject to backup withholding on payments in respect of your notes unless you provide proof of an

applicable exemption or a correct taxpayer identification number and otherwise comply with applicable requirements of the backup withholding rules. If you are a Non-U.S. Holder, you will not be subject to backup withholding if you provide a properly completed IRS Form W-8 appropriate to your circumstances. Amounts withheld under the backup withholding rules are not additional taxes and may be refunded or credited against your U.S. federal income tax liability, provided the required information is furnished to the IRS.

## **FATCA**

Legislation commonly referred to as “FATCA,” and regulations promulgated thereunder, generally impose a 30% withholding tax on payments to certain non-U.S. entities (including financial intermediaries) with respect to debt instruments such as the notes, unless various U.S. information reporting and due diligence requirements have been satisfied. An intergovernmental agreement between the United States and the non-U.S. entity’s jurisdiction may modify these requirements. This regime applies to payments of interest or other “fixed or determinable annual or periodical” income (“**FDAP Income**”) for U.S. federal income tax purposes paid with respect to a note, and to payments of gross proceeds of a taxable disposition, including early redemption or repurchase, acceleration or redemption at maturity. However, under regulations proposed in 2018 (the preamble to which specifies that taxpayers are permitted to rely on them pending finalization) no withholding will apply to payments of gross proceeds (other than any amount treated as FDAP Income). You should consult your tax adviser regarding the potential application of FATCA to the notes.

The Issuer will not pay any additional amounts with respect to any withholding tax.

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

## PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

Under (a) the terms and subject to the conditions contained in the Master Agency Agreement entered into between JPMorgan Chase & Co., as issuer, and J.P. Morgan Securities LLC, as agent (with respect to notes issued by JPMorgan Chase & Co., an “**Agent**” or “**JPMS**”), and certain other agents that are or may become party to that Master Agency Agreement, as amended or supplemented, from time to time (with respect to notes issued by JPMorgan Chase & Co., each an “**Agent**” and collectively with JPMS, the “**Agents**”) and (b) the terms and subject to the conditions contained in the Master Agency Agreement entered into among JPMorgan Financial, as issuer, JPMorgan Chase & Co., as guarantor, and J.P. Morgan Securities LLC, as agent (with respect to notes issued by JPMorgan Financial, an “**Agent**” or “**JPMS**”), and certain other agents that are or may become party to that Master Agency Agreement, as amended or supplemented, from time to time (with respect to notes issued by JPMorgan Financial, each an “**Agent**” and collectively with JPMS, the “**Agents**”), JPMS 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.

The Issuer 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. The Issuer will pay an Agent, in connection with sales of these notes resulting from a solicitation that Agent made or an offer to purchase that Agent received, a commission as set forth in the relevant terms supplement. An Agent will allow a concession to other dealers, or the Issuer may pay other fees, in the amount set forth on the cover page of the relevant terms supplement.

The Issuer 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 the Issuer 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 the Issuer. 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.

The Issuer’s and the Guarantor’s (if applicable) affiliates, including JPMS, may use this product supplement, any accompanying underlying supplement and the prospectus supplement, prospectus or terms supplement in connection with offers and sales of the notes in the secondary market. JPMS 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 that offer or sale; accordingly, the Agents or a dealer may change the public offering price, concession and discount after the offering has been completed.

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

In connection with an offering of the notes, JPMS may engage in overallotment, stabilizing transactions and syndicate covering transactions in accordance with Regulation M under the Securities Exchange Act of 1934. Overallotment involves sales in excess of the offering size, which create a short position for JPMS. Stabilizing transactions involve bids to purchase the notes in the open market for the purpose of pegging, fixing or maintaining the price of the notes. Syndicate covering transactions involve purchases of the notes in the open market after the distribution has been completed in order to cover

short positions. Stabilizing transactions and syndicate covering transactions may cause the price of the notes to be higher than it would otherwise be in the absence of those transactions. If JPMS engages in stabilizing or syndicate covering transactions, it may discontinue them at any time.

Certain of the Agents engage in transactions with and perform services for the Issuer, the Guarantor (if applicable) and their affiliates in the ordinary course of business.

No action has been or will be taken by the Issuer, the Guarantor (if applicable), JPMS or any dealer that would permit a public offering of the notes or possession or distribution of this product supplement, any accompanying underlying supplement or the 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 the relevant terms supplement, this product supplement, any underlying supplement, the prospectus supplement or the prospectus 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 the Issuer, the Guarantor (if applicable), the Agents or any dealer.

Each Agent has represented and agreed that it will not offer or sell the notes in any non-U.S. jurisdiction (i) if that offer or sale would not be in compliance with any applicable law or regulation or (ii) if any consent, approval or permission is needed for that offer or sale by that Agent or for or on the Issuer's or the Guarantor's (if applicable) behalf, unless the consent, approval or permission has been previously obtained. The Issuer and the Guarantor (if applicable) will have no responsibility for, and the applicable Agent will obtain, any consent, approval or permission required by that Agent for the subscription, offer, sale or delivery by that Agent of the notes, or the distribution of any offering materials, under the laws and regulations in force in any non-U.S. jurisdiction to which that Agent is subject or in or from which that Agent makes any subscription, offer, sale or delivery. For additional information regarding selling restrictions, please see "Notice to Investors; Selling Restrictions" in the accompanying prospectus supplement.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to that trade expressly agree otherwise. Effective on May 28, 2024 (the "**settlement cycle effective date**"), the standard settlement cycle under Rule 15c6-1 will be shortened from two business days to one business day. The Issuer expects that delivery of the notes will be made against payment for the notes on the settlement date specified in the relevant terms supplement, which may be more than two business days (or, on or after the settlement cycle effective date, one business day) following the pricing date specified in the relevant terms supplement. Accordingly, if the initial settlement of the notes occurs more than two business days (or, on or after the settlement cycle effective date, one business day) after the pricing date, purchasers who wish to trade the notes on any date prior to two business days (or, on or after the settlement cycle effective date, one business day) before delivery will be required to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement and should consult their own advisors.

### **Conflicts of Interest**

JPMS has a "conflict of interest" within the meaning of FINRA Rule 5121 in any offering of the notes in which it participates because JPMorgan Chase & Co. owns, directly or indirectly, all of the outstanding equity securities of JPMS, because JPMS and JPMorgan Financial are under common control by JPMorgan Chase & Co. and because the net proceeds received from the sale of the notes will be used, in part, by JPMS or its affiliates in connection with hedging the Issuer's obligations under the notes. The offer and sale of the notes by JPMS will comply with the requirements of FINRA Rule 5121 regarding a FINRA member firm's participation in a public offering of notes of an affiliate. In accordance with FINRA Rule 5121, neither JPMS nor any other affiliated underwriter, agent or dealer of the Issuer may sell the notes to any of its discretionary accounts without the specific written approval of the customer.

## BENEFIT PLAN INVESTOR CONSIDERATIONS

A fiduciary of a pension, profit-sharing or other employee benefit plan subject to Title I of 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 Code prohibit ERISA Plans, as well as plans (including individual retirement accounts and Keogh plans) subject to Section 4975 of the Code (together with ERISA Plans, "**Plans**"), from engaging in certain transactions involving the "plan assets" with persons who are "parties in interest" under ERISA or "disqualified persons" under Section 4975 of the Code (in either case, referred to herein as "**Parties in Interest**") with respect to such Plans. As a result of their businesses, JPMorgan Chase & Co. and its current and future affiliates (including JPMorgan Financial), as well as the other unaffiliated dealers, may be Parties in Interest with respect to many Plans; where any of them is a Party in Interest with respect to a Plan (either directly or by reason of such entity's ownership interests in its 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 statutory or administrative exemptive relief were available.

In this regard, 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 may 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 the Plan involved in the transaction and provided further that the Plan pays no more, and receives no less, than adequate consideration in connection with the transaction (the so-called "**service provider exemption**"). There can be no assurance that any of these statutory or class exemptions will be available with respect to transactions involving the notes.

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 or result in 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) it is not a Plan or a Plan Asset Entity and its purchase and holding of the notes is not made on behalf of or with "plan assets" of any Plan or a Plan Asset Entity or (b) its purchase, holding and subsequent disposition of the notes will not constitute or result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code.

In this regard, certain governmental plans (as defined in Section 3(32) of ERISA), church plans (as defined in Section 3(33) of ERISA) and non-U.S. plans (as described in Section 4(b)(4) of ERISA) (collectively, "**Non-ERISA Arrangements**") are not subject to the fiduciary responsibility or 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

will be required to represent, and be deemed to have represented by its purchase or holding of the notes, that its purchase, holding and subsequent disposition of the notes will not constitute or result in a violation of any 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, Plan Asset Entity or Non-ERISA Arrangement consult with their counsel regarding the relevant provisions of ERISA, the Code or applicable Similar Laws and the availability of exemptive relief under PTCE 96-23, 95-60, 91-38, 90-1, 84-14, the service provider exemption or some other basis on which the acquisition and holding of the notes will not constitute or result in a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or a violation of any applicable Similar Laws.

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

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

- (i) the purchaser or holder or its fiduciary has made and will make all investment decisions for the purchaser or holder and the purchaser or holder has not relied and will not rely in any way upon the Issuer, the Guarantor (if applicable) or any of their affiliates to act as a fiduciary or adviser of the purchaser or holder with respect to (A) the design and terms of the notes, (B) the purchaser or holder’s investment in the notes, or (C) the exercise of or failure to exercise any rights the purchaser or holder, or the Issuer, the Guarantor (if applicable) or any of their affiliates, has under or with respect to the notes;
- (ii) the Issuer and its affiliates have acted and will act solely for the Issuer’s own accounts in connection with (A) all transactions relating to the notes and (B) all hedging transactions in connection with its or its affiliates’ obligations under the notes;
- (iii) any and all assets and positions relating to hedging transactions by the Issuer or its affiliates are assets and positions of those entities and are not assets and positions held for the benefit of the purchaser or holder;
- (iv) the Issuer’s and the Guarantor’s (if applicable) interests are adverse to the interests of the purchaser or holder; and
- (v) none of the Issuer, the Guarantor (if applicable) and any of their affiliates is a fiduciary or adviser of the purchaser or holder in connection with any such assets, positions or transactions, and any information that the Issuer, the Guarantor (if applicable) or any of their affiliates may provide is not intended to be impartial investment advice.

Each purchaser and holder of the notes has exclusive responsibility for ensuring that its purchase, holding and subsequent disposition 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, Plan Asset Entity or Non-ERISA Arrangement is in no respect a representation or advice by the Issuer, the Guarantor (if applicable) or any of their affiliates or representatives as to whether such an investment is appropriate for, or meets all relevant legal requirements with respect to investments by, Plans, Plan Asset Entities or Non-ERISA Arrangements generally or any particular Plan, Plan Asset Entity or Non-ERISA Arrangement. Neither this discussion nor anything in this product supplement is or is intended to be investment advice directed at any potential Plan, Plan Asset Entity or Non-ERISA Arrangement purchaser or at such purchasers generally.