

JPMorgan Chase Financial Company LLC  
Structured Investments

J.P.Morgan

## Capped Digital Notes Linked to the S&P 500<sup>®</sup> Dividend Aristocrats Risk Control 8% Excess Return Index due January 31, 2029

Fully and Unconditionally Guaranteed by JPMorgan Chase & Co.

- The notes are designed for investors who seek a fixed return of at least 43.00% at maturity if the Final Value of the S&P 500<sup>®</sup> Dividend Aristocrats Risk Control 8% Excess Return Index is greater than or equal to the Initial Value.
- Investors should be willing to forgo interest and dividend payments, while seeking full repayment of principal at maturity.
- The notes are unsecured and unsubordinated obligations of JPMorgan Chase Financial Company LLC, which we refer to as JPMorgan Financial, the payment on which is fully and unconditionally guaranteed by JPMorgan Chase & Co. **Any payment on the notes 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.**
- Minimum denominations of \$1,000 and integral multiples thereof
- The notes are expected to price on or about January 26, 2023 and are expected to settle on or about January 31, 2023.
- CUSIP: 48133TLD5

Investing in the notes involves a number of risks. See “Risk Factors” beginning on page S-2 of the accompanying prospectus supplement, “Risk Factors” beginning on page PS-10 of the accompanying product supplement, “Risk Factors” beginning on page US-7 of the accompanying underlying supplement and “Selected Risk Considerations” beginning on page PS-6 of this pricing 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 this pricing supplement or the accompanying product supplement, underlying supplement, prospectus supplement and prospectus. Any representation to the contrary is a criminal offense.

	Price to Public (1)	Fees and Commissions (2)	Proceeds to Issuer
Per note	\$1,000	\$	\$
Total	\$	\$	\$

(1) See “Supplemental Use of Proceeds” in this pricing supplement for information about the components of the price to public of the notes.

(2) J.P. Morgan Securities LLC, which we refer to as JPMS, acting as agent for JPMorgan Financial, will pay all of the selling commissions it receives from us to other affiliated or unaffiliated dealers. In no event will these selling commissions exceed \$42.75 per \$1,000 principal amount note. See “Plan of Distribution (Conflicts of Interest)” in the accompanying product supplement.

**If the notes priced today, the estimated value of the notes would be approximately \$930.00 per \$1,000 principal amount note. The estimated value of the notes, when the terms of the notes are set, will be provided in the pricing supplement and will not be less than \$900.00 per \$1,000 principal amount note. See “The Estimated Value of the Notes” in this pricing supplement for additional information.**

*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.*

## Key Terms

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**Issuer:** JPMorgan Chase Financial Company LLC, an indirect, wholly owned finance subsidiary of JPMorgan Chase & Co.

**Guarantor:** JPMorgan Chase & Co.

**Index:** The S&P 500® Dividend Aristocrats Risk Control 8% Excess Return Index (Bloomberg ticker: SPXD8UE). The level of the Index reflects the daily deduction of a notional financing cost.

**Contingent Digital Return:** At least 43.00% (to be provided in the pricing supplement)

**Pricing Date:** On or about January 26, 2023

**Original Issue Date (Settlement Date):** On or about January 31, 2023

**Observation Date\*:** January 26, 2029

**Maturity Date\*:** January 31, 2029

\* Subject to postponement in the event of a market disruption event and as described under “General Terms of Notes — Postponement of a Determination Date — Notes Linked to a Single Underlying — Notes Linked to a Single Underlying (Other Than a Commodity Index)” and “General Terms of Notes — Postponement of a Payment Date” in the accompanying product supplement

### Payment at Maturity:

If the Final Value is greater than or equal to the Initial Value, your payment at maturity per \$1,000 principal amount note will be calculated as follows:

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

If the Final Value is less than the Initial Value, you will receive the principal amount of your notes at maturity.

*You are entitled to repayment of principal in full at maturity, subject to the credit risks of JPMorgan Financial and JPMorgan Chase & Co.*

### Index Return:

$$\frac{(\text{Final Value} - \text{Initial Value})}{\text{Initial Value}}$$

**Initial Value:** The closing level of the Index on the Pricing Date

**Final Value:** The closing level of the Index on the Observation Date

## The S&P 500® Dividend Aristocrats Risk Control 8% Excess Return Index

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The S&P 500® Dividend Aristocrats Risk Control 8% Excess Return Index (the “Index”) is maintained and calculated by S&P Dow Jones Indices LLC (“S&P Dow Jones”). Our affiliate, JPMS, worked with S&P Dow Jones in developing the guidelines and policies governing the composition and calculation of the Index.

The Index provides variable notional exposure to the S&P 500® Dividend Aristocrats Total Return Index (the “Underlying Index”), while targeting an annualized volatility of 8%. The Index also reflects, on a daily basis, the deduction of the notional financing cost described below. The Index is reported by Bloomberg L.P. under the ticker symbol “SPXD8UE.”

The Underlying Index measures the performance of companies within the S&P 500® Index that have followed a policy of consistently increasing dividends every year for at least 25 years and is calculated on a total-return basis (*i.e.*, dividends and other distributions are notionally reinvested). The S&P 500® Index consists of stocks of 500 companies selected to provide a performance benchmark for the U.S. equity markets and is calculated on a total-return basis. For additional information about the Underlying Index, see “Annex A — Background on the S&P 500® Dividend Aristocrats Total Return Index” in this pricing supplement.

The Index will adjust its notional exposure to the Underlying Index daily in an attempt to maintain an annualized volatility for the Index approximately equal to the target volatility of 8%, subject to a maximum exposure of 150% and a minimum exposure of 0%. We refer to the notional exposure that the Index has to the performance of the Underlying Index on any day as the “leverage factor” on that day. The leverage factor on any day is equal to the target volatility divided by the annualized volatility of the Underlying Index as of the second immediately preceding Index trading day, subject to the maximum and minimum exposures. Accordingly, as the volatility of the Underlying Index increases, the exposure provided by the Index to the Underlying Index decreases, and as the volatility of the Underlying Index decreases, the exposure provided by the Index to the Underlying Index increases. If the leverage factor is greater than 100% on any day, the Index will provide leveraged exposure to the Underlying Index. If the leverage factor is less than 100% on any day, the difference will be notionally uninvested and will earn no return. Under normal market conditions, the Index is expected to be significantly uninvested.

For example, if the annualized volatility of the Underlying Index used to calculate the leverage factor on a given day is equal to 32%, the leverage factor will equal 25% (8% divided by 32%). This means that, subject to the notional financing cost described below, the Index would appreciate only 1% in response to an appreciation of 4% in the Underlying Index, and the Index would depreciate only by 1% in response to a depreciation of 4% in the Underlying Index.

The Index is an excess return index that tracks the return of the Underlying Index, subject to the leverage factor, over and above a short-term money market investment. In other words, the Index provides a return based on the performance of a notional investment in the Underlying Index, subject to the leverage factor, where the investment was made using borrowed funds. The notional financing cost is calculated as a daily SOFR rate plus a fixed spread of 0.13088%. S&P Dow Jones may use other successor interest rates if the daily SOFR rate could not be obtained. SOFR, the Secured Overnight Financing Rate, is intended to be a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities. See “Annex B — Additional Information about the Notional Financing Cost — What Is SOFR?” in this pricing supplement for additional information about SOFR. Prior to December 20, 2021, the notional financing cost was calculated as a composite rate of interest intended to track the overnight rate of return of a notional position in a 3-month time deposit in U.S. dollars, calculated by reference to 2-month and 3-month USD LIBOR rates. LIBOR, which stands for “London Interbank Offered Rate,” is the average interest rate estimated by leading banks in London that they would be charged if borrowing from other banks without pledging any collateral or security.

The notional financing cost is applied to the Index’s notional exposure to the Underlying Index, so it increases as the leverage factor increases and decreases as the leverage factor decreases. For example, if leverage factor is 80%, no notional financing costs will be deducted from the remaining 20%. If the leverage factor is 150%, notional financing costs will be deducted from the entire 150% exposure to the Underlying Index.

**No assurance can be given that the Index will approximate its target volatility. The actual realized volatility of the Index may be greater or less than its target volatility.**

### Calculation of the Index Value

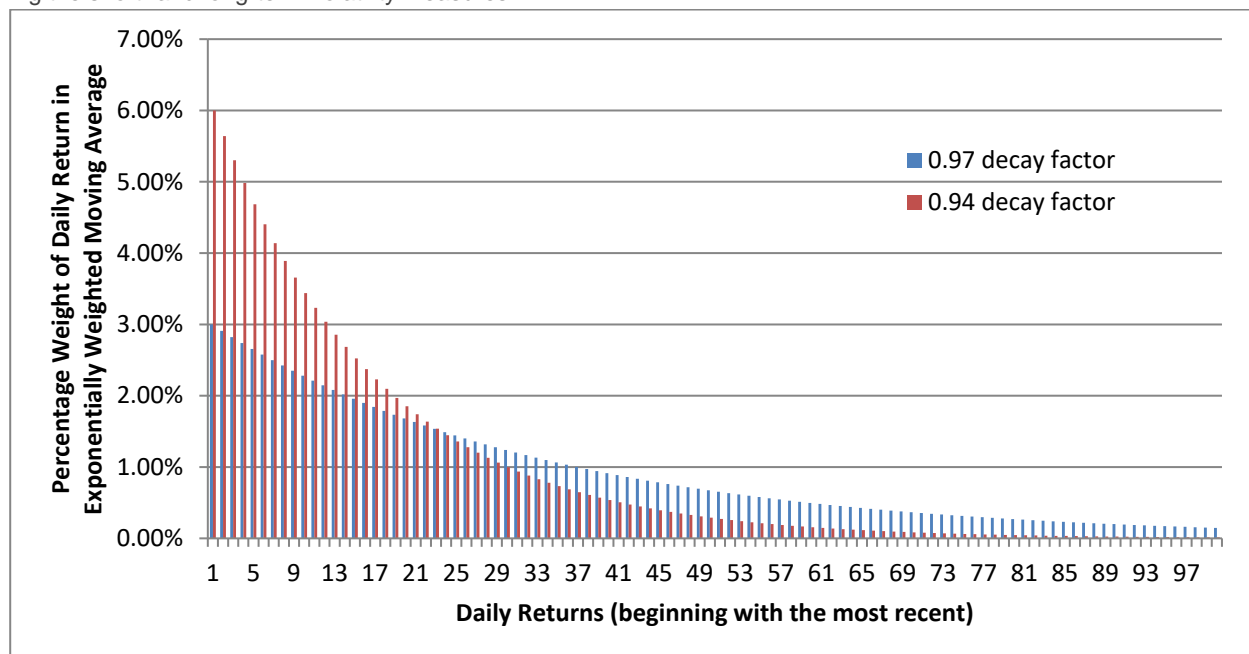
The closing level of the Index on any day reflects (a) the performance of the Underlying Index since the immediately preceding Index rebalancing date, *multiplied by* the leverage factor, *less* (b) the notional financing cost that has accrued since the immediately preceding Index rebalancing date, calculated using a 360-day year, *multiplied by* the leverage factor. Each day on which 15% or more of the total weight of the Underlying Index is traded is an Index rebalancing date.

### Calculation of Leverage Factor and Volatility

The historical realized volatility of the Underlying Index used to calculate the leverage factor is the greater of the short- and long-term volatility measures, where each volatility measure uses exponential weightings to give more significance to recent observations. The degree to which more recent daily returns have a greater effect than less recent daily returns in calculating the volatility measures is dictated by the “decay factor” used. The short-term and long-term decay factors are 0.94 (94%) and 0.97 (97%), respectively. The

greater of the short- and long-term measures of volatility is used to cause the Index to deleverage quickly on a relative basis, but increase exposure more gradually on a relative basis, subject to the maximum exposure of 150%.

The chart below illustrates the effect of the exponential weighting described above for the decay factors of 0.97 and 0.94. For each daily return shown, the chart indicates the percentage weight that will be given to that daily return in calculating the relevant volatility measure. As the chart illustrates, the most recent daily returns have a significantly greater weight than less recent daily returns in determining the short- and long-term volatility measures.



The leverage factor as of each Index rebalancing date is calculated as (a) the target value of 8% *divided by* (b) the greater of the short- and long-term volatility measures determined as of the second immediately preceding Index rebalancing date, subject to the maximum leverage factor of 150%.

## License Agreement

JPMorgan Chase & Co. or its affiliate has entered into an agreement with S&P Dow Jones that provides it and certain of its affiliates or subsidiaries, including JPMorgan Financial, with a non-exclusive license and, for a fee, with the right to use the Index, which is owned and published by S&P Dow Jones, in connection with certain securities, including the notes.

The notes are not sponsored, endorsed, sold or promoted by S&P Dow Jones or its third party licensors. Neither S&P Dow Jones nor its third party licensors makes any representation or warranty, express or implied, to the owners of the notes or any member of the public regarding the advisability of investing in securities generally or in the notes particularly or the ability of the Index to track general stock market performance. S&P Dow Jones' and its third party licensors' only relationship to the Issuer or the Guarantor is the licensing of certain trademarks and trade names of S&P Dow Jones and the third party licensors and of the Index which is determined, composed and calculated by S&P Dow Jones or its third party licensors without regard to the Issuer or the Guarantor or the notes. S&P Dow Jones and its third party licensors have no obligation to take the needs of the Issuer or the Guarantor or the owners of the notes into consideration in determining, composing or calculating the Index. Neither S&P Dow Jones nor its third party licensors is responsible for and has not participated in the determination of the prices and amount of the notes or the timing of the issuance or sale of the notes or in the determination or calculation of the equation by which the notes are to be converted into cash. S&P Dow Jones has no obligation or liability in connection with the administration, marketing or trading of the notes.

**NEITHER S&P DOW JONES, ITS AFFILIATES NOR THEIR THIRD PARTY LICENSORS GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS OR COMPLETENESS OF THE INDEX OR ANY DATA INCLUDED THEREIN OR ANY COMMUNICATIONS, INCLUDING BUT NOT LIMITED TO, ORAL OR WRITTEN COMMUNICATIONS (INCLUDING ELECTRONIC COMMUNICATIONS) WITH RESPECT THERETO. S&P DOW JONES, ITS AFFILIATES AND THEIR THIRD PARTY LICENSORS SHALL NOT BE SUBJECT TO ANY DAMAGES OR LIABILITY FOR ANY ERRORS, OMISSIONS OR DELAYS THEREIN. S&P DOW JONES MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE MARKS, THE INDEX OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT WHATSOEVER SHALL S&P DOW JONES, ITS AFFILIATES OR THEIR THIRD PARTY LICENSORS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, TRADING LOSSES, LOST**

**TIME OR GOODWILL, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE.**

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## Hypothetical Payout Profile

The following table and graph illustrate the hypothetical total return and payment at maturity on the notes linked to a hypothetical Index. The "total return" as used in this pricing supplement is the number, expressed as a percentage, that results from comparing the payment at maturity per \$1,000 principal amount note to \$1,000. The hypothetical total returns and payments set forth below assume the following:

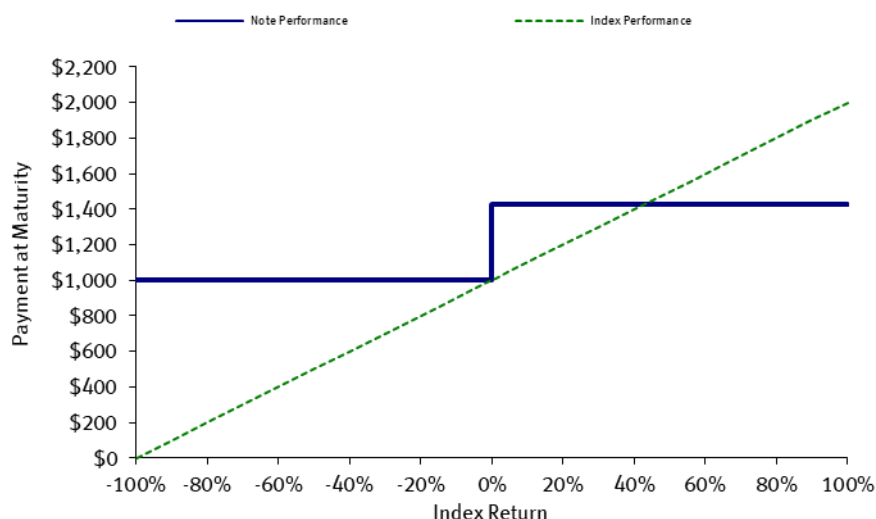
- an Initial Value of 100.00; and
- a Contingent Digital Return of 43.00%.

The hypothetical Initial Value of 100.00 has been chosen for illustrative purposes only and may not represent a likely actual Initial Value. The actual Initial Value will be the closing level of the Index on the Pricing Date and will be provided in the pricing supplement. For historical data regarding the actual closing levels of the Index, please see the historical information set forth under "Historical Information" in this pricing supplement.

Each hypothetical total return or hypothetical payment at maturity set forth below is for illustrative purposes only and may not be the actual total return or payment at maturity applicable to a purchaser of the notes. The numbers appearing in the following table and graph have been rounded for ease of analysis.

Final Value	Index Return	Total Return on the Notes	Payment at Maturity
200.00	100.00%	43.00%	\$1,430.00
180.00	80.00%	43.00%	\$1,430.00
170.00	70.00%	43.00%	\$1,430.00
165.00	65.00%	43.00%	\$1,430.00
150.00	50.00%	43.00%	\$1,430.00
143.00	43.00%	43.00%	\$1,430.00
140.00	40.00%	43.00%	\$1,430.00
130.00	30.00%	43.00%	\$1,430.00
120.00	20.00%	43.00%	\$1,430.00
110.00	10.00%	43.00%	\$1,430.00
105.00	5.00%	43.00%	\$1,430.00
101.00	1.00%	43.00%	\$1,430.00
100.00	0.00%	43.00%	\$1,430.00
95.00	-5.00%	0.00%	\$1,000.00
90.00	-10.00%	0.00%	\$1,000.00
80.00	-20.00%	0.00%	\$1,000.00
70.00	-30.00%	0.00%	\$1,000.00
60.00	-40.00%	0.00%	\$1,000.00
50.00	-50.00%	0.00%	\$1,000.00
40.00	-60.00%	0.00%	\$1,000.00
30.00	-70.00%	0.00%	\$1,000.00
20.00	-80.00%	0.00%	\$1,000.00
10.00	-90.00%	0.00%	\$1,000.00
0.00	-100.00%	0.00%	\$1,000.00

The following graph demonstrates the hypothetical payments at maturity on the notes for a sub-set of Index Returns detailed in the table above (-100% to 100%). There can be no assurance that the performance of the Index will result in a payment at maturity in excess of \$1,000.00 per \$1,000 principal amount note, subject to the credit risks of JPMorgan Financial and JPMorgan Chase & Co.



## How the Notes Work

### Upside Scenario:

If the Final Value is greater than or equal to the Initial Value, investors will receive at maturity the \$1,000 principal amount *plus* a fixed return equal to the Contingent Digital Return of at least 43.00%, which reflects the maximum return at maturity.

- Assuming a hypothetical Contingent Digital Return of 43.00%, if the closing level of the Index increases 5.00%, investors will receive at maturity a 43.00% return, or \$1,430.00 per \$1,000 principal amount note.
- Assuming a hypothetical Contingent Digital Return of 43.00%, if the closing level of the Index increases 100.00%, investors will receive at maturity a 43.00% return, or \$1,430.00 per \$1,000 principal amount note.

### Par Scenario:

If the Final Value is less than the Initial Value, investors will receive at maturity the principal amount of their notes.

The hypothetical returns and hypothetical payments on the notes shown above apply **only if you hold the notes for their entire term**. These hypotheticals do not reflect the fees or expenses that would be associated with any sale in the secondary market. If these fees and expenses were included, the hypothetical returns and hypothetical payments shown above would likely be lower.

## Selected Risk Considerations

An investment in the notes involves significant risks. These risks are explained in more detail in the “Risk Factors” sections of the accompanying prospectus supplement, product supplement and underlying supplement and in Annex B in this pricing supplement.

### Risks Relating to the Notes Generally

- THE NOTES MAY NOT PAY MORE THAN THE PRINCIPAL AMOUNT AT MATURITY —**

If the Final Value is less than the Initial Value, you will receive only the principal amount of your notes at maturity, and you will not be compensated for any loss in value due to inflation and other factors relating to the value of money over time.

- THE LEVEL OF THE INDEX WILL INCLUDE THE DEDUCTION OF A NOTIONAL FINANCING COST —**

This notional financing cost will be deducted daily. As a result of the deduction of this notional financing cost, the level of the Index will trail the value of a hypothetical identically constituted synthetic portfolio from which no such cost is deducted.

- YOUR MAXIMUM GAIN ON THE NOTES IS LIMITED TO THE CONTINGENT DIGITAL RETURN,**

regardless of any appreciation of the Index, which may be significant.

- YOUR ABILITY TO RECEIVE THE CONTINGENT DIGITAL RETURN MAY TERMINATE ON THE OBSERVATION DATE —**

If the Final Value is less than the Initial Value, you will not be entitled to receive the Contingent Digital Return at maturity.

- **CREDIT RISKS OF JPMORGAN FINANCIAL AND JPMORGAN CHASE & CO. —**

Investors are dependent on our and JPMorgan Chase & Co.'s ability to pay all amounts due on the notes. Any actual or potential change in our or JPMorgan Chase & Co.'s creditworthiness or credit spreads, as determined by the market for taking that credit risk, is likely to adversely affect the value of the notes. If we and JPMorgan Chase & Co. were to default on our 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., we have no independent operations beyond the issuance and administration of our securities. Aside from the initial capital contribution from JPMorgan Chase & Co., substantially all of our assets relate to obligations of our affiliates to make payments under loans made by us or other intercompany agreements. As a result, we are dependent upon payments from our affiliates to meet our obligations under the notes. If these affiliates do not make payments to us and we fail to make payments on the notes, you 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.

- **THE NOTES DO NOT PAY INTEREST.**

- **YOU WILL NOT RECEIVE DIVIDENDS ON THE SECURITIES INCLUDED IN THE INDEX OR HAVE ANY RIGHTS WITH RESPECT TO THOSE SECURITIES.**

- **LACK OF LIQUIDITY —**

The notes will not be listed on any securities exchange. Accordingly, 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. You may not be able to sell your notes. The notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your notes to maturity.

- **THE FINAL TERMS AND VALUATION OF THE NOTES WILL BE PROVIDED IN THE PRICING SUPPLEMENT —**

You should consider your potential investment in the notes based on the minimums for the estimated value of the notes and the Contingent Digital Return.

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

- **POTENTIAL CONFLICTS —**

We and our affiliates play a variety of roles in connection with the notes. In performing these duties, our and JPMorgan Chase & Co.'s economic interests are potentially adverse to your interests as an investor in the notes. It is possible that hedging or trading activities of ours or our affiliates in connection with the notes could result in substantial returns for us or our affiliates while the value of the notes declines. Please refer to "Risk Factors — Risks Relating to Conflicts of Interest" in the accompanying product supplement.

One of our affiliates, JPMS, worked with S&P Dow Jones in developing the guidelines and policies governing the composition and calculation of the Index. Although judgments, policies and determinations concerning the Index were made by JPMS, JPMorgan Chase & Co., as the parent company of JPMS, ultimately controls JPMS. The policies and judgments for which JPMS was responsible could have an impact, positive or negative, on the level of the Index and the value of your notes. JPMS is under no obligation to consider your interests as an investor in the notes in its role in developing the guidelines and policies governing the Index or making judgments that may affect the level of the Index. Furthermore, the inclusion of equity securities in the Index is not an investment recommendation by us or JPMS of the equity securities underlying the Index.

#### **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. 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, the projected profits, if any, that our affiliates expect to realize for assuming risks inherent in hedging our obligations under the notes and the estimated cost of hedging our obligations under the notes. See "The Estimated Value of the Notes" in this pricing supplement.

- **THE ESTIMATED VALUE OF THE NOTES DOES NOT REPRESENT FUTURE VALUES OF THE NOTES AND MAY DIFFER FROM OTHERS' ESTIMATES —**

See "The Estimated Value of the Notes" in this pricing supplement.

- **THE ESTIMATED VALUE OF THE NOTES IS DERIVED BY REFERENCE TO AN INTERNAL FUNDING RATE —**

The internal funding rate used in the determination of the estimated value of the notes 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, our and our 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. See "The Estimated Value of the Notes" in this pricing 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 —**

We 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. See "Secondary Market Prices of the Notes" in this pricing supplement for additional information relating to this initial period. 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 our internal secondary market funding rates for structured debt issuances and, also, because secondary market prices 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 the 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.

- **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, projected hedging profits, if any, estimated hedging costs and the level of the Index. 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. 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" in the accompanying product supplement.

#### **Risks Relating to the Index**

- **OUR PARENT COMPANY, JPMORGAN CHASE & CO., IS CURRENTLY ONE OF THE COMPANIES THAT MAKE UP THE S&P 500® INDEX AND MAY BE INCLUDED IN THE INDEX,**

but JPMorgan Chase & Co. will not have any obligation to consider your interests in taking any corporate action that might affect the level of the Index.

- **THE INDEX MAY NOT BE SUCCESSFUL AND MAY NOT OUTPERFORM THE UNDERLYING INDEX —**

The Index provides notional exposure to the Underlying Index, while targeting an annualized volatility of 8%. No assurance can be given that the volatility targeting strategy will be successful or that the Index will outperform the Underlying Index or any alternative strategy that might be employed to provide volatility-adjusted exposure to the Underlying Index.

- **THE INDEX MAY NOT APPROXIMATE ITS TARGET VOLATILITY —**

No assurance can be given that the Index will approximate its target volatility. The actual realized volatility of the Index may be greater or less than its target volatility. The exposure to the Underlying Index is dynamically adjusted on a daily basis, subject to a

maximum exposure limit, based on the historical volatility of the Underlying Index. However, there is no guarantee that trends existing in the past will continue in the future. The volatility of the Underlying Index on any day may change quickly and unexpectedly. Accordingly, the actual realized annualized volatility of the Index may be greater than or less than the target volatility, which may adversely affect the level of the Index and the value of the notes.

- **THE DAILY ADJUSTMENT OF THE EXPOSURE OF THE INDEX TO THE UNDERLYING INDEX MAY CAUSE THE INDEX NOT TO REFLECT FULLY ANY APPRECIATION OF THE UNDERLYING INDEX OR TO MAGNIFY ANY DEPRECIATION OF THE UNDERLYING INDEX —**

In an effort to approximate its target volatility, the Index adjusts its exposure to the Underlying Index daily based on the historical volatility of the Underlying Index, subject to a maximum exposure limit of 150%. When the historical volatility is greater than the target volatility, the Index will reduce its exposure to the Underlying Index. When the historical volatility is less than the target volatility, the Index will increase the exposure to the Underlying Index, up to 150%. Due to the daily exposure adjustments, the Index may fail to realize gains due to appreciation of the Underlying Index at a time when the exposure is less than 100% or may suffer increased losses due to depreciation of the Underlying Index when the exposure is above 100%. As a result, the Index may underperform a similar index that does not include a daily exposure adjustment feature.

- **THE INDEX MAY BE SIGNIFICANTLY UNINVESTED, WHICH WILL RESULT IN A PORTION OF THE INDEX REFLECTING NO RETURN —**

The Index utilizes the existing Underlying Index methodology, plus an overlying mathematical algorithm designed to control the level of risk of the Underlying Index by establishing a specific volatility target and dynamically adjusting the exposure to the Underlying Index based on its observed historical volatility. If the Underlying Index experiences volatility in excess of the applicable volatility target over the relevant period, the exposure to the Underlying Index is decreased, meaning that the Index will be partially uninvested and, accordingly, the Index will reflect no return with respect to the uninvested portion. Accordingly, when the exposure of the Index to the Underlying Index is less than 100% on any day, the Index will be partially uninvested. For example, if the exposure is set at 20%, the Index will be 80% uninvested. Under normal market conditions, the Index is expected to be significantly uninvested. Increased volatility in the Underlying Index may adversely affect the performance of the Index and the value of the notes.

- **THE LEVEL OF THE INDEX REFLECTS THE DEDUCTION OF A NOTIONAL FINANCING COST —**

One way in which the Index may differ from a typical index is that it is an excess return index that tracks the return of the Underlying Index, subject to the leverage factor, over and above a short-term money market investment. As such, the Index's level will include the deduction of a notional financing cost from the performance of the Underlying Index. In other words, the Index provides a return based on the performance of a notional investment in the Underlying Index, subject to the leverage factor, where the investment was made using borrowed funds. The notional financing cost accrues based on the daily SOFR rate plus a fixed spread. The notional financing cost will be deducted daily. As a result of the deduction of the notional financing cost, the level of the Index will trail the value of a hypothetical identically constituted notional portfolio from which no such cost is deducted.

- **THE INDEX'S METHODOLOGY FOR CALCULATING THE NOTIONAL FINANCING COST WAS RECENTLY CHANGED —**

Effective December 20, 2021, the notional financing cost on each day was set equal to the daily SOFR rate on that day plus a fixed spread. Prior to that date, the notional financing cost was calculated as a composite rate of interest intended to track the overnight rate of return of a notional position in a 3-month time deposit in U.S. dollars, calculated by reference to 2-month and 3-month USD LIBOR rates.

In June 2017, the Federal Reserve Bank of New York's Alternative Reference Rates Committee (the "ARRC") announced SOFR as its recommended alternative to U.S. dollar LIBOR. However, the composition and characteristics of SOFR are not the same as those of U.S. dollar LIBOR. SOFR is a broad Treasury repo financing rate that represents overnight secured funding transactions and is not the economic equivalent of U.S. dollar LIBOR. While SOFR is a secured rate, U.S. dollar LIBOR is an unsecured rate. In addition, while SOFR currently is an overnight rate only, U.S. dollar LIBOR is a forward-looking rate that represents interbank funding for a specified term. As a result, there can be no assurance that SOFR will perform in the same way as U.S. dollar LIBOR would have at any time, including, without limitation, as a result of changes in interest and yield rates in the market, bank credit risk, market volatility or global or regional economic, financial, political, regulatory, judicial or other events. For the same reasons, SOFR is not expected to be a comparable substitute, successor or replacement for U.S. dollar LIBOR.

The fixed spread added to SOFR in calculating the notional financing cost is arbitrary and will negatively affect the performance of the Index.

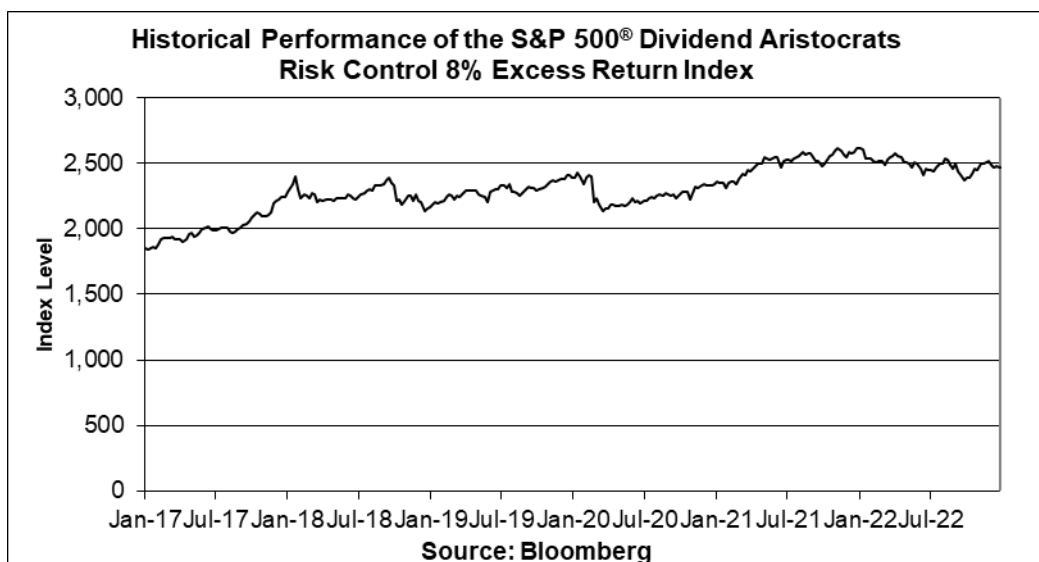
The change to the notional financing cost may adversely affect the performance of the Index and the value of the notes, as the notional financing cost derived from daily SOFR rates plus a spread may be greater, perhaps significantly, than the notional financing cost that would have been derived from the relevant LIBOR rates. In addition, this change may affect the composition of the Index after the effective date of the change, which may adversely affect the performance of the Index and the value of the

notes. Moreover, the performance of the Index prior to December 20, 2021 does not reflect this change. The Index lacked any operating history with the new notional financing cost methodology prior to December 20, 2021 and may perform in unanticipated ways. Investors in the notes should bear this difference in mind when evaluating the historical data shown in this pricing supplement. For additional risk considerations relating to the notional financing cost, see “Annex B — Additional Risk Considerations Relating to the Notional Financing Cost” in this pricing supplement.

## Historical Information

The following graph sets forth the historical performance of the Index based on the weekly historical closing levels of the Index from January 6, 2017 through December 30, 2022. The closing level of the Index on December 30, 2022 was 2,470.643. We obtained the closing levels above and below from the Bloomberg Professional® service ("Bloomberg"), without independent verification.

The historical closing levels of the Index should not be taken as an indication of future performance, and no assurance can be given as to the closing level of the Index on the Pricing Date or the Observation Date. There can be no assurance that the performance of the Index will result in a payment at maturity in excess of your principal amount, subject to the credit risks of JPMorgan Financial and JPMorgan Chase & Co.



## Treatment as Contingent Payment Debt Instruments

There is uncertainty regarding the U.S. federal income tax consequences of an investment in the notes due to the lack of governing authority. You should review carefully the section entitled "Material U.S. Federal Income Tax Consequences" in the accompanying product supplement no. 3-II. The following discussion supersedes the discussion in the accompanying product supplement to the extent it is inconsistent therewith. Based on current market conditions, we intend to treat the notes for U.S. federal income tax purposes as debt instruments that are not "contingent payment debt instruments." Assuming this treatment is respected, unlike a traditional debt instrument that provides for periodic payments of interest at a single fixed rate, with respect to which a cash-method investor generally recognizes income only upon receipt of stated interest, you generally will be required to treat your notes as having an amount of original issue discount ("OID") equal to the Contingent Digital Return payable thereon (*i.e.*, regardless of whether that amount is actually paid) and to include the OID in income for U.S. federal income tax purposes as it accrues, in accordance with a constant-yield method based on a compounding of interest, although we will not make any payment with respect to the notes until maturity.

Upon sale or exchange (including at maturity), you will recognize taxable gain or loss equal to the difference between the amount received from the sale or exchange and your adjusted basis in the note, which generally will equal the cost thereof, increased by the amount of OID you have accrued in respect of the note. In general, gain or loss recognized upon the sale or exchange of a note will be capital gain or loss and will be long-term capital gain or loss if you have held the note for more than one year at that time. The deductibility of capital losses is subject to limitations. Accordingly, the ordinary income treatment of the OID inclusions, in conjunction with the capital loss treatment of any loss recognized upon the sale, exchange or settlement of the notes, could result in adverse tax consequences to you. You should consult your tax adviser concerning the application of these rules. The discussions herein and in the accompanying product supplement do not address the consequences to taxpayers subject to special tax accounting rules under Section 451(b) of the Code. Purchasers who are not initial purchasers of notes at their issue price should consult their tax advisers with respect to the tax consequences of an investment in notes, including the treatment of the difference, if any, between the basis in their notes and the notes' adjusted issue price.

Because our intended treatment of the notes is based on current market conditions, we may determine an alternative treatment is more appropriate based on circumstances at the time of pricing. Our ultimate determination will be binding on you, unless you properly disclose to the IRS an alternative treatment. Also, the IRS may challenge the treatment of the notes. If we determine not to treat the notes as described above, or if the IRS successfully challenges the treatment of the notes then the notes might be treated as contingent payment debt instruments ("CPDIs") as described in more detail under the subsection entitled "Tax Consequences to U.S. Holders —

Notes with a Term of More than One Year — Notes Treated as Contingent Payment Debt Instruments” in the accompanying product supplement. Under that treatment, you generally would be required to accrue OID on your notes in each taxable year at the “comparable yield” as determined by us and to treat any taxable income recognized upon sale or exchange (including at maturity) as interest income, and any loss as ordinary to the extent of prior OID inclusions and thereafter as capital. You should discuss the possible application of the CPDI rules with your tax adviser.

Section 871(m) of the Code and Treasury regulations promulgated thereunder (“Section 871(m)”) generally impose a 30% withholding tax (unless an income tax treaty applies) on dividend equivalents paid or deemed paid to Non-U.S. Holders with respect to certain financial instruments linked to U.S. equities or indices that include U.S. equities. Section 871(m) provides certain exceptions to this withholding regime, including for instruments linked to certain broad-based indices that meet requirements set forth in the applicable Treasury regulations. Additionally, a recent 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 (each an “Underlying Security”). Based on certain determinations made by us, we expect that Section 871(m) will not apply to the notes with regard to Non-U.S. Holders. Our determination is not binding on the IRS, and the IRS may disagree with this determination. Section 871(m) is complex and its application may depend on your particular circumstances, including whether you enter into other transactions with respect to an Underlying Security. If necessary, further information regarding the potential application of Section 871(m) will be provided in the pricing supplement for the notes. You should consult your tax adviser regarding the potential application of Section 871(m) to the notes.

The discussions in the preceding paragraphs, when read in combination with the section entitled “Material U.S. Federal Income Tax Consequences” (and in particular the subsection thereof entitled “— Tax Consequences to U.S. Holders — Notes with a Term of More than One Year — Notes Treated as Contingent Payment Debt Instruments”) in the accompanying product supplement, to the extent they reflect statements of law, constitute the full opinion of Davis Polk & Wardwell LLP regarding the material U.S. federal income tax consequences of owning and disposing of the notes.

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## Comparable Yield and Projected Payment Schedule

For purposes of U.S. federal income tax reporting, we will determine the yield to maturity for the notes and will provide that yield to maturity, and the related OID accrual schedule (or information about how to obtain them), in the pricing supplement for the notes, which we will file with the SEC. **The yield to maturity and OID accrual schedule are determined solely to calculate the amount on which you will be taxed with respect to the notes in each year and are neither a prediction nor a guarantee of what the actual yield will be.**

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## The Estimated Value of the Notes

The estimated value of the notes set forth on the cover of this pricing supplement is 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 does 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. The internal funding rate used in the determination of the estimated value of the notes 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, our and our 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 “Selected Risk Considerations — Risks Relating to the Estimated Value and Secondary Market Prices of the Notes — The Estimated Value of the Notes Is Derived by Reference to an Internal Funding Rate” in this pricing supplement.

The value of the derivative or derivatives underlying the economic terms of the notes is derived from internal pricing models of our 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, 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 is determined when the terms of the notes are set based on market conditions and other relevant factors and assumptions existing at that time.

The estimated value of the notes does not represent future values of the notes and may differ from others’ estimates. Different pricing models and assumptions could provide valuations for the notes that are greater than or less than the estimated value of the notes. In

addition, market conditions and other relevant factors in the future may change, and any assumptions may prove to be incorrect. On future dates, the value of the notes could change significantly based on, among other things, changes in market conditions, our or JPMorgan Chase & Co.'s 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.

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 are included in the original issue price of the notes. These costs include the selling commissions paid to JPMS and other affiliated or unaffiliated dealers, the projected profits, if any, that our affiliates expect to realize for assuming risks inherent in hedging our obligations under the notes and the estimated cost of hedging our obligations under the notes. Because hedging our obligations entails risk and may be influenced by market forces beyond our control, this hedging may result in a profit that is more or less than expected, or it may result in a loss. A portion of the profits, if any, realized in hedging our obligations under the notes may be allowed to other affiliated or unaffiliated dealers, and we or one or more of our affiliates will retain any remaining hedging profits. See "Selected Risk Considerations — 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" in this pricing supplement.

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## 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" in the accompanying product supplement. In addition, we 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, projected hedging profits, if any, and, in some circumstances, estimated hedging costs and our internal secondary market funding rates for structured debt issuances. This initial predetermined time period is intended to be the shorter of six months and one-half of the stated term of the notes. The length of any such initial period reflects the structure of the notes, whether our affiliates expect to earn a profit in connection with our hedging activities, the estimated costs of hedging the notes and when these costs are incurred, as determined by our affiliates. See "Selected Risk Considerations — 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" in this pricing supplement.

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## Supplemental Use of Proceeds

The notes are offered to meet investor demand for products that reflect the risk-return profile and market exposure provided by the notes. See "Hypothetical Payout Profile" and "How the Notes Work" in this pricing supplement for an illustration of the risk-return profile of the notes and "The S&P 500® Dividend Aristocrats Risk Control 8% Excess Return Index" in this pricing supplement for a description of the market exposure provided by the notes.

The original issue price of the notes is equal to the estimated value of the notes plus the selling commissions paid to JPMS and other affiliated or unaffiliated dealers, plus (minus) the projected profits (losses) that our affiliates expect to realize for assuming risks inherent in hedging our obligations under the notes, plus the estimated cost of hedging our obligations under the notes.

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## Supplemental Plan of Distribution

We expect that delivery of the notes will be made against payment for the notes on or about the Original Issue Date set forth on the front cover of this pricing supplement, which will be the third business day following the Pricing Date of the notes (this settlement cycle being referred to as "T+3"). Under Rule 15c6-1 of the Securities Exchange Act of 1934, as amended, trades in the secondary market generally are required to settle in two business days, unless the parties to that trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on any date prior to two business days 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.

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## Supplemental Information About the Form of the Notes

The notes will initially be represented by a type of global security that we refer to as a master note. A master note represents multiple securities that may be issued at different times and that may have different terms. The trustee and/or paying agent will, in accordance with instructions from us, 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.

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## Additional Terms Specific to the Notes

You may revoke your offer to purchase the notes at any time prior to the time at which we accept such offer by notifying the applicable agent. We reserve the right to change the terms of, or reject any offer to purchase, the notes prior to their issuance. In the event of any

changes to the terms of the notes, we will notify you and you will be asked to accept such changes in connection with your purchase. You may also choose to reject such changes, in which case we may reject your offer to purchase.

You should read this pricing supplement together with the accompanying prospectus, as supplemented by the accompanying prospectus supplement relating to our Series A medium-term notes of which these notes are a part, and the more detailed information contained in the accompanying product supplement and the accompanying underlying supplement. This pricing supplement, together with the documents listed below, contains the terms of the notes and supersedes all other prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, fact sheets, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in the "Risk Factors" sections of the accompanying prospectus supplement, the accompanying product supplement and the accompanying underlying supplement, as the notes involve risks not associated with conventional debt securities. We urge you to consult your investment, legal, tax, accounting and other advisers before you invest in the notes.

You may access these documents on the SEC website at [www.sec.gov](http://www.sec.gov) as follows (or if such address has changed, by reviewing our filings for the relevant date on the SEC website):

- Product supplement no. 3-II dated November 4, 2020:  
[http://www.sec.gov/Archives/edgar/data/19617/000095010320021466/crt\\_dp139321-424b2.pdf](http://www.sec.gov/Archives/edgar/data/19617/000095010320021466/crt_dp139321-424b2.pdf)
- Underlying supplement no. 1-II dated November 4, 2020:  
[http://www.sec.gov/Archives/edgar/data/19617/000095010320021471/crt\\_dp139381-424b2.pdf](http://www.sec.gov/Archives/edgar/data/19617/000095010320021471/crt_dp139381-424b2.pdf)
- Prospectus supplement and prospectus, each dated April 8, 2020:  
[http://www.sec.gov/Archives/edgar/data/19617/000095010320007214/crt\\_dp124361-424b2.pdf](http://www.sec.gov/Archives/edgar/data/19617/000095010320007214/crt_dp124361-424b2.pdf)

Our Central Index Key, or CIK, on the SEC website is 1665650, and JPMorgan Chase & Co.'s CIK is 19617. As used in this pricing supplement, "we," "us" and "our" refer to JPMorgan Financial.

### Background on the S&P 500® Dividend Aristocrats Total Return Index

All information contained in this pricing supplement regarding the S&P 500® Dividend Aristocrats Total Return Index, including, without limitation, its make-up, method of calculation and changes in its components, has been derived from publicly available information, without independent verification. This information reflects the policies of, and is subject to change by, S&P Dow Jones. The S&P 500® Dividend Aristocrats Total Return Index is calculated, maintained and published by S&P Dow Jones. S&P Dow Jones has no obligation to continue to calculate and publish, and may discontinue calculation and publication of, the S&P 500® Dividend Aristocrats Total Return Index.

The S&P 500® Dividend Aristocrats Total Return Index is reported by Bloomberg L.P. under the ticker symbol "SPDAUDT."

The S&P 500® Dividend Aristocrats Total Return Index represents the total return earned on a portfolio that tracks the S&P 500® Dividend Aristocrats Index and reinvests dividend income in the S&P 500® Dividend Aristocrats Index, not in the specific stock paying the dividend. While changes in the level of the S&P 500® Dividend Aristocrats Index reflect only changes in stock prices, changes in the level of the S&P 500® Dividend Aristocrats Total Return Index reflect both movements in stock prices and the reinvestment of dividend income. For more information about the S&P 500® Dividend Aristocrats Index, see "— Background on the S&P 500® Dividend Aristocrats Index" below.

The S&P 500® Dividend Aristocrats Total Return Index is calculated from the S&P 500® Dividend Aristocrats Index and daily total dividend returns. First, on each trading day, the total dividend paid on that day is measured in dollars and converted into index points of the S&P 500® Dividend Aristocrats Index by dividing the total dividend paid by the divisor for the S&P 500® Dividend Aristocrats Index. The daily total return for that trading day as (a) the return the S&P 500® Dividend Aristocrats Index since the immediately preceding trading day plus (b) the total dividend paid, expressed in index points of the S&P 500® Dividend Aristocrats Index, divided by the closing level of the S&P 500® Dividend Aristocrats Index on the immediately preceding trading day. The closing level of the S&P 500® Dividend Aristocrats Total Return Index on that trading day is then calculated by applying the daily total return for that trading day to the closing level of the S&P 500® Dividend Aristocrats Total Return Index on the immediately preceding trading day.

The S&P 500® Dividend Aristocrats Total Return Index reflects both ordinary and special dividends. Ordinary cash dividends are applied on the ex-date in calculating the S&P 500® Dividend Aristocrats Total Return Index. Special dividends are those dividends that are outside of the normal payment pattern established historically by the issuer of the stocks composing the S&P 500® Dividend Aristocrats Index. These may be described by the issuer as "special," "extra," "year-end," or "return of capital." Whether a dividend is funded from operating earnings or from other sources of cash does not affect the determination of whether it is ordinary or special. Special dividends are treated as corporate actions with offsetting price and divisor adjustments. Dividends used to calculate the S&P 500® Dividend Aristocrats Total Return Index can be negative if a dividend correction is applied to a particular stock.

### Background on the S&P 500® Dividend Aristocrats Index

All information contained in this pricing supplement regarding the S&P 500® Dividend Aristocrats Index, including, without limitation, its make-up, method of calculation and changes in its components, has been derived from publicly available information, without independent verification. This information reflects the policies of, and is subject to change by, S&P Dow Jones. The S&P 500® Dividend Aristocrats Index is calculated, maintained and published by S&P Dow Jones. S&P Dow Jones has no obligation to continue to calculate and publish, and may discontinue calculation and publication of, the S&P 500® Dividend Aristocrats Index.

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

The S&P 500® Dividend Aristocrats Index measures the performance of companies within the S&P 500® Index that have followed a policy of consistently increasing dividends every year for at least 25 years. The S&P 500® Index consists of stocks of 500 companies selected to provide a performance benchmark for the U.S. equity markets. For more information about the S&P 500® Index, see "Equity Index Descriptions — The S&P U.S. Indices" in the accompanying underlying supplement.

Constituents are equal weighted, with the qualifying universe reviewed once a year in January.

To qualify for membership in the S&P 500® Dividend Aristocrats Index, at each annual reconstitution a stock must satisfy the following criteria:

- (1) Be a member of the S&P 500® Index;
- (2) Have increased total dividend per share amount every year for at least 25 consecutive years;
- (3) Have a minimum float-adjusted market capitalization ("FMC") of at least US\$ 3 billion as of the rebalancing reference date; and
- (4) Have an average daily value traded of at least US\$ 5 million for the three-months prior to the rebalancing reference date.

Calendar years and ex-dates are used for the dividend analysis, with the data being reviewed every January. In situations where a dividend payment, or payments, deviates from the company's standard dividend payment cycle, S&P Dow Jones will, at its discretion, allocate payments to the appropriate year in order to take a full cycle into account.

A dividend initiation or re-initiation does not count as a dividend increase. The initiation calendar year may include payment of all four quarterly dividends, or only one, two or three quarterly payments. Evaluations are made on a best-effort basis.

S&P Dow Jones only considers cash dividend payments declared as regular by the paying company for index eligibility and selection purposes. Cash dividend payments declared as special by the paying company, including recurring special cash dividends, are not considered. Gross cash dividend amounts, before any withholding tax, are used.

For spin-offs occurring after January 1, 2013, the yearly dividend increase history of the parent company is assigned to both the parent and spun-off company on the spin-off effective date. To determine annual dividend payments, the dividends of the parent and spun-off companies are combined until two full calendar year cycles of dividend payments are available for both post-spin-off companies. For evaluation purposes the combined dividend amount is adjusted by the spin-off ratio. Subsequent dividend comparisons are based on the annual dividend amounts of each respective company.

For merger and acquisition events, S&P Dow Jones, at its discretion, may retain dividend history for newly formed entities from their predecessor companies.

#### *Stock Diversification*

At each annual reconstitution, the minimum number of constituent stocks is 40. As part of the annual reconstitution, if the number of constituent stocks is fewer than 40, the following steps are taken:

- The S&P 500® Index constituent stocks with history of increased dividends of more than 20 consecutive years, also satisfying the criteria on market capitalization and liquidity above, are added in decreasing order of dividend yield until the stock diversification criteria is satisfied.
- If the stock diversification criteria is still not satisfied, the remaining constituents of the S&P 500® Index satisfying the criteria on market capitalization and liquidity are added in decreasing order of dividend yield until the stock diversification criteria is satisfied. Dividend yield is calculated as the total dividends paid during the 12 months preceding the reference date, divided by the price on the reference date. Members of the S&P 500® Index that have reduced dividends in the 12 months preceding the reference date, as determined by S&P Dow Jones, are not considered for inclusion.

#### *Sector Diversification Criteria*

Constituent stocks are classified according to the Global Industry Classification Standard ("GICS"). At each annual reconstitution, this classification should not result in constituent stocks in a particular GICS sector accounting for more than a 30% weight in the S&P 500® Dividend Aristocrats Index.

As part of the annual reconstitution, if the sector diversification criteria is not satisfied following the selection of constituent stocks as detailed above, the following additional steps are taken:

- The S&P 500® Index constituent stocks with history of increased dividends of more than 20 consecutive years, also satisfying the primary criteria on market capitalization and liquidity above, are added in decreasing order of dividend yield until the sector diversification criteria is satisfied.
- If the sector diversification criteria is still not satisfied, the remaining constituents of the S&P 500® Index from alternative sectors satisfying the criteria on market capitalization and liquidity are added in decreasing order of dividend yield until the sector diversification criteria is satisfied. Members of the S&P 500® Index that have reduced dividends in the 12 months preceding the reference date, as determined by S&P Dow Jones, are not considered for inclusion.

At the discretion of the Index Committee (as defined below), stocks added to satisfy the stock or sector diversification requirements at the previous annual reconstitution may be retained in the S&P 500® Dividend Aristocrats Index if it once again increased annual total dividend per share amount and remains in the parent index universe (S&P 500® Index).

#### *Multiple Share Classes*

For companies with multiple share classes of common stock, S&P Dow Jones determines the share class with both the highest one-year trading liquidity and largest FMC as the designated listing. When the liquidity and market capitalization indicators are in conflict, S&P Dow Jones analyzes the relative differences between the two values placing a greater importance on liquidity. Each company in the S&P 500® Dividend Aristocrats Index is represented once by the designated listing.

#### ***The S&P 500® Dividend Aristocrats Index Constituent Selection***

The selection of index constituents is done as follows:

- (1) All constituents of the S&P 500® Index make up the initial selection universe.
- (2) All companies within the selection universe that meet the eligibility criteria for the S&P 500® Dividend Aristocrats Index.
- (3) If the number of constituent companies chosen in Step 2 is fewer than 40, then the remaining S&P 500® Index constituents are classified (1) according to the length of their dividend growth history in years and (2) according to their dividend yield. Stocks

with history of increased dividends of more than 20 consecutive years, also satisfying the primary criteria on market capitalization and liquidity above, are added in decreasing order of dividend yield until the index contains 40 constituents.

- (4) If the number of constituent companies chosen after Step 3 is still fewer than 40, the remaining constituents of the S&P 500 satisfying the criteria on market capitalization and liquidity are added in decreasing order of dividend yield until the stock diversification criteria is satisfied.
- (5) If the weight of any single GICS sector after Steps 2-4 exceeds 30%, then the remaining S&P 500® Index constituents are classified (1) according to the length of their dividend growth history in years and (2) according to their dividend yield. Stocks with history of increased dividends of more than 20 consecutive years, also satisfying the primary criteria on market capitalization and liquidity above, are added in decreasing order of dividend yield until no GICS sector accounts for more than a 30% index weight.
- (6) If the weight of any single GICS sector after Step 5 is still exceeds 30%, the remaining constituents of the S&P 500® Index satisfying the criteria on market capitalization and liquidity are added in decreasing order of dividend yield until the sector diversification criteria is satisfied.

At each reconstitution and rebalancing, constituents are equal weighted. In addition, as part of the annual reconstitution, each GICS sector is capped at 30% of the total index weight.

### ***The S&P 500® Dividend Aristocrats Index Calculation***

Once the constituent stocks are identified, S&P Dow Jones utilizes an equal weighting procedure to determine the composition of the S&P 500® Dividend Aristocrats Index so that each stock constituent has an equal weight in the index at each rebalancing date. Stock constituents are re-weighted every quarter to re-establish equal weighting using the closing prices as of the second Friday of the rebalancing month as the reference price. Since index shares are assigned based on prices one week prior to the rebalancing, the actual weight of each stock at the rebalancing will differ from the target equal weights due to market movements.

The S&P 500® Dividend Aristocrats Index is calculated by means of the divisor methodology. The initial divisor is set to have a base index value of 100 on December 29, 1989. The Index Level is simply the Index Market Value divided by the Divisor for the S&P 500® Dividend Aristocrats Index:

$$\text{Index Level} = \frac{\text{Index Market Value}}{\text{Divisor}}$$

The Index Market Value is calculated as follows:

$$\text{Index Market Value} = \sum_{i=1}^N (\text{Price})_i \times (\text{Shares})_i \times (\text{IWF})_i \times (\text{AWF})_i$$

where Price is the price of the constituent stock, Shares is the number of shares of the constituent stock outstanding, IWF is the constituent stock's Investable Weight Factor, which is a float adjustment factor designed to exclude shares that are closely held by control groups, other publicly traded companies or government agencies, and AWF is the adjustment factor of each constituent stock assigned at each rebalancing date.

The Adjustment Weight Factor, AWF, is calculated for each constituent stock, i, at each index rebalancing date, t, as follows:

$$\text{AWF}_{i,t} = \frac{Z}{N \times \text{FloatAdjustedMarketValue}_{i,t}}$$

where N is the number of stocks in the S&P 500® Dividend Aristocrats Index and Z is an index-specific constant set for the purpose of deriving the AWF.

In order to maintain index continuity, it is necessary to adjust the Divisor at the rebalancing so that the Index Level is not altered by the rebalancing:

Therefore,

$$(\text{Divisor})_{\text{after balancing}} = \frac{(\text{Index Market Value})_{\text{after rebalancing}}}{(\text{Index Value})_{\text{before rebalancing}}}$$

### ***The S&P 500® Dividend Aristocrats Index Maintenance and Adjustments***

The S&P 500® Dividend Aristocrats Index's constituent membership is reviewed once a year, with changes effective after of the last business day of January. The reference date for such additions and deletions is after the close of the last business day of December. In addition to the annual reconstitution, the S&P 500® Dividend Aristocrats Index re-weights quarterly, after the close of business of the last business day of January, April, July and October. The reference date for such re-weightings is five business days prior to the last

business day of the re-weighting month. No additions are made to the S&P 500® Dividend Aristocrats Index between annual reconstitutions. However, constituent stocks may be deleted during the December rebalancing if the company no longer meets the eligibility criteria described above or between rebalancings if the stock is removed from the S&P 500® Index.

Index constituents are reviewed on a monthly basis for ongoing eligibility. At the discretion of S&P Dow Jones, an index constituent may be removed effective prior to the open of the first business day of the following month if:

- A scheduled dividend payment is omitted;
- A company announces that it will cease paying dividends for an undetermined period; or
- A company announces a reduced dividend amount and S&P Dow Jones determine that it will no longer qualify for the S&P 500® Dividend Aristocrats Index at the subsequent reconstitution as a result.

### ***Index Committee***

The S&P 500® Dividend Aristocrats Index is maintained by an S&P Dow Jones index committee (the "Index Committee"). The Index Committee meets regularly. At each meeting, the Index Committee may review pending corporate actions that may affect the S&P 500® Dividend Aristocrats Index constituents, statistics comparing the composition of the S&P 500® Dividend Aristocrats Index to the market, companies that are being considered as candidates for addition to the S&P 500® Dividend Aristocrats Index and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones considers information about changes to the S&P 500® Dividend Aristocrats Index and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

The Index Committee reserves the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules S&P Dow Jones will provide sufficient notice, whenever possible.

In addition to the daily governance of the S&P 500® Dividend Aristocrats Index and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the S&P 500® Dividend Aristocrats Index continues to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones may publish a consultation inviting comments from external parties.

## Additional Risk Considerations Relating to the Notional Financing Cost

### **SOFR has a limited history and its future performance cannot be predicted based on historical performance.**

The publication of SOFR began in April 2018, and, therefore, it has a limited history. In addition, the future performance of SOFR cannot be predicted based on the limited historical performance. The level of SOFR during the term of the notes may bear little or no relation to historical actual or historical indicative SOFR data. Prior observed patterns, if any, in the behavior of market variables and their relation to SOFR, such as correlations, may change in the future. While some pre-publication historical data has been released by the Federal Reserve Bank of New York ("FRBNY"), production of such historical indicative SOFR data inherently involves assumptions, estimates and approximations. No future performance of SOFR may be inferred from any of historical actual or historical indicative SOFR data. Hypothetical or historical performance data are not indicative of, and have no bearing on, the potential performance of SOFR. Changes in the levels of SOFR will affect the notional financing cost and, therefore, the performance of the Index and the return on the notes and the trading price of the notes, but it is impossible to predict whether such levels will rise or fall.

### **SOFR will be affected by a number of factors.**

The notional financing cost will depend on SOFR. SOFR will depend on a number of factors, including, but not limited to:

- supply and demand for overnight U.S. Treasury repurchase agreements;
- sentiment regarding underlying strength in the U.S. and global economies;
- expectations regarding the level of price inflation;
- sentiment regarding credit quality in the U.S. and global credit markets;
- central bank policy regarding interest rates;
- inflation and expectations concerning inflation;
- performance of capital markets; and
- any statements from public government officials regarding the cessation of SOFR.

These and other factors may have a material effect on the performance of SOFR, on the notional financing cost, on the performance of the Index and on the value of the notes in the secondary market.

### **SOFR may be volatile and may be more volatile than other benchmark or market interest rates.**

SOFR is subject to volatility due to a variety of factors affecting interest rates generally, including, but not limited to:

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

Since the initial publication of SOFR, daily changes in the rate have, on occasion, been more volatile than daily changes in other benchmark or market rates, such as U.S. dollar LIBOR, during corresponding periods.

### **The composition and characteristics of SOFR are not the same as those of LIBOR and there is no guarantee that SOFR is a comparable substitute for LIBOR.**

In June 2017, the Federal Reserve Bank of New York's Alternative Reference Rates Committee (the "ARRC") announced SOFR as its recommended alternative to U.S. dollar LIBOR. However, the composition and characteristics of SOFR are not the same as those of U.S. dollar LIBOR. SOFR is a broad Treasury repo financing rate that represents overnight secured funding transactions and is not the economic equivalent of U.S. dollar LIBOR. While SOFR is a secured rate, U.S. dollar LIBOR is an unsecured rate. In addition, while SOFR currently is an overnight rate only, U.S. dollar LIBOR is a forward-looking rate that represents interbank funding for a specified term. As a result, there can be no assurance that SOFR will perform in the same way as U.S. dollar LIBOR would have at any time, including, without limitation, as a result of changes in interest and yield rates in the market, bank credit risk, market volatility or global or regional economic, financial, political, regulatory, judicial or other events. For the same reasons, SOFR is not expected to be a comparable substitute, successor or replacement for U.S. dollar LIBOR.

### **The fixed spread added to SOFR in calculating the notional financing cost will negatively affect the performance of the Index.**

The notional financing cost is intended to approximate the cost of maintaining a position in the Underlying Index using borrowed funds at a rate of interest equal to the daily SOFR rate plus a fixed spread. The fixed spread is arbitrary and will increase the notional financing cost, which will negatively affect the performance of the Index.

**The notional financing cost is calculated by reference to daily SOFR rates, not compounded SOFR rates.**

The notional financing cost is calculated by reference to daily SOFR rates, plus a fixed spread, not to SOFR compounded over any period. Accordingly, the notional financing cost is expected to be more representative of current overnight rates than of the overnight rate of return of a notional position in a time deposit in U.S. dollars. The notional financing cost may in some circumstances be higher than if compounded SOFR were used to calculate the notional financing cost.

**The administrator of SOFR may make changes that could adversely affect the level of SOFR or discontinue SOFR and has no obligation to consider your interest in doing so.**

SOFR is a relatively new rate, and FRBNY (or a successor), as administrator of SOFR, may make methodological or other changes that could change the value of SOFR, including changes related to the method by which SOFR is calculated, eligibility criteria applicable to the transactions used to calculate SOFR, or timing related to the publication of SOFR. If the manner in which SOFR is calculated is changed, that change may result in an increase to the notional financing cost, which would adversely affect the performance of the Index and the value of the notes. The administrator of SOFR may withdraw, modify, amend, suspend or discontinue the calculation or dissemination of SOFR in its sole discretion and without notice and has no obligation to consider the interests of holders of the notes in calculating, withdrawing, modifying, amending, suspending or discontinuing SOFR.

**Additional Information about the Notional Financing Cost**

**What Is SOFR?**

SOFR is published by the Federal Reserve Bank of New York ("FRBNY") and is intended to be a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities. FRBNY reports that SOFR includes all trades in the Broad General Collateral Rate, plus bilateral Treasury repurchase agreement ("repo") transactions cleared through the delivery-versus-payment service offered by the Fixed Income Clearing Corporation (the "FICC"), a subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). SOFR is filtered by FRBNY to remove a portion of the foregoing transactions considered to be "specials." According to FRBNY, "specials" are repos for specific-issue collateral which take place at cash-lending rates below those for general collateral repos because cash providers are willing to accept a lesser return on their cash in order to obtain a particular security.

FRBNY reports that SOFR is calculated as a volume-weighted median of transaction-level tri-party repo data collected from The Bank of New York Mellon, which currently acts as the clearing bank for the tri-party repo market, as well as General Collateral Finance Repo transaction data and data on bilateral Treasury repo transactions cleared through the FICC's delivery-versus-payment service. FRBNY notes that it obtains information from DTCC Solutions LLC, an affiliate of DTCC.

FRBNY currently publishes SOFR daily on its website. FRBNY states on its publication page for SOFR that use of SOFR is subject to important disclaimers, limitations and indemnification obligations, including that FRBNY may alter the methods of calculation, publication schedule, rate revision practices or availability of SOFR at any time without notice. Information contained in the publication page for SOFR is not incorporated by reference in, and should not be considered part of, this pricing supplement.