



COMMERZBANK

Economic Research

Economic Insight

Neutral interest rate: ECB models and dot plot

The “neutral interest rate” is becoming the focus of discussions about the ECB’s future course. ECB models place the neutral interest rate in a range between 2% and 3%, and most ECB Governing Council members also see it at 2% to 2.75% according to our dot plot. We assume that the central bankers will lower the deposit rate to the lower end of this range in view of economic concerns. Most central bankers do not want to go below the neutral interest rate.

Even if the neutral interest rate is a vague concept, most central banks and ECB Governing Council members have it in their toolbox in order to at least get a feel for where the interest rate could lie at which the economy grows without tension and inflation settles at 2% in the long term. President Lagarde also stated at the press conference after the last interest rate meeting that the neutral interest rate would be discussed in the coming months.

ECB study points to 2% to 3%

At the beginning of 2024, ECB economists discussed in a study where the natural interest rate could lie according to various concepts. The ECB uses a series of semi-structural models and dynamic stochastic general equilibrium models for this purpose, with only the median of the results of the respective model class shown in Chart 1. So far, the ECB has not published any updates for the two model classes mentioned, which is why the results are only available until the fall or the end of 2023. However, the results of at least the semi-structural models are quite stable over time, which is why the level of the estimated neutral interest rate is unlikely to have changed significantly up to the current margin.

At the same time, the ECB derives an estimate of the neutral interest rate from the futures markets. This is the market’s perception of the one-year interest rate in nine years’ time. This market-based estimate based on overnight index swaps (OIS) was once cited by Governing Council member Villeroy as an acceptable approximation for the natural interest rate. Last but not least, the ECB economists have compiled estimates of the natural rate of interest from the Survey of Monetary Analysts (SMA) and Consensus Economics.[1] We were easily able to bring these two data series up to date.

All in all, the results suggest that the equilibrium nominal interest rate is likely to be between 2% and 3%. In comparison, our own methodology is based on the “golden rule

16 January 2025

Dr. Marco Wagner^{AC}

Table of contents

ECB study points to 2% to 3%	1
Die Meinungen der EZB-Ratsmitglieder in einem Dot-Plot	2
2% key interest rate quite realistic	3
Annex 1: Concrete statements of the Governing Council members on the neutral interest rate	3
Annex 2: Council members’ intentions with regard to interest rates	5

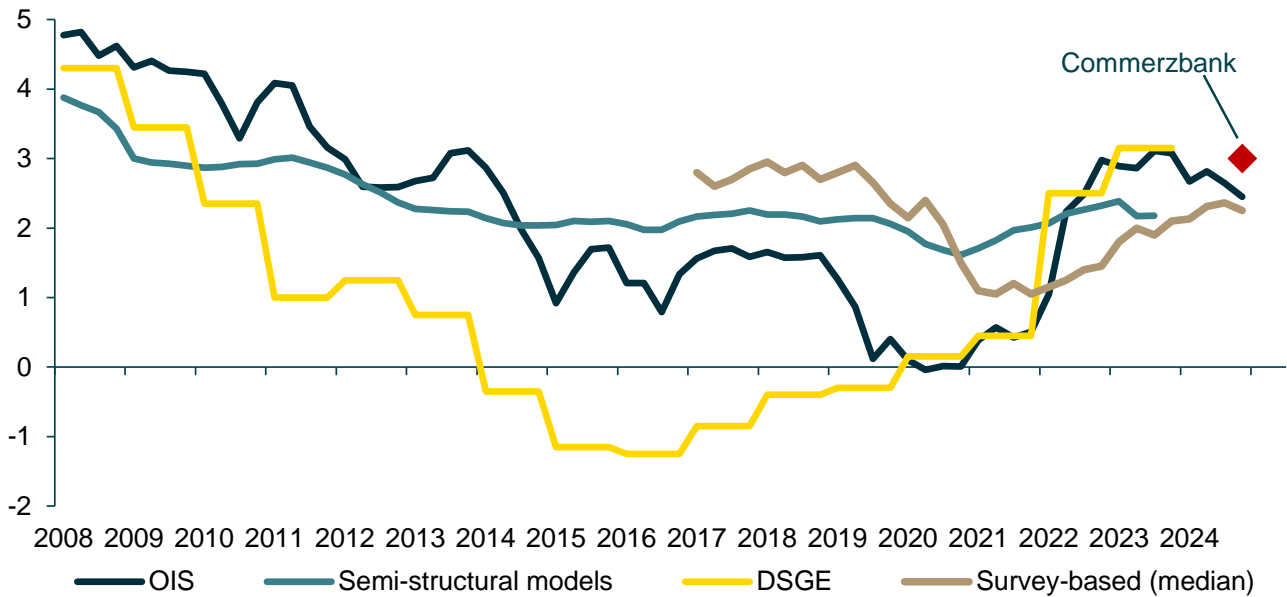
Important disclosure and analyst certification (AC) at end of document



of capital accumulation” developed by Edmund Phelps and our estimate of the neutral interest rate is at the upper end of the range.[2]

Chart 1 - ECB models point to a neutral interest rate of between 2% and 3%

Estimates of the neutral interest rate based on the futures markets (OIS), the median of several semi-structural models, general equilibrium models (DSGE), surveys and Commerzbank estimates, in percent



Source: ECB, Commerzbank Research

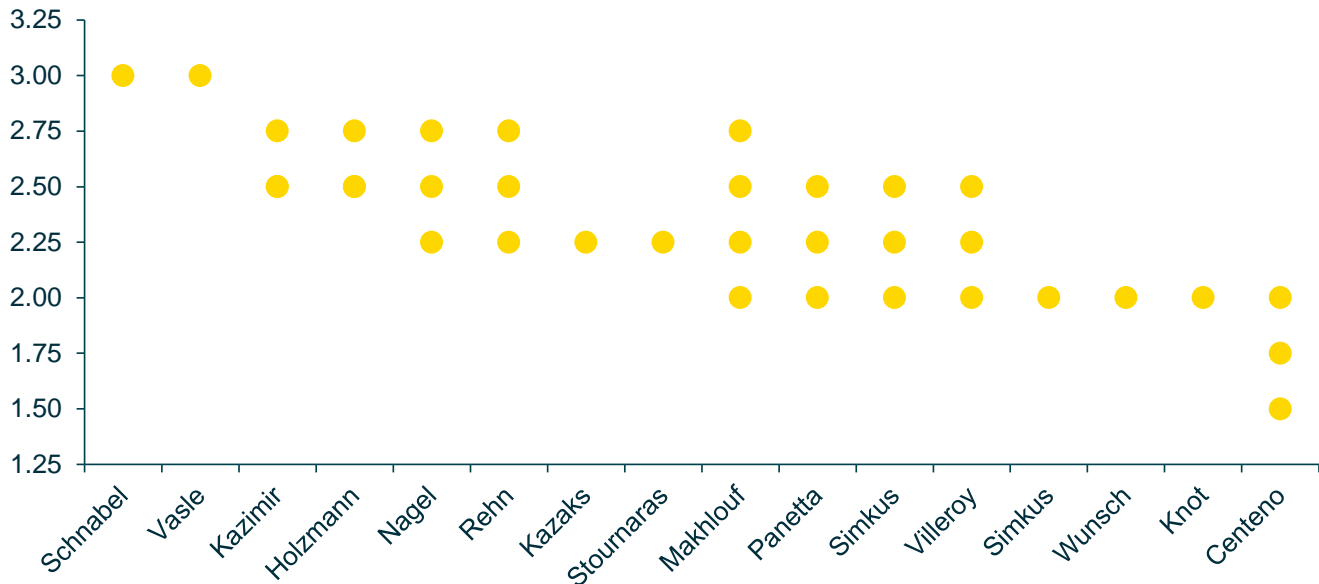
Die Meinungen der EZB-Ratsmitglieder in einem Dot-Plot

Apart from the ECB economists, the members of the Governing Council, of course, have their own assessments of the neutral interest rate. Based on their statements ([Annex 1](#)), we have drawn up a dot plot along the lines of the Federal Reserve, in which we indicate which Council member has given which specific assessment for the neutral interest rate. While some Council members pin it down to a single number, others give ranges, which we show in our chart as several dots in 25 basis point increments. Overall, most central bankers see the neutral interest rate between 2% and 2.75% (Chart 2).



Chart 2 - Most Council members place the neutral interest rate at 2% to 2.5%

Governing Council members' perception on the neutral interest rate according to their speeches, comments and interviews since May 2024, in percent



Source: ECB, Commerzbank Research

Overall, the assessments of the ECB Governing Council members are largely in line with those of the ECB economists. Even if individual models – as well as Council member Centeno – estimate a lower neutral interest rate, these are likely to be tail phenomena. Instead, a consistent range of between 2% and 2.75% can be assumed.

2% key interest rate quite realistic

We assume that the central bankers will lower the key interest rate to 2% – i.e. the lower end of the range – in the coming months. The general view in the ECB Governing Council is that the inflation target should be achieved in the foreseeable future. This would allow the central bank to support the economy, which is of particular concern to the monetary policy doves who hold a clear majority in the ECB Governing Council.

At the same time, however, the scope for even lower interest rates is likely to be limited. The market is currently anticipating an ultimate key interest rate of 1.75%, and two central bankers – Villeroy and Panetta, who place the neutral interest rate in a range of 2% to 2.5% – do not want to categorically rule out the possibility of the key interest rate falling below the neutral interest rate ([Annex 2](#)). However, seven other Council members have already specifically stated that the neutral interest rate should not be undercut. On top of that, it should be hard to convince the monetary policy hawks in particular.

Annex 1: Concrete statements of the Governing Council members on the neutral interest rate

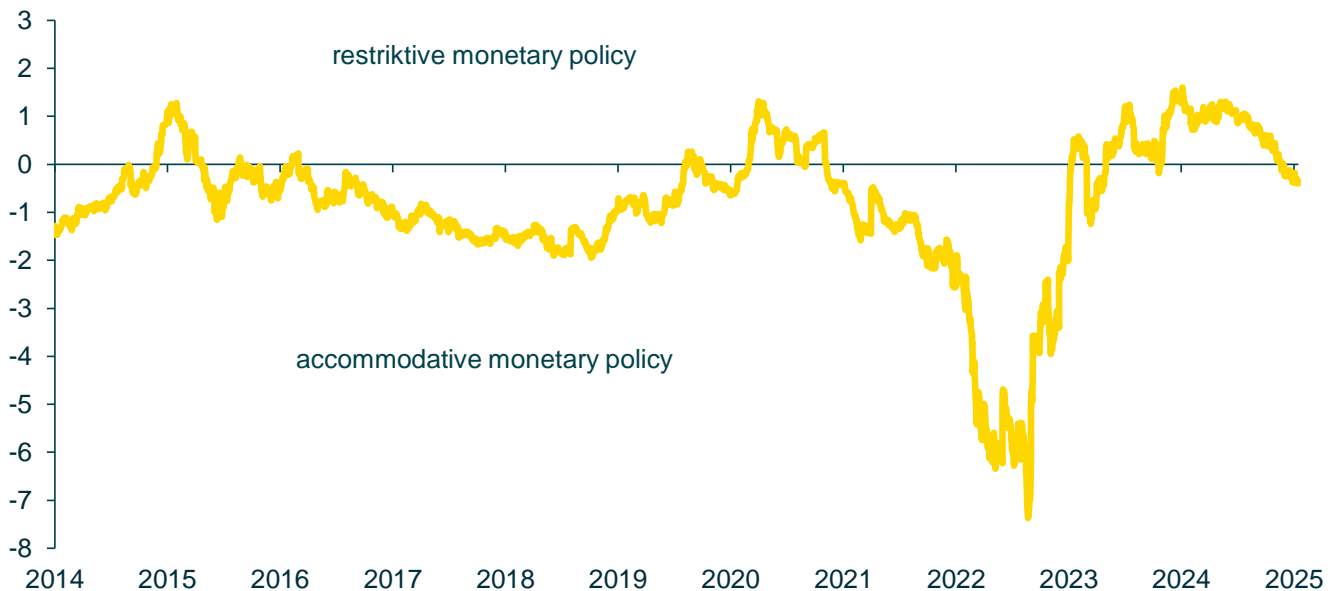
- Makhlouf (23.12.2024): Interest rates would be cut to neutral. “I couldn’t tell you whether that will be at 2.75, at 2.5 or at 2.25” The 1.75% anticipated by financial markets went too far, he indicated. “People who are saying that [the neutral rate is] below 2% are probably ahead of themselves.”
- Nagel (20.12.2024): “We can certainly go a little lower in interest rates, and in the first half of 2025 we may reach a neutral level without risking a rise in inflation.” [Based on market expectations that interest rates will be cut at every meeting, we interpret this as a range between 2.25% and 2.75%.]



- Centeno (19.12.2024): "The neutral rate could be between 1.5% and 2%."
- Simkus (19.12.2024): "1.75% is below neutral rate."
- Kazimir (17.12.2024): "Will discuss neutral rate once we near 2.5%."
- Rehn (17.12.2024): "Interest rates likely to reach neutral in 1H 2025." [Based on market expectations that interest rates will be cut at every meeting, we interpret this as a range between 2.25% and 2.75%.]
- Wunsch (16.12.2024): "Finding where the neutral level is would be a matter of "trial and error" and there could be shocks that lead this level to be above or below 2%."
- Schnabel (16.12.2024): "For example, given the notable increase in real short-term rates expected to prevail in the distant future, which are often taken as proxies for the natural rate, the policy stance today may already be in neutral territory, as real spot rates have started to fall below their equilibrium levels (Chart 3)."

Chart 3 - According to Schnabel, neutral interest rate already reached

Difference between the real yields of the 1y overnight index swaps (OIS) and the 1y9y OIS, in percentage points



Source: ECB, Commerzbank Research

- Kazaks (13.12.2024): "The neutral rate r^* , ..., is, in my opinion, closer to 2% than to 3%. So a significant reduction in rates is still necessary."
- Villeroy (13.12.2024): "ECB rates remain significantly above neutral."
- Vasle (25.10.2024): "We're approaching top of neutral rate range."
- Panetta (23.10.2024): "ECB still far away from neutral rate." [We interpret this as a range between 2% and 2.5%.]
- Knot (24.09.2024): "I see rates settling at a more natural level somewhere in the 2% range."
- Holzmann (13.09.2024): "Holzmann argued that 2.5 per cent was probably close to the so-called neutral rate, a level of monetary policy that is neither stimulating nor slowing down the economy."
- Simkus (3.9.2024): "The interval [of the natural rate] from 2% to 2.5% is quite narrow. I still think that it's somewhere there, but what's even more important is to stabilize inflation at 2%, wherever the neutral rate is."
- Stournaras (1.8.2024): "There is clear evidence that the neutral interest rate was trending down before the pandemic. I believe that it will be close to, but above pre-pandemic level in the future - somewhat above 0% in real terms."
- Villeroy (28.5.2024): "We are still actively fighting inflation until we reach the neutral rate. By most estimates it ranges in nominal terms between 2 and 2.5%."



[\(back to the text\)](#)

Annex 2: Council members' intentions with regard to interest rates

- Patsalides (19.12.2024): "Going below the neutral rate would imply that we are undergoing a recession or that a severe recession is projected."
- Simkus (19.12.2024): "Best to keep consistent pace toward neutral."
- Wunsch (16.12.2024): "There is relatively broad consensus that we need to remove restriction and probably go to something that is close to neutral."
- Kazaks (15.12.2024): "ECB should be cautious about taking rates below neutral."
- Nagel (04.12.2024): "ECB shouldn't cut interest rates below neutral."
- Villeroy (28.11.2024): "Rates should clearly go to neutral level... Wouldn't exclude rates below neutral level."
- Schnabel (27.11.2024): "ECB can gradually move rates to neutral, not lower."
- Kazaks (24.10.2024): "Don't need to go significantly below neutral rate now."
- Panetta (23.10.2024): "Can't exclude that ECB must go below neutral"

[\(back to the text\)](#)

[1] Survey-based estimates include the following: the estimate from the Survey of Monetary Analysts, which is the median of respondents' long-run expectations regarding the ECB's deposit facility rate, less expectations of inflation in the long run (starting in the second quarter of 2021); and the Consensus Economics estimate, which is the expected three-month interbank rate ten years ahead, less expectations of inflation in the long run. [\[back to the text\]](#)

[2] According to this rule, the equilibrium real interest rate corresponds to the real growth potential of an economic area, which we see at around 1% for the eurozone. Adding an inflation rate of 2%, this corresponds to a nominal equilibrium interest rate of 3%. [\[back to the text\]](#)



Analysts

Dr. Marco Wagner ^{AC}

Senior Economist

+49 69 9353 45623

marco.wagner@commerzbank.com

This report was completed 16/1/2025 07:47 CET and disseminated 16/1/2025 07:47 CET.

This document has been created and published by the Group Research department (GM-R) within the Group Management division of Commerzbank AG, Frankfurt/Main or Commerzbank's non-US branch offices mentioned in the document.

Analyst Certification (AC): The author(s), denoted by AC at the beginning of this report, individually certifies that the views expressed in this report accurately reflect their personal views about the subject securities and issuers; and no part of their compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or views expressed by them contained in this document.

It has not been determined in advance whether and in what intervals this document will be updated. Unless otherwise stated current prices refer to the most recent trading day's closing price or spread which may fluctuate.

Conflicts of interest

Disclosures of potential conflicts of interest relating to Commerzbank AG, its affiliates, subsidiaries (together "Commerzbank") and its relevant employees with respect to the issuers, financial instruments and/or securities forming the subject of this document valid as of the end of the month prior to publication of this document*:

Please refer to the following link for disclosures on companies included in compendium reports or disclosures on any company covered by Commerzbank analysts: <https://commerzbank.bluematrix.com/sellside/Disclosures.action>*

*Updating this information may take up to ten days after month end.

Disclaimer

This document is for information purposes only and has been prepared for recipients who, like professional clients according to MiFID II, have the experience, knowledge and expertise to understand information related to the financial markets. The document does not take into account specific circumstances of any recipient and the information contained herein does not constitute the provision of investment advice. It is not intended to be and should not be construed as a recommendation, offer or solicitation to acquire, or dispose of, any of the financial instruments and/or securities mentioned in this document and will not form the basis or a part of any contract or commitment whatsoever. Investors should seek independent professional advice and draw their own conclusions regarding suitability of any transaction including the economic benefits, risks, legal, regulatory, credit, accounting and tax implications.

The information in this document is based on public data obtained from sources believed by Commerzbank to be reliable and in good faith, but no representations, guarantees or warranties are made by Commerzbank with regard to accuracy, completeness or suitability of the data. Commerzbank has not performed any independent review or due diligence of publicly available information regarding an unaffiliated reference asset or index. The opinions and estimates contained herein reflect the current judgement of the author(s) on the date of this document and are subject to change without notice. The opinions do not necessarily correspond to the opinions of Commerzbank. Commerzbank does not have an obligation to update, modify or amend this document or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate.

In order to address potential conflicts of interest Commerzbank's Research department operates independently of other business units of the bank. This is achieved by way of physical and administrative information barriers and separate reporting lines as well as by written internal policies and procedures.

This communication may contain trading ideas where Commerzbank may trade in such financial instruments with customers or other counterparties. Any prices provided herein (other than those that are identified as being historical) are indicative only, and do not represent firm quotes as to either size or price. The past performance of financial instruments is not indicative of future results. No assurance can be given that any financial instrument or issuer described herein would yield favourable investment results. Any forecasts or price targets shown for companies and/or securities discussed in this document may not be achieved due to multiple risk factors including without limitation market volatility, sector volatility, corporate actions, the unavailability of complete and accurate information and/or the subsequent transpiration that underlying assumptions made by Commerzbank or by other sources relied upon in the document were inapposite.

Commerzbank and or its affiliates may act as a market maker in the instrument(s) and or its derivative that has been mentioned in our research reports. Employees of Commerzbank and or its affiliates may provide written or oral commentary, including trading strategies, to our clients and business units that may be contrary to the opinions conveyed in this research report. Commerzbank may perform or seek to perform investment banking services for issuers mentioned in research reports.



Neither Commerzbank nor any of its respective directors, officers or employees accepts any responsibility or liability whatsoever for any expense, loss or damages arising out of or in any way connected with the use of all or any part of this document.

Commerzbank may provide hyperlinks to websites of entities mentioned in this document, however the inclusion of a link does not imply that Commerzbank endorses, recommends or approves any material on the linked page or accessible from it. Commerzbank does not accept responsibility whatsoever for any such material, nor for any consequences of its use.

This document is for the use of the addressees only and may not be reproduced, redistributed or passed on to any other person or published, in whole or in part, for any purpose, without the prior, written consent of Commerzbank. The manner of distributing this document may be restricted by law or regulation in certain countries, including the United States. Persons into whose possession this document may come are required to inform themselves about and to observe such restrictions. By accepting this document, a recipient hereof agrees to be bound by the foregoing limitations.

Additional notes to readers in the following countries:

Germany: Commerzbank AG is registered in the Commercial Register at Amtsgericht Frankfurt under the number HRB 32000. Commerzbank AG is supervised by both the German regulator, Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin), Graurheindorfer Strasse 108, 53117 Bonn, Marie-Curie-Strasse 24-28, 60439 Frankfurt am Main and the European Central Bank, Sonnemannstrasse 20, 60314 Frankfurt am Main, Germany.

United Kingdom: This document is not for distribution to retail customers and has been issued or approved for issue in the United Kingdom by Commerzbank AG, London Branch, which is authorised and regulated by Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and the European Central Bank. Authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request.

United States: This research report was prepared by Commerzbank AG, a company authorized to engage in securities activities in Germany and the European Economic Area (EEA). Commerzbank AG is not a U.S. registered broker-dealer and is therefore not subject to U.S. rules regarding the preparation of research and associated rules pertaining to research analysts. This document is not for distribution to retail customers. Any distribution of this research report to U.S. investors is intended for "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6(a)(2) of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). Any U.S. recipient of this research report seeking to effect transactions to buy or sell securities, or related financial instruments based upon the information provided in this research report, may only do so through a Financial Industry Regulatory Authority (FINRA) registered broker-dealer. Commerz Markets LLC (CMLLC) is a U.S. registered broker-dealer and wholly owned subsidiary of Commerzbank AG. Commerzbank AG is a registered derivatives swap dealer with the Commodity Futures Trading Commission (CFTC), in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act. U.S. Person(s) and related Dodd-Frank relevant investors seeking to effect transactions in non-security based swaps based upon the information provided in this research report, may only do so through a CFTC registered swap dealer.

Canada: The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. In Canada, the information contained herein is intended solely for distribution to Permitted Clients (as such term is defined in National Instrument 31-103) with whom Commerzbank AG and/or Commerz Markets LLC deals pursuant to the international dealer exemption. The information contained herein is not permitted to reference securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, as Commerzbank AG and Commerz Markets LLC operates under the international dealer exemption pursuant to National Instrument 31-103. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence.

European Economic Area: Where this document has been produced by a legal entity outside of the EEA, the document has been re-issued by Commerzbank AG, London Branch for distribution into the EEA. Commerzbank AG, London Branch is authorised and regulated by Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and the European Central Bank. Authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request.

Switzerland: This document is generally not for distribution to retail clients. Neither this research report nor the information contained herein should be regarded as personal recommendations for transactions in financial instruments within the meaning of the Financial Services Act.

Singapore: This document is furnished in Singapore by Commerzbank AG, Singapore branch. It may only be received in Singapore by an institutional investor, an accredited investor or an expert investor as respectively defined in section 4A of the Securities and Futures Act, Chapter 289 of Singapore ("SFA") pursuant to section 274 or section 275 (as applicable) of the SFA. Nothing in this document constitutes accounting, legal, regulatory, tax, financial or other advice and/or recommendations to the recipient of this communication. Further, the communication/information provided herein does not constitute a "financial advisory service" within the meaning of the Financial Advisers Act, Chapter 110 of Singapore ("FAA") and therefore, the regulatory requirements and duties that may be owed to a client pursuant to or in connection with the FAA are not applicable to the recipient in connection with this communication. Recipients are advised to seek independent advice from their own professional advisers about the information contained discussed herein.

Japan: This information and its distribution do not constitute and should not be construed as a "solicitation" under the Financial Instrument Exchange Act (FIEA) of Japan. This information may be distributed from Commerzbank international branches outside Japan solely to "professional investors" as defined in Article 2(31) of the FIEA and Article 23 of the Cabinet Ordinance Regarding



Definition of Article 2 of the FIEA. Please note that Commerzbank AG, Tokyo Branch has not participated in its preparation. Any instruments referred in this report cannot be introduced by the Branch. You should contact the Corporate Clients division of Commerzbank AG for inquiries on availability of such instruments.

Australia: Commerzbank AG does not hold an Australian financial services licence. This document is being distributed in Australia to wholesale customers pursuant to an Australian financial services licence exemption for Commerzbank AG under Class Order 04/1313. Commerzbank AG is regulated by Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) under the laws of Germany which differ from Australian laws.

People's Republic of China (PRC): This document is furnished by Commerzbank AG and is only intended for eligible entities in the PRC. No-one else may rely on any information contained within this document. The products and services in this document only apply to entities in the PRC where such products and services are permitted to be provided by PRC laws and regulations. For any person who receives this document, the information in this document shall neither be regarded as promotion or solicitation of the business nor accounting, legal, regulatory, tax, financial or other advice and/or recommendations to the recipient of this communication, and the recipient is advised to seek independent advice from its own professional advisers about the information contained herein and shall understand and abide by PRC laws and regulations while conducting any related transactions.

© Commerzbank AG 2025. All rights reserved. Version 25.01

Commerzbank Offices

Frankfurt

Commerzbank AG
DLZ - Gebäude 2,
Händlerhaus
Mainzer Landstraße 153
60327 Frankfurt
Tel: + 49 69 136 21200

London

Commerzbank AG
PO BOX 52715
30 Gresham Street
London, EC2P 2XY
Tel: + 44 207 623 8000

New York

Commerz Markets LLC
225 Liberty Street, 32nd
floor,
New York,
NY 10281-1050
Tel: + 1 212 703 4000

Singapore

Commerzbank AG
128 Beach Road
#17-01 Guoco Midtown
Singapore 189773
Tel: +65 631 10000