

DEUTSCHE BANK AKTIENGESELLSCHAFT  
Form 424B2  
January 31, 2018

**Pricing  
Supplement**

*To product  
supplement B  
dated July 31, 2015,* Pricing Supplement No. 3031B

*prospectus  
supplement  
dated July 31, 2015 and* Registration Statement No. 333-206013  
*Rule 424(b)(2)*

*prospectus  
dated April  
27, 2016*

**The information in this preliminary pricing supplement is not complete and may be changed. This preliminary pricing supplement and the accompanying product supplement, prospectus supplement and prospectus do not constitute an offer to sell nor do they seek an offer to buy the notes in any jurisdiction where the offer or sale is not permitted.**

Subject to Completion. Dated January 31, 2018

**Deutsche  
Bank**

**Structured Deutsche Bank AG  
Investments \$ Knock-Out Notes Linked to the  
CAC 40® Index due August 7, 2019**

**General**

The notes are designed for investors who seek a return at maturity of 1.46 times the potential positive performance (if any) of the CAC 40® Index (the “**Underlying**”). If the Final Level is less than the Initial Level but greater than or equal to the Knock-Out Level (75.00% of the Initial Level), for each \$1,000 Face Amount of notes, investors will receive at maturity the Face Amount. However, if the Final Level is less than the Knock-Out Level, a Knock-Out Event occurs and, for each \$1,000 Face Amount of notes, investors will lose 1.00% of the Face Amount for every 1.00% by which the Final Level is less than the Initial Level. The notes do not pay any coupons or dividends and investors should be willing to lose a significant portion or all of their investment if a Knock-Out Event occurs. Any payment on the notes is subject to the credit of the Issuer.

· Senior unsecured obligations of Deutsche Bank AG due August 7, 2019

· Minimum purchase of \$10,000. Minimum denominations of \$1,000 (the “**Face Amount**”) and integral multiples thereof.

The notes are expected to price on or about February 2, 2018 (the “**Trade Date**”) and are expected to settle on or about February 7, 2018 (the “**Settlement Date**”).

## Key Terms

Issuer: Deutsche Bank AG, London Branch  
Underlying: CAC 40<sup>®</sup> Index (Ticker: CAC)  
Issue Price: 100% of the Face Amount  
Upside  
Leverage Factor: 1.46  
Knock-Out Event: A Knock-Out Event occurs if the Final Level is less than the Knock-Out Level.  
Knock-Out Level: 75.00% of the Initial Level. The actual Knock-Out Level will be determined on the Trade Date and will not be greater than 75.00% of the Initial Level.  
Payment at Maturity: **If the Final Level is greater than the Initial Level**, you will receive a cash payment at maturity per \$1,000 Face Amount of notes calculated as follows:

$\$1,000 + (\$1,000 \times \text{Underlying Return} \times \text{Upside Leverage Factor})$

**If the Final Level is less than or equal to the Initial Level but a Knock-Out Event has not occurred (meaning the Final Level is greater than or equal to the Knock-Out Level)**, you will receive a cash payment at maturity equal to the Face Amount per \$1,000 Face Amount of notes.

**If a Knock-Out Event has occurred (meaning the Final Level is less than the Knock-Out Level)**, you will receive a cash payment at maturity per \$1,000 Face Amount of notes calculated as follows:

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

*If a Knock-Out Event has occurred, for each \$1,000 Face Amount of notes, you will lose 1.00% of the Face Amount for every 1.00% by which the Final Level is less than the Initial Level. In this circumstance, you will lose a significant portion or all of your investment at maturity. Any payment at maturity is subject to the credit of the Issuer.*

Underlying Return: The performance of the Underlying from the Initial Level to the Final Level, calculated as follows:  
$$\frac{\text{Final Level} - \text{Initial Level}}{\text{Initial Level}}$$
*The Underlying Return may be positive, zero or negative.*

*(Key Terms continued on next page)*

**Investing in the notes involves a number of risks. See “Risk Factors” beginning on page 7 of the accompanying product supplement, page PS-5 of the accompanying prospectus supplement and page 13 of the accompanying prospectus and “Selected Risk Considerations” beginning on page 9 of this pricing supplement.**

**The Issuer’s estimated value of the notes on the Trade Date is approximately \$961.10 to \$981.10 per \$1,000 Face Amount of notes, which is less than the Issue Price. Please see “Issuer’s Estimated Value of the Notes” on page 3 of**

**this pricing supplement for additional information.**

**By acquiring the notes, you will be bound by and deemed irrevocably to consent to the imposition of any Resolution Measure (as defined below) by the competent resolution authority, which may include the write down of all, or a portion, of any payment on the notes or the conversion of the notes into ordinary shares or other instruments of ownership. If any Resolution Measure becomes applicable to us, you may lose some or all of your investment in the notes. Please see “Resolution Measures and Deemed Agreement” on page 4 of this pricing supplement for more information.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the notes or passed upon the accuracy or the adequacy of this pricing supplement or the accompanying product supplement, prospectus supplement or prospectus. Any representation to the contrary is a criminal offense.

	<b>Price to Public<sup>(1)</sup></b>	<b>Fees<sup>(1)(2)</sup></b>	<b>Proceeds to Issuer</b>
<b>Per Note</b>	\$1,000.00	\$12.50	\$987.50
<b>Total</b>	\$	\$	\$

JPMorgan Chase Bank, N.A. and J.P. Morgan Securities LLC, which we refer to as JPMS LLC, or one of its affiliates will act as placement agents for the notes. The placement agents will forgo fees for sales to

- (1) fiduciary accounts. The total fees represent the amount that the placement agents receive from sales to accounts other than such fiduciary accounts. The placement agents will receive a fee from the Issuer that will not exceed \$12.50 per \$1,000 Face Amount of notes.

(2) Please see “Supplemental Plan of Distribution” in this pricing supplement for more information about fees.

*The notes are not deposits or savings accounts and are not insured or guaranteed by the Federal Deposit Insurance Corporation or any other U.S. or foreign governmental agency or instrumentality.*

**JPMorgan**

**Placement Agent**

February , 2018

*(Key Terms continued from previous page)*

Initial Level: The closing level of the Underlying on the Trade Date  
Final Level: The arithmetic average of the closing levels of the Underlying on each of the five Averaging Dates  
Trade Date<sup>2</sup>: February 2, 2018  
Settlement Date<sup>2</sup>: February 7, 2018  
Averaging Dates<sup>1, 2</sup>: July 29, 2019, July 30, 2019, July 31, 2019, August 1, 2019 and August 2, 2019  
Maturity Date<sup>1, 2</sup>: August 7, 2019  
Listing: The notes will not be listed on any securities exchange.  
CUSIP / ISIN: 25155MJD4 / US25155MJD48

<sup>1</sup> Subject to adjustment as described under “Description of Securities — Adjustments to Valuation Dates and Payment Dates” in the accompanying product supplement.

<sup>2</sup> In the event that we make any changes to the expected Trade Date or Settlement Date, the Averaging Dates and Maturity Date may be changed so that the stated term of the notes remains the same.

### **Issuer's Estimated Value of the Notes**

The Issuer's estimated value of the notes is equal to the sum of our valuations of the following two components of the notes: (i) a bond and (ii) an embedded derivative(s). The value of the bond component of the notes is calculated based on the present value of the stream of cash payments associated with a conventional bond with a principal amount equal to the Face Amount of notes, discounted at an internal funding rate, which is determined primarily based on our market-based yield curve, adjusted to account for our funding needs and objectives for the period matching the term of the notes. The internal funding rate is typically lower than the rate we would pay when we issue conventional debt securities on equivalent terms. This difference in funding rate, as well as the agent's commissions, if any, and the estimated cost of hedging our obligations under the notes, reduces the economic terms of the notes to you and is expected to adversely affect the price at which you may be able to sell the notes in any secondary market. The value of the embedded derivative(s) is calculated based on our internal pricing models using relevant parameter inputs such as expected interest and dividend rates and mid-market levels of price and volatility of the assets underlying the notes or any futures, options or swaps related to such underlying assets. Our internal pricing models are proprietary and rely in part on certain assumptions about future events, which may prove to be incorrect.

The Issuer's estimated value of the notes on the Trade Date (as disclosed on the cover of this pricing supplement) is less than the Issue Price of the notes. The difference between the Issue Price and the Issuer's estimated value of the notes on the Trade Date is due to the inclusion in the Issue Price of the agent's commissions, if any, and the cost of hedging our obligations under the notes through one or more of our affiliates. Such hedging cost includes our or our affiliates' expected cost of providing such hedge, as well as the profit we or our affiliates expect to realize in consideration for assuming the risks inherent in providing such hedge.

The Issuer's estimated value of the notes on the Trade Date does not represent the price at which we or any of our affiliates would be willing to purchase your notes in the secondary market at any time. Assuming no changes in market conditions or our creditworthiness and other relevant factors, the price, if any, at which we or our affiliates would be willing to purchase the notes from you in secondary market transactions, if at all, would generally be lower than both the Issue Price and the Issuer's estimated value of the notes on the Trade Date. Our purchase price, if any, in secondary market transactions will be based on the estimated value of the notes determined by reference to (i) the then-prevailing internal funding rate (adjusted by a spread) or another appropriate measure of our cost of funds and (ii) our pricing models at that time, less a bid spread determined after taking into account the size of the repurchase, the nature of the assets underlying the notes and then-prevailing market conditions. The price we report to financial reporting services and to distributors of our notes for use on customer account statements would generally be determined on the same basis. However, during the period of approximately six months beginning from the Trade Date, we or our affiliates may, in our sole discretion, increase the purchase price determined as described above by an amount equal to the declining differential between the Issue Price and the Issuer's estimated value of the notes on the Trade Date, prorated over such period on a straight-line basis, for transactions that are individually and in the aggregate of the expected size for ordinary secondary market repurchases.

## Resolution Measures and Deemed Agreement

On May 15, 2014, the European Parliament and the Council of the European Union adopted a directive establishing a framework for the recovery and resolution of credit institutions and investment firms (commonly referred to as the “**Bank Recovery and Resolution Directive**”). The Bank Recovery and Resolution Directive required each member state of the European Union to adopt and publish by December 31, 2014 the laws, regulations and administrative provisions necessary to comply with the Bank Recovery and Resolution Directive. Germany adopted the Recovery and Resolution Act (*Sanierungs- und Abwicklungsgesetz*, or the “**Resolution Act**”), which became effective on January 1, 2015. The Bank Recovery and Resolution Directive and the Resolution Act provided national resolution authorities with a set of resolution powers to intervene in the event that a bank is failing or likely to fail and certain other conditions are met. From January 1, 2016, the power to initiate resolution measures applicable to significant banking groups (such as Deutsche Bank Group) in the European Banking Union has been transferred to the European Single Resolution Board which, based on the European Union regulation establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund (the “**SRM Regulation**”), works in close cooperation with the European Central Bank, the European Commission and the national resolution authorities. Pursuant to the SRM Regulation, the Resolution Act and other applicable rules and regulations, the notes may be subject to any Resolution Measure by the competent resolution authority if we become, or are deemed by the competent supervisory authority to have become, “non-viable” (as defined under the then applicable law) and are unable to continue our regulated banking activities without a Resolution Measure becoming applicable to us. By acquiring the notes, you will be bound by and deemed irrevocably to consent to the provisions set forth in the accompanying prospectus, which we have summarized below.

By acquiring the notes, you will be bound by and deemed irrevocably to consent to the imposition of any Resolution Measure by the competent resolution authority. Under the relevant resolution laws and regulations as applicable to us from time to time, the notes may be subject to the powers exercised by the competent resolution authority to: (i) write down, including to zero, any payment (or delivery obligations) on the notes; (ii) convert the notes into ordinary shares of (a) the Issuer, (b) any group entity or (c) any bridge bank or other instruments of ownership of such entities qualifying as common equity tier 1 capital; and/or (iii) apply any other resolution measure including, but not limited to, any transfer of the notes to another entity, the amendment, modification or variation of the terms and conditions of the notes or the cancellation of the notes. We refer to each of these measures as a “**Resolution Measure**.” A “group entity” refers to an entity that is included in the corporate group subject to a Resolution Measure. A “bridge bank” refers to a newly chartered German bank that would receive some or all of our assets, liabilities and material contracts, including those attributable to our branches and subsidiaries, in a resolution proceeding.

Furthermore, by acquiring the notes, you:

are deemed irrevocably to have agreed, and you will agree: (i) to be bound by, to acknowledge and to accept any Resolution Measure and any amendment, modification or variation of the terms and conditions of the notes to give effect to any Resolution Measure; (ii) that you will have no claim or other right against us arising out of any Resolution Measure; and (iii) that the imposition of any Resolution Measure will not constitute a default or an event of default under the notes, under the senior indenture dated November 22, 2006 among us, Law Debenture Trust

Company of New York, as trustee, and Deutsche Bank Trust Company Americas, as issuing agent, paying agent, authenticating agent and registrar, as amended and supplemented from time to time (the “**Indenture**”), or for the purposes of, but only to the fullest extent permitted by, the Trust Indenture Act of 1939, as amended (the “**Trust Indenture Act**”);

waive, to the fullest extent permitted by the Trust Indenture Act and applicable law, any and all claims against the trustee and the paying agent, the issuing agent and the registrar (each, an “**indenture agent**”) for, agree not to initiate a suit against the trustee or the indenture agents in respect of, and agree that the trustee and the indenture agents will not be liable for, any action that the trustee or the indenture agents take, or abstain from taking, in either case in accordance with the imposition of a Resolution Measure by the competent resolution authority with respect to the notes; and

will be deemed irrevocably to have: (i) consented to the imposition of any Resolution Measure as it may be imposed without any prior notice by the competent resolution authority of its decision to exercise such power with respect to the notes; (ii) authorized, directed and requested The Depository Trust Company (“**DTC**”) and any direct participant in DTC or other intermediary through which you hold such notes to take any and all necessary action, if required, to implement the imposition of any Resolution Measure with respect to the notes as it may be imposed, without any further action or direction on your part or on the part of the trustee or the indenture agents; and (iii) acknowledged and accepted that the Resolution Measure provisions described herein and in the “Resolution Measures” section of the accompanying prospectus are exhaustive on the matters described herein and therein to the exclusion of any other agreements,

arrangements or understandings between you and the Issuer relating to the terms and conditions of the notes.

*This is only a summary, for more information please see the accompanying prospectus dated April 27, 2016, including the risk factors beginning on page 13 of such prospectus.*

### **Additional Terms Specific to the Notes**

You should read this pricing supplement together with product supplement B dated July 31, 2015, the prospectus supplement dated July 31, 2015 relating to our Series A global notes of which these notes are a part and the prospectus dated April 27, 2016. Delaware Trust Company, which acquired the corporate trust business of Law Debenture Trust Company of New York, is the successor trustee of the notes. When you read the accompanying product supplement and prospectus supplement, please note that all references in such supplements to the prospectus dated July 31, 2015, or to any sections therein, should refer instead to the accompanying prospectus dated April 27, 2016 or to the corresponding sections of such prospectus, as applicable, unless otherwise specified or the context otherwise requires. You may access these documents on the website of the Securities and Exchange Commission (the “SEC”) 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 B dated July 31, 2015:

[https://www.sec.gov/Archives/edgar/data/1159508/000095010315006059/crt\\_dp58181-424b2.pdf](https://www.sec.gov/Archives/edgar/data/1159508/000095010315006059/crt_dp58181-424b2.pdf)

Prospectus supplement dated July 31, 2015:

[https://www.sec.gov/Archives/edgar/data/1159508/000095010315006048/crt-dp58161\\_424b2.pdf](https://www.sec.gov/Archives/edgar/data/1159508/000095010315006048/crt-dp58161_424b2.pdf)

Prospectus dated April 27, 2016:

<https://www.sec.gov/Archives/edgar/data/1159508/000119312516559607/d181910d424b21.pdf>

Our Central Index Key, or CIK, on the SEC website is 0001159508. As used in this pricing supplement, “we,” “us” or “our” refers to Deutsche Bank AG, including, as the context requires, acting through one of its branches. This pricing supplement, together with the documents listed above, 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, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in this pricing supplement and in “Risk Factors” in the accompanying product supplement, prospectus supplement and prospectus, 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 deciding to invest in 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. We will notify you in the event of any changes to the terms of the notes and you will be asked to accept such changes in connection with your purchase of any notes. You may choose to reject such changes, in which case we may reject your offer to purchase the notes.**

## Hypothetical Examples

The following table illustrates a range of hypothetical payments at maturity on the notes. The table and the hypothetical examples below reflect the Upside Leverage Factor of 1.46 and the Knock-Out Level of 75.00% of the Initial Level. The actual Initial Level and Knock-Out Level will be determined on the Trade Date. The table and hypothetical examples set forth below are for illustrative purposes only. The actual return applicable to a purchaser of the notes will be based on whether or not a Knock-Out Event occurs, which will depend on whether the Final Level of the Underlying is less than the Knock-Out Level, and the Underlying Return, which will be based on the performance of the Underlying as measured on the Averaging Dates. The numbers appearing in the table and examples below may have been rounded for ease of analysis. You should consider carefully whether the notes are suitable to your investment goals.

<i>Hypothetical Underlying Return (%)</i>	<i>Hypothetical Return on the Notes (%)</i>	<i>Hypothetical Payment at Maturity (\$)</i>
100.00%	146.00%	\$2,460.00
90.00%	131.40%	\$2,314.00
80.00%	116.80%	\$2,168.00
70.00%	102.20%	\$2,022.00
60.00%	87.60%	\$1,876.00
50.00%	73.00%	\$1,730.00
40.00%	58.40%	\$1,584.00
30.00%	43.80%	\$1,438.00
20.00%	29.20%	\$1,292.00
15.00%	21.90%	\$1,219.00
10.00%	14.60%	\$1,146.00
5.00%	7.30%	\$1,073.00
<b>0.00%</b>	<b>0.00%</b>	<b>\$1,000.00</b>
-5.00%	0.00%	\$1,000.00
-10.00%	0.00%	\$1,000.00
-15.00%	0.00%	\$1,000.00
-20.00%	0.00%	\$1,000.00
<b>-25.00%</b>	<b>0.00%</b>	<b>\$1,000.00</b>
-26.00%	-26.00%	\$740.00
-30.00%	-30.00%	\$700.00
-40.00%	-40.00%	\$600.00
-50.00%	-50.00%	\$500.00
-60.00%	-60.00%	\$400.00
-70.00%	-70.00%	\$300.00
-80.00%	-80.00%	\$200.00
-90.00%	-90.00%	\$100.00
-100.00%	-100.00%	\$0.00

## Hypothetical Examples of Amounts Payable at Maturity

The following hypothetical examples illustrate how the payments on the notes at maturity set forth in the table above are calculated.

**Example 1: The Final Level is greater than the Initial Level, resulting in an Underlying Return of 40.00%.**

Because the Final Level is greater than the Initial Level, the investor receives a Payment at Maturity of \$1,584.00 per \$1,000 Face Amount of notes, calculated as follows:

$$\$1,000 + (\$1,000 \times \text{Underlying Return} \times \text{Upside Leverage Factor})$$

$$\$1,000 + (\$1,000 \times 40.00\% \times 1.46) = \$1,584.00$$

**Example 2: The Final Level is less than the Initial Level but a Knock-Out Event has not occurred, resulting in an Underlying Return of -10.00%.**

Because the Final Level is greater than or equal to the Knock-Out Level, a Knock-Out Event has not occurred. Because the Final Level is less than the Initial Level but a Knock-Out Event has not occurred, the investor receives a Payment at Maturity of \$1,000.00 per \$1,000 Face Amount of notes.

**Example 3: A Knock-Out Event has occurred and the Underlying Return equals -50.00%.** Because the Final Level is less than the Knock-Out Level, a Knock-Out Event has occurred. Because a Knock-Out Event has occurred and the Underlying Return is -50.00%, the investor receives a Payment at Maturity of \$500.00 per \$1,000 Face Amount of notes, calculated as follows:

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

$$\$1,000 + (\$1,000 \times -50.00\%) = \$500.00$$

### Selected Purchase Considerations

**UNCAPPED APPRECIATION POTENTIAL** — The notes provide the opportunity to enhance returns by *multiplying* a positive Underlying Return by the Upside Leverage Factor of 1.46. **Any payment on the notes is subject to our ability to satisfy our obligations as they become due.**

**LIMITED PROTECTION AGAINST LOSS** — If the Final Level is less than the Initial Level but a Knock-Out Event has not occurred, for each \$1,000 Face Amount of notes, you will receive at maturity the Face Amount. However, if a Knock-Out Event has occurred, for each \$1,000 Face Amount of notes, you will lose 1.00% of the Face Amount for every 1.00% by which the Final Level is less than the Initial Level. In this circumstance, you will lose a significant portion or all of your investment in the notes.

**RETURN LINKED TO THE PERFORMANCE OF THE CAC 40<sup>®</sup> Index** — The CAC 40 Index is a free float market capitalization weighted index that represents the performance of the 40 largest and most actively traded shares listed on the Euronext Paris. The CAC 40<sup>®</sup> Index is calculated, maintained and published by Euronext N.V. The CAC 40<sup>®</sup> Index is calculated in euros and is reported by Bloomberg L.P. under the ticker symbol “CAC.” *This is only a summary of the CAC 40<sup>®</sup> Index. For more information on the CAC 40<sup>®</sup> Index, including information concerning its composition, calculation methodology and adjustment policy, please see “The CAC 40 Index” in this pricing supplement*

**TAX CONSEQUENCES** — In the opinion of our special tax counsel, Davis Polk & Wardwell LLP, which is based on prevailing market conditions, it is more likely than not that the notes will be treated for U.S. federal income tax purposes as prepaid financial contracts that are not debt. Generally, if this treatment is respected, (i) you should not recognize taxable income or loss prior to the maturity or other taxable disposition of your notes and (ii) the gain or loss on your notes should be capital gain or loss and should be long-term capital gain or loss if you have held the notes for more than one year. The Internal Revenue Service (the “**IRS**”) or a court might not agree with this treatment, however, in which case the timing and character of income or loss on your notes could be materially and adversely affected.

In 2007, the U.S. Treasury Department and the IRS released a notice requesting comments on various issues regarding the U.S. federal income tax treatment of “prepaid forward contracts” and similar instruments. The notice focuses in particular on whether beneficial owners of these instruments should be required to accrue income over the term of their investment. It also asks for comments on a number of related topics, including the character of income or loss with respect to these instruments; the relevance of factors such as the nature of the underlying property to which the instruments are linked; the degree, if any, to which income (including any mandated accruals) realized by non-U.S. persons should be subject to withholding tax; and whether these instruments are or should be subject to the “constructive ownership” regime, which very generally can operate to recharacterize certain long-term capital gain as ordinary income and impose a notional interest charge. While the notice requests comments on appropriate transition rules and effective dates, any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the notes, possibly with retroactive effect.

Withholding under legislation commonly referred to as “FATCA” might (if the notes were recharacterized as debt instruments) apply to amounts treated as interest paid with respect to the notes, as well as to the payment of gross proceeds of a taxable disposition, including redemption at maturity, of a note. However, under a recent IRS notice, this regime will not apply to payments of gross proceeds (other than any amount treated as interest) with respect to dispositions occurring before January 1, 2019. You should consult your tax adviser regarding the potential application of FATCA to the notes.

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 (such as an index, a “**Qualified Index**”). Additionally, a recent IRS notice excludes from the scope of Section 871(m) instruments issued prior to January 1, 2019 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.

You should review carefully the section of the accompanying product supplement entitled “U.S. Federal Income Tax Consequences.” The preceding discussion, when read in combination with that section, constitutes the full opinion of our special tax counsel regarding the material U.S. federal income tax consequences of owning and disposing of the notes.

Under current law, the United Kingdom will not impose withholding tax on payments made with respect to the notes.

For a discussion of certain German tax considerations relating to the notes, you should refer to the section in the accompanying prospectus supplement entitled “Taxation by Germany of Non-Resident Holders.”

**You should consult your tax adviser regarding the U.S. federal tax consequences of an investment in the notes (including possible alternative treatments and the issues presented by the 2007 notice), as well as tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction.**

### **Selected Risk Considerations**

An investment in the notes involves significant risks. Investing in the notes is not equivalent to investing directly in the stocks composing the Underlying. In addition to these selected risk considerations, you should review the “Risk Factors” sections of the accompanying product supplement, prospectus supplement and prospectus.

**· YOUR INVESTMENT IN THE NOTES MAY RESULT IN A LOSS** — The notes do not guarantee any return of your investment. The return on the notes at maturity is based on whether or not a Knock-Out Event occurs and the Underlying Return. If the Final Level is less than the Knock-Out Level, a Knock-Out Event occurs and your investment will be fully exposed to any decline in the level of the Underlying as measured on the Averaging Dates. If a Knock-Out Event has occurred, for each \$1,000 Face Amount of notes, you will lose 1.00% of the Face Amount for

every 1.00% by which the Final Level is less than the Initial Level. In this circumstance, you will lose a significant portion or all of your investment at maturity. **Any payment on the notes is subject to our ability to satisfy our obligations as they become due.**

**THE NOTES DO NOT PAY ANY COUPONS** — Unlike ordinary debt securities, the notes do not pay any coupons and do not guarantee any return of your investment at maturity.

**The Notes Are Subject to the Credit of Deutsche Bank AG** — The notes are senior unsecured obligations of Deutsche Bank AG and are not, either directly or indirectly, an obligation of any third party. Any payment(s) to be made on the notes depends on the ability of Deutsche Bank AG to satisfy its obligations as they become due. An actual or anticipated downgrade in Deutsche Bank AG's credit rating or increase in the credit spreads charged by the market for taking Deutsche Bank AG's credit risk will likely have an adverse effect on the value of the notes. As a result, the actual and perceived creditworthiness of Deutsche Bank AG will affect the value of the notes and, in the event Deutsche Bank AG were to default on its obligations or become subject to a Resolution Measure, you might not receive any amount(s) owed to you under the terms of the notes and you could lose your entire investment.

**The Notes May Be Written Down, Be Converted Into Ordinary Shares or Other Instruments of Ownership or Become Subject to Other Resolution Measures. You May Lose Some or All of Your Investment If Any Such Measure Becomes Applicable to US** — Pursuant to the SRM Regulation, the Resolution Act and other applicable rules and regulations described above under "Resolution Measures and Deemed Agreement," the notes are subject to the powers exercised by the competent resolution authority to impose Resolution Measures on us, which may include: writing down, including to zero, any claim for payment on the notes; converting the notes into ordinary shares of (i) the Issuer, (ii) any group entity or (iii) any bridge bank or other instruments of ownership of such entities qualifying as common equity tier 1 capital; or applying any other resolution measure including, but not limited to, transferring the notes to

another entity, amending, modifying or varying the terms and conditions of the notes or cancelling the notes. The competent resolution authority may apply Resolution Measures individually or in any combination.

The German law on the mechanism for the resolution of banks of November 2, 2015 (*Abwicklungsmechanismengesetz*, or the “**Resolution Mechanism Act**”) provides that, in a German insolvency proceeding of the Issuer, certain specifically defined senior unsecured debt instruments would rank junior to, without constituting subordinated debt, all other outstanding unsecured unsubordinated obligations of the Issuer and be satisfied only if all such other senior unsecured obligations of the Issuer have been paid in full. This prioritization would also be given effect if Resolution Measures are imposed on the Issuer, so that obligations under debt instruments that rank junior in insolvency as described above would be written down or converted into common equity tier 1 instruments *before* any other senior unsecured obligations of the Issuer are written down or converted. A large portion of our liabilities consist of senior unsecured obligations that either fall outside the statutory definition of debt instruments that rank junior to other senior unsecured obligations according to the Resolution Mechanism Act or are expressly exempted from such definition.

Among those unsecured unsubordinated obligations that are expressly exempted are money market instruments and senior unsecured debt instruments whose terms provide that (i) the repayment or the amount of the repayment depends on the occurrence or non-occurrence of an event which is uncertain at the point in time when the senior unsecured debt instruments are issued or is settled in a way other than by monetary payment, or (ii) the payment of interest or the amount of the interest payments depends on the occurrence or non-occurrence of an event which is uncertain at the point in time when the senior unsecured debt instruments are issued unless the payment of interest or the amount of the interest payments solely depends on a fixed or floating reference interest rate and is settled by monetary payment. This order of priority introduced by the Resolution Mechanism Act would apply in German insolvency proceedings instituted, or when Resolution Measures are imposed, on or after January 1, 2017 with effect for debt instruments of the Issuer outstanding at that time. In a German insolvency proceeding or in the event of the imposition of Resolution Measures with respect to the Issuer, the competent regulatory authority or court would determine which of our senior debt securities issued under the prospectus have the terms described in clauses (i) or (ii) above, referred to herein as the “**Structured Debt Securities**,” and which do not, referred to herein as the “**Non-Structured Debt Securities**.” We expect the notes offered herein to be classified as Structured Debt Securities, but the competent regulatory authority or court may classify the notes differently. In a German insolvency proceeding or in the event of the imposition of Resolution Measures with respect to the Issuer, the Structured Debt Securities are expected to be among the unsecured unsubordinated obligations that would bear losses after the Non-Structured Debt Securities as described above. **Nevertheless, you may lose some or all of your investment in the notes if a Resolution Measure becomes applicable to us.** Imposition of a Resolution Measure would likely occur if we become, or are deemed by the competent supervisory authority to have become, “non-viable” (as defined under the then applicable law) and are unable to continue our regulated banking activities without a Resolution Measure becoming applicable to us. The Bank Recovery and Resolution Directive and the Resolution Act are intended to eliminate the need for public support of troubled banks, and you should be aware that public support, if any, would only potentially be used by the competent supervisory authority as a last resort after having assessed and exploited, to the maximum extent practicable, the resolution tools, including the bail-in tool.

By acquiring the notes, you would have no claim or other right against us arising out of any Resolution Measure and we would have no obligation to make payments under the notes following the imposition of a Resolution Measure. In

particular, the imposition of any Resolution Measure will not constitute a default or an event of default under the notes, under the Indenture or for the purposes of, but only to the fullest extent permitted by, the Trust Indenture Act. Furthermore, because the notes are subject to any Resolution Measure, secondary market trading in the notes may not follow the trading behavior associated with similar types of securities issued by other financial institutions which may be or have been subject to a Resolution Measure.

In addition, by your acquisition of the notes, you waive, to the fullest extent permitted by the Trust Indenture Act and applicable law, any and all claims against the trustee and the indenture agents for, agree not to initiate a suit against the trustee or the indenture agents in respect of, and agree that the trustee and the indenture agents will not be liable for, any action that the trustee or the indenture agents take, or abstain from taking, in either case in accordance with the imposition of a Resolution Measure by the competent resolution authority with respect to the notes. **Accordingly, you may have limited or circumscribed rights to challenge any decision of the competent resolution authority to impose any Resolution Measure.**

**The Issuer's Estimated Value of the notes on the Trade Date Will Be Less Than the Issue Price of the notes** — The Issuer's estimated value of the notes on the Trade Date (as disclosed on the cover of this pricing supplement) is less than the Issue Price of the notes. The difference between the Issue Price and the Issuer's estimated value of the notes on the Trade Date is due to the inclusion in the Issue Price of the agent's commissions, if any, and the cost of hedging our obligations under the notes through one or more of our affiliates. Such hedging cost includes our or our affiliates' expected cost of providing such hedge, as well as the profit we or our affiliates expect to realize in consideration for assuming the risks inherent in providing such hedge. The Issuer's estimated value of the notes is determined by reference to an internal funding rate and our pricing models. The internal funding rate is typically lower than the rate we would pay when we issue conventional debt securities on equivalent terms. This difference in funding rate, as well as the agent's commissions, if any, and the estimated cost of hedging our obligations under the notes, reduces the economic terms of the notes to you and is expected to adversely affect the price at which you may be able to sell the notes in any secondary market. In addition, our internal pricing models are proprietary and rely in part on certain assumptions about future events, which may prove to be incorrect. If at any time a third party dealer were to quote a price to purchase your notes or otherwise value your notes, that price or value may differ materially from the estimated value of the notes determined by reference to our internal funding rate and pricing models. This difference is due to, among other things, any difference in funding rates, pricing models or assumptions used by any dealer who may purchase the notes in the secondary market.

**INVESTING IN THE NOTES IS NOT THE SAME AS INVESTING IN THE STOCKS COMPOSING THE UNDERLYING** — The return on the notes may not reflect the return you would have realized if you had directly invested in the stocks composing the Underlying. For instance, your return on the notes is based on whether or not a Knock-Out Event occurs, in addition to the performance of the Underlying.

**IF THE LEVEL OF THE UNDERLYING CHANGES, THE VALUE OF YOUR NOTES MAY NOT CHANGE IN THE SAME MANNER** — Your notes may trade quite differently from the level of the Underlying. Changes in the level of the Underlying may not result in comparable changes in the value of your notes.

**NO DIVIDEND PAYMENTS OR VOTING RIGHTS** — As a holder of the notes, you will not have any voting rights or rights to receive cash dividends or other distributions or other rights that holders of the stocks composing the Underlying would have.

**The Underlying Reflects the Price Return of the Stocks Composing the Underlying, Not Their Total Return Including All Dividends and Other Distributions** — The Underlying reflects the changes in the market prices of the stocks composing the Underlying. The Underlying is not, however, a "total return" index, which, in addition to reflecting those price returns, would also reflect the reinvestment of all dividends and other distributions paid on the stocks composing the Underlying.

**THERE ARE RISKS ASSOCIATED WITH INVESTMENTS LINKED TO THE VALUES OF EQUITY SECURITIES ISSUED BY NON-U.S. COMPANIES** — The Underlying includes component stocks that are issued by companies incorporated outside of the U.S. Because the component stocks also trade outside the U.S., the notes are subject to the risks associated with non-U.S. securities markets. Generally, non-U.S. securities markets may be less liquid and more volatile than U.S. securities markets and market developments may affect non-U.S. securities markets differently than U.S. securities markets, which may adversely affect the level of the Underlying and, thus, the value of your notes. Furthermore, there are risks associated with investments linked to the values of equity

securities issued by non-U.S. companies. There is generally less publicly available information about non-U.S. companies than about those U.S. companies that are subject to the reporting requirements of the SEC, and non-U.S. companies are subject to accounting, auditing and financial reporting standards and requirements that differ from those applicable to U.S. reporting companies. In addition, the prices of equity securities issued by non-U.S. companies may be adversely affected by political, economic, financial and social factors that may be unique to the particular countries in which the non-U.S. companies are incorporated. These factors include the possibility of recent or future changes in a non-U.S. government's economic and fiscal policies (including any direct or indirect intervention to stabilize the economy and/or securities market of the country of such non-U.S. government), the presence, and extent, of cross shareholdings in non-U.S. companies, the possible imposition of, or changes in, currency exchange laws or other non-U.S. laws or restrictions applicable to non-U.S. companies or investments in non-U.S. securities and the possibility of fluctuations in the rate of exchange between currencies. Moreover, certain aspects of a particular non-U.S. economy may differ favorably or unfavorably from the U.S. economy in important respects, such as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency. Specifically, the stocks included in the Underlying are issued by companies located in countries within the Eurozone, some of which are

and have been experiencing economic stress.

**THE PERFORMANCE OF THE UNDERLYING WILL NOT BE ADJUSTED FOR CHANGES IN THE EURO RELATIVE TO THE U.S. DOLLAR** — The Underlying is composed of stocks denominated in euro. Because the level of the Underlying is also calculated in euro (and not in U.S. dollars), the performance of the Underlying will not be adjusted for exchange rate fluctuations between the U.S. dollar and the euro. Therefore, if the euro strengthens or weakens relative to the U.S. dollar over the term of the notes, you will not receive any additional payment or incur any reduction in your return on the notes.

**The Sponsor of the Underlying May Adjust the Underlying in Ways That Affect the Level of the Underlying and Has No Obligation to Consider Your Interests** — The sponsor of the Underlying (the “**Index Sponsor**”) is responsible for calculating and maintaining the Underlying. The Index Sponsor can add, delete or substitute the components of the Underlying or make other methodological changes that could change the level of the Underlying. You should realize that the changing of such Underlying components may affect the Underlying, as a newly added component may perform significantly better or worse than the component it replaces. Additionally, the Index Sponsor may alter, discontinue or suspend calculation or dissemination of the Underlying. Any of these actions could adversely affect the value of, and your return on, the notes. The Index Sponsor has no obligation to consider your interests in calculating or revising the Underlying.

**Past Performance of the Underlying Is No Guide to Future Performance** — The actual performance of the Underlying over the term of the notes may bear little relation to the historical closing levels of the Underlying and/or the hypothetical examples set forth elsewhere in this pricing supplement. We cannot predict the future performance of the Underlying or whether the performance of the Underlying will result in the return of any of your investment.

**Assuming No Changes in Market Conditions and Other Relevant Factors, the Price You May Receive for Your Notes in Secondary Market Transactions Would Generally Be Lower Than Both the Issue Price and the Issuer’s Estimated Value of the notes on the Trade Date** — While the payment(s) on the notes described in this pricing supplement is based on the full Face Amount of notes, the Issuer’s estimated value of the notes on the Trade Date (as disclosed on the cover of this pricing supplement) is less than the Issue Price of the notes. The Issuer’s estimated value of the notes on the Trade Date does not represent the price at which we or any of our affiliates would be willing to purchase your notes in the secondary market at any time. Assuming no changes in market conditions or our creditworthiness and other relevant factors, the price, if any, at which we or our affiliates would be willing to purchase the notes from you in secondary market transactions, if at all, would generally be lower than both the Issue Price and the Issuer’s estimated value of the notes on the Trade Date. Our purchase price, if any, in secondary market transactions would be based on the estimated value of the notes determined by reference to (i) the then-prevailing internal funding rate (adjusted by a spread) or another appropriate measure of our cost of funds and (ii) our pricing models at that time, less a bid spread determined after taking into account the size of the repurchase, the nature of the assets underlying the notes and then-prevailing market conditions. The price we report to financial reporting services and to distributors of our notes for use on customer account statements would generally be determined on the same basis. However, during the period of approximately six months beginning from the Trade Date, we or our affiliates may, in our sole discretion, increase the purchase price determined as described above by an amount equal to the declining differential between the Issue Price and the Issuer’s estimated value of the notes on the Trade Date, prorated over such period on a straight-line basis, for transactions that are individually and in the aggregate of the expected size for ordinary secondary market repurchases.

In addition to the factors discussed above, the value of the notes and our purchase price in secondary market transactions after the Trade Date, if any, will vary based on many economic and market factors, including our creditworthiness, and cannot be predicted with accuracy. These changes may adversely affect the value of your notes, including the price you may receive in any secondary market transactions. Any sale prior to the Maturity Date could result in a substantial loss to you. 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 Notes Will Not Be Listed and There Will Likely Be Limited Liquidity** — The notes will not be listed on any securities exchange. There may be little or no secondary market for the notes. We or our affiliates intend to act as market makers for the notes but are not required to do so and may cease such market making activities at any time. Even if there is a secondary market, it may not provide enough liquidity to allow you to sell the notes when you wish to do so or at a price advantageous to you. Because we do not expect other dealers to make a secondary market for the notes, the price at which you may be able to sell your notes is likely to depend on the price, if any, at which we or our affiliates are willing to buy the notes. If,

at any time, we or our affiliates do not act as market makers, it is likely that there would be little or no secondary market in the notes. If you have to sell your notes prior to maturity, you may not be able to do so or you may have to sell them at a substantial loss, even in cases where the level of the Underlying has increased since the Trade Date.

**Many Economic and Market Factors Will AFFECT the Value of the Notes** — While we expect that, generally, the level of the Underlying will affect the value of the notes more than any other single factor, the value of the notes prior to maturity will also be affected by a number of other factors that may either offset or magnify each other, including:

- o the expected volatility of the Underlying;
- o the time remaining to the maturity of the notes;
- o the market prices and dividend rates of the stocks composing the Underlying;
- o the composition of the Underlying;
- o interest rates and yields in the markets generally;

o geopolitical conditions and economic, financial, political, regulatory or judicial events that affect the Underlying or the markets generally;

- o supply and demand for the notes; and
- o our creditworthiness, including actual or anticipated downgrades in our credit ratings.

During the term of the notes, it is possible that their value may decline significantly due to the factors described above even if the level of the Underlying remains unchanged from the Initial Level, and any sale prior to the Maturity Date could result in a substantial loss to you. You must hold the notes to maturity to receive the stated payout from the Issuer.

**Trading and Other Transactions by Us, JPMORGAN CHASE & CO. or Our or Its Affiliates in the Equity and Equity Derivative Markets May Impair the Value of the Notes** — We or our affiliates expect to hedge our exposure from the notes by entering into equity and equity derivative transactions, such as over-the-counter options, futures or exchange-traded instruments. We, JPMorgan Chase & Co. or our or its affiliates may also engage in trading in instruments linked or related to the Underlying on a regular basis as part of our or their general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate

transactions for customers, including block transactions. Such trading and hedging activities may adversely affect the level of the Underlying and, therefore, make it less likely that you will receive a positive return on your investment in the notes. It is possible that we, JPMorgan Chase & Co. or our or its affiliates could receive substantial returns from these hedging and trading activities while the value of the notes declines. We, JPMorgan Chase & Co. or our or its affiliates may also issue or underwrite other securities or financial or derivative instruments with returns linked or related to the Underlying. To the extent that we, JPMorgan Chase & Co. or our or its affiliates serve as issuer, agent or underwriter for such securities or financial or derivative instruments, our, JPMorgan Chase & Co.'s or our or its affiliates' interests with respect to such products may be adverse to those of the holders of the notes. Introducing competing products into the marketplace in this manner could adversely affect the level of the Underlying and the value of the notes. Any of the foregoing activities described in this paragraph may reflect trading strategies that differ from, or are in direct opposition to, investors' trading and investment strategies related to the notes.

**WE, JPMORGAN CHASE & CO. OR OUR OR ITS AFFILIATES MAY PUBLISH RESEARCH, EXPRESS OPINIONS OR PROVIDE RECOMMENDATIONS THAT ARE INCONSISTENT WITH INVESTING IN OR HOLDING THE NOTES. Any Such Research, Opinions or Recommendations Could Adversely Affect the LEVEL of the Underlying and the Value of the notes** — We, JPMorgan Chase & Co. or our or its affiliates may publish research from time to time on financial markets and other matters that could adversely affect the level of the Underlying and the value of the notes, or express opinions or provide recommendations that are inconsistent with purchasing or holding the notes. Any research, opinions or recommendations expressed by us, JPMorgan Chase & Co. or our or its affiliates may not be consistent with each other and may be modified from time to time without notice. You should make your own independent investigation of the merits of investing in the notes and the Underlying.

**POTENTIAL CONFLICTS OF INTEREST** — We and our affiliates play a variety of roles in connection with the issuance of the notes, including acting as calculation agent, hedging our obligations under the notes and determining the Issuer’s estimated value of the notes on the Trade Date and the price, if any, at which we or our affiliates would be willing to purchase the notes from you in secondary market transactions. In performing these roles, our economic interests and those of our affiliates are potentially adverse to your interests as an investor in the notes. The calculation agent will determine, among other things, all values, prices and levels required to be determined for the purposes of the notes on any relevant date or time. The calculation agent will also be responsible for determining whether a market disruption event has occurred as well as, in some circumstances, the prices or levels related to the Underlying that affect whether a Knock-Out Event has occurred. Any determination by the calculation agent could adversely affect the return on the notes.

**THE U.S. FEDERAL INCOME TAX CONSEQUENCES OF AN INVESTMENT IN THE NOTES ARE UNCERTAIN** — There is no direct legal authority regarding the proper U.S. federal income tax treatment of the notes, and we do not plan to request a ruling from the IRS. Consequently, significant aspects of the tax treatment of the notes are uncertain, and the IRS or a court might not agree with the treatment of the notes as prepaid financial contracts that are not debt. If the IRS were successful in asserting an alternative treatment for the notes, the tax consequences of ownership and disposition of the notes could be materially and adversely affected. In addition, as described above under “Tax Consequences,” in 2007 the U.S. Treasury Department and the IRS released a notice requesting comments on various issues regarding the U.S. federal income tax treatment of “prepaid forward contracts” and similar instruments. Any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the notes, possibly with retroactive effect. You should review carefully the section of the accompanying product supplement entitled “U.S. Federal Income Tax Consequences,” and consult your tax adviser regarding the U.S. federal tax consequences of an investment in the notes (including possible alternative treatments and the issues presented by the 2007 notice), as well as tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction.

### **Use of Proceeds and Hedging**

Part of the net proceeds we receive from the sale of the notes will be used in connection with hedging our obligations under the notes through one or more of our affiliates. The hedging or trading activities of our affiliates on or prior to the Trade Date or an Averaging Date could adversely affect the level of the Underlying and, as a result, could decrease the amount you may receive on the notes at maturity.

## Historical Information

The following graph sets forth the historical performance of the CAC 40<sup>®</sup> Index based on its daily closing levels from January 26, 2013 through January 26, 2018. The closing level of the Underlying on January 26, 2018 was 5,529.15. The graph below also indicates by a broken line a hypothetical Knock-Out Level equal to 75.00% of the closing level of the Underlying on January 26, 2018. The actual Initial Level and Knock-Out Level will be determined on the Trade Date. We obtained the historical closing levels of the Underlying below from Bloomberg L.P. and we have not participated in the preparation of, or verified, such information.

**The historical closing levels of the Underlying should not be taken as an indication of future performance and no assurance can be given as to the closing level of the Underlying on any of the Averaging Dates. We cannot give you assurance that the performance of the Underlying will result in the return of any of your investment.**

## Supplemental Plan of Distribution

JPMorgan Chase Bank, N.A. and JPMS LLC or one of its affiliates will act as placement agents for the notes. The placement agents will receive a fee from the Issuer that will not exceed \$12.50 per \$1,000 Face Amount of notes, but will forgo any fees for sales to certain fiduciary accounts. See “Plan of Distribution (Conflicts of Interest)” in the accompanying product supplement.

## Settlement

We expect to deliver the notes against payment for the notes on the Settlement Date indicated above, which is expected to be a day that is greater than two business days following the Trade Date. Under Rule 15c6-1 of the Securities Exchange Act of 1934, as amended, trades in the secondary market generally will be required to settle in two business days, unless the parties to a trade expressly agree otherwise. Accordingly, if the Settlement Date is more than two business days after the Trade Date, purchasers who wish to transact in the notes more than two business days prior to the Settlement Date will be required to specify alternative settlement arrangements to prevent a failed settlement.

## The CAC 40<sup>®</sup> Index

We have derived all information contained in this pricing supplement regarding the CAC 40<sup>®</sup> Index (the “**CAC Index**”), including, without limitation, information concerning its make-up, method of calculation and changes in its components, from publicly available information. We have not participated in the preparation of, or verified, such information. Such information reflects the policies of, and is subject to change by, Euronext N.V. (“**Euronext**”), the sponsor of the CAC Index. The CAC Index is calculated, maintained and published by Euronext. Euronext has no obligation to continue to publish, and may discontinue or suspend the publication of, the CAC Index at any time.

The CAC Index is calculated in euros and is reported by Bloomberg L.P. under the ticker symbol “CAC.”

The CAC Index is a free float market capitalization weighted index that reflects the performance of the 40 largest and most actively traded shares listed on the Euronext Paris. Euronext is responsible for the day-to-day management of the CAC Index and is also responsible for decisions regarding the interpreting the rules governing the CAC Index. The Conseil Scientifique acts as an independent supervisor of the CAC Index and is responsible for monitoring the selection of constituents for the CAC Index and ensuring that the index offers a reliable and representative view of the market. The base date for the CAC Index is December 31, 1987 and the base value of the CAC Index was 1,000.

## Index Eligibility

The universe of eligible constituents for the CAC Index is defined as companies that have been admitted for listing on Euronext Paris’ regulated market. The CAC Index consists of companies with Euronext Paris as their market of reference, as well as companies with a market of reference other than Euronext Paris that may qualify for continued inclusion based on:

- 1) the significant presence (relative to the size of the group) of business assets and/or head-office activities in France, and/or employment of significant numbers of staff in France;
- 2) significant trading volumes on related derivative instruments in Paris; or
- 3) the company’s inclusion in the universe of eligible constituents for the CAC Index on January 1, 2014, in so far as criteria (1) and/or (2) above are still applicable.

If a company changes its market of reference to a market of reference other than Euronext Paris as a result of a merger or similar situation, such company will continue to be eligible for inclusion in the CAC Index. At each annual review, Conseil Scientifique retains the right to decide on the eligibility of the new entity based on criteria (1) and/or (2) above. If a company changes its market of reference for other reasons, such company may become ineligible for inclusion in the CAC Index at the next annual review, regardless of considerations based on criteria (1) and/or (2) above.

In addition, the shares of the following companies are *excluded* from the CAC Index:

- holding companies of companies admitted to listing on Euronext Paris;
- companies whose shares are allocated to the recovery box or penalty bench;
- shares quoted in currencies other than euro;
- shares not traded continuously;
- warrants, rights and other derivative securities.

The constituents of the CAC Index are not required to fulfil a minimum free float criterion.

## **Index Composition and Reviews**

The general aim of each quarterly and annual composition and review of the CAC Index is to ensure that the selection and weighting of the constituents of the CAC Index continues to reflect the underlying market or market segment it represents.

## **Ranking**

Eligible companies are selected for inclusion in the CAC Index based on a combination of two rankings:

the value of regulated turnover (the value of turnover traded via the Euronext electronic order book as well as the value of turnover from off-exchange transactions within the scope of Euronext's regulatory environment, such as block trades and the like) observed over a 12-month period; and

the free float adjusted market capitalization on the Review Cut-Off Date (as defined below).

As only one listing – the most active one – is permitted per company, the listing representing the company's ordinary shares is generally used.

### **Liquidity Screening**

At each annual review, the shares of a company must have a free float adjusted annual trading velocity of at least 20%. In other words, their regulated trading volume should represent at least 20% of the free float adjusted total number of shares issued by the company listed on Euronext Paris, calculated over the course of the full 12-month period relevant for the review. Velocity is calculated on a daily basis by *dividing* the number of shares traded by the number of shares listed. These daily figures are added up to calculate the annual velocity. At quarterly reviews, the minimum free float adjusted velocity is 30%, while for current constituents a minimum of 10% is required.

The free float percentage that is used in the velocity calculation is based on outstanding capital *less* shareholdings exceeding 5% (except where such interests are held by collective investment schemes, mutual funds, pension funds, certain insiders, government entities or the company itself) on the Review Cut-Off Date, rounded up to the nearest 5% multiple. However, the free float percentage used in the velocity calculation shall always be at least 25%.

In order to preserve a tradable constitution of the CAC Index, Euronext performs an extensive liquidity analysis. This analysis mainly consists of the trading volume relative to the available share capital observed over the preceding year as well as the last quarter. In case of a demerger, the velocity prior to such event is assumed to apply for all resulting entities. In case of a merger, Euronext will take into account the velocity of the merging entities prior to such event as well as the velocity of the merged entity in deciding whether the company meets the free float velocity threshold.

### **Quarterly and Annual Review**

The CAC Index is designed to reflect the general trends in the trading of shares listed on Euronext Paris. Changes in the constituents of the CAC Index are made on a quarterly basis and reflect the changes in size and turnover of the companies eligible for inclusion in the CAC Index. Euronext and Conseil Scientifique may exceptionally decide to deviate from the outcome of the rankings if this is in the interest of the users of the CAC Index. Guiding principles for

such a decision are tradability of the CAC Index, minimizing index turnover and representativeness.

The cut-off date for each periodic review of the CAC Index is after the market close of the last Friday of August (for each annual review), February, May and November (for each quarterly review) (the “**Review Cut-Off Date**”). The date on which, after the market close, the changes relating to a periodical review are being effectuated in the CAC Index portfolio is after the market close of the third Friday of September (for each annual review), March, June and December (for each quarterly review) (the “**Review Effective Date**”).

At each periodic review, Euronext will propose to the Conseil Scientifique selections and changes to the CAC Index based on a combination of the rankings on free float adjusted market capitalization and turnover. The 35 highest ranking companies are selected for inclusion in the CAC Index. A buffer zone, where current constituents have priority over companies that currently do not form part of the CAC Index, consists of the companies ranked 36<sup>th</sup> through 45<sup>th</sup>.

At each annual review, the number of shares included in the CAC Index will be updated with the number of shares listed on the Review Cut-Off Date, taking into account adjustments due to corporate actions (as described below). All free float factors are updated at the annual review, with the free float rounded up to the next 5% bracket and determined on the basis of the information relevant at the Review Cut-Off Date.

A maximum weighting of 15% is applied to each constituent of the CAC Index at the annual review. The assessment and new capping coefficients are based on the date on which, after the close, the full details are announced regarding the composition of the CAC Index that will come into effect after the Review Effective Date. This includes the numbers of shares, free float factors and capping factors of all companies included in the new CAC Index portfolio (the “**Review Composition Announcement Date**”).

Capping factors are not updated at quarterly reviews for companies that continue to be included in the CAC Index.

At each quarterly review, both the number of shares included in the CAC Index and the free float factor will be updated if (i) the free float factor on the Review Cut-Off date deviates by 10% or more from the free float factor currently applied in the CAC Index (2 or more bands) and/or (ii) the number of shares listed on the Review Cut-Off Date deviates by more than 20% from the current number of shares included in the CAC Index. In case of an update, the new numbers of shares are based on the number of shares listed on the Review Cut-Off Date, taking into account adjustments due to corporate actions (as described below). The new free float factors are determined on the basis of the information relevant at the Review Cut-Off Date.

Euronext may decide not to update the number of shares at a quarterly review for companies after a merger or similar situation. In addition, in the case where the free float adjusted number of shares changes for companies with a capping factor less than 1, Euronext will recalculate the capping factor such that the capped free float adjusted number of shares remains unchanged at the quarterly review.

For companies, if any, to be added to the CAC Index at a quarterly review, the weightings in terms of number of shares in the CAC Index and free float are determined based on the Review Cut-Off Date, while the capping factor is determined based on the Review Composition Announcement Date. The weight of companies that are added is subject to a maximum of 15%.

In the event of a takeover or other exceptional circumstances, Euronext has the right to revise the selection from the time the announcement is published up to the Review Composition Announcement Date.

Euronext will not change the outcome of the review for events that happen after the Review Composition Announcement Date. Corporate actions happening before the Review Effective Date will lead to an update of the new composition that is in line with the treatment described below.

## Index Calculation

The CAC Index is calculated on a price return basis. The calculation is based on the current free float adjusted market capitalization (measured based on outstanding capital *less* shareholdings exceeding 5%, except where such interests are held by collective investment schemes, mutual funds, pension funds, certain insiders, government entities or the company itself) *divided by* the divisor. The free float percentages are rounded up to 5% bands. The divisor was determined on the initial capitalization base of the CAC Index and the base level. The divisor is adapted as a result of corporate actions and composition changes. The base currency of the CAC Index is euro (“**Base Currency**”).

Share prices that are quoted in other currencies than the Base Currency will be converted to the Base Currency using the last known exchange rate observed on Reuters. Closing prices will be converted based on the most recent WM/Reuters spot rates, which are published each business day around 17:00 CET.

The CAC Index is calculated according to the below formula:

where:

$t$  is the time of calculation.

$N$  is the number of constituent equities in the CAC Index.

$Q_{i,t}$  is the number of shares of equity  $i$  included in the CAC Index on day  $t$ .

$F_{i,t}$  is the free float factor of equity  $i$ .

$f_{i,t}$  is the capping factor of equity  $i$ .

$C_{i,t}$  is the price of equity  $i$  on day  $t$ .

$X_{i,t}$  is the current exchange rate on day  $t$ .

$d_t$  is the divisor of the CAC Index on day  $t$ .

In the event that part of the constituents of the CAC Index are reserved, suspended from trading or if technical problems prohibit normal trading, values of the CAC Index will continue to be calculated and published. For those constituent stocks that are not available for trading, the last known value will be used when determining values of the CAC Index.

Notwithstanding the previous paragraph, Euronext always retains the right to delay the publication of the opening level of the CAC Index. Furthermore, Euronext always retains the right to suspend the publication of the level of the CAC Index or to mark the level of the CAC Index indicative if it believes that circumstances prevent the proper calculation of the CAC Index. If prices are cancelled, the CAC Index will not be recalculated unless Euronext decides otherwise.

If, after the market opens, the CAC Index remains in pre-opening during the entire trading session, the reference closing level of the CAC Index will be calculated on the basis of the most recent traded prices, or the most recent reference price (possibly adjusted to account for corporate actions, as described below).

### **Corporate Actions**

The CAC Index may be adjusted in order to maintain continuity of the level and composition of the CAC Index. The underlying aim is that the CAC Index continues to reflect as closely as possible the value of the underlying portfolio.

Adjustments take place in reaction to events that occur with constituents in order to mitigate or eliminate the effect of that event on the CAC Index.

### **Removal of Constituents**

A constituent will be removed from the CAC Index if it has appeared that the liquid trading will be significantly affected due to a takeover, merger, bankruptcy or has ceased to be a viable constituent as defined by the rules. The constituent in question will either be removed or will be replaced by the acquiring company. If a company is removed from the CAC Index, the divisor will be adapted to maintain the level of the CAC Index.

In the event of a bid in cash, the target company will be removed from the CAC Index. In the event of a merger, acquisition or similar situation where the bid is made in the form of shares, the target company will be replaced by the company taking over; *provided* that this company complies with the requirements for inclusion in the CAC Index as

described above. The removal or replacement will take place after the close of the first (full) business day after the offer is declared unconditional or successful. The replacement of the shares of the relevant constituent of the CAC Index by the shares of the company that continues to be traded will be executed on the basis of the bid ratio.

In case of a mixed bid of cash and shares, Euronext will treat the bid as a share bid if the share part amounts to at least 75% of the offer price, on the day of the publication of the terms of the offer. The replacement of the shares of the relevant constituent of the CAC Index by the shares of the company that continues to be traded will be executed on the basis of the bid ratio. The divisor will be adapted only for the cash part of the offer price.

Euronext reserves the right to apply a specific treatment in non-standard situations including, but not limited to:

- competing bids with differing closing dates or structures; and
- offers made without the intention to gain full control.

A separate announcement detailing the specific treatment will be issued timely to the market.

If a constituent of the CAC Index is suspended, Euronext will consider whether the constituent should be removed or not within five trading days. If it is decided to maintain the constituent, a further reassessment date will be set. Euronext reserves the right to take action before that date if new developments give reason to do so.

In case a constituent of the CAC Index is removed following suspension, it will be removed from the CAC Index as soon as possible and on a day announced by Euronext. The company will be removed from the CAC Index after the close of the markets, assuming a price of zero unless Euronext sets a different price, where possible supported by an objective source.

If it has been announced that a constituent of the CAC Index will be delisted from Euronext, it will be removed from the CAC Index as soon as possible and on a day announced by Euronext. The company will be removed from the CAC Index based on either the last known price established during regular daytime trading or on a price determined by Euronext, whereby the company may also be removed at a price of zero.

Removing assuming a price of zero implies no divisor change because of the removal. If another price is set, the divisor will change based on the removal of the value of that company from the CAC Index portfolio when applying that price.

In the event that the trading in shares is suspended, the last known price established during regular daytime trading will be used.

### **Split Up / Spin-Off**

In the event that a company included in the CAC Index is split up, the companies resulting from the split, including the original company where appropriate, will continue to be included in the CAC Index; *provided* they still qualify as an eligible company in their own right. The CAC Index may then temporarily consist of fewer, or more, than the standard number of constituents until the next periodical review takes place.

For purposes of the CAC Index, a split up is taken to mean a legal demerger, a spin-off or another situation which Euronext deems to be similar.

In case the shareholder of the company which was originally included in the CAC Index does not automatically receive shares in a company which is created as a result of the split up, this company is considered to be a newly listed company. The removal of any non-qualifying company resulting from a split up will take place after the close of the first day of trading in the shares of that company. If all companies resulting from the split are to be removed, the removal will take place at the close of the last trading day before the split.

### **Dividends**

The CAC Index will be adjusted for dividends that are special. The following criteria will be applied to decide whether a dividend should be considered a special dividend:

the declaration by a company of a dividend additional to those dividends declared as part of the company's normal results and dividend reporting cycle (merely an adjustment to the timing of the declaration of a company's expected dividend would *not* be considered as a special dividend circumstance); or

the identification of an element of a dividend paid in line with a company's normal results and dividend reporting cycle as an element that is unambiguously additional to the company's normal payment.

For the purpose of clarification, no adjustment will be made for the following situations:

- payment of ordinary dividends, irrespective of how they are financed;
- issue of redeemable shares or any other entitlement in lieu of an ordinary dividend; or
- unexpected increase or decrease, resumption or cessation, or change in frequency to an ordinary dividend.

The adjustment of the CAC Index takes place by a reduction of the closing price of the share in question. Subsequently the divisor will be adapted in order to maintain the level of the CAC Index. The adjustments will be based on gross amounts.

### **Rights Issues and Other Rights**

In the event of a rights issue, the new shares will be included in the CAC Index on the ex-date of the rights issue and an adjusted closing price will be applied as calculated by Euronext. The adjustment will be made based on the shares currently in the CAC Index. The divisor will be adapted in such a way that the level of the CAC Index remains the same.

The new shares are only added if (i) less than 0.4 share is issued for every share that is currently held and (ii) the new shares are fungible with the existing line of shares (*e.g.*, no dividend disadvantage). Otherwise the CAC Index is adjusted based on the value of the rights only. The CAC Index will be adjusted only if the rights represent a positive value.

The CAC Index will also be adjusted if a value can be attributed to a subscription right for convertible bonds, bonds with warrants or warrants with preferential rights for shareholders or similar situations. If the value cannot be attributed straightforward, Euronext may also decide to include the detached instrument for one day and adjust the CAC Index at the close based on the closing price for that subscription right on that day.

### **Bonus Issues, Stock Splits and Reverse Stock Splits**

For bonus issues, stock splits and reverse stock splits, the number of shares included in the CAC Index will be adjusted in accordance with the ratio given in the corporate action. The divisor will not be changed because of this. Euronext may regard a bonus issue as the issue of an entitlement in lieu of an ordinary dividend and therefore treat this in accordance with the adjustment of special dividends.

### **Changes in Number of Shares or Free Float**

In between the reviews the number of shares included in the CAC Index and free float factors will remain unchanged.

### **Partial Tender Offers On Own Shares**

For partial tender offers, Euronext will adjust the divisor of the CAC Index if the premium represents more than 5% of the share price of the close on the penultimate day before the ex-date (the day prior to the last day before the ex-day). The premium is calculated as the difference between the offered price and the closing price, *multiplied by* the percentage of the share capital targeted in the offer. If the divisor is adjusted, the number of shares in the CAC Index will be adjusted as well.

### **License Agreement**

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