FIFTH SUPPLEMENT DATED 22 MARCH 2023

TO THE REGISTRATION DOCUMENT
FOR SECONDARY ISSUANCES OF NON-EQUITY SECURITIES
DATED 4 MAY 2022, AS SUPPLEMENTED BY
THE FIRST SUPPLEMENT DATED 3 AUGUST 2022,
THE SECOND SUPPLEMENT DATED 23 SEPTEMBER 2022,
THE THIRD SUPPLEMENT DATED 2 NOVEMBER 2022 AND
THE FOURTH SUPPLEMENT DATED 7 FEBRUARY 2023

Deutsche Bank Aktiengesellschaft

(Frankfurt am Main, Federal Republic of Germany)

This document constitutes the fifth supplement (the "**Supplement**") to the registration document for secondary issuances of non-equity securities dated 4 May 2022, as supplemented by the first supplement dated 3 August 2022 (the "**First Supplement**"), the second supplement dated 23 September 2022 (the "**Second Supplement**"), the third supplement dated 2 November 2022 (the "**Third Supplement**") and the fourth supplement dated 7 February 2023 (the "**Fourth Supplement**") (the "**Registration Document**") which has been prepared by Deutsche Bank Aktiengesellschaft ("**Deutsche Bank AG**" or "**Deutsche Bank**" or the "**Bank**" or the "**Issuer**" or "**we**" or "**our**") pursuant to Art. 10 (1), Art. 23 (1) and Art. 23 (5) of Regulation (EU) 2017/1129 (as amended from time to time, the "**Prospectus Regulation**"). Deutsche Bank and its consolidated subsidiaries are hereinafter referred to as "**Deutsche Bank Group**" or the "**Group**".

This Supplement should be read in conjunction with the Registration Document, including the documents incorporated by reference therein. The terms used in this Supplement have the same meaning as the terms used in the Registration Document.

The purpose of this Supplement is to amend the disclosure on the Issuer contained in the Registration Document, in particular following the publication of the annual report 2022 of the Issuer (the "**Annual Report 2022**") on 17 March 2023.

The Issuer accepts responsibility for the information contained in this Supplement (including any information incorporated by reference in the Registration Document by this Supplement). To the best of the knowledge of the Issuer (which has taken all reasonable care to ensure that such is the case) the information contained in this Supplement (including any information incorporated by reference in the Registration Document by this Supplement) is in accordance with the facts and does not omit anything likely to affect the import of such information.

This Supplement will be published in electronic form on the website of the Luxembourg Stock Exchange (www.luxse.com) and on the website of the Issuer (www.db.com under "Investor Relations").

This Supplement relates to the prospectuses constituted from the Registration Document, as supplemented from time to time, and the following securities notes:

Wertpapierbeschreibung für Endlos-Zertifikate vom 24. Mai 2022 (Securities Note for Perpetual Certificates dated 24 May 2022)

Securities Note for the Euro 80,000,000,000 Debt Issuance Programme dated 17 June 2022

Wertpapierbeschreibung für Optionsscheine vom 27. September 2022 (Securities Note for Warrants dated 27 September 2022)

Wertpapierbeschreibung für Schuldverschreibungen vom 27. September 2022 (Securities Note for Notes dated 27 September 2022)

Wertpapierbeschreibung für Zertifikate vom 27. September 2022 (Securities Note for Certificates dated 27 September 2022)

Securities Note for Certificates dated 27 September 2022

Securities Note for Notes dated 27 September 2022

Securities Note for Warrants dated 27 September 2022

Securities Note for the Euro 35,000,000,000 Structured Covered Bond Programme dated 29 September 2022

Securities Note for Credit Linked Securities dated 6 January 2023

Securities Note for Certificates, Warrants and Notes dated 28 February 2023

Any investor who had already agreed to purchase or subscribe for any securities to be issued pursuant to one of the above prospectuses before this Supplement was published may, if the securities have not yet been delivered to the investor at the time when the significant new factor, material mistake or material inaccuracy referred to in Art. 23 (1) of the Prospectus Regulation arose or was noted, withdraw from its purchase or subscription pursuant to Art. 23 (2) of the Prospectus Regulation as a result of the publication of this Supplement on or before 28 March 2023. Any investor who wishes to exercise its right of withdrawal may contact Deutsche Bank AG, Taunusanlage 12, 60325 Frankfurt am Main, Germany.

The Issuer has requested the Commission de Surveillance du Secteur Financier (the "**CSSF**") to provide the competent authority in Germany with a certificate of approval (a "**Notification**") attesting that this Supplement has been drawn up in accordance with the Prospectus Regulation. The Issuer may request the CSSF to provide competent authorities in additional Member States within the European Economic Area (the "**EEA**") with a Notification.

The Issuer provides as Annex 1 to this Supplement a consolidated version of the Registration Document, as supplemented by the First Supplement, the Second Supplement, the Third Supplement, the Fourth Supplement and this Supplement, in accordance with Art. 23 (6) of the Prospectus Regulation.

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Following the publication of the Annual Report 2022 by the Issuer on 17 March 2023, the disclosure on the Issuer contained in the Registration Document shall be amended as follows:

I. RISK FACTORS

The text of the section "Risk Factors" commencing on page 3 of the Registration Document (as replaced by the Third Supplement) is replaced by the following text:

"This section describes the specific risks with regard to Deutsche Bank that affect its ability to meet its obligations as issuer of debt securities.

The risk factors are divided into six categories, each indicated in this section by a title (in ***bold italic font***), according to their nature. Within the different categories, each individual risk factor is indicated by a heading (in **bold regular font**) with the most significant risks being listed first in each category. The assessment of materiality was made based on the probability of their occurrence and the expected extent of their negative impact on the ability to meet the obligations as issuer of debt securities. Subsequent risk factors in the same category are not necessarily ranked in order of materiality.

Investors should consider the following specific and material risk factors, in addition to the other information and risk factors contained in the relevant simplified prospectus, when deciding to purchase securities of Deutsche Bank.

The occurrence of the following risks may have a material adverse effect on the net assets, financial position, and results of operations of Deutsche Bank and thus impair its ability to fulfil its obligations under debt securities to investors.

Risks Relating to the Macroeconomic, Geopolitical and Market Environment

Macroeconomic and financial market conditions: As a global corporate and investment bank with a large private client franchise, Deutsche Bank is materially affected by global macroeconomic and financial market conditions. Significant challenges may arise from persistent inflation and rising interest rates, the continuing war in Ukraine, supply chain disruptions, a deteriorating macroeconomic environment and elevated geopolitical risks, the ongoing headwinds posed by regulatory reforms and/or the effects on Deutsche Bank's legal and regulatory proceedings. Other risks exist with respect to China and from political and economic instability in key markets. These risks could negatively affect the business environment, leading to weaker economic activity and a broader correction in the financial markets. Materialization of these risks could negatively affect the results of operations in some of Deutsche Bank's businesses and its financial condition as well as its strategic plans. Deutsche Bank's ability to protect itself against these risks is limited.

The war in Ukraine and the related further increase in global inflationary pressures due to higher energy prices, as well as supply chain disruptions, have led to a significant downward revision in global growth forecasts for 2023 and 2024. The likelihood of at least a moderate economic downturn remains elevated as the effects of higher inflation, higher interest rates and tighter financial conditions weigh on economic activity, including in the U.S. economy as the Federal Reserve leads the global tightening cycle. Higher interest rates may also lead to refinancing risks and potential downgrades across Deutsche Bank's client franchise, and corporate default rates are likely to rise in 2023 and 2024 as clients' earnings fall.

A renewed sharp spike in energy prices or physical shortages diminished remains a downside risk for European corporates and households for 2023 and 2024. Industries which could be affected by energy rationing, in combination with existing supply chain constraints and high commodity prices, include but are not limited to manufacturing, automotive, construction, chemicals and steel, metals and mining as well as critical infrastructure such as utilities, transportation and agriculture. While the majority of Deutsche Bank's clients, especially the larger ones, consider themselves adequately positioned, certain clients are seeing more acute pressures on sales and margins. Also, private clients and households have yet to feel the full impact of energy price increases due to government support measures and could face increasing repayment difficulties should energy prices and broader inflation stay persistently elevated. Amidst the recently improved outlook, Deutsche

Bank also views the risk of a potential gas shortage or need for energy rationing in the winter of 2023/2024 as lower, but downside risks cannot be fully discounted and could have a material impact on Deutsche Bank due to direct impacts on client defaults and second order effects on economic growth.

Throughout 2022, market and rates developments impacted the Group's ability to distribute and de-risk capital markets commitments, making pricing, hedging and distribution of transactions more challenging. While the Group actively manages systemic risks, it has experienced delays in de-risking individual commitments as well as taken mark-to-market losses in 2022, driven by widening in credit spreads and higher interest rates. The Group could see additional losses in 2023.

Interest rates increased sharply over the course of 2022 and there are expectations that monetary authorities will continue to increase interest rates over the course of 2023. If such increases take place to a greater extent or rate increases are greater than Deutsche Bank or the market anticipates, this may have negative effects on the economy, markets and Deutsche Bank's businesses. Higher interest rates may also lead to refinancing risks and potential downgrades across Deutsche Bank's client franchise and corporate default rates are likely to rise in 2023/2024 as clients' earnings fall. Such an environment may also lead to higher instances of idiosyncratic defaults. In addition, inflation, interest rates and market volatility (including also secondary effects on market prices due to supply chain issues) could lead to collateral price reductions with risks related to recovery values in case of liquidation and therefore respective higher impacts on provisions for credit losses. This is particularly relevant in instances where financing is asset based and without recourse to a third party. Deutsche Bank could therefore experience higher than expected provisions for credit losses.

Provisions for credit losses for the full year 2022 were significantly higher compared to 2021 at 25 bps of average loans. The Group expects provisions in 2023 to be at the low end of a range of 25 to 30 basis points of average loans and, unlike in 2022, to be driven by single-name losses rather than a deterioration of macro-economic forward-looking indicators. Despite the Group's current expectations, there is a risk the macroeconomic environment does not improve and there is further weakening in GDPs, persistent inflation, interest rates continue to rise, and energy prices remain elevated. The implications of such events could become visible across regions and specific, if not all, industries. Overall, the degree of uncertainty remains high and there is the risk of materially higher-than-expected provisions for credit losses, driven by the effects mentioned above, along with potential supply chain disruptions, the fragile geopolitical environment and the overall risk of entering a more recessionary cycle. Deutsche Bank regularly utilizes collateralized loan obligations and credit default swaps to manage concentration risk. However, this may not be sufficient to fully offset potential credit losses.

China related risks are elevated. The government of China has announced a rapid easing of COVID-19 restrictions which led to a notable surge in COVID-19 cases. Recently announced far-reaching U.S. export controls on high-tech goods including advanced semiconductors to China could dent the country's longer term growth potential. Also, there are ongoing concerns over the potential for a broad and persistent deterioration of China's highly leveraged property sector, despite recently announced government support measures. There have been numerous rating actions by external agencies, noting that some of the companies which have seen significant rating deterioration were up until recently investment-grade rated, and widespread liquidity shortages for the sector. Stabilising the economy has become a key priority for the Chinese government, but risks of ongoing liquidity constraints and selected defaults in the property sector remain elevated. In a severe downside, this may lead to broader contagion across weaker enterprises which could drive higher credit provisions.

Overall, in isolation or combination with other risk factors, these risks could lead to a significant deterioration in the Group's portfolio quality and higher-than-expected credit and market losses. This could also lead to accelerated rating declines among clients, leading to increasing provisioning levels as well as increased numbers of clients drawing down on credit facilities which would lead to higher capital requirements and liquidity demands. There would also be a higher risk of idiosyncratic defaults. Higher volatility in financial markets could lead to increased margin calls, higher market risk RWA and elevated valuation reserves. These developments can also impact Deutsche Bank's revenue-generating capabilities and costs, while market declines and volatility could negatively impact the value of financial instruments, drive volatility in Deutsche Bank's valuation and timing differences and result in impairments of non-financial assets. Also, a decline in financial market liquidity can exacerbate price volatility and the risk of broader market stress. Market volatility, which can also be triggered by unexpected policy decisions or policy mistakes, and by the challenging macro environment, can also lead to increased inherent risks in several non-financial risk types, including transaction processing, internal and external fraud and conduct risks, attempts to conceal losses and increased litigation attempts from clients.

If these risks materialize, or current negative conditions persist or worsen, Deutsche Bank's business, results of operations or strategic plans could be adversely affected.

War in Ukraine: In addition to its broader macroeconomic impacts, the war in Ukraine may adversely affect the Group's business and operations.

In response to the war in Ukraine, the West has moved to impose broad-based sanctions (including asset-freeze / blocking sanctions) targeting Russia and Belarus. The sanctions environment remains dependent on the development of the war in Ukraine, and it is possible that new direct or indirect secondary sanctions could be imposed at short notice. It is also likely that current, significant comprehensive sanctions remain in place and that further restrictions will be introduced. The unprecedented scale of sanctions announced to date, not all of which are fully aligned across jurisdictions, has significantly increased operational complexity including the risk of making errors in managing day-to-day business activities within the rapidly evolving sanctions environment. New sanctions as well as countermeasures by the Russian government could also result in differences between the local application / implementation of relevant requirements by Deutsche Bank Moscow and the Deutsche Bank Group (as Deutsche Bank Moscow would have to adhere to local law). Subsequently, this would create conflict of law situations and certain exemptions would have to be applied. Sanctions and Russian countermeasures may also complicate the wind-down of transactions and / or relationships that Deutsche Bank may wish or need to exit as a result of the war in Ukraine. More broadly, there is an increasing risk that Russia will turn to asymmetric warfare and that Russia or proxy actors will take retaliatory action against the West, which could directly or indirectly affect Deutsche Bank and its operations.

Deutsche Bank utilises inhouse technology resources in Russia, which contribute to the development of a number of Deutsche Bank's critical applications, while Deutsche Bank Moscow also relies on certain resources from the Group. The Group is subject to the risk that its ability to utilize these technology resources could be impaired or lost, for instance due to sanctions from the West, Russian state-initiated actions or management actions. Also, the provision of corporate banking services to local subsidiaries of international companies could be negatively affected if its operating subsidiary in Russia is impacted. The impact of the ongoing situation, from both a financial and non-financial risk perspective, remains uncertain and while its direct financial exposures to Russia and Ukraine are contained and have been reduced throughout 2022, higher order effects may materialize in a downside scenario, impacting the Group's ability to meet its stated targets. The regulatory environment or other restrictions including sanctions imposed may result in Deutsche Bank's business activities related to Russia becoming unviable or the loss of control over its assets. Despite the business continuity and crisis management policies currently in place, the conflict also poses challenges related to personnel as well as loss of business continuity, which may disrupt its business and lead to material losses.

Other macroeconomic and geopolitical risks: Deutsche Bank is subject to other macroeconomic and geopolitical risks, including with respect to China, which could negatively affect the business environment, leading to weaker economic activity and a broader correction in the financial markets.

The broader geopolitical implications of the war in Ukraine remain uncertain. Over the medium to long term, the International Monetary Fund ("**IMF**") among others has highlighted the potential impact of deglobalization on living standards and growth. Against this backdrop, tensions between the U.S. and China remain elevated across a wide range of areas, including trade and technology-related issues, Hong Kong, Taiwan, human rights, and cybersecurity. The U.S. has imposed selected sanctions as well as export and investment restrictions on Chinese companies and officials, and China has imposed sanctions on certain U.S. companies and officials and introduced a framework for blocking regulations aimed at the extraterritorial application of sanctions against China. Likewise, the EU has imposed sanctions on China in relation to human rights issues, which were reciprocated by China. Such measures raise potential regulatory compliance and conflicts of law challenges, and the impacts could be material and adverse. While the Group does not expect a China/Taiwan military conflict in the near-term, potential downside impacts from an escalation of tensions are significant and could substantially and adversely affect Deutsche Bank's planned results of operations and financial targets. Likewise, similarly to what was observed in the context of Russia, the intensifying tensions could drive further economic polarization with emergence of distinct China vs. U.S.-led blocks with potential impacts difficult to predict.

Other geopolitical risks which could negatively impact Deutsche Bank's business environment and its financial targets include an escalation of the war in Ukraine and/or rising political tensions in the Middle East which could drive energy prices even higher. Iran has blamed foreign countries for stoking the ongoing anti-government protests whilst their violent repression and Tehran's closer alignment with Russia diminish the likelihood of a successful revival of the Iran nuclear deal. These developments could increase the risk of conflict in the region.

If any of these risks materialize, they may adversely affect Deutsche Bank's results of operations, strategic plans and targets, and the prices of its shares.

Brexit: The withdrawal of the United Kingdom from the European Union may have adverse effects on Deutsche Bank's business, results of operations or financial targets.

Since the 2020 departure of the United Kingdom ("**UK**") from the European Union's ("**EU**") single market and customs union, uncertainty regarding its business impact to Deutsche Bank and associated economic downside have declined. Deutsche Bank has been able to continue to service European Economic Area ("**EEA**") based clients thanks to its program to move booking of EEA clients to Deutsche Bank AG Frankfurt which was completed before the end of 2020. Sales and coverage staff are in place in European Union member countries to ensure all regulated activity relating to EEA clients is performed within the new licensing laws post Brexit. However, some uncertainty remains as negotiations between the UK and the EU have continued for financial services not extensively covered by the existing deal. In the first half of 2022, the European Commission announced an extension to the current temporary equivalence arrangements for UK central clearing counterparties ("**CCPs**") until June 2025 from June 2022 (when the previous extension expired). Without equivalence between EU and UK regimes for financial services, Deutsche Bank will be restricted in its ability to provide financial services to and from the UK. Discussions on the nature of this extension and the final outcome in June 2025 will continue in 2023. The European Commission has advised that firms should not expect a further extension to the temporary equivalence in 2025 and should plan accordingly. With effect from 19 December 2022, Deutsche Bank is authorised by the Prudential Regulation Authority ("**PRA**") and subject to regulation by the Financial Conduct Authority ("**FCA**") and limited regulation by the PRA.

Although the economic downside risks related to Brexit has declined, there is still the potential risk the Group's business and financial targets could be adversely affected, particularly since it will depend on future political and market developments.

Risks Relating to Deutsche Bank's Business and Strategy

Business environment and strategic decisions: Deutsche Bank's results of operation and financial condition have in the past been negatively impacted by the market environment, uncertain macroeconomic and geopolitical conditions, lower levels of client activity, increased competition and regulation, along with tightening labor market conditions. If Deutsche Bank is unable to sustain its improved profitability resulting from its transformation, it may be unable to meet its 2025 targets, and may have difficulty maintaining capital, liquidity and leverage at levels expected by market participants and its regulators.

Deutsche Bank's net revenues increased by 7 % in 2022 compared to 2021. Contributing to this was a significant increase in the Corporate Bank's revenues as well as the Fixed Income & Currencies ("**FIC**") business in the Investment Bank. Private Bank also had significantly higher revenues, although much of the increase was from profit on the sale of the Deutsche Bank Financial Advisors business in Italy. Asset Management had slightly reduced revenues.

The ability of the Corporate Bank to continue its positive performance of 2022 is dependent on its ability to benefit from the higher interest rate environment. The Investment Bank's ability to continue its 2022 performance is dependent on the continuation of FIC's high levels of market activity, and increases in activity and fee pools of the Origination & Advisory business. The performance of the Private Bank and Asset Management divisions will depend in large part on market performance and their ability to counter ongoing fee compression and rising costs. The performance of all divisions will be strongly impacted by macroeconomic effects, in particular whether interest rates and inflation continue to rise, and by geopolitical events and pressures, such as the war in Ukraine and tensions with China, all of which, if they develop unfavorably, would likely impede economic growth and market activity.

Changes in Deutsche Bank's business mix towards lower-margin, lower-risk products can limit the Deutsche Bank's opportunities to profit from volatility. Regulators have generally encouraged the banking sector to focus more on the facilitation of client flow and less on risk taking, for instance by increasing capital requirements for higher-risk activities. In addition, some of the regulators have encouraged or welcomed changes to the banks business perimeter, consistent with their emphasis on lower-risk activities for banks generally. In recent years, Deutsche Bank has reduced its exposure to a number of businesses that focused on riskier but more capital-intensive products, which in previous periods had more potential to be highly profitable. Further pressure on revenues and profitability has resulted from long-term structural trends driven by regulation (especially increased regulatory capital, leverage and liquidity requirements and increased compliance costs) and competition that have further compressed margins in many of the Group's businesses. Should a combination of these factors continue to lead to reduced margins and subdued activity levels in Deutsche Bank's trading and markets business over the longer term, this could impair Deutsche Bank's ability to reach its financial targets.

Market conditions: Adverse market conditions, asset price deteriorations, volatility and cautious investor sentiment have affected and may in the future materially and adversely affect Deutsche Bank's revenues and profits, particularly in its investment banking, brokerage and other commission- and fee-based businesses. As a result, Deutsche Bank has in the past incurred and may in the future incur significant losses from its trading and investment activities.

As a global investment bank, Deutsche Bank has significant exposure to the financial markets and are more at risk from adverse developments in the financial markets than institutions predominantly engaged in traditional banking activities. Sustained market declines have in the past caused and can in the future cause Deutsche Bank's revenues to decline, and, if Deutsche Bank is unable to reduce its expenses at the same pace, can cause Deutsche Bank's profitability to erode or cause Deutsche Bank to show material losses. Volatility can also adversely affect the Group, by causing the value of financial assets it holds to decline or the expense of hedging its risks to rise. Reduced customer activity can also lead to lower revenues in the "flow" business.

Specifically, investment banking revenues, in the form of financial advisory and underwriting fees, directly relate to the number and size of the transactions in which the Group participates and are susceptible to adverse effects from sustained market downturns. These fees and other income are generally linked to the value of the underlying transactions and therefore can decline with asset values. In addition, periods of market decline and uncertainty tend to dampen client appetite for market and credit risk, a critical driver of transaction volumes and investment banking revenues, especially transactions with higher margins. In recent and other times in the past, decreased client appetite for risk has led to lower levels of activity and lower levels of profitability in the Investment Bank. Deutsche Bank's revenues and profitability could sustain material adverse effects from a significant reduction in the number or size of debt and equity offerings and merger and acquisition transactions.

Market downturns also have led and may in the future lead to declines in the volume of transactions that Deutsche Bank executes for its clients and result in a decline in its noninterest income. In addition, because the fees that Deutsche Bank charges for managing its clients' portfolios are in many cases based on the value or performance of those portfolios, a market downturn that reduces the value of clients' portfolios, or increases withdrawals, reduces the revenues Deutsche Bank receives from its Asset Management and Private Banking businesses. In 2022, Asset Management was impacted by reductions in assets under management arising from negative market performance, as well as the ongoing margin erosion in the asset management industry through both fee compression and rising costs. Even in the absence of a market downturn, below market or negative performance by Asset Management's investment funds may result in increased withdrawals and reduced inflows, which would reduce the revenue the Group receives. While clients would be responsible for losses incurred in taking positions for their accounts, Deutsche Bank may be exposed to additional credit risk as a result of its need to cover the losses where Deutsche Bank does not hold adequate collateral or cannot realize it. Deutsche Bank's businesses may also suffer if clients lose money and lose confidence in Deutsche Bank's products and services.

In addition, the revenues and profits the Group derives from many of its trading and investment positions and transactions in connection with them can be directly and negatively impacted by market prices. In each of the product and business lines in which Deutsche Bank enters into trading and investment positions, part of Deutsche Bank's business entails making assessments about the financial markets and trends in them. When Deutsche Bank owns assets, market price declines can expose Deutsche Bank to losses. Many of the more sophisticated transactions of the Investment Bank are influenced by price movements and differences among prices. If prices move in a way not anticipated, Deutsche Bank may experience losses. Also, when markets are volatile, transactions and positions Deutsche Bank has entered into may prove to lead to lower revenues or profits, or may lead to losses. In addition, Deutsche Bank has committed capital and takes market risk to facilitate certain capital markets transactions; doing so can result in losses as well as income volatility. Such losses may especially occur on assets Deutsche Bank holds for which there are not very liquid markets to begin with. Assets that are not traded on stock exchanges or other public trading markets, such as derivatives contracts between banks without publicly quoted prices, may have values that Deutsche Bank calculates using models. Monitoring the deterioration of prices of assets like these is difficult and could lead to losses Deutsche Bank does not anticipate. Deutsche Bank can also be adversely affected if general perceptions of risk cause uncertain investors to remain on the sidelines of the market, curtailing clients' activity and in turn reducing the levels of activity in those businesses dependent on transaction flow.

Credit ratings and access to funding: Deutsche Bank's liquidity, business activities and profitability may be adversely affected by an inability to access the debt capital markets or to sell assets during periods of market-wide or firm-specific liquidity constraints. Credit rating downgrades have contributed to increases in its funding costs in the past, and any future downgrade could materially adversely affect its funding costs and the willingness of counterparties to continue to do business with Deutsche Bank and significantly impact aspects of its business model.

Deutsche Bank has a continuous demand for liquidity to fund its business activities. The Group's liquidity may be impaired by an inability to access secured and/or unsecured debt markets, an inability to access funds from its subsidiaries or otherwise allocate liquidity optimally across its businesses, an inability to sell assets or redeem investments, or unforeseen outflows of cash or collateral. This situation may arise due to circumstances unrelated to the Group's businesses and outside its control, such as disruptions in the financial markets, or circumstances specific to Deutsche Bank, such as reluctance of counterparties or the market to finance the Group's operations due to perceptions about potential outflows (including deposit outflows) resulting from litigation, regulatory and similar matters, actual or perceived weaknesses in its businesses, business model or strategy, as well as in the Group's resilience to counter negative economic and market conditions. Reflecting these conditions, internal estimates of Deutsche Bank's available liquidity over the duration of a stressed scenario could at times be negatively impacted.

In addition, negative developments concerning other financial institutions perceived to be comparable to the Group and negative views about the financial services industry in general can also affect Deutsche Bank. These perceptions could affect the prices at which the Group could access the capital markets to obtain the necessary funding to support its business activities; should these perceptions exist, continue or worsen, the Group's ability to obtain this financing on acceptable terms may be adversely affected. Among other things, an inability to refinance assets on its balance sheet or maintain appropriate levels of capital to protect against deteriorations in its value could force Deutsche Bank to liquidate assets it holds at depressed prices or on unfavorable terms, and could also force Deutsche Bank to curtail business, such as the extension of new credit. This could have an adverse effect on Deutsche Bank's business, financial condition and results of operations. Additionally, the Group needs to ensure its ongoing ability to refinance business activities in their respective currencies.

Quantitative tightening by central banks, as a way of managing inflation, has led to rising interest rates. This in turn, is reducing money supply, increasing the pressure on funding markets and impacting the valuations of liquid assets. If inflation persists, this could necessitate even further central bank tightening, which could trigger a significant economic slowdown in Europe and the U.S. and could lead to a rise of defaults across corporates. As a result, disruptions in the financial markets, or circumstances specific to the Group, such as a reluctance of counterparties to finance Deutsche Bank's operations due to perceptions of Deutsche Bank's financial strength resulting from litigation, regulatory matters, actual or perceived weaknesses in Deutsche Bank's businesses, business model or strategy, as well as in Deutsche Bank's resilience in countering negative economic and market conditions, could occur. The ECB may also amend the terms of its monetary policy tools which could adversely impact Deutsche Bank's revenue development, change Deutsche Bank's interest rate sensitivity and may affect broader market pricing.

Additionally, persistently high inflation and consumer price levels could lead to a decline in levels of deposits in Deutsche Bank's core retail markets as consumers use their savings to compensate for higher expenses. This might foster price competition among banks for retail deposits increasing Deutsche Bank's funding costs, as well as putting further pressure on the volume of Deutsche Bank's retail deposits, which are one of the main funding sources for Deutsche Bank.

Uncertain macroeconomic developments could negatively affect Deutsche Bank's ability to transact foreign exchange ("**FX**") trades due to volatility in the FX markets or if counterparties are concerned about its ability to fulfil agreed transaction terms and therefore seek to limit their exposure. Additionally, increased FX mismatches on Deutsche Bank's balance sheet may lead to increased collateral outflows if the euro (Deutsche Bank's local currency) materially depreciates against other major currencies and may lead to difficulties to support liquidity needs in different currencies.

As part of emerging risks, digital payments and blockchain are assessed as areas which could impact the depth and volatility of market liquidity and funding and may temporarily impact cost of funding and thereby adversely affect profitability.

Liquidity risk could also arise from lower value and marketability of Deutsche Bank's liquidity reserves, as these would affect the amount of proceeds available for covering cash outflows during a stress event. Additional haircuts may be incurred on top of already impaired asset values. Moreover, securities might lose their eligibility as collateral necessary for accessing central bank facilities, as well as their value in the repo/wholesale funding market. At the same time, the Group's liquidity position may also be impaired in situations where its counterparty on, for example, a derivative contract is not current on an obligation to post collateral, in which case Deutsche Bank has to cover for the shortfall through other means.

In addition, Deutsche Bank has benefited in recent years from a number of incremental measures by the ECB and other central banks that provided additional liquidity to financial institutions and the financial markets, particularly in the Eurozone. For example, Deutsche Bank's interest income in 2022 included € 211 million related to EU government grants under the TLTRO III program. To the extent these actions are curtailed or halted, the Group's funding costs could increase, or its funding supply could decrease, which could in turn result in a reduction in business activities. A large tranche of the TLTRO III will expire in June 2023, which will reduce its benefits going forward. In 2022, the ECB and the Federal Reserve have tightened their monetary policy.

Deutsche Bank's credit ratings have been upgraded in 2022 by all three leading rating agencies. Despite the recent upgrades, rating agencies regularly review Deutsche Bank's credit ratings, and such reviews could be negatively affected by a number of factors that can change over time, including the credit rating agency's assessment of: the Group's strategy and management's capability; its financial condition including in respect of profitability, asset quality, capital, funding and liquidity; the level of political support for the industries in which Deutsche Bank operates; the implementation of structural reform; the legal and regulatory frameworks applicable to Deutsche Bank's legal structure; business activities and the rights of Deutsche Bank's creditors; changes in rating methodologies; changes in the relative size of the loss-absorbing buffers protecting bondholders and depositors; the competitive environment, political and economic conditions in Deutsche Bank's key markets; and market uncertainty. In addition, credit ratings agencies are increasingly taking into account environmental, social and governance factors, including climate risk, as part of the credit ratings analysis, as are investors in their investment decisions.

Any reductions in the Group's credit ratings, including, in particular, downgrades below investment grade, or a deterioration in the capital markets' perception of its financial resilience could significantly affect Deutsche Bank's access to money markets, reduce the size of its deposit base and trigger additional collateral or other requirements in derivatives contracts and other secured funding arrangements or the need to amend such arrangements, which could adversely affect the cost of funding and access to capital markets and could limit the range of counterparties willing to enter into transactions with Deutsche Bank. This could in turn adversely impact Deutsche Bank's competitive position and threaten its prospects in the short to medium-term.

In the past, major credit rating agencies lowered Deutsche Bank's credit ratings or placed them on review or negative watch on multiple occasions. These credit rating downgrades contributed to an increase in funding costs. Despite the recent upgrades, the Group's credit spread levels (meaning the difference between the yields on its securities as compared to benchmark government bonds) are sensitive to further adverse developments and severe future downgrades could bring its credit rating into the non-investment grade category. This could materially and adversely affect the Group's funding costs and significant aspects of its business model. The effect would depend on a number of factors including whether a downgrade affects financial institutions across the industry or on a regional basis, or is intended to reflect circumstances specific to Deutsche Bank, such as potential settlement of regulatory, litigation and similar matters; any actions senior management may take in advance of or in response to the downgrade; the willingness of counterparties to continue to do business with Deutsche Bank; any impact of other market events and the state of the macroeconomic environment more generally.

Additionally, under many of the contracts governing derivative instruments to which Deutsche Bank is a party, a downgrade could require Deutsche Bank to post additional collateral, lead to terminations of contracts with accompanying payment obligations for Deutsche Bank or give counterparties additional remedies.

Implementation of strategic plans: If Deutsche Bank is unable to meet its 2025 financial targets or incurs future losses, including further impairments and provisions, or low profitability, its financial condition, results of operations and share price may be materially and adversely affected, and it may be unable to make contemplated distributions of profits to its shareholders or carry out share buybacks.

In March 2022, Deutsche Bank outlined its strategic and financial roadmap through 2025, which aims to position Deutsche Bank as a "Global Hausbank", and communicated Deutsche Bank's 2025 financial targets and capital objectives.

The "Global Hausbank" strategy is underpinned by key themes which have become even more important in the light of the geopolitical and macro-economic upheavals of 2022. In this environment, Deutsche Bank aims to leverage a more favorable interest rate environment, deploy its risk management expertise to support clients, and allocate capital to high-return growth opportunities. As sustainability becomes ever more important, Deutsche Bank aims to deepen its dialogue with and support for clients and broaden the agenda in respect of its own operations. As technology continues to evolve, Deutsche Bank aims to reap further cost savings, accelerate the transition to a digital bank, and expand upon strategic partnerships which are already creating substantial value.

Furthermore, the Group also announced several key pillars of efficiency measures contributing to Deutsche Bank's 2025 targets, which are expected to deliver structural cost savings of more than € 2 billion between 2022 and 2025. These include:

- Germany platform optimization: Branch reductions and technology integration of the IT platform aimed at creating efficiencies by simplifying the Group's infrastructure

- Re-architecture and simplification of the Group's application landscape: Decommissioning unnecessary software applications and migrating key applications to the cloud

- Front-to-back process re-design: Continue automating controls and processes, including front-to-back loans processing, risk management and reporting processes

- Infrastructure efficiency: Continue to focus on optimizing Deutsche Bank's workforce management and to optimize its global office space footprint. Deutsche Bank has identified additional cost savings in infrastructure efficiency

Deutsche Bank's financial targets and capital objectives for 2025 are:

Financial targets:

- Post-tax Return on Average Tangible Equity of above 10 % for the Group

- Compounded annual growth rate of revenues of 3.5 to 4.5 %
- Cost/income ratio of less than 62.5%

Capital objectives:

- Common Equity Tier 1 capital ratio approximately 13 %
- 50 % Total payout ratio from 2025

Deutsche Bank is committed to delivering sustainably growing cash dividends and, over time, returning to shareholders excess capital that is over and above what is required to support profitable growth and upcoming regulatory changes through share buybacks, subject to regulatory approval, shareholder authorization and meeting German corporate law requirements. To that end, subject to meeting the Group's strategic targets, the Management Board intends to grow the cash dividend per share by 50 % per annum in the next 3 years, starting from the € 0.20 per share paid for the financial year 2021. This would translate into approximately € 3.3 billion of cumulative dividend payments by 2025 with respect to financial years 2021-2024. In relation to the financial year 2024 Deutsche Bank intends to achieve a total payout ratio of 50 % from a combination of dividends paid and share buybacks executed in 2025; and Deutsche Bank intends to maintain a 50 % total payout ratio in subsequent years. In addition to the share buyback of € 0.3 billion already concluded in 2022, successfully executing the Group's financial and strategic plans through 2025 would therefore support the previously announced cumulative distributions to shareholders in the form of dividends paid or share buybacks executed of approximately € 8 billion in respect of financial years 2021-2025. Deutsche Bank's ambition to return capital to shareholders is further underpinned by Deutsche Bank's aim to maintain a robust Common Equity Tier 1 ("**CET 1**") capital ratio of approximately 13 %, i.e. to operate with a buffer of 200 basis points above the Maximum Distributable Amount ("**MDA**") threshold the Group currently assumes to prevail over time.

Deutsche Bank's strategic goals are subject to various internal and external factors and to market, regulatory, economic and political uncertainties, and to limitations relating to Deutsche Bank's operating model. These could negatively impact the implementation of Deutsche Bank's strategic goals, the realization of their anticipated benefits, or the ability to achieve Deutsche Bank's financial targets for 2025. In particular, Deutsche Bank's strategic objectives are subject to the following assumptions and risks:

- Geopolitical developments, especially the war in Ukraine, may impact global and regional economies and markets other than in short-term ways and may result in adverse effects on Deutsche Bank's business, results of operations or strategic plans and targets, and the prices of Deutsche Bank's securities. Other geopolitical risks exist with respect to China and from political and economic instability in key markets.
- While the COVID-19 pandemic receded rapidly in 2022, the ongoing impact on economies, as well as the potential for resurgence, remain as risks.
- The base case scenario for Deutsche Bank's financial and capital plan includes revenue growth estimates which are dependent on positive macroeconomic developments. Stagnation or a downturn in the macroeconomic environment could significantly impact Deutsche Bank's ability to generate the revenue growth necessary to achieve these strategic financial and capital targets. This base case scenario also includes assumptions regarding Deutsche Bank's ability to reduce costs in future periods.
- In addition, Deutsche Bank's base case scenario is based on current market implied forward interest rate curves. If interest rates do not evolve as expected, Deutsche Bank's revenues may not develop as Deutsche Bank anticipates.
- Deutsche Bank's objectives are also based on assumptions regarding inflation levels, which have risen sharply over the past year, in particular for fossil fuels, other raw materials and food, and the outlook for which remains uncertain. If inflation does not develop as Deutsche Bank expects, or if Deutsche Bank's commercial leverage with suppliers and third parties does not enable Deutsche Bank to resist

inflationary pressures, Deutsche Bank's businesses may be adversely impacted and Deutsche Bank's costs may increase.

- Deutsche Bank's plans are based upon 31 December 2022 foreign exchange rates, particularly with respect to the euro and U.S. dollar. If exchange rates change from these levels, Deutsche Bank's ability to achieve its goals may be adversely affected.

- Results in 2022 of the Corporate Bank and Investment Bank FIC division were supported by high levels of market activity. The ability of these businesses to continue their performance is dependent on the continuation of these conditions.

- For 2023, the Group expects provisions for credit losses to be at the low end of the range between 25 and 30 basis points as a percentage of average loans. Should higher levels of provisions for credit losses be required, Deutsche Bank's results of operations and Deutsche Bank's ability to meet its financial and capital targets may be adversely affected.

- Deutsche Bank continues to rely on Deutsche Bank's trading and markets businesses as a significant source of profit, but, depending on economic and market conditions, such businesses may be adversely impacted or be unable to achieve the profitability expected from them.

- From time to time, asset and client levels have been impacted by the negative market perceptions of Deutsche Bank. A continued or renewed negative market focus on Deutsche Bank could result in lower client levels and asset outflows.

- In the event that staff attrition levels increase versus historical levels, this may adversely affect Deutsche Bank's ability to attract and retain talented personnel, particularly in front-office positions that are key to revenue generation and in positions key to improving the bank's control environment.

- Regulatory changes, including tax law changes, could also adversely impact Deutsche Bank's ability to achieve its targets and objectives. In particular, regulators could demand changes to the bank's business model or organization that could reduce Deutsche Bank's profitability, or force it to make changes that reduce Deutsche Bank's profitability in an effort to remain compliant with laws and regulations.

- Deutsche Bank is involved in numerous litigation, arbitration and regulatory proceedings, investigations and tax examinations in Germany and in a number of jurisdictions outside of Germany, especially in the United States. Such matters are subject to many uncertainties. The Group expects the litigation environment to continue to be challenging. If litigation and regulatory matters occur at the same or higher rate and magnitude than they have in some recent years or if Deutsche Bank is subject to sustained market speculation about its potential exposure to such matters, Deutsche Bank may not be able to achieve its targets and objectives.

- Deutsche Bank currently operates a highly complex infrastructure, which can compromise the quality of the overall control environment. Establishing a more efficient bank with a strong control environment depends on successfully streamlining and simplifying Deutsche Bank's IT landscape as well as cultural change.

- A robust and effective internal control environment is necessary to ensure that Deutsche Bank conducts its business in compliance with the laws and regulations applicable to Deutsche Bank. Deutsche Bank may be unable to complete initiatives to enhance the efficacy of Deutsche Bank's internal control environment as quickly as intended or as regulators demand, and Deutsche Bank's efforts may be insufficient to prevent all future deficiencies in its control environment or result in fewer litigations or regulatory and enforcement investigations and proceedings in the future. Furthermore, implementation of enhanced controls may result in higher-than- expected costs of regulatory compliance that could offset efficiency gains.

- If some of the above risks were to materialize such that Deutsche Bank's revenues would be negatively impacted or the cost base would significantly increase, Deutsche Bank may not be able to achieve its cost-income ratio target of less than 62.5 % for 2025. For example, revenues could fall short of Deutsche Bank's expectations or expenses such as bank levies, litigation expenses, or staff costs may be higher than expected.

If the Group fails to implement its strategic initiatives in whole or in part or should the initiatives that are implemented fail to produce the anticipated benefits, or the costs incurred to implement the initiatives exceed the amounts anticipated, or the Group fails to achieve the publicly communicated targets it has set for implementation of these initiatives, Deutsche Bank may fail to achieve its financial objectives, incur losses or have low profitability or erosions of its capital base, and its financial condition, results of operations and share price may be materially and adversely affected.

Sale of assets: Deutsche Bank may have difficulties selling companies, businesses or assets at favorable prices or at all and may experience material losses from these assets and other investments irrespective of market developments.

The Group seeks to sell or otherwise reduce its exposure to assets that are not part of its core business or as part of its strategy to simplify and focus the business and to meet or exceed capital and leverage requirements, as well as to help Deutsche Bank meet its return on tangible equity targets. The Group has already sold a substantial portion of its non-core assets, and its remaining non-core assets may be particularly difficult to sell as quickly as the Group had expected at prices it deems acceptable. Where Deutsche Bank sells companies or businesses, it may remain exposed to certain losses or risks under the terms of the sale contracts, and the process of separating and selling such companies or businesses may give rise to operating risks or other losses. Unfavorable business or market conditions may make it difficult for Deutsche Bank to sell companies, businesses or assets at favorable prices, or may preclude a sale altogether. If Deutsche Bank cannot reduce its assets according to plan, it may not be able to achieve the capital targets set out under its strategy.

Business combinations: Deutsche Bank may have difficulty in identifying and executing business combinations, and both engaging in combinations and avoiding them could materially harm the Group's results of operations and its share price.

The Group considers business combinations from time to time. Were Deutsche Bank to announce or complete a significant business combination, its share price or the share price of the combined entity could decline significantly if investors viewed the transaction as too costly, dilutive to existing shareholders or unlikely to improve its competitive position. Also, the need to revalue certain classes of assets at fair value in a business combination may make transactions infeasible. It is generally not feasible for reviews of any business with which Deutsche Bank might engage in a combination to be completed in all respects. As a result, a combination may not perform as well as expected. In addition, Deutsche Bank may fail to integrate its operations successfully with any entity with which it participates in a business combination. Failure to complete announced business combinations or failure to achieve the expected benefits of any such combination could materially and adversely affect profitability. Such failures could also affect investors' perception of the business prospects and management, and thus cause the share price to fall. It could also lead to departures of key employees, or lead to increased costs and reduced profitability if Deutsche Bank felt compelled to offer key employees financial incentives to remain.

If Deutsche Bank avoids entering into business combinations or if announced or expected transactions fail to materialize, market participants may perceive Deutsche Bank negatively. The Group may also be unable to expand its businesses, especially into new business areas, as quickly or successfully as competitors if the Group does so through organic growth alone. These perceptions and limitations could cost Deutsche Bank business and harm its reputation, which could have material adverse effects on the financial condition, results of operations and liquidity.

Competitive environment: Intense competition, in Deutsche Bank's home market of Germany as well as in international markets, has and could continue to materially adversely impact revenues and profitability.

Competition is intense in all of Deutsche Bank's primary business areas, in Germany as well as in international markets. If Deutsche Bank is unable to respond to the competitive environment in these markets with attractive product and service offerings that are profitable, Deutsche Bank may lose market share in important areas of its business or incur losses on some or all of its activities. In addition, downturns in the economies of these markets could add to the competitive pressure, for example, through increased price pressure and lower business volumes.

There has been substantial consolidation and convergence among financial services companies. This trend has significantly increased the capital base and geographic reach of some competitors and has hastened the globalization of the securities and other financial services markets. As a result, Deutsche Bank must compete with financial institutions that may be larger and better capitalized and may have a stronger position in local markets.

In addition to the Group's traditional competitors such as other universal banks and financial services firms, an emerging group of future competitors in the form of start-ups and technology firms, including those providing "fintech" services, are showing an increasing interest in banking services and products. These new competitors could increase competition in both core products, e.g., payments, basic accounts and loans and investment advisory, as well as in new products, e.g., peer to peer lending and equity crowd funding. Such firms are also potential competitors in attracting and retaining talented personnel.

Risks Relating to Regulation and Supervision

Regulatory reforms: Regulatory reforms enacted and proposed in response to weaknesses in the financial sector and, more recently, to the envisaged transition towards a sustainable economy, together with increased regulatory scrutiny more generally, have had and continue to have a significant impact on Deutsche Bank and may adversely affect its business and ability to execute its strategic plans. Competent regulators may prohibit Deutsche Bank from making dividend payments, share repurchases or payments on its regulatory capital instruments or take other actions if the Group fails to comply with regulatory requirements.

Governments and regulatory authorities have worked and continue to work to enhance the resilience of the financial services industry against future crises through changes to the regulatory framework. The pace of change of new proposals has slowed as the focus turns more to the final implementation of the regulatory reform agenda outlined by the Basel Committee on Banking Supervision (the "**Basel Committee**") and, more recently, to efforts to facilitate the envisaged transition towards a sustainable economy (the "**Green Deal**") As a result, there continues to be uncertainty for the Group and the financial industry in general, though the level of uncertainty is reduced from prior periods. The range of new (or revised) laws and regulations or current proposals includes, among other things:

- Provisions for more stringent regulatory capital, leverage and liquidity standards, now also focusing on the financial sector's transformation towards climate neutrality,
- Prudential treatment of crypto, green and brown assets,
- Restrictions on compensation practices,
- Restrictions on proprietary trading and other investment services,
- Special bank levies,
- Tightened large exposure limits,
- Stress testing and capital planning regimes, also with respect to environment, social and governance risks,
- Heightened reporting requirements, and
- Reforms of derivatives, other financial instruments, investment products and market infrastructures.

As a core element of the reform of the regulatory framework, the Basel Committee developed and continuously refined and supplemented a comprehensive set of rules regarding minimum capital adequacy and liquidity standards as well as other rules, known as Basel 3. The initial set of rules was implemented into European and national law (including German, under which Deutsche Bank AG is incorporated) beginning in 2014, with the European legislative package also referred to as "**CRR / CRD IV**" and the Bank Recovery and Resolution Directive (or "**BRRD**"), which provides for a resolution framework for banks. The set of rules was further strengthened with a comprehensive package of reforms in 2019 also referred to as "**CRR II / CRD V**" and "**BRRD II**". The reform package also implemented certain regulatory proposals of the Financial Stability Board ("**FSB**") regarding a requirement for global systemically important institutions ("**G-SIIs**"), such as Deutsche Bank, to hold certain minimum levels of capital and other instruments which are capable of bearing losses in resolution ("**Total Loss-Absorbing Capacity**" or "**TLAC**").

On 27 October 2021, the European Commission published a comprehensive package of reforms with respect to the European Union banking rules (the "**Banking Package 2021**") to ensure that banks become more resilient to potential future economic shocks while contributing to the European Union's recovery from the COVID-19 pandemic and its transition to climate neutrality. The proposals aim to amend the Capital Requirements Regulation ("**CRR**"), the Capital Requirements Directive ("**CRD**") and the BRRD. If adopted, the proposals to amend the CRR and CRD (commonly referred to as "**CRR III**" and "**CRD VI**") will, in particular, finalize the implementation of the Basel 3 framework in the European Union and also fully implement the market risk capital changes in the Fundamental Review of the Trading Book ("**FRTB**"). Another separate proposal entails combined amendments to the CRR and the BRRD with respect to the resolution regime.

CRR III and CRD VI include, among other things, a gradually introduced output floor establishing minimum risk-weighted assets that will ultimately be set at 72.5 % of the risk-weighted assets calculated under the standardized approach, changes to standardized and internal ratings-based approaches for determining credit risk, changes to the credit valuation adjustment, a revision of the approaches for operational risks and reforms to the market risk framework as set out in the FRTB, adjustments to the Pillar 2 requirements and the systemic risk buffer ("**SyRB**") and a "fit-and-proper" set of rules for the senior staff managing banks. Other proposed measures are aimed to address sustainability risks by requiring banks to identify, disclose and manage environmental, social and governance risks as part of their risk management framework and include regular climate stress testing by the banks' supervisors. The proposal does not entail any adjustments to the capital requirements for green or brown assets. However, the European Commission has already stated that it is exploring this idea and has asked the European Banking Authority ("**EBA**") to assess possible adjustments. It is expected that the EBA will provide its final report by mid-2023. Depending on the outcome of the negotiation, CRR III and CRD VI may include provisions on the capital treatment of crypto assets.

The proposals regarding the resolution regime include clarifications with respect to some aspects of the TLAC / minimum requirement for own funds and eligible liabilities ("**MREL**") regime in relation to single point of entry and multiple point of entry resolution strategies and, in particular, a deduction regime requiring intermediate parents to deduct from their own internal MREL capacity the amount of their holdings of internal MREL eligible instruments, including own funds, issued by their subsidiaries belonging to the same resolution group.

The Banking Package 2021 will continue to be negotiated with EU lawmakers, i.e. the European Parliament and the Council. The Council reached its position on the implementation of the Banking Package 2021 in November 2022, and the European Parliament reached its position in February 2023. The proposal of the European Parliament entails, in particular, an amendment that would require banks to apply a risk-weighting of 1,250 % of capital to crypto assets exposures. It is expected that CRR III and CRD VI will start entering into force at the end of 2023 at the earliest with the new rules implementing Basel 3 to apply from 1 January 2025. According to an assessment conducted by the EBA, the full implementation of the Basel 3 framework in the European Union could lead to an increase in the minimum capital requirements of all European banks of 10.7 % and of 20.0 % for G-SIIs.

The implementation of the remaining outstanding proposals under Basel 3 as contained in the Banking Package 2021 has the potential to increase risk-weighted assets and will likely affect the business by raising Deutsche Bank's regulatory capital and liquidity requirements and by leading to increased costs. Such requirements may be in addition to regulatory capital buffers that may also be increased or be in addition to those already imposed on the Group and could materially increase the Group's capital requirements.

In addition, regulatory scrutiny of compliance with existing laws and regulations has become more intense and supervisory expectations remain significant. The specific effects of a number of new (or revised) laws and regulations remain uncertain because the drafting and implementation of these laws and regulations are still on-going and supervisory expectations continue to develop.

Regulatory authorities have substantial discretion in how to regulate banks, and this discretion, and the means available to the regulators, have been steadily increasing during recent years. Regulation may be imposed on an ad hoc basis by governments and regulators in response to ongoing or future crises (such as the COVID-19 pandemic) and the Green Deal and may especially affect financial institutions such as Deutsche Bank that are deemed to be systemically important.

In particular, the regulators with jurisdiction over Deutsche Bank, including the ECB under the Single Supervisory Mechanism (also referred to as the "**SSM**"), may, in connection with the supervisory review and evaluation process ("**SREP**"), SSM-wide reviews of asset quality or internal risk models or otherwise, conduct stress tests. They have discretion to impose capital surcharges on financial institutions for risks, including for litigation, regulatory and similar matters, that are not otherwise recognized in risk-weighted assets or other surcharges depending on the individual situation of Deutsche Bank. Such adjustments may, for example, reflect additional risks posed by deficiencies in Deutsche Bank's control environment, or come as a result of supervisory inspections concerning the treatment of specific products or transactions. One of these areas in focus of the ECB with regard to risk taking is leveraged lending, for which the ECB in March 2022 clarified their expectations for all banks under the SSM. The ECB announced that it intends to follow up on its expectation using a wide range of supervisory tools and to take measures in future SREP decisions for institutions which the ECB assesses as non-compliant with these expectations. The ECB may take or require other measures, such as restrictions on or changes to the business. In this context, the ECB may impose, and has imposed, on Deutsche Bank individual capital requirements resulting from the SREP which are referred to as Pillar 2 requirements. Institutions must meet their Pillar 2 requirements with at least 75 % of Tier 1 capital and at least 56.25 % of Common Equity Tier 1 capital. Pillar 2 requirements must be fulfilled in addition to the statutory minimum capital and buffer requirements and any non-compliance may have immediate legal consequences such as restrictions on dividend payments.

Also following the SREP, the ECB may communicate to individual banks, and has communicated to Deutsche Bank, an expectation to hold a further Pillar 2 Common Equity Tier 1 capital add-on, the so-called Pillar 2 guidance. Although the Pillar 2 guidance is not legally binding and failure to meet it does not automatically trigger legal action, the ECB has stated that it generally expects banks to meet the Pillar 2 guidance. During the COVID-19 pandemic, the ECB temporarily allowed banks to operate below the level of capital defined by the Pillar 2 guidance. Since 1 January 2023, banks are expected again to operate above Pillar 2 guidance.

Further, effective as of 1 February 2022, the BaFin set the countercyclical capital buffer ("**CCyB**") at 0.75 %, and banks have had to comply with this CCyB requirement since 1 February 2023.

Following the 2022 SREP, Deutsche Bank has been informed by the ECB of its decision regarding prudential capital requirements to be maintained from 1 January 2023 onwards, that Deutsche Bank's Pillar 2 requirement will increase by 20 bps. The increase is driven by the ECB's newly introduced separate assessment of risks stemming from leveraged finance activities.

Also, more generally, competent regulators may, if Deutsche Bank fails to comply with regulatory requirements, in particular with statutory minimum capital requirements or Pillar 2 requirements, or if there are shortcomings in Deutsche Bank's governance and risk management processes, prohibit Deutsche Bank from making dividend payments to shareholders or distributions to holders of other regulatory capital instruments. This could occur, for example, if Deutsche Bank fails to make sufficient profits due to declining revenues, or as a result of substantial outflows due to litigation, regulatory and similar matters. Generally, a failure to comply with the quantitative and qualitative regulatory requirements could have a material adverse effect on Deutsche Bank's business, financial condition and results of operations, including the Group's ability to pay out dividends to shareholders or distributions on other regulatory capital instruments or, in certain circumstances, conduct business which Deutsche Bank currently conducts or plans to conduct in the future.

Capital requirements: The regulatory and legislative environment requires Deutsche Bank to maintain increased capital and bail-inable debt (debt that can be bailed in in resolution) and abide by tightened liquidity requirements. These requirements may significantly affect Deutsche Bank's business model, financial condition and results of operations, as well as the competitive environment generally. Any perceptions in the market that Deutsche Bank may be unable to meet its capital or liquidity requirements with an adequate buffer, or that Deutsche Bank should maintain capital or liquidity in excess of these requirements, or any other failure to meet these requirements, could intensify the effect of these factors on its business and results.

The implementation of the CRR / CRD IV legislative package resulted, among other things, in increased capital and tightened liquidity requirements, including additional capital buffer requirements which were gradually phased in through 1 January 2019. Further revisions, such as stricter rules on the measurement of risks and the changes introduced by the CRR II / CRD V / BRRD II reform package, increased risk-weighted assets and the corresponding capital demand for banks, as well as tightened liquidity requirements (such as the introduction of a binding Net Stable Funding Ratio ("**NSFR**")). In addition, the introduction of a binding leverage ratio (including the leverage ratio buffer) affected the business model, financial conditions and results of operations.

Furthermore, under the SRM Regulation, the BRRD and the German Recovery and Resolution Act (*Sanierungs- und Abwicklungsgesetz*), Deutsche Bank is required to meet at all times a robust MREL which is determined on a case-by-case basis by the competent resolution authority. In addition, the CRR II / CRD V / BRRD II reform package implemented the FSB's TLAC standard for global systemically important banks ("**G-SIBs**", such as Deutsche Bank) by introducing a Pillar 1 MREL requirement for G-SIIs (the European equivalent term for G-SIBs). This requirement is based on both risk-based and non-risk-based denominators and will be set at the higher of 18 % of total risk exposure and 6.75 % of the leverage ratio exposure measure. It can be met with Tier 1 or Tier 2 capital instruments or debt that meets specific eligibility criteria. Deduction rules apply for holdings by G-SIIs of TLAC instruments of other G-SIIs. In addition, the competent authorities have the ability to impose on G-SIIs individual MREL requirements that exceed the statutory minimum requirements. As described above, the European Commission included clarifications with respect to the TLAC / MREL regime in its legislative proposals of 27 October 2021.

Both the TLAC (or Pillar 1 MREL) and MREL requirements are specifically designed to require banks to maintain a sufficient amount of instruments which are eligible to absorb losses in resolution with the aim of ensuring that failing banks can be resolved without recourse to taxpayers' money. To that end, in order to facilitate the meeting of TLAC requirements by German banks, obligations of German banks under certain specifically defined senior unsecured debt instruments issued by them (such as bonds that are not structured debt instruments) rank, since 2017, junior to all other outstanding unsecured unsubordinated obligations of such bank (such as deposits, derivatives, money market instruments and certain structured debt instruments), but continue to rank in priority to contractually subordinated debt instruments (such as Tier 2 instruments).

As part of the harmonization of national rules on the priority of claims of banks' creditors in the European Union, the BRRD allows banks to issue "senior non-preferred" debt instruments ranking according to their terms (and not only statutorily) junior to the banks' other unsubordinated debt instruments (including bonds that are not treated as "senior non-preferred" debt instruments), but in priority to Deutsche Bank's contractually subordinated liabilities (such as Tier 2 instruments). Any such "senior non-preferred" debt instruments issued by Deutsche Bank AG under such rules rank on parity with its then outstanding "senior non-preferred" debt instruments under the prior rules. This BRRD amendment was finalized and implemented into German law as of 21 July 2018.

The need to comply with these requirements may affect the Group's business, financial condition and results of operation and in particular may increase its financing costs.

The Group may not have sufficient capital or other loss-absorbing liabilities to meet these increasing regulatory requirements. This could occur due to regulatory changes and other factors, such as the banks' inability to issue new securities which are recognized as regulatory capital or loss-absorbing liabilities under the applicable standards, due to an increase of risk-weighted assets based on more stringent rules for the measurement of risks or as a result of a future decline in the value of the euro as compared to other currencies, due to stricter requirements for the compliance with the non-risk based leverage ratio, due to any substantial losses the bank may incur, which would reduce retained earnings, a component of Common Equity Tier 1 capital, or due to a combination of these or other factors.

If Deutsche Bank is unable to maintain sufficient capital to meet the applicable minimum capital ratios, the buffer requirements, any specific Pillar 2 capital requirements, leverage ratio requirements, or TLAC or MREL requirements, Deutsche Bank may become subject to enforcement actions and/or restrictions on the pay-out of dividends, share buybacks, payments on other regulatory capital instruments, and discretionary compensation payments. In addition, any requirement to increase risk-based capital ratios or the leverage ratio could lead the Group to adopt a strategy focusing on capital preservation and creation over revenue generation and profit growth, including the reduction of higher margin risk-weighted assets. If Deutsche Bank is unable to increase its capital ratios to the regulatory minimum in such a case or by raising new capital through the capital markets, through the reduction of risk-weighted assets or through other means, Deutsche Bank may be required to activate its group recovery plan. If these actions or other private or supervisory actions do not restore capital ratios to the required levels, and the Group is deemed to be failing or likely to fail, competent authorities may apply resolution powers under the Single Resolution Mechanism ("**SRM**") and applicable rules and regulations, which could lead to a significant dilution of shareholders' or even the total loss of the Group's shareholders' or creditors' investment.

The CRR introduced a liquidity coverage requirement intended to ensure that banks have an adequate stock of unencumbered high quality liquid assets that can be easily and quickly converted into cash to meet its liquidity needs for a 30-calendar day liquidity stress scenario. The required liquidity coverage ratio ("**LCR**") is calculated as the ratio of a bank's liquidity buffer to its net liquidity outflows. Also, banks must regularly report the composition of the liquid assets in its liquidity buffer to their competent authorities.

In addition, the CRR II / CRD V / BRRD II reform package introduced the NSFR to reduce medium- to long-term funding risks by requiring banks to fund its activities with sufficiently stable sources of funding over a one-year period. The NSFR, which applies since 28 June 2021, is defined as the ratio of a bank's available stable funding relative to the amount of required stable funding over a one-year period. Banks must maintain an NSFR of at least 100 %. The ECB may impose on individual banks liquidity requirements which are more stringent than the general statutory requirements if the bank's continuous liquidity would otherwise not be ensured. The NSFR applies to both the Group as a whole and to individual SSM regulated entities, including the parent entity Deutsche Bank AG.

If Deutsche Bank fails to meet liquidity requirements, Deutsche Bank may become subject to enforcement actions. In addition, any requirement to maintain or increase liquidity could lead the bank to reduce activities that pursue revenue generation and profit growth.

Deutsche Bank is regularly subject to stress tests, including stress tests on the effects of climate change. The next EU-wide stress test will be carried out in 2023 and the EBA plans to publish the results for the individual banks by the end of July 2023. The EBA will coordinate the EU-wide stress test in cooperation with the ECB and national supervisory authorities. A total of 99 directly supervised banks, including Deutsche Bank, will be stress tested by the ECB which announced that it will carry out a deep dive on leveraged finance exposures for selected banks with material leveraged finance activities. The adverse scenario used in the test is based on a narrative of hypothetical heightened geopolitical tensions, with high inflation and higher interest rates having strong adverse effects on private consumption and investments, both domestically and globally. In terms of GDP decline, the 2023 adverse scenario is the most severe used in the European Union wide stress testing up to now. The stress test results will be used to update each bank's Pillar 2 guidance in the context of the SREP. Qualitative findings on weaknesses in Deutsche Bank's stress testing practices could also affect Deutsche Bank's Pillar 2 requirements.

Local capital requirements: In some cases, Deutsche Bank is required to hold and calculate capital and to comply with rules on liquidity and risk management separately for its local operations in different jurisdictions, in particular in the United States.

Deutsche Bank is required to hold and calculate capital and to comply with rules on liquidity and risk management separately for its local operations in different jurisdictions. Federal Reserve Board rules set forth how the U.S. operations of certain foreign banking organizations ("**FBOs**"), such as Deutsche Bank, are required to be structured, as well as the enhanced prudential standards that apply to their U.S. operations. Under these rules, a large FBO with U.S.$ 50 billion or more in U.S. non-branch assets, such as Deutsche Bank, is required to establish or designate a separately capitalized top-tier U.S. intermediate holding company (an "**IHC**") that would hold substantially all of the FBO's ownership interests in its U.S. subsidiaries. The Federal Reserve Board may permit an FBO subject to the U.S. IHC requirement to establish or designate multiple U.S. IHCs upon written request. Deutsche Bank has designated two IHCs: DB USA Corporation and DWS USA Corporation. DWS USA Corporation is a subsidiary of DWS Group GmbH & Co. KGaA, which is approximately 80 % owned by Deutsche Bank and holds Deutsche Bank's Asset Management division and subsidiaries. Each IHC is subject, on a consolidated basis, to the risk-based and leverage capital requirements under the U.S. Basel 3 capital framework, capital planning and stress testing requirements, U.S. liquidity buffer requirements and other enhanced prudential standards comparable to those applicable to large U.S. banking organizations. They are also subject to supplementary leverage ratio requirements. The Federal Reserve Board has the authority to examine an IHC, such as DB USA Corporation and DWS USA Corporation, and its subsidiaries, as well as U.S. branches and agencies of FBOs, such as Deutsche Bank's New York branch.

On 10 October 2019, the Federal Reserve Board finalized rules to categorize the U.S. operations of large FBOs based on size, complexity and risk for purposes of tailoring the application of the U.S. enhanced prudential standards (the "**Tailoring Rules**"). The Tailoring Rules do not significantly change the capital requirements that apply to DB USA Corporation or DWS USA Corporation although they provide the option to comply with certain simplifications to the capital requirements. However, the Tailoring Rules provide modest relief for Deutsche Bank's U.S. IHCs with respect to applicable liquidity requirements so long as Deutsche Bank's IHCs' combined weighted short term wholesale funding remains below U.S.$ 75 billion.

As a bank holding company with assets of U.S.$ 250 billion or more, Deutsche Bank AG is required under Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, as amended (the "**Dodd-Frank Act**"), and the implementing regulations thereunder to prepare and submit to the Federal Reserve Board and the Federal Deposit Insurance Corporation ("**FDIC**") either a full or targeted resolution plan (the "**U.S. Resolution Plan**") on a timeline prescribed by such agencies. The U.S. Resolution Plan must demonstrate that Deutsche Bank AG has the ability to execute a strategy for the orderly resolution of its designated U.S. material entities and operations. For foreign-based companies subject to these resolution planning requirements such as Deutsche Bank AG, the U.S. Resolution Plan relates only to subsidiaries, branches, agencies and businesses that are domiciled in or whose activities are carried out in whole or in material part in the United States. Deutsche Bank's U.S. Resolution Plan describes the single point of entry strategy for Deutsche Bank's U.S. material entities and operations and prescribes that DB USA Corporation, one of Deutsche Bank's IHCs, would provide liquidity and capital support to its U.S. material entity subsidiaries and ensure their solvent wind-down outside of applicable resolution proceedings.

By 17 December 2021, Deutsche Bank filed its first 'targeted' 2021 U.S. Resolution Plan, which described the core elements of Deutsche Bank's U.S. resolution strategy – such as capital, liquidity, and recapitalization strategies – as well as how Deutsche Bank has integrated lessons learned from its response to the COVID-19 pandemic into its resolution planning process. On 16 December 2022, the Federal Reserve Board and the FDIC announced the results of their review of Deutsche Bank's 2021 U.S. Resolution Plan, as well as those of other banks and did not find any shortcomings or deficiencies in Deutsche Bank's plan. In their feedback letter to Deutsche Bank, the agencies noted areas where further progress will help improve resolvability, which Deutsche Bank must address in its next full resolution plan submission, which is due on 1 July 2024.

If the Federal Reserve Board and the FDIC were to jointly deem Deutsche Bank's U.S. Resolution Plan not credible and Deutsche Bank failed to remediate any deficiencies in the required timeframe prescribed by the Federal Reserve Board and FDIC, these agencies could impose restrictions on Deutsche Bank or require the restructuring or reorganization of businesses, legal entities, operational systems and/or intra-company transactions which could negatively impact Deutsche Bank's operations and/or strategy. Additionally, the Federal Reserve Board and FDIC could also subject Deutsche Bank to more stringent capital, leverage or liquidity requirements, or require Deutsche Bank to divest certain assets or operations.

DB USA Corporation and DWS USA Corporation are each subject, on an annual basis, to the Federal Reserve Board's supervisory stress testing and capital requirements. DB USA Corporation and DWS USA Corporation are also subject to the Federal Reserve's Comprehensive Capital Analysis and Review ("**CCAR**"), which is an annual supervisory exercise that assesses the capital positions and planning practices of large bank holding companies and IHCs. On 23 June 2022, the Federal Reserve Board publicly released the results of its annual supervisory stress test, which showed that DB USA Corporation and DWS USA Corporation would continue to have capital levels above minimum requirements even under the stress test's severely adverse scenario. DB USA Corporation and DWS USA Corporation submitted their annual capital plans in April 2022 and will make their next capital plan submissions to the Federal Reserve Board in April 2023. If the Federal Reserve Board were to object to these capital plans, Deutsche Bank could be required to increase capital or restructure businesses in ways that may negatively impact Deutsche Bank's operations and strategy or could be subject to restrictions on growth in the United States.

Following amendments in 2020, the CCAR process combines the CCAR quantitative assessment and the buffer requirements in the Federal Reserve Board's capital rules to create an integrated capital buffer requirement. The amendments eliminated the quantitative and qualitative 'pass/fail' assessments from CCAR and modified the static capital conservation buffer to incorporate an institution-specific stress capital buffer ("**SCB**"), which is floored at 2.5 %. The stress capital buffer equals (i) a bank holding company's projected peak-to-trough decline in common equity tier 1 capital under the annual CCAR supervisory severely adverse stress testing scenario prior to any planned capital actions, plus (ii) one year of planned common stock dividends. The stress capital buffer will be reset each year. On 4 August 2022, the Federal Reserve Board announced an SCB for each CCAR firm based on 2022 supervisory stress testing results, which for DB USA Corporation was 4.5 % and for DWS USA Corporation was 8.7 %. This SCB became effective 1 October 2022 and will remain in effect until 30 September 2023, at which point the size of the SCB for each of Deutsche Bank's IHCs will be recalibrated based on the results of the 2023 stress tests, which are expected to be released in June 2023.

Large U.S. bank holding companies and certain of their subsidiary depositary institutions are subject to liquidity coverage ratio ("**LCR**") requirements that are generally consistent with the Basel Committee's revised Basel 3 liquidity standards. DB USA Corporation, DWS USA Corporation and Deutsche Bank's principal U.S. bank subsidiary, Deutsche Bank Trust Company Americas ("**DBTCA**"), are subject to the LCR requirements. The Tailoring Rules reduced the LCR requirements applicable to these entities from 100 to 85 % coverage of net outflows over a projected 30-day period.

On 20 October 2020, the Federal Reserve Board and other U.S. regulators finalized rules implementing the second element of the Basel 3 liquidity framework, the net stable funding ratio ("**NSFR**"). Under the Tailoring Rules, DB USA Corporation, DWS USA Corporation and DBTCA are subject to an 85 per cent. NSFR so long as the IHCs' combined weighted short term wholesale funding remains below U.S.$ 75 billion. Effective 1 July 2021, these firms are required to calculate the NSFR on a daily basis. Beginning in 2023, these firms will be required to publicly report NSFR information on a periodic basis.

On 15 December 2016, the Federal Reserve Board adopted final rules that implement the FSB's TLAC standard in the United States. The final rules require, among other things, U.S. IHCs of non-U.S. G-SIBs, including Deutsche Bank's IHCs, DB USA Corporation and DWS USA Corporation, to maintain a minimum amount of TLAC, and separately require them to maintain a minimum amount of long-term debt meeting certain requirements.

U.S. rules and interpretations, including those described above, could cause Deutsche Bank to reduce assets held in the United States, or to inject capital and/or liquidity into or otherwise change the structure of the Group's U.S. operations, and could also restrict the ability of the U.S. subsidiaries to pay dividends or the amount of such dividends. To the extent that the Group is required to reduce operations in the United States or deploy capital or liquidity in the United States that could be deployed more profitably elsewhere, these requirements could have an adverse effect on the Group's business, financial condition and results of operations.

Any increased capital or liquidity requirements, including those described above, could have adverse effects on the Group's business, financial condition and results of operations, as well as on perceptions in the market of its stability, particularly if any such requirement and results in the Group having to raise capital at a time when Deutsche Bank or the financial markets are distressed, or take other measures to increase liquidity in certain jurisdictions due to local requirements. The measures required or Deutsche Bank might find necessary to take in response to these shifting local requirements may be inconsistent with, and hinder the achievement of, its strategic goals. In addition, if these regulatory requirements must be implemented more quickly than currently foreseen, the Group may decide that the quickest and most reliable path to compliance is to reduce the level of assets on its balance sheet, dispose of assets or otherwise segregate certain activities or reduce or close down certain business lines. The effects on capital raising efforts in such a case could be amplified due to the expectation that Deutsche Bank's competitors, at least those subject to the same or similar capital requirements, would likely also be required to raise capital at the same time. Moreover, some of Deutsche Bank's competitors, particularly those outside the European Union, may not face the same or similar regulations, which could put the bank at a competitive disadvantage.

In addition to these regulatory initiatives, market sentiment may encourage financial institutions such as Deutsche Bank to maintain significantly more capital, liquidity and loss-absorbing capital instruments than the regulatory-mandated minima, which could exacerbate the effects described above or, if the bank does not increase its capital to the encouraged levels, could lead to the perception in the market that the bank is undercapitalized relative to peers.

It is unclear whether the U.S. capital and other requirements described above, as well as similar developments in other jurisdictions, could lead to a fragmentation of supervision of global banks that could adversely affect the Group's reliance on regulatory waivers allowing Deutsche Bank to meet capital adequacy requirements, large exposure limits and certain organizational requirements on a consolidated basis only rather than on both a consolidated and non-consolidated basis. Should the Group no longer be entitled to rely on these waivers, the Group would have to adapt and take the steps necessary in order to meet regulatory capital requirements and other requirements on a consolidated as well as a non-consolidated basis, which could result also in significantly higher costs and potential adverse effects on the Group's profitability and dividend paying ability.

Regulatory capital and liquidity ratios: Deutsche Bank's regulatory capital and liquidity ratios and its funds available for distributions on its shares or regulatory capital instruments will be affected by business decisions and, in making such decisions, the Group's interests and those of the holders of such instruments may not be aligned, and Deutsche Bank may make decisions in accordance with applicable law and the terms of the relevant instruments that result in no or lower payments being made on Deutsche Bank shares or regulatory capital instruments.

Deutsche Bank's regulatory capital and liquidity ratios are affected by a number of factors, including decisions Deutsche Bank makes relating to its businesses and operations as well as the management of its capital position, risk-weighted assets and balance sheet, and external factors, such as regulations regarding the risk weightings of Deutsche Bank's assets, commercial and market risks or the costs of its legal or regulatory proceedings. While Deutsche Bank's management is required to take into account a broad range of considerations in managerial decisions, including the interests of Deutsche Bank as a regulated institution and those of Deutsche Bank's shareholders and creditors, particularly in times of weak earnings and increasing capital requirements, the regulatory requirements to build capital and liquidity may become paramount. Accordingly, in making decisions in respect of capital and liquidity management, Deutsche Bank is not required to adhere to the interests of the holders of instruments issued that qualify for inclusion in regulatory capital, such as Deutsche Bank's shares or Additional Tier 1 capital instruments. Deutsche Bank may decide to refrain from taking certain actions, including increasing capital at a time when it is feasible to do so (through securities issuances or otherwise), even if its failure to take such actions would result in a non-payment or a write-down or other recovery- or resolution-related measure in respect of any of its regulatory capital instruments. Deutsche Bank's decisions could cause the holders of such regulatory capital instruments to lose all or part of the value of their investments in these instruments due to the effect on the Group's regulatory capital ratios, and such holders will not have any claim against Deutsche Bank AG relating to such decisions, even if they result in a non-payment or a write-down or other recovery- or resolution-related measure in respect of such instruments it holds.

In addition, the annual profit and distributable reserves, which form an important part of the funds available to pay dividends on shares and make payments on other regulatory capital instruments, as determined in the case of each such instrument by its terms or by operation of law, are calculated on an unconsolidated basis generally in accordance with German accounting rules set forth in the Commercial Code (*Handelsgesetzbuch*). Any adverse change in Deutsche Bank's financial prospects, financial position or profitability, or Deutsche Bank AG's distributable reserves, each as calculated on an unconsolidated basis, may have a material adverse effect on the Group's ability to make dividend or other payments on these instruments. In addition, as part of the implementation of Deutsche Bank's strategy, it may record impairments that reduce the carrying value of subsidiaries on Deutsche Bank AG's unconsolidated balance sheet and reduce profits and distributable reserves. Future impairments or other events that reduce its profit or distributable reserves on an unconsolidated basis could lead Deutsche Bank to be unable to make such payments in respect of future years in part or at all. In particular, the direct costs of Deutsche Bank's potential settlements of litigation, enforcement and similar matters, especially to the extent in excess of provisions Deutsche Bank has established for them, and their related business impacts, if they occur, could impact such distributable amounts.

In addition, German law places limits on the extent to which annual profits and otherwise-distributable reserves, as calculated on an unconsolidated basis, may be distributed to shareholders or the holders of other regulatory capital instruments, such as Additional Tier 1 capital instruments. The Group's management also has, subject to applicable law, broad discretion under the applicable accounting principles to influence all amounts relevant for calculating funds available for distribution. Such decisions may impact the ability to make dividend or other payments under the terms of Deutsche Bank's regulatory capital instruments.

Resolution legislation: European and German legislation regarding the recovery and resolution of banks and investment firms could, if steps were taken to ensure resolvability or resolution measures were imposed on Deutsche Bank, significantly affect the Group's business operations, and lead to losses for shareholders and creditors.

Germany participates in the SRM, which centralizes at a European level the key competences and resources for managing the failure of any bank in member states of the European Union participating in the banking union. The SRM is based on the SRM Regulation and the BRRD, which was implemented in Germany through the German Recovery and Resolution Act. In addition, the German Resolution Mechanism Act (*Abwicklungs-mechanismusgesetz*) adapted German bank resolution laws to the SRM.

The SRM Regulation and the German Recovery and Resolution Act require the preparation of recovery and resolution plans for banks and grant broad powers to public authorities to intervene in a bank which is failing or likely to fail. For a bank directly supervised by the ECB, such as Deutsche Bank, the Single Resolution Board (referred to as the "**SRB**") assesses its resolvability and may require legal and operational changes to the bank's structure to ensure its resolvability. In the event that such bank is deemed by the ECB or the SRB as failing or likely to fail and certain other conditions are met, the SRB is responsible for adopting a resolution scheme for resolving the bank pursuant to the SRM Regulation. The European Commission and, to a lesser extent, the Council of the European Union, have a role in endorsing or objecting to the resolution scheme proposed by the SRB. The resolution scheme would be addressed to and implemented by the competent national resolution authorities (in Germany, the German Federal Financial Supervisory Authority (*Bundes-anstalt für Finanzdienstleistungsaufsicht*, "**BaFin**")) in line with the national laws implementing the BRRD. Resolution measures that could be imposed upon a bank in resolution may include the transfer of shares, assets or liabilities of the bank to another legal entity, the reduction, including to zero, of the nominal value of shares, the dilution of shareholders or the cancellation of shares outright, or the amendment, modification or variation of the terms of the bank's outstanding debt instruments, for example by way of a deferral of payments or a reduction of the applicable interest rate. Furthermore, certain eligible unsecured liabilities, in particular certain senior "non-preferred" debt instruments specified by the German Banking Act, may be written down, including to zero, or converted into equity (commonly referred to as "**bail-in**") if the bank becomes subject to resolution.

The SRM is intended to eliminate, or reduce, the need for public support of troubled banks. Therefore, financial public support for such banks, if any, would be used only as a last resort after having assessed and exploited, to the maximum extent practicable, the resolution powers, including a bail-in. The taking of actions to ensure Deutsche Bank's resolvability or the exercise of resolution powers by the competent resolution authority could materially affect the Group's business operations and lead to a significant dilution of shareholders or even the total loss of shareholders' or creditors' investment.

Other regulatory reforms: Other regulatory reforms that have been adopted or proposed – for example, extensive new regulations governing derivatives activities, compensation, bank levies, deposit protection, data protection, investment firms and ESG – may materially increase Deutsche Bank's operating costs and negatively impact its business model.

Beyond capital requirements and the other requirements discussed above, Deutsche Bank is affected, or expect to be affected, by various additional regulatory reforms, including, among other things, regulations governing its derivatives activities, compensation, bank levies, deposit protection, data protection, investment firms and ESG.

On 16 August 2012, the EU Regulation on over-the-counter ("**OTC**") derivatives, central counterparties and trade repositories, referred to as European Market Infrastructure Regulation ("**EMIR**"), entered into force. EMIR introduced a number of requirements, including clearing obligations for certain classes of OTC derivatives and various reporting and disclosure obligations. EMIR implementation has led and may lead to changes that may negatively impact Deutsche Bank's profit margins. The revised Markets in Financial Instruments Directive ("**MiFID II**") and the corresponding Regulation ("**MiFIR**") became applicable to Deutsche Bank on 3 January 2018 and provide for, among other things, a trading obligation for those OTC derivatives which are subject to mandatory clearing and which are sufficiently standardized. On 25 November 2021, the European Commission published a proposal for a review of MiFIR (referred to as the "**MiFIR Review**") that entails amendments to MiFIR and MiFID II. The proposals in the MiFIR Review, among other things, introduce an EU-wide consolidated tape for each asset class, enhanced transparency requirements for small trades in equities (such as shares) and for non-equities (such as derivatives and bonds), and adjust the scope of the EU share trading obligation and derivatives trading obligation.

In the United States, the Dodd-Frank Act has numerous provisions that affect or may affect operations. Pursuant to regulations implementing provisions of the Dodd-Frank Act, Deutsche Bank provisionally registered as a swap dealer with the U.S. Commodity Futures Trading Commission ("**CFTC**") and became subject to the CFTC's extensive oversight. Regulation of swap dealers by the CFTC imposes numerous corporate governance, business conduct, capital, margin, reporting, clearing, execution and other regulatory requirements on Deutsche Bank. It also requires the Group to comply with certain U.S. rules in some circumstances with respect to transactions conducted outside of the United States or with non-U.S. persons. Although the coverage of EMIR and CFTC regulations implementing the Dodd-Frank Act is in many ways similar, certain swaps may be subject to both regulatory regimes to a significant extent.

Additionally, under the Dodd-Frank Act, security-based swaps are subject to a standalone regulatory regime under the jurisdiction of the U.S. Securities and Exchange Commission ("**SEC**"). The SEC has implemented rules regarding registration, capital, risk-mitigation techniques, reporting, business conduct standards, trade acknowledgement and verification requirements, and cross-border requirements for security-based swap dealers that are generally similar to the CFTC's rules for swap dealers. These rules generally came into effect in November 2021, the first compliance date for registration of security-based swap dealers. Pursuant to these rules, Deutsche Bank is conditionally registered as a security-based swap dealer and are now subject to further regulation of its derivatives business.

Pursuant to these CFTC and SEC regulations, there may be instances where Deutsche Bank can comply with European and/or German requirements in lieu of complying with the U.S. regulatory requirements. These requirements under the Dodd-Frank Act may adversely affect its derivatives business and make Deutsche Bank less competitive, especially as compared to competitors not subject to such regulation.

In addition, the CRR / CRD IV legislative package provided for executive compensation reforms including caps on bonuses that may be awarded to "material risk takers" and other employees as defined therein and in the German Banking Act and other applicable rules and regulations such as the Remuneration Regulation for Institutions (*Institutsvergütungsverordnung*). Such restrictions on compensation, including the amendments introduced by the CRR II / CRD V / BRRD II reform package and any guidelines issued by the EBA to further implement them, could put Deutsche Bank at a disadvantage to its competitors in attracting and retaining talented employees, especially compared to those outside the European Union that are not subject to these caps and other constraints.

Bank levies have been introduced in some countries including, among others, Germany and the United Kingdom. Deutsche Bank paid € 762 million for bank levies in 2022, € 553 million in 2021 and € 633 million in 2020. Also, Deutsche Bank is required to contribute substantially to the Single Resolution Fund under the SRM (which is intended to reach by the end of 2023 a target level of 1 % of insured deposits of all banks in member states participating in the SRM) and the statutory deposit guarantee and investor compensation schemes under the recast European Union directive on deposit guarantee schemes ("**DGS Directive**") and the European Union directive on investor compensation schemes. The DGS Directive defines a 0.8 % target level of prefunding by 3 July 2024 (similar to resolution funds), which has significantly increased the costs of the statutory deposit protection scheme. Deutsche Bank also participates in the voluntary deposit protection provided by the private banks in Germany through the Deposit Protection Fund (*Einlagensicherungsfonds*) which is funded through contributions by its members. While the total impact of future levies cannot currently be quantified, it may have a material adverse effect on the Group's business, financial condition and results of operations in future periods. Failure of banks, resolution measures and a decline of the value of the assets held by the SRM by the relevant DGS can cause an increase of contributions in order to replenish the shortfall.

Deutsche Bank is subject to the General Data Protection Regulation ("**GDPR**") which has increased its regulatory obligations in connection with the processing of personal data, including requiring compliance with the GDPR's data protection principles, the increased number of data subject rights and strict data breach notification requirements. The GDPR grants broad enforcement powers to supervisory authorities, including the potential to levy significant fines for non-compliance and provides for a private right of action for individuals who are affected by a violation of the GDPR. Compliance with the GDPR requires investment in appropriate technical and organizational measures and Deutsche Bank may be required to devote significant resources to data protection on an ongoing basis. In the event that Deutsche Bank is found to have not met the standards required by the GDPR, Deutsche Bank may incur damage to its reputation and the imposition by data protection supervisory authorities of significant fines or restrictions on its ability to process personal data, and Deutsche Bank may be required to defend claims for compensation brought by affected individuals, all of which could have a material adverse effect on Deutsche Bank.

On 27 November 2019, the European Parliament and the Council adopted the Investment Firm Regulation and the Investment Firm Directive, which introduced substantive regulatory changes (including to the calculation of capital requirements) in respect of investment firms, such as the Group's subsidiary DWS. The Investment Firm Regulation and the Investment Firm Directive (as implemented into German law) are in full force since 26 June 2021.

A number of jurisdictions where Deutsche Bank is active are starting to discuss rules related to environmental, social and governance ("**ESG**") aspects of Deutsche Bank's business and exposure. It is currently difficult to estimate how these rules could impact Deutsche Bank.

Protection of retail customers: Scrutiny of regulators and courts in respect of the protection of retail customers has increased in particular with respect to the enforceability and transparency of standard business terms and compensation for alleged damages.

In the recent past, regulators and courts have put further emphasis on the protection of retail customers. Examples of this are (i) BaFin's general order of 21 June 2021, pursuant to which credit institutions must inform customers of certain invalid interest rate adjustment clauses in their standard business terms; (ii) the German Federal Court of Justice's ("**BGH**") decision of 27 April 2021, according to which typical clauses in the standard business terms of banks providing for deemed consent to proposed amendments if the customer does not object within a certain period are unenforceable; and (iii) the FX mortgages loan cases in Poland, which constitute an industry-wide and highly disputed and litigated issue, where courts have found that certain mortgage loan agreements in foreign currencies include unfair conditions and are therefore unenforceable. Customer restitution practices in respect of such matters have varied significantly across the industry, and if Deutsche Bank's practices differ from accepted norms, the Group may be subject to civil or regulatory claims. These matters may result in the imposition of additional costs to Deutsche Bank or require the Group to reimburse or pay damages to clients.

Risks Relating to Deutsche Bank's Internal Control Environment

Internal control environment: A robust and effective internal control environment and adequate infrastructure (comprising people, policies and procedures, controls testing and IT systems) are necessary to ensure that Deutsche Bank conducts its business in compliance with the laws, regulations and associated supervisory expectations applicable to Deutsche Bank. Deutsche Bank has identified the need to strengthen its internal control environment and infrastructure and has embarked on initiatives to accomplish this. If these initiatives are not successful or proceed too slowly, Deutsche Bank's reputation, regulatory position and financial condition may be materially adversely affected, and its ability to achieve Deutsche Bank's strategic ambitions may be impaired.

Deutsche Bank's businesses are highly dependent on its ability to maintain a robust and effective internal control environment. This is needed for Deutsche Bank to process and monitor, on a daily basis, a wide variety of transactions, many of which are highly complex and occur at high speeds, volumes and frequencies, and across numerous and diverse markets and currencies. Such a robust and effective control environment is in turn dependent on the sufficiency of Deutsche Bank's infrastructure to support that environment. This infrastructure consists broadly of internal policies and procedures, testing protocols, and the IT systems and employees needed to enforce and enable them. An effective control environment is dependent on infrastructure systems and procedures that cover the processing and settling of transactions; the valuation of assets; the identification, monitoring, aggregation, measurement and reporting of risks and positions against various metrics; the evaluation of counterparties and customers for legal, regulatory and compliance purposes; the escalation of reviews; and the taking of mitigating and remedial actions where necessary. They are also critical for regulatory reporting and other data processing and compliance activities.

Both the internal control environment and the infrastructure that underlies it fall short in a number of areas of Deutsche Bank's standards for completeness and comprehensiveness and are not well integrated across the bank. The Group's IT infrastructure, in particular, is fragmented, with numerous distinct platforms, many of which need significant upgrades, in operation across the bank. The Group's business processes and the related control systems often require manual procedures and actions that increase the risks of human error and other operational problems that can lead to delays in reporting information to management and to the need for more adjustments and revisions than would be the case with more seamlessly integrated and automated systems and processes. As a result, it is often difficult and labor-intensive for Deutsche Bank to obtain or provide information of a consistently high quality and on a timely basis to comply with regulatory reporting and other compliance requirements or to meet regulatory expectations on a consistent basis and, in certain cases, to manage the Group's risk comprehensively. Furthermore, it often takes intensive efforts to identify, when possible, inappropriate behavior by staff and attempts by third parties to misuse the Group's services as a conduit for prohibited activities, including those relating to anti-financial crime laws and regulation.

In addition, Deutsche Bank may not always have the personnel with the appropriate experience, seniority and skill levels to compensate for shortcomings in its processes and infrastructure, or to identify, manage or control risks, and it often has been difficult to attract and retain the requisite talent. This has impacted Deutsche Bank's ability to remediate existing weaknesses and manage the risks inherent in its activities. Additionally, attrition in positions key to improving the Group's control environment remains a risk. Furthermore, engagement of third-party service providers may not be sufficient to address Deutsche Bank's staffing issues in these areas or the underlying shortcomings themselves.

Against this backdrop, regulators, the Management Board and the Group Audit function have increasingly and more intensively focused on internal controls and infrastructure through numerous formal reviews and audits of the Group's operations. These reviews and audits have identified various areas for improvement relating to a number of elements of Deutsche Bank's control environment and infrastructure. These include the infrastructure relating to transaction capturing and recognition, classification of assets, asset valuation frameworks, models, data and process consistency, information security, software license management, payment services, risk identification, measurement and management and other processes required by laws, regulations, and supervisory expectations. They also include regulatory reporting, anti-money laundering ("**AML**"), transaction monitoring, "know-your-customer" ("**KYC**"), sanctions and embargoes, market conduct and other internal processes that are aimed at preventing use of Deutsche Bank's products and services for the purpose of committing or concealing financial crime.

Deutsche Bank's principal regulators, including BaFin, the ECB and the Federal Reserve Board, have also conducted numerous reviews focused on Deutsche Bank's internal controls and the related infrastructure. These regulators have required Deutsche Bank formally to commit to remediate its AML and other weaknesses, including the fragmented and manual nature of its infrastructure. For example, on 21 September 2018, BaFin issued an order requiring Deutsche Bank to implement measures on specified timelines over the coming months and years to improve its control and compliance infrastructure relating to AML and, in particular, the KYC processes in certain of Deutsche Bank's businesses. Local regulators in other countries in which the Group does business also review the sufficiency of the Group's control environment and infrastructure with respect to their jurisdictions. While the overall goals of the various prudential regulators having authority over Deutsche Bank in the many places in which it does business are broadly consistent, and the general themes of deficiencies in internal controls and the supporting infrastructure are similar, the regulatory frameworks applicable to Deutsche Bank in the area of internal controls are generally applicable at a national or EU-wide level and are not always consistent across the jurisdictions in which the Group operates around the world. This adds complexity and cost to its efforts to reduce fragmentation and put in place automated systems that communicate seamlessly and quickly with one another.

In order to improve in the areas discussed above, Deutsche Bank is undertaking several major initiatives to enhance the efficacy of the transaction processing environment, strengthen its controls and infrastructure, manage non-financial risks and enhance the skill set of personnel. Deutsche Bank believes that these initiatives will better enable it to avoid the circumstances that have resulted in many of the litigations and regulatory and enforcement investigations and proceedings to which Deutsche Bank has been subject, and will improve its ability to comply with laws and regulations and meet supervisory expectations. In particular, making efforts to reduce the complexity of the Group's business and to integrate and automate processes and business and second-line controls. Deutsche Bank has also exited certain businesses and high-risk countries, selectively off-boarded a number of clients and worked to strengthen its compliance culture and control functions. However, the Group may be unable to complete these initiatives as quickly as it intends or regulators demand, and its efforts may be insufficient to remediate existing deficiencies and prevent future deficiencies or to result in fewer litigations or regulatory and enforcement investigations, proceedings and criticism in the future. The Group may also, when faced with the considerable expense of these initiatives, fail to provide sufficient resources for them quickly enough or at all or underestimate the extent of resource requirements.

The slow pace of Deutsche Bank's remediation efforts and progress on achieving significant and durable improvements in the areas discussed above, may result in regulatory action of the type that has been taken against other financial institutions whose progress regulators have deemed insufficient or too slow. If Deutsche Bank is unable to significantly improve its infrastructure and control environment in a timely manner, Deutsche Bank may be subject to fines or penalties, as well as to regulatory intervention in aspects of its businesses. For example, the Group might feel pressure or be required by regulators to reduce its exposure to or terminate certain kinds of products or businesses, counterparties or regions, which could, depending on the extent of such requirement, significantly challenge its ability to operate profitably under the current business model.

In particular, Deutsche Bank is engaged in ongoing regulatory discussions to resolve matters concerning adherence to prior orders and settlements related to sanctions and embargoes and AML compliance, and remedial agreements and obligations related to risk management issues.

Regulators can also impose capital surcharges, requiring capital buffers in addition to those directly required under the regulatory capital rules applicable to Deutsche Bank, to reflect the additional risks posed by deficiencies in its control environment. In extreme cases, regulators can suspend Deutsche Bank permission to operate in the businesses and regions within their jurisdictions or require extensive and costly remedial actions. Furthermore, implementation of enhanced infrastructure and controls may result in higher-than-expected costs of regulatory compliance that could offset or exceed efficiency gains or significantly affect Deutsche Bank's profitability. Any of these factors could affect the Group's ability to implement its strategy in a timely manner or at all.

Anti-money laundering and know-your-client processes: BaFin has ordered Deutsche Bank to improve its control and compliance infrastructure relating to anti-money laundering and know-your-client processes, and appointed a special representative to monitor these measures' implementation. Deutsche Bank's results of operations, financial condition and reputation could be materially and adversely affected if the bank is unable to significantly improve its infrastructure and control environment by the set deadline.

BaFin ordered Deutsche Bank in September 2018 to take appropriate internal safeguards and comply with general due diligence obligations to prevent money laundering and terrorist financing, in February 2019 to review its group-wide risk management processes in correspondent banking and adjust them where necessary, and in April 2021 to adopt further appropriate internal safeguards and comply with due diligence obligations, with regards to regular client file reviews. This expansion also applies to correspondent relationships and transaction monitoring. On 28 September 2022, BaFin ordered Deutsche Bank AG to take specific measures aimed at preventing money laundering and terrorist financing in order to implement the orders that BaFin issued on 21 September 2018 and 15 February 2019. While the order only requires Deutsche Bank to adhere to its self-imposed remediation deadlines and no new obligations or findings were raised against Deutsche Bank, BaFin may impose financial penalties in case of non-compliance with these measures. The BaFin has appointed a special representative to monitor the implementation of the ordered measures as well as to assess and report on the progress of the implementation to the BaFin.

Deutsche Bank's AML and KYC processes and controls aimed at preventing misuse of its products and services to commit financial crime, continue to be subject of regulatory reviews, investigations, and enforcement actions in several jurisdictions. Deutsche Bank continually seeks to enhance the efficacy of its internal control environment and improve its infrastructure to revised regulatory requirements and to close gaps identified by the bank and/or by regulators and monitors.

If Deutsche Bank is unable to significantly improve its infrastructure and control environment by the set deadlines, the Group's results of operations, financial condition and reputation could be materially and adversely affected. Regulators can impose fines or require Deutsche Bank to reduce its exposure to or terminate certain kinds of products or businesses or relationships with counterparties or regions. Deutsche Bank may also face additional legal proceedings, investigations or regulatory actions in the future, including in other jurisdictions with material impact on Deutsche Bank's business and profitability. These could, depending on the extent of any resulting requirements, significantly challenge Deutsche Bank's reputation and its ability to operate profitably under its current business model.

Risks Relating to Litigation, Regulatory Enforcement Matters, Investigations and Tax Examinations

Litigation environment: Deutsche Bank operates in a highly and increasingly regulated and litigious environment, potentially exposing the bank to liability and other costs, the amounts of which may be substantial and difficult to estimate, as well as to legal and regulatory sanctions and reputational harm.

The financial services industry is among the most highly regulated industries. The Group's operations throughout the world are regulated and supervised by the central banks and regulatory authorities in the jurisdictions in which it operates. In recent years, regulation and supervision in a number of areas has increased, and regulators, law enforcement authorities, governmental bodies and others have sought to subject financial services providers to increasing oversight and scrutiny, which in turn has led to additional regulatory investigations or enforcement actions which are often followed by civil litigation. There has been a steep escalation in the severity of the terms which regulatory and law enforcement authorities have required to settle legal and regulatory proceedings against financial institutions, with settlements in recent years including unprecedented monetary penalties as well as criminal sanctions. As a result, it may continue to be subject to increasing levels of liability and regulatory sanctions, and may be required to make greater expenditures and devote additional resources to addressing these liabilities and sanctions. Regulatory sanctions may include status changes to local licenses or orders to discontinue certain business practices.

Deutsche Bank and its subsidiaries are involved in various litigation proceedings, including civil class action lawsuits, arbitration proceedings and other disputes with third parties, as well as regulatory proceedings and investigations by both civil and criminal authorities in jurisdictions around the world. The Group expects that the costs arising from the resolution of litigation, enforcement and similar matters pending against the Group to continue to be significant in the near to medium term and to adversely affect its business, financial condition and results of operations. Litigation and regulatory matters are subject to many uncertainties, and the outcome of individual matters is not predictable with assurance. Deutsche Bank may settle litigation or regulatory proceedings prior to a final judgment or determination of liability. Deutsche Bank may do so for a number of reasons, including to avoid the cost, management efforts or negative business, regulatory or reputational consequences of continuing to contest liability, even when Deutsche Bank believes it has valid defenses to liability. The Group may also do so when the potential consequences of failing to prevail would be disproportionate to the costs of settlement. Furthermore, it may, for similar reasons, reimburse counterparties for their losses even in situations where the Group does not believe it is compelled to do so. The financial impact of legal risks might be considerable but may be difficult or impossible to estimate and to quantify, so that amounts eventually paid may exceed the amount of provisions made or contingent liabilities assessed for such risks.

Actions currently pending against Deutsche Bank or its current or former employees may not only result in judgments, settlements, fines or penalties, but may also cause substantial reputational harm to Deutsche Bank. The risk of damage to the Group's reputation arising from such proceedings is also difficult or impossible to quantify.

Regulators have increasingly sought admissions of wrongdoing in connection with settlement of matters brought by them. This could lead to increased exposure in subsequent civil litigation or in consequences under so-called "bad actor" laws, in which persons or entities determined to have committed offenses under some laws can be subject to limitations on business activities under other laws, as well as adverse reputational consequences. In addition, the U.S. Department of Justice ("**DOJ**") conditions the granting of cooperation credit in civil and criminal investigations of corporate wrongdoing on the company involved having provided to investigators all relevant facts relating to the individuals responsible for the alleged misconduct. This policy may result in increased fines and penalties if the DOJ determines that Deutsche Bank has not provided sufficient information about applicable individuals in connection with an investigation. Other governmental authorities could adopt similar policies.

In addition, the financial impact of legal risks arising out of matters similar to some of those Deutsche Bank faces have been very large for a number of participants in the financial services industry, with fines and settlement payments greatly exceeding what market participants may have expected and, as noted above, escalating steeply in recent years to unprecedented levels. The experience of others, including settlement terms, in similar cases is among the factors Deutsche Bank takes into consideration in determining the level of provisions the Group maintains in respect of these legal risks. Developments in cases involving other financial institutions in recent years have led to greater uncertainty as to the predictability of outcomes and could lead the Group to add provisions. Moreover, the costs of Deutsche Bank's investigations and defenses relating to these matters are themselves substantial. Further uncertainty may arise as a result of a lack of coordination among regulators from different jurisdictions or among regulators with varying competencies in a single jurisdiction, which may make it difficult for Deutsche Bank to reach concurrent settlements with each regulator. Should Deutsche Bank be subject to financial impacts arising out of litigation and regulatory matters to which the bank is subject in excess of those it has calculated in accordance with its expectations and the relevant accounting rules, provisions in respect of such risks may prove to be materially insufficient to cover these impacts. This could have a material adverse effect on the Group's results of operations, financial condition or reputation as well as on Deutsche Bank's ability to maintain capital, leverage and liquidity ratios at levels expected by market participants and regulators. In such an event, the Group could find it necessary to reduce its risk-weighted assets (including on terms disadvantageous to Deutsche Bank) or substantially cut costs to improve these ratios, in an amount corresponding to the adverse effects of the provisioning shortfall.

Examination by tax authorities: The Group is under continuous examination by tax authorities in the jurisdictions in which it operates. Tax laws are increasingly complex and are evolving. The cost to Deutsche Bank arising from the resolution of routine tax examinations, tax litigation and other forms of tax proceedings or tax disputes may increase and may adversely affect the Group's business, financial condition and results of operation.

Deutsche Bank is under continuous examination by tax authorities in the jurisdictions in which it operates. Tax laws are increasingly complex. In the current political and regulatory environment, tax administrations' and courts' interpretation of tax laws and regulations and their application are evolving, and scrutiny by tax authorities has become increasingly intense. Wide ranging and continuous changes in the principles of international taxation emanating from the OECD's Base Erosion and Profit Shifting agenda are generating significant uncertainties for Deutsche Bank and its subsidiaries and may result in an increase in instances of tax disputes or instances of double taxation going forward, as member states may take different approaches in transposing these requirements into national law or may choose to implement unilateral measures. Examples are the EU directive requiring disclosure of arrangements with specific tax features that took effect in 2020, or the recent EU directive to implement the OECD global minimum taxation rules (Pillar 2) that will take effect beginning with tax year 2024. Tax administrations have also been focusing on the eligibility of taxpayers for reduced withholding taxes on dividends in connection with certain cross-border lending or derivative transactions with the German Federal Ministry of Finance having issued additional administrative guidance in this area during 2021. In addition, while a significant amount of guidance has been issued since the enactment of the U.S. tax reform at the end of 2017 which included the Base Erosion Anti-Abuse Tax provisions, uncertainties remain and further interpretative guidance may be necessary over the coming years. In August 2022, the Inflation Reduction Act of 2022 was enacted in the U.S. which included a new corporate alternative minimum tax or "CAMT" effective starting with tax year 2023. Uncertainties remain as these provisions are subject to interpretation and further interpretative guidance may be forthcoming. As a result, the cost to Deutsche Bank arising from the resolution of routine tax examinations, tax litigation and other forms of tax proceedings or tax disputes, as well as from rapidly changing and increasingly complex and uncertain tax laws and principles, may increase and may adversely affect the Group's business, financial condition and results of operation.

Potential dealings with certain former members of the U.S. government: U.S. Congressional committees and other U.S. governmental entities have sought and may seek information from the Group concerning, among other topics, potential dealings between Deutsche Bank and certain former members of the U.S. executive branch, including former President Trump, his family and other close associates, exposing Deutsche Bank in particular to risk to its reputation and potential loss of business as a result of extensive media attention.

A number of media entities have reported that U.S. Congressional committees and other U.S. governmental entities are seeking or may seek information from Deutsche Bank concerning, among other topics, potential dealings between the bank and certain former members of the executive branch of the U.S. government, including former President Trump, his family, and other close associates. Attention surrounding such actual or potential requests and inquiries and the Group's responses can create reputational and other risks that could have a material adverse effect on the bank. Deutsche Bank's policy is to cooperate with all authorized government inquiries.

Risks Relating to Environmental, Social and Governance (ESG)-related changes, Nontraditional Credit Business, Accounting, Risk Management and Operations, Benchmark Reforms

Environmental, social and governance ("ESG")-related changes: The impacts of rising global temperatures, and the enhanced focus on climate change and the transition to a "net-zero" economy from society, the regulators and the banking sector, have led to new sources of financial and non-financial risks. These include the physical risks arising from extreme weather events which are growing in frequency and severity, as well as transition risks as carbon-intensive sectors are faced with higher taxation, reduced demand and potentially restricted access to financing, and risks relating to the portrayal of ESG aspects of activities. These risks can impact Deutsche Bank across a broad range of financial and non-financial risk types.

Deutsche Bank operates in many regions around the world where its businesses, and the activities of its clients and customers, could be impacted by climate change. Climate change could manifest as a financial risk to Deutsche Bank either through changes in the physical climate or from the process of transitioning to a low-carbon economy, including further changes in climate policy or in the regulation of financial institutions with respect to risks posed by climate change.

Climate-related physical risks include both acute weather events and chronic shifts in the climate. Potential physical risks from climate change may include altered distribution and intensity of rainfall, prolonged droughts or flooding, increased frequency of wildfires, rising sea levels, or a rising heat index. Transition risks arise from the process of adjusting to a low-carbon economy. In addition to possible further changes in climate policy and financial regulation, potential transition risks may include economic and other changes engendered by the development of low-carbon technological advances and/or changes in consumer preferences towards low-carbon goods and services. Transition risks could be further accelerated by the occurrence of changes in the physical climate. These climate-related physical risks and transition risks could have a financial impact on Deutsche Bank both directly on its business and operations and as a result of material adverse impacts to its clients and customers, inter alia, through declines in asset values, reduced availability of insurance, significant interruptions to business operations, and negative consequences to business models, and the need to make changes in response to those consequences.

Furthermore, financial institutions are facing increased scrutiny on climate and ESG-related issues from governments, regulators, shareholders and other bodies (including non-governmental organizations), leading to reputational risks if Deutsche Bank is not seen to support the transition to a lower carbon economy, and to protect biodiversity and human rights. Deutsche Bank is also required to review and further develop its ESG risk management frameworks in alignment with emerging regulatory guidance and to ensure that Deutsche Bank accurately portrays the ESG aspects of its activities. There is a lack of consistent and comprehensive ESG data and methodologies available today which means that Deutsche Bank has to rely on proxy estimates and qualitative approaches when assessing the risks to its balance sheet, which introduces a high degree of uncertainty into climate-related disclosures. This increases the risk that third parties may assert that Deutsche Bank's sustainability-related disclosures constitute so-called "greenwashing". In addition to the reputational risks associated with such allegations, competent supervisory authorities and law enforcement agencies may commence investigations based on such allegations, as was recently the case with Deutsche Bank's subsidiary DWS which has received requests for information from various regulatory and law enforcement agencies concerning certain ESG related matters.

Deutsche Bank is committed to managing its business activities and operations in a sustainable manner, including aligning portfolios with net zero emissions by 2050. Deutsche Bank continues to develop and implement its approach to environmental risk assessments and management in order to promote the integration of environmental-related factors across its business activities. This includes the ability to identify, monitor and manage risks and to conduct regular scenario analysis and stress testing. Rapidly changing regulatory as well as stakeholder demands, combined with significant focus by stakeholders, may adversely affect its businesses if it fails to adopt such demands or appropriately implement its plans.

Nontraditional credit business: In addition to Deutsche Bank's traditional banking businesses of deposit-taking and lending, the Group also engages in nontraditional credit businesses in which credit is extended in transactions that include, for example, its holding of securities of third parties or engaging in complex derivative transactions. These nontraditional credit businesses materially increase Deutsche Bank's exposure to credit risk.

As a bank and provider of financial services, the Group is exposed to the risk that third parties who owe the bank money, securities or other assets will not perform their obligations. Many of Deutsche Bank's businesses in beyond the traditional banking businesses of deposit-taking and lending also expose the Group to credit risk.

In particular, much of the business Deutsche Bank conducts through the Investment Bank entails credit transactions, frequently ancillary to other transactions. Nontraditional sources of credit risk can arise, for example, from holding securities of third parties; entering into swap or other derivative contracts under which counterparties have obligations to make payments to Deutsche Bank; executing securities, futures, currency or commodity trades that fail to settle at the required time due to nondelivery by the counterparty or systems failure by clearing agents, exchanges, clearing houses or other financial intermediaries; and extending credit through other arrangements. Parties to these transactions, such as trading counterparties, may default on their obligations to Deutsche Bank due to bankruptcy, political and economic events, lack of liquidity, operational failure or other reasons.

Many of the Group's derivative transactions are individually negotiated and non-standardized, which can make exiting, transferring or settling the position difficult. Certain credit derivatives require that Deutsche Bank delivers to the counterparty the underlying security, loan or other obligation in order to receive payment. In a number of cases, Deutsche Bank does not hold, and may not be able to obtain, the underlying security, loan or other obligation. This could cause the Group to forfeit the payments otherwise due to it or result in settlement delays, which could damage Deutsche Bank's reputation and ability to transact future business, as well as impose increased costs on the Group. Legislation in the European Union ("**EMIR**") and the United States (the "**Dodd-Frank Act**") has introduced requirements for the standardization, margining, central clearing and transaction reporting of certain over-the-counter derivatives. While such requirements are aimed at reducing the risk posed to counterparties and the financial system by such derivatives, they may reduce the volume and profitability of the transactions in which Deutsche Bank engages, and compliance with such provisions may impose substantial costs on Deutsche Bank.

The exceptionally difficult market conditions experienced during the global financial crisis severely adversely affected certain areas in which the Group does business that entail nontraditional credit risks, including the leveraged finance and structured credit markets, and similar market conditions, should they occur, may do so in the future.

Fair value accounting: A substantial proportion of Deutsche Bank's assets and liabilities comprise financial instruments that it carries at fair value, with changes in fair value recognized in the income statement. As a result of such changes, Deutsche Bank has incurred losses in the past, and may incur further losses in the future.

A substantial proportion of the assets and liabilities on the balance sheet comprise financial instruments that the bank carries at fair value, with changes in fair value recognized in the income statement. Fair value is defined as the price at which an asset or liability could be exchanged in an arm's length transaction between knowledgeable, willing parties, other than in a forced or liquidation sale. If the value of an asset carried at fair value declines (or the value of a liability carried at fair value increases) a corresponding unfavorable change in fair value is recognized in the income statement. These changes have been and could in the future be significant.

Observable prices or inputs are not available for certain classes of financial instruments. Fair value is determined in these cases using valuation techniques the Group believes to be appropriate for the particular instrument. The application of valuation techniques to determine fair value involves estimation and management judgment, the extent of which will vary with the degree of complexity of the instrument and liquidity in the market. Management judgment is required in the selection and application of the appropriate parameters, assumptions and modeling techniques. If any of the assumptions change due to negative market conditions or for other reasons, subsequent valuations may result in significant changes in the fair values of Deutsche Bank's financial instruments, requiring Deutsche Bank to record losses.

Deutsche Bank's exposure and related changes in fair value are reported net of any fair value gains that may be recorded in connection with hedging transactions related to the underlying assets. However, Deutsche Bank may never realize these gains, and the fair value of the hedges may change in future periods for a number of reasons, including as a result of deterioration in the credit of its hedging counterparties. Such declines may be independent of the fair values of the underlying hedged assets or liabilities and may result in future losses.

Goodwill accounting: Pursuant to accounting rules, Deutsche Bank must test the value of the goodwill in its Asset Management division and of its other intangible assets at least annually for impairment. In the event the test determines that impairment exists, the bank must write down the value of the asset. Impairments of goodwill and other intangible assets have had and may have a material adverse effect on the Group's profitability results of operations.

Goodwill arises on the acquisition of subsidiaries and associates and represents the excess of the aggregate of the cost of an acquisition and any noncontrolling interests in the acquiree over the fair value of the identifiable net assets acquired at the date of the acquisition. As of 31 December 2022 and 31 December 2021, Deutsche Bank recognized goodwill in the amount of € 2.9 billion and € 2.8 billion, respectively. Goodwill on the acquisition of subsidiaries is capitalized and reviewed for impairment annually or more frequently if there are indications that impairment may have occurred. Intangible assets are recognized separately from goodwill when they are separable or arise from contractual or other legal rights and their fair value can be measured reliably. These assets are tested for impairment and its useful lives reaffirmed at least annually. The Group recorded an impairment of € 68 million on an unamortized intangible asset in 2022. The intangible asset is related to retail investment management agreements in Asset Management and the impairment was driven by net outflows and increase in discount rate in the fourth quarter of 2022. The determination of the recoverable amount in the impairment assessment of non-financial assets requires estimates based on quoted market prices, prices of comparable businesses, present value or other valuation techniques, or a combination thereof, necessitating management to make subjective judgments and assumptions. These estimates and assumptions could result in significant differences to the amounts reported if underlying circumstances were to change.

Impairments of goodwill and other intangible assets have had and may have a material adverse effect on the Group's profitability and results of operations.

Deferred tax assets: Pursuant to accounting rules, Deutsche Bank must review its deferred tax assets at the end of each reporting period. To the extent that it is no longer probable that sufficient taxable income will be available to allow all or a portion of Deutsche Bank's deferred tax assets to be utilized, it has to reduce the carrying amounts. These reductions have had and may in the future have material adverse effects on the Group's profitability, equity and financial condition.

Deutsche Bank recognizes deferred tax assets for future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, unused tax losses and unused tax credits. Deferred tax assets are recognized only to the extent that it is probable that sufficient taxable profit will be available against which those unused tax losses, unused tax credits and deductible temporary differences can be utilized. As of 31 December 2022 and 31 December 2021, Deutsche Bank recognized deferred tax assets of € 7.2 billion and € 6.2 billion, respectively.

In determining the amount of deferred tax assets, Deutsche Bank uses historical tax capacity and profitability information and, if relevant, forecasted operating results based upon approved business plans, including a review of the eligible carry-forward periods, available tax planning opportunities and other relevant considerations. The analysis of historical tax capacity includes the determination as to whether a history of recent losses exists at the reporting date, and is generally based on the pre-tax results adjusted for permanent differences for the current and the two preceding financial years. Each quarter, Deutsche Bank re-evaluates its estimate related to deferred tax assets, which can change from period to period and requires significant management judgment. For example, tax law changes or variances in future projected operating performance could result in an adjustment to the deferred tax assets that would be charged to income tax expense or directly to equity in the period such determination was made.

These adjustments have had and may in the future have material adverse effects on the Group's profitability or equity.

Pension risks: Deutsche Bank is exposed to pension risks which can materially impact the measurement of its pension obligations, including interest rate, inflation, longevity and liquidity risks that can materially impact the Group's earnings.

Deutsche Bank sponsors a number of post-employment benefit plans on behalf of its employees, including defined benefit plans. Deutsche Bank's plans are accounted for based on the nature and substance of the plan. Generally, for defined benefit plans the value of a participant's accrued benefit is based on each employee's remuneration and length of service. The Group maintains various external pension trusts to fund the majority of its defined benefit plan obligations. The Group's funding principle is to maintain funding of the defined benefit obligation by plan assets within a range of 90 % to 100 % of the obligation, subject to meeting any local statutory requirements. Deutsche Bank has also determined that certain plans should remain unfunded, although its funding approach is subject to periodic review, for example, when local regulations or practices change. Obligations for Deutsche Bank's unfunded plans are accrued on the balance sheet. For most of the externally funded defined benefit plans there are local minimum funding requirements. The Group can decide on any additional plan contributions, with reference to its funding principle. There are some locations, for example the United Kingdom, where the trustees and Deutsche Bank jointly agree contribution levels. Deutsche Bank also sponsors retirement and termination indemnity plans in several countries, as well as some post-employment medical plans for a number of current and retired employees, mainly in the United States. The post-employment medical plans typically pay fixed percentages of medical expenses of eligible retirees after a set deductible has been met.

Deutsche Bank develops and maintain guidelines for governance and risk management, including funding, asset allocation and actuarial assumption setting. In this regard, risk management means the management and control of risks for the bank related to market developments (e.g., interest rate, credit spread, price inflation), asset investment, regulatory or legislative requirements, as well as monitoring demographic changes (e.g., longevity). To the extent that pension plans are funded, the assets held mitigate some of the liability risks, but introduce investment risk. In its key pension countries, Deutsche Bank's largest post-employment benefit plan risk exposures relate to potential changes in credit spreads, interest rates, price inflation, longevity risk and liquidity risk, although these have been partially mitigated through the investment strategy adopted. Overall, Deutsche Bank seeks to minimize the impact of pensions on its financial position from market movements, subject to balancing the trade-offs involved in financing post-employment benefits, regulatory capital and constraints from local funding or accounting requirements.

All plans are valued annually by independent qualified actuaries using the projected unit credit method, with inputs including the discount rate, inflation rate, rate of increase in future compensation and for pensions in payment and longevity expectations. For the Group's most significant pension plans in the key countries, the discount rate used at each measurement date is set based on a high-quality corporate bond yield curve, which is derived using a bond universe sourced from reputable third-party index data providers and rating agencies, and reflects the timing, amount and currency of the future expected benefit payments for the respective plan.

Deutsche Bank's investment objective in funding the plans and its obligations in respect of them is to protect the bank from adverse impacts of its defined benefit pension plans on key financial metrics. The Group seek to allocate plan assets closely to the market risk factor exposures of the pension liability to interest rates, credit spreads and inflation and, thereby, plan assets broadly reflect the underlying risk profile and currency of the pension obligations.

To the extent that the factors that drive the Group's pension liabilities move in a manner adverse to the bank, or that its assumptions regarding key variables prove incorrect, or that funding of the pension liabilities does not sufficiently hedge those liabilities, Deutsche Bank could be required to make additional contributions or be exposed to actuarial or accounting losses in respect of its pension plans.

Risk management: The Group's risk management policies, procedures and methods leave the Group exposed to unidentified or unanticipated risks, which could lead to material losses.

Deutsche Bank has devoted significant resources to developing its risk management policies, procedures and assessment methods and intends to continue to do so in the future. Nonetheless, the risk management techniques and strategies have not been and may in the future not be fully effective in mitigating Deutsche Bank's risk exposure in all economic market environments or against all types of risk, including risks that it fails to identify or anticipate. Some of Deutsche Bank's quantitative tools and metrics for managing risk are based upon its use of observed historical market behavior. The Group applies statistical and other tools to these observations to arrive at quantifications of its risk exposures. During the 2008 financial crisis, the financial markets experienced unprecedented levels of volatility (rapid changes in price direction) and the breakdown of historically observed correlations (the extent to which prices move in tandem) across asset classes, compounded by extremely limited liquidity. In this volatile market environment, the Group's risk management tools and metrics failed to predict some of the losses it experienced, and it may in the future fail to predict important risk exposures. In addition, Deutsche Bank's quantitative modeling does not take all risks into account and makes numerous assumptions regarding the overall environment, which may not be borne out by events. As a result, risk exposures have arisen and could continue to arise from factors the bank did not anticipate or correctly evaluate in its models. This has limited and could continue to limit the Group's ability to manage its risks especially in light of geopolitical developments, many of the outcomes of which are currently unforeseeable. Deutsche Bank's losses thus have been and may in the future be significantly greater than the historical measures indicate.

In addition, Deutsche Bank's more qualitative approach to managing those risks not taken into account by the quantitative methods could also prove insufficient, exposing the bank to material unanticipated losses. Also, if existing or potential customers or counterparties believe its risk management is inadequate, they could take their business elsewhere or seek to limit their transactions with Deutsche Bank. This could harm the Group's reputation as well as its revenues and profits.

Operational risks: Operational risks, which may arise from errors in the performance of Deutsche Bank's processes, the conduct of its employees, instability, malfunction or outage of its IT system and infrastructure, or loss of business continuity, or comparable issues with respect to the Group's vendors, may disrupt its businesses and lead to material losses.

Deutsche Bank faces operational risk arising from errors, inadvertent or intentional, made in the execution, confirmation or settlement of transactions or from transactions not being properly recorded, evaluated or accounted for. An example of this risk concerns derivative contracts, which are not always confirmed with the counterparties on a timely basis. For so long as the transaction remains unconfirmed, the bank is subject to heightened credit and operational risk and in the event of a default may find it more difficult to enforce the contract.

In addition, Deutsche Bank's businesses are highly dependent on its ability to process manually or through its systems a large number of transactions on a daily basis, across numerous and diverse markets in many currencies. Some of the transactions have become increasingly complex. Moreover, management relies heavily on its financial, accounting and other data processing systems that include manual processing components. If any of these processes or systems do not operate properly, or are disabled, or subject to intentional or inadvertent human error, the bank could suffer financial loss, a disruption of its businesses, liability to clients, regulatory intervention or reputational damage.

Deutsche Bank is also dependent on its employees to conduct its business in accordance with applicable laws, regulations and generally accepted business standards. If Deutsche Bank's employees do not conduct its business in this manner, the bank may be exposed to material losses. Furthermore, if an employee's misconduct reflects fraudulent intent, the Group could also be exposed to reputational damage. Deutsche Bank categorizes these risks as conduct risk, a term used to describe the risks associated with behavior by employees and agents, including third parties, that could harm clients, customers or the integrity of the markets, such as selling products that are not suitable for a particular customer, fraud, unauthorized trading and failure to comply with applicable regulations, laws and internal policies. U.S. regulators in particular have been increasingly focused on conduct risk, and such heightened regulatory scrutiny and expectations could lead to investigations and other inquiries, as well as remediation requirements, more regulatory or other enforcement proceedings, civil litigation and higher compliance and other risks and costs.

The Group in particular faces the risk of loss events due to the instability, malfunction or outage of its IT system and IT infrastructure, as well as breaches in IT system and infrastructure (including cyber-attacks). Such losses could materially affect Deutsche Bank's ability to perform business processes and may, for example, arise from the erroneous or delayed execution of processes as a result of system outages, degraded services in systems and IT applications or the inaccessibility of its IT systems. A delay in processing a transaction, for example, could result in an operational loss if market conditions worsen during the period after the error. IT-related errors may also result in the mishandling of confidential information, damage to Deutsche Bank's computer systems, financial losses, additional costs for repairing systems, reputational damage, customer dissatisfaction or potential regulatory or litigation exposure (including under data protection laws such as the GDPR).

The continuing move across global industries to conduct business from home and away from primary office locations is driving a more accelerated evolution of business practices compared to historic trends. The demand on Deutsche Bank's technology infrastructure and the risk of cyber-attacks could lead to technology failures, security breaches, unauthorized access, loss or destruction of data or unavailability of services, as well as increase the likelihood of conduct breaches.

Business continuity risk is the risk of incurring losses resulting from the interruption of normal business activities. Deutsche Bank operates in many geographic locations and is frequently subject to the occurrence of events outside of its control. Despite the contingency plans Deutsche Bank has in place, its ability to conduct business in any of these locations may be adversely impacted by a disruption to the infrastructure that supports the bank's business, whether as a result of, for example, events that affect Deutsche Bank's third-party vendors or the community or public infrastructure in which the bank operates. Any number of events could cause such a disruption including deliberate acts such as acts of war or other military action, sabotage, terrorist activities, bomb threats, strikes, riots and assaults on Deutsche Bank's staff; natural calamities such as hurricanes, snowstorms, floods, disease pandemics (such as the COVID-19 pandemic) and earthquakes; or other unforeseen incidents such as accidents, fires, explosions, utility outages and political unrest. Any such disruption could have a material adverse effect on the bank's business and financial position.

As a global bank, Deutsche Bank is often the subject of news reports. Deutsche Bank conducts its media dialogue through official teams. However, members of the media sometimes approach Deutsche Bank staff outside of these channels and Deutsche Bank-internal information, including confidential matters, have been subject to external news media coverage, which may result in publication of confidential information. Leaks to the media can have severe consequences for Deutsche Bank, particularly when they involve inaccurate statements, rumors, speculation or unsanctioned opinions. This can result in financial consequences such as the loss of confidence or business with clients and may impact Deutsche Bank's share price or capital instruments by undermining investor confidence. Then Deutsche Bank's ability to protect itself against these risks is limited.

Services by third parties: Deutsche Bank utilizes a variety of third parties in support of its business and operations. Services provided by third parties pose risks to Deutsche Bank comparable to those it bears when it performs the services, and the bank remains ultimately responsible for the services its third parties provide. Furthermore, if a third party does not conduct business in accordance with applicable standards or its expectations, Deutsche Bank could be exposed to material losses or regulatory action or litigation or fail to achieve the benefits it sought from the relationship.

Deutsche Bank utilizes a variety of third parties in support of its business and operations. In support of the Group's business and operations, the use of and dependence upon third parties in the sector has increased over the years, necessitating a corresponding increase in capabilities to manage them. Deutsche Bank does so in order to focus on its core competencies and to seek improvements in costs, efficiency and effectiveness in its operations, for instance in connection with Deutsche Bank's IT modernization efforts. The nature of what the bank uses third parties for has evolved and now includes more fundamental aspects of services including the use of Cloud and other advanced technology providers. This represents different risks and requires more robust risk assessments, appropriate contracting and ongoing oversight commensurate with those risks. It has also led to steady increase in regulation and regulatory scrutiny over not just how the Group manages third parties day to day but also assessing the levels of resiliency needed that is proportional to the importance of the business services supported by the third party.

Services provided by third parties pose risks to the bank comparable to those the Group bears when it performs the services itself, and it remains ultimately responsible for the services the third parties provide. The Group depends on such third parties to conduct its delivery of services in compliance with applicable laws, regulations and generally accepted business standards and in accordance with the contractual terms and service levels it has agreed with the Group. If the third parties do not conduct business in accordance with these standards, the bank may be exposed to material losses and could be subject to regulatory action or litigation as well as be exposed to reputational damage. More generally, if a third-party relationship does not meet Deutsche Bank's expectations, the Group could be exposed to financial risks, such as the costs and expenses associated with migration of the services to another third party and business and operational risks related to the transition, and the bank could fail to achieve the benefits it sought from the relationship.

In situations where Deutsche Bank is the third party service provider, the bank may be exposed to financial risks, such as lost revenues, costs and expenses associated with the cancellation of the service agreement, if Deutsche Bank were no longer able to benefit from the relationship.

Cyber-attacks: Deutsche Bank's operational systems are subject to an increasing risk of cyber-attacks and other internet crime, which could result in material losses of client or customer information, damage its reputation and lead to regulatory penalties and financial losses.

Deutsche Bank faces the risk of breaches of the confidentiality, integrity and availability of the bank or its clients' information. This includes risks such as breaches of the security of the bank or its vendors' computer systems due to unauthorized access to networks or resources, the introduction of computer viruses or malware, or other forms of cybersecurity attacks or incidents.

Financially motivated and other sophisticated cyber-attacks, including ransomware, can be observed as a persistent threat across industries and are anticipated to become more frequent. Additional threats are posed by supply chain attacks, an increasing frequency of high-rated zero-day exploits and an expanding threat surface introduced by, for example, remote ways of working or the use of cloud services.

Deutsche Bank may face operational risks arising from failures in the control environment, including errors in the performance of processes or security controls, as well as loss of data, which may disrupt its business and lead to material losses. At the same time, the bank may also face risks of material losses or reputational damage if services are not provided as agreed or in line with internal standards. Cyber-attacks could impact the Group both directly and indirectly including impact at third parties.

Deutsche Bank continues to invest toward the protection of its computer systems against such breaches and toward ensuring that its vendors employ appropriate cybersecurity safeguards. Of particular importance in 2022 was the continued focus on addressing the following main threat scenarios: financial theft, data disclosure, and service disruption along with system misuse, asset or data destruction, data distortion and information security regulatory adherence and conduct risk. To address the evolving cyber threat risk, the bank continues to modify and enhance its protective measures and to investigate and remediate information security vulnerabilities. These measures, however, may not be effective against the many security threats the Group faces.

The increasing frequency and sophistication of recent cyber-attacks has resulted in an elevated risk profile for many organizations around the world including Deutsche Bank, and significant attention by the bank's management has been paid to the overall level of preparedness against such attacks. Cybersecurity is growing in importance due to factors such as the continued and increasing reliance on the bank's technology environment as well as potential risks arising from the need for digital innovation such as the usage of public cloud. Deutsche Bank and other financial institutions have experienced attacks on computer systems, including attacks aimed at obtaining unauthorized access to confidential company or customer information or damaging or interfering with company data, resources, or business activities, or otherwise exploiting vulnerabilities in its infrastructure. The Group expects to continue to be the target of such attacks in the future. Although to date the bank has not experienced any material business impact from these attacks, the Group may not be able to effectively anticipate and prevent more material attacks from occurring in the future.

The move across global industries to conduct business from home and away from primary office locations in the wake of the so called 'New Work' transformation also exposes Deutsche Bank to a greater risk of cyber-attacks, which could lead to technology failures, security breaches, unauthorized access, loss or destruction of data or unavailability of services.

A successful attack could have a significant negative impact on the group, including as a result of disclosure or misappropriation of client or proprietary information, damage to computer systems, an inability to access information technology ("**IT**") systems, financial losses, remediation costs (such as for investigation and re-establishing services), increased cybersecurity costs (such as for additional personnel, technology, or third-party vendors), personal data breach notification obligations, reputational damage, customer dissatisfaction and potential regulatory or litigation exposure.

New competitors: Digital innovation offers market entry opportunities for new competitors such as cross-industry entrants, global high-tech companies or financial technology companies. Therefore, Deutsche Bank expects its businesses to have an increased need for investment in digital product and process resources to mitigate the risk of a potential loss of market share.

To be able to respond to market developments, respond more quickly to clients' needs and to have more flexibility, and to improve IT resiliency, Deutsche Bank has decided to migrate a large number of applications to public cloud computing and storage systems through a strategic partnership with Google Cloud. This partnership with Google Cloud is a major milestone in Deutsche Bank's digital journey and shows a commitment to embracing new technologies. The objective is to enhance the client experience through improved products and services, system resiliency and security as well as reducing the cost inefficiencies of running legacy platforms. Such a major technology migration requires robust governance and planning, including required allocation of funding, to manage the risk of security and stability issues. Additionally, there is significant regulatory interest in this program. Also, as with any external service providers, Deutsche Bank must ensure the highest standards of data privacy and security controls to safeguard client and bank information. Failure to do so can compromise client trust, lead to financial losses and, in severe cases, regulatory penalties, litigation and the obligation to compensate individuals for damage.

Deutsche Bank continues to mature its overall data management strategy against its core processes and data sets such as transactional, client and reference data. This includes the development and implementation of Deutsche Bank's enterprise architecture principles across the core technology infrastructure. This is central to Deutsche Bank's wider technology and data strategy, enabling business growth and efficiencies, while also enhancing the control environment. Deutsche Bank's regulators are actively focused on the bank's progress on this component of its strategy. Furthermore, Deutsche Bank also faces challenges with respect to embracing and incorporating new and disruptive technologies in conjunction with existing technological architecture in order to ensure industry standards of information security and customer experience.

Major technology transformations in Deutsche Bank's business and infrastructure areas are executed via dedicated initiatives. The intended benefits of these include IT and business cost reduction, control improvements, revenue growth through provision of new client features or targeted client growth. One of these initiatives, UNITY, which aims at simplifying Deutsche Bank's IT environment through the migration of IT systems from the former Postbank into those of Deutsche Bank, faces important milestones before its completion in 2023. Program execution risks include resource shortages, dependencies on other programs and key deliverables, extended implementation timelines, impact of the change-related activity on the control environment and functionality issues in the upgraded applications or underlying technology. While Deutsche Bank endeavors to manage its initiatives to mitigate such risks, it cannot be assured that all risks have been completely mitigated and the risk remains that the initiatives may not fully achieve the expected benefits on the expected timetable.

Volatility of crypto assets: The crypto-assets ecosystem experienced significant volatility in 2022 and continues to carry significant inherent risks.

Crypto assets carry extreme price volatility risk, unclear price transparency, have underdeveloped liquidity and may be susceptible to market manipulation. Deutsche Bank's crypto-related activities and direct risk exposures are extremely limited and the risk of broader contagion to financial markets is still considered to be limited. Despite the risks currently posed by crypto assets, the bank is cognizant of the innovation that is occurring in this space and is considering possible opportunities to leverage the benefits of the underlying technology and address customer needs. However, by maintaining a cautious and highly selective approach, Deutsche Bank may miss out on opportunities.

The ability for banks to be able to engage in digital asset activities will vary depending on the stances taken within each jurisdiction and this may limit Deutsche Bank's ability to engage in these activities. Discussions regarding the required policy frameworks required to address the risks and opportunities of digital assets have increased due to numerous insolvency and fraud cases related to individual crypto assets or platforms.

Clearing operations: The size of the Group's clearing operations exposes Deutsche Bank to a heightened risk of material losses should these operations fail to function properly.

The Group has large clearing and settlement businesses and an increasingly complex and interconnected IT landscape. These give rise to the risk that Deutsche Bank's customers or other third parties could lose substantial sums if the systems fail to operate properly for even short periods. This will be the case even where the reason for the interruption is external to Deutsche Bank. In such a case, the Group might suffer harm to its reputation even if no material amounts of money are lost. This could cause customers to take their business elsewhere, which could materially harm the Group's revenues and profits.

Benchmark reforms: Ongoing global benchmark reform efforts, specifically the transition from interbank offered rates to alternative reference rates, including "risk-free-rates", introduce a number of inherent risks to Deutsche Bank's business and the financial industry. These risks, should they materialize, may have adverse effects on the Group's business, results of operations and profitability.

Regulators and central banks have set the goal of improving the robustness of financial benchmarks, especially interest rate benchmarks. As a result of this initiative, as of the end of 2022, most LIBOR settings have ceased to be published or are no longer available in representative form. Certain tenors of GBP LIBOR remain available in synthetic form for a limited time period, only to enable so called 'tough legacy' transactions to transition to suitable Risk-Free Rate ("**RFR**") alternatives. A reduced number of USD LIBOR tenors will be published until the end of June 2023, however, the new use of USD LIBOR is subject to significant limitations. The FCA is currently consulting on the requirement for a synthetic USD LIBOR for 1-, 3- and 6-month settings, including the methodology and allowable 'tough legacy' use cases.

In the United States, the Adjustable Interest Rate (LIBOR) Act was signed into law by President Biden on March 15, 2022. The Act provides a clear federal solution for transitioning legacy contracts that either lack or contain insufficient contractual provisions by providing for the transition from LIBOR to a replacement rate. The Federal Reserve Board has also adopted the final rule that implements this Act, which establishes benchmark replacements for contracts governed by U.S. law that reference certain tenors of USD LIBOR that do not have suitable fallback provisions after June 30, 2023.

A material portion of the Group's assets and liabilities, including financial instruments in which the bank trades and other transactions and services in which the bank is involved, have interest rates that are linked to LIBOR, EONIA or similar inter-bank offered rates ("**IBORs**"), predominantly to USD LIBOR, and other financial benchmarks that have already ceased or that will be subject to future discontinuation. Transition of legacy transactions will depend, in some cases on client engagement and agreement to spread adjustments, which may not be forthcoming. In some cases, transition of legacy products may be hampered by structural factors, such as technical inability to contact numerous bondholders. Risks remain in respect of Deutsche Bank's tough legacy exposures which reference IBORs, especially USD LIBOR. Uncertainties around the timing and method of transition of certain products continues to present a number of risks for Deutsche Bank's, its customers and the financial services industry more widely. Ongoing risks include:

- Legal and compliance risk (including conduct risk) may arise due to possible disputes regarding either the terms of financial contracts with counterparties, or the manner of transition to replacement rates. Many financial instruments linked to financial benchmarks contain provisions, known as fallbacks, for the use of a successor interest rate in the event of the discontinuation of the benchmark, while others do not. The quality of fallbacks in contracts has improved in respect of a number of products in very recent times, but risks remain that some fallbacks may not perform well. In connection with discontinuation and transition, the counterparty to the financial instrument may challenge the rate determined by a fallback for such an instrument, particularly if Deutsche Bank is involved in the determination or setting of the successor rate. Such disputes could result in litigation or regulatory action founded in claims of breach of contract, anti-trust violations, market abuse, and/or other mistreatment of customers.

- Legal and compliance risk may derive from any failure to comply with regulators' expectations that new use of financial benchmarks will cease.

- While liquidity has developed in SOFR-related products, liquidity risk remains for USD LIBOR exposures toward the date of discontinuation and in relation to tough-legacy products which use synthetic LIBOR, which may perform differently than historic LIBORs.

- The replacement of financial benchmarks, or use of synthetic LIBOR, could adversely impact the value of and return on existing instruments and contracts and the market for securities and other instruments whose returns are linked to such benchmarks.

- Market risk may arise due to interest rate "basis" risks – the risks posed by different interest rate provisions applying to assets than to liabilities – across tenors and currencies, driven by differing fallback methodologies and timings. Different timings of adoption of fallback protocols will create new basis and potentially make hedging more costly or less effective, and losses may result from value transfer in the fallback methodology adopted. Due to the unavailability and discontinuation of financial benchmarks that have already happened, and that are yet to come, Deutsche Bank may incur losses in respect of its assets and liabilities if the successor interest rate is not economically equivalent to the discontinued benchmarks.

- Finance and tax risk may arise due to the discontinuation of financial benchmarks and transition to RFRs, which could cause hedge accounting items to be derecognized, adversely impacting the bank's profitability or causing the bank to incur losses. Discontinuation and transition could also pose difficulties for the independent price verification of financial instruments, where market data is unavailable for the new or modified financial instrument. Tax uncertainties could arise, for example, if a discontinuation or transition is viewed as a significant modification of a financial instrument that results in a profit or loss recognition event for tax purposes.

- Technology and operational risk may arise as a result of the complexity of transition processes, which will require collaboration with regulators and central banks as well as a wide range of market participants. Also, ongoing change efforts – relating to RFR product development, re-documentation of client contracts and infrastructure change, including to systems, processes and models across the business and Deutsche Bank's Finance, Risk and Treasury functions –, has been required. There is a risk that not all systems and process dependencies on financial benchmark availability have been identified and remediated. Successful transition processes are, to some extent, dependent on achieving industry and client consensus on standards and conventions, timing and sequencing of transition steps, creation of forward-looking term versions of the RFRs and the timely re-documenting of client contracts.

While the Group continues to actively manage the transition to alternative reference rates, the risk remains that implementation of any alternative RFRs may be impossible or impracticable under the existing terms of such financial instruments and could have an adverse effect on the value of certain financial instruments and on the Group's profitability. There is also the risk of an adverse effect to reported performance arising from the transition rules established by accounting bodies.

More broadly, initiatives to reform existing benchmarks and the Group's participation in them, including as benchmark submitter, could potentially expose the Group to legal, reputational or other risks. In particular, legal and compliance risk (including conduct risk) may arise due to the operational risks of participating in benchmark submissions, either as part of a panel with the requirement to use models and potentially exercise expert judgement or as provider of transactions data to a benchmark administrator.

Sanctions and embargoes: Deutsche Bank is subject to laws and other requirements relating to financial and trade sanctions and embargoes. If the bank breaches such laws and requirements, it can be subject, and in the past has been subject, to material regulatory enforcement actions and penalties.

Deutsche Bank is required to monitor, evaluate, and observe laws and other requirements relating to financial and trade sanctions and embargoes set by the EU, the Deutsche Bundesbank, Germany's Federal Office for Economic Affairs and Export Control, and other authorities, such as the U.S. Treasury Department's Office of Foreign Assets Control ("**OFAC**") and the UK Treasury Department's Office of Financial Sanctions Implementation ("**OFSI**"). Sanctions are subject to rapid change, and it is also possible that new direct or indirect secondary sanctions could be imposed by the United States or other jurisdictions without warning as a result of geopolitical developments. New and far-reaching sanctions against Russian entities and individuals have been imposed by the United States, the EU, the United Kingdom and other individual countries very rapidly following the commencement by Russia of the war in Ukraine, and many of these sanctions require very rapid implementation. Should Deutsche Bank fail to comply timely and in all respects with these new sanctions, the Group could be exposed to legal penalties and its reputation could suffer. New sanctions may also be imposed on other entities and individuals beyond the war in Ukraine at any time. If Deutsche Bank breaches any such new or preexisting laws and requirements, it can be subject, and has in the past been subject, to material regulatory enforcement actions and penalties.

U.S. economic sanctions: Transactions with counterparties in countries designated by the U.S. State Department as state sponsors of terrorism or persons targeted by U.S. economic sanctions may lead potential customers and investors to avoid doing business with the bank or investing in the bank's securities, harm its reputation or result in regulatory or enforcement action which could materially and adversely affect its business.

Deutsche Bank engages or has engaged in a limited amount of business with counterparties, including government-owned or -controlled counterparties, in certain countries or territories that are subject to comprehensive U.S. sanctions, including Iran and Cuba (referred to as "**Sanctioned Countries**"), or with persons targeted by U.S. economic sanctions (referred to as "**Sanctioned Persons**"). U.S. law generally prohibits U.S. persons or any other persons acting within U.S. jurisdiction (which includes business with a U.S. nexus) from dealings with or relating to Sanctioned Countries or Sanctioned Persons. Additionally, U.S. indirect or "secondary" sanctions threaten the imposition of sanctions against non-U.S. persons entirely outside of U.S. jurisdiction for engaging in certain activities, including categories of transactions with certain entities and countries. Thus, U.S. sanctions may implicate activities in other geographic areas and by non-U.S. persons depending on the circumstances. Deutsche Bank's U.S. subsidiaries, branch offices, and employees are, and, in some cases, its non-U.S. subsidiaries, branch offices, and employees are or may become, subject to such prohibitions and other regulations.

Deutsche Bank is a German bank and its activities with respect to Sanctioned Countries and Sanctioned Persons have been subject to policies and procedures designed to avoid the involvement of U.S. jurisdiction, including U.S. persons acting in any managerial or operational role and to ensure compliance with United Nations, European Union and German sanctions and embargoes; in reflection of legal developments in recent years, the bank has further developed its policies and procedures with the aim of promoting – to the extent legally permitted – compliance with regulatory requirements extending to other geographic areas regardless of jurisdiction. However, should its policies prove to be, or have been, ineffective, Deutsche Bank may be subject to regulatory or enforcement action that could materially and adversely affect its reputation, financial condition, or business. The Group has also taken other action to reduce the risk of compliance violations. In 2007, the Management Board decided that it will not engage in new business with counterparties in countries such as Iran, Syria, Sudan and North Korea and to exit existing business to the extent legally possible. In 2014, the bank added the Crimea Region, and in 2021 Afghanistan, to this list of countries, while de-listing Sudan. Deutsche Bank also decided to limit its business with counterparties in Cuba. Iran, North Korea, Syria and Cuba are currently designated as state sponsors of terrorism by the U.S. State Department. In 2022, the bank expanded its policy and included broad prohibitions relating to the areas in Ukraine occupied through Russia's war in 2022 and policy restrictions going beyond regulatory requirements related to Russia and Belarus in light of the war against Ukraine.

Deutsche Bank had a representative office in Tehran, Iran, which Deutsche Bank discontinued on 31 December 2007. The Group's remaining business with Iranian counterparties consisted mostly of participations as lender and/or agent in a few large trade finance facilities arranged before 2007 to finance the export contracts of exporters in Europe and Asia. As of 31 December 2018, those loans were fully paid back, and subsequently the majority of the remaining Iranian business consists of legacy contractual obligations related to guarantees. The Group does not believe its business activities with Iranian counterparties are or had been material to its overall business, with the aforementioned guarantees having notional amounts of substantially less than 0.01 % of total assets over recent years. The revenues from such activities represented substantially less than 0.01 % of total revenues for the year ended 31 December 2022.

As required by Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (Sec. 13(r) of the Securities Exchange Act of 1934, as amended) Deutsche Bank has disclosed certain information regarding its activities or transactions with persons subject to U.S. sanctions against Iran and other persons subject to such provision.

Deutsche Bank is also engaged in a limited amount of business with counterparties domiciled in Cuba, which is not subject to any United Nations, European Union or German embargoes. The business consists of a limited number of letters of credit and of cash payments, each without a U.S. nexus, and it represented substantially less than 0.01 % of the Group's assets as of 31 December 2022. The letters of credit served to finance commercial products such as machinery as well as medical products.

The Group has set up processes and procedures aimed at complying with other substantial changes in U.S. economic sanctions that have occurred since 2017. In August 2017, the United States enacted the "Countering America's Adversaries Through Sanctions Act" (referred to as "**CAATSA**"), which codifies existing U.S. sanctions against Russia (including designation of Russian entities under U.S. sanctions), expands U.S. secondary sanctions against Russia, tightens existing sectoral sanctions (targeting specific sectors of the Russian economy), and permits the imposition of sectoral sanctions against additional sectors of the Russian economy. In particular, expanded U.S. secondary sanctions under CAATSA allow for the imposition of U.S. sanctions on, among others, non-U.S. entities who engage in, among other activities, "significant" transactions with persons targeted under Russia-related sanctions or specific entities in the Russian defense and intelligence sectors, as well as certain energy projects relating to Russia. Deutsche Bank does not believe it has engaged or is currently engaged in any transactions with Russian entities that violate, or are sanctionable under, U.S. sanctions. However, given the broad discretion U.S. authorities have in interpreting and enforcing U.S. sanctions, there can be no assurances that U.S. authorities will not bring enforcement actions against Deutsche Bank, or impose secondary sanctions on Deutsche Bank for its ongoing activities. Any such actions could have a material impact on the Group's business and harm its reputation. Further, in response to the war in Ukraine, the United States, as well as other nations and the EU, have expanded sanctions on Russia and Russian entities; such sanctions could have a material impact on Deutsche Bank's business activities. In response to the war in Ukraine and following the imposition of further far-reaching sanctions by democratic countries against Russia, Deutsche Bank took a range of preparatory and responsive actions to implement the high number of, and in part newly developed, sanctions by inter alia filter and control updates, additional due diligence steps in transaction and client reviews with a nexus to Russia and by further restricting its policy and adjusting processes. Even though Deutsche Bank believes that it reacted quickly and thoroughly to these challenges, the sheer amount of changes and their quality and complexity have increased the operational risk that the bank will have missed out unintentionally on some of the regulatory requirements; given the strict liability applied in areas of this regulatory environment, this operational risk may translate into regulatory risks for Deutsche Bank leading to consequential losses.

Additionally, since 2017, the U.S. Administration has imposed a number of sanctions against the Government of Venezuela and Venezuelan officials. These sanctions prohibit (beginning on August 5, 2019) virtually all unlicensed transactions involving the Government of Venezuela, including state-owned or state-controlled companies, and also threaten to impose sanctions on (non-U.S.) persons having materially assisted such transactions or dealings. The Group has taken steps and established processes and procedures aimed at complying with these U.S. sanctions against the Government of Venezuela. In response to these U.S. sanctions, Deutsche Bank has wound down several client relationships. With respect to entities of the

Government of Venezuela, the Group are currently only engaged in legacy transactions. Deutsche Bank does not believe that any of its remaining activities related to the Government of Venezuela violate U.S. sanctions. However, given the broad discretion U.S. authorities have in interpreting and enforcing U.S. sanctions, there can be no assurances that U.S. authorities will not allege that the Group's ongoing activities violate U.S. sanctions.

Political and trade tensions between the United States and China led to a series of sanctions and countermeasures in 2020 and 2021, some of which were particularly relevant to financial institutions. In June 2021, the United States adopted Executive Order 14032, which amended an existing restriction and restricts purchases and sales by U.S. persons of certain publicly traded securities linked to companies the United States determines are affiliated with the Chinese military-industrial complex, as well as publicly traded securities that are derivative of or designed to provide investment exposure to such securities. Executive Order 14032 amended and clarified similar restrictions that had been imposed under a previous executive order. While Deutsche Bank has implemented changes in its control processes to promote compliance with these requirements, such measures raise potential regulatory compliance and conflicts of laws challenges and the impacts of such measures could be material and adverse.

The Group is aware, through press reports and other means, of initiatives by governmental and non-governmental entities in the United States and elsewhere to adopt laws, regulations or policies prohibiting transactions with or investment in, or requiring divestment from, entities doing business with Sanctioned Countries, particularly China, Iran and Russia. Such initiatives may result in Deutsche Bank being unable to gain or retain entities subject to such prohibitions as customers or as investors in its securities. In addition, the Group's reputation may suffer due to its association with such countries. Such a result could have significant adverse effects on the business or the price of Deutsche Bank's securities. Sanctions are subject to rapid change and it is also possible that new direct or indirect secondary sanctions could be imposed by the United States or other jurisdictions without warning as a result of geopolitical developments."

II. BUSINESS OVERVIEW

The text of the section "Business Overview" commencing on page 41 of the Registration Document is replaced by the following text:

"**Principal activities**

The objects of Deutsche Bank, as laid down in its Articles of Association, include the transaction of all kinds of banking business, the provision of financial and other services and the promotion of international economic relations. The Bank may realise these objectives itself or through subsidiaries and affiliated companies. To the extent permitted by law, the Bank is entitled to transact all business and to take all steps which appear likely to promote the objectives of the Bank, in particular to acquire and dispose of real estate, to establish branches at home and abroad, to acquire, administer and dispose of participations in other enterprises, and to conclude enterprise agreements.

Deutsche Bank maintains its head office in Frankfurt am Main and branch offices in Germany and abroad including in London, New York, Sydney, Tokyo, Hong Kong and an Asia-Pacific Head Office in Singapore which serve as hubs for its operations in the respective regions.

Deutsche Bank is organized into the following segments:

- Corporate Bank (CB);
- Investment Bank (IB);
- Private Bank (PB);
- Asset Management (AM); and

- Corporate & Other (C&O).

The Capital Release Unit has ceased to be reported as a separate segment with effect from the first quarter of 2023.

In addition, Deutsche Bank has a country and regional organizational layer to facilitate a consistent implementation of global strategies.

The Bank has operations or dealings with existing and potential customers in most countries in the world. These operations and dealings include working through:

(a) subsidiaries and branches in many countries;

(b) representative offices in many other countries; and

(c) one or more representatives assigned to serve customers in a large number of additional countries.

The following paragraphs describe the business operations in the different segments:

Corporate Bank

The Corporate Bank (CB) comprises Global Transaction Banking as well as Commercial Banking in Germany. The segment is primarily focused on serving corporate clients, including the German "Mittelstand", larger and smaller sized commercial clients in Germany as well as multinational companies. It is also a partner to financial institutions with regards to certain Transaction Banking services. Global Transaction Banking consists of the four businesses Cash Management, Trade Finance & Lending, Trust & Agency Services and Securities Services. Commercial Banking provides integrated expertise and a holistic product offering across the Deutsche Bank and Postbank brands in Germany.

Investment Bank

The Investment Bank (IB) combines Deutsche Bank's Fixed Income, Currency (FIC) Sales & Trading and Origination & Advisory as well as Deutsche Bank Research. It focuses on its traditional strengths in financing, advisory, fixed income and currencies, bringing together wholesale banking expertise across coverage, risk management, sales and trading, investment banking and infrastructure.

FIC Sales & Trading combines an institutional sales force and research with trading and structuring expertise across Foreign Exchange, Rates, Credit and Emerging Markets. The FIC Sales & Trading business are positioned strategically to respond to increasing automation, regulatory expectations and client demand for standardization and transparency in execution across credit, fixed income and currency products in industrialized countries and emerging markets.

Origination & Advisory is responsible for Deutsche Bank's debt origination business, mergers and acquisitions (M&A), and a focused equity advisory and origination platform. It is comprised of regional and industry-focused coverage teams, co-led from the bank's hubs in Europe, the U.S. and Asia Pacific that facilitate the delivery of a range of financial products and services to the bank's corporate clients.

Private Bank

The Private Bank (PB) comprises three business units. The Private Bank Germany serves private customers in Germany. The Private and Commercial Business International serves private and small business clients, as well as commercial and corporate clients in Italy, Spain, Belgium and India. In addition, Private Bank covers Wealth Management clients globally.

With its "Deutsche Bank" brand Private Bank Germany focusses on providing its private customers with banking and financial products and services that include sophisticated and individual advisory solutions. The focus of its "Postbank" brand remains on providing Deutsche Bank's retail customers with standard products and daily retail banking services. In cooperation with Deutsche Post DHL AG, Deutsche Bank also offers postal and parcel services in the Postbank brand branches.

Private & Commercial Business International ("**PCBI**") provides banking and other financial services to private and commercial clients in Italy, Spain, Belgium and India with some variations in the product offering among countries that are driven by local market, regulatory and customer requirements.

Wealth Management ("**WM**") serves wealthy individuals and families as well as entrepreneurs and foundations. It supports clients in planning, managing and investing their wealth, financing their personal and business interests and servicing their institutional and corporate needs. The unit also provides institutional-type services for sophisticated clients and complements its offerings by closely collaborating with the Investment Bank, the Corporate Bank and Asset Management.

As announced in June 2020, Deutsche Bank has decided to combine WM and PCBI into one unit, the International Private Bank ("**IPB**"). This will allow Deutsche Bank to centralize its product and infrastructure activities to maximize economies of scale and scope.

Asset Management

Asset Management (AM) operates under the DWS brand. AM provides investment solutions to individual investors and institutions with a diversified range of Active, Passive and Alternative Asset Management products and services.

AM's investment offerings span all major asset classes including equity, fixed income, cash and multi asset as well as alternative investments. Deutsche Bank's alternative investments include real estate, infrastructure, private equity, liquid real assets and sustainable investments. Deutsche Banks also offers a range of passive investments. In addition, AM's solution strategies are targeted to client needs that may not be addressed by traditional asset classes alone. Such services include insurance and pension solutions, asset-liability management, portfolio management solutions, asset allocation advisory, structuring and overlay.

Corporate & Other (C&O)

Corporate & Other includes revenues, costs and resources held centrally that are not allocated to the individual business segments.

From 2023 onwards, the remaining portfolio, resources and employees of the former segment Capital Release Unit will be reported within the Corporate & Other segment."

III. TREND INFORMATION

The text of the section "Trend Information" commencing on page 43 of the Registration Document (as amended by the First Supplement, the Third Supplement and the Fourth Supplement) is replaced by the following text:

"***Statement of no Material Adverse Change***

There has been no material adverse change in the prospects of Deutsche Bank since 31 December 2022.

Statement of no Significant Change in Financial Performance

There has been no significant change in the financial performance of Deutsche Bank Group since 31 December 2022.

Recent Developments

Other than the developments mentioned elsewhere in this Registration Document, there have been no recent developments since 31 December 2022.

Outlook

The Group believes that the fundamental transformation announced in 2019 and completed at year-end 2022 has led to a strong foundation for the Group and positioned it to build and maintain a trajectory of sustainable growth. In March 2022, Deutsche Bank outlined its strategic and financial road map through 2025, referred to as "Global Hausbank", and communicated its 2025 financial targets and capital objectives.

Deutsche Bank's key performance indicators are shown in the table below:

	31 December 2022*	Financial targets and capital objectives 2025
Financial targets		
Post-tax Return on Average Tangible Equity[1]	9.4 %	Above 10.0 %
Compound annual growth rate of revenues[2]	N/M	3.5 to 4.5 %
Cost/income ratio[3]	74.9 %	Less than 62.5 %
Capital objectives		
Common Equity Tier 1 capital ratio	13.4 %	~13.0 %
Total payout ratio[4]	36 %	50 %

N/M – Not meaningful

* Extracted from the Annual Report 2022.

1 Based on Net Income attributable to Deutsche Bank shareholders.

2 Based on net revenues.

3 Noninterest expenses as a percentage of total net revenues, which are defined as net interest income before provision for credit losses plus noninterest income.

4 2022 distributions in the form of common share dividend paid and share buybacks for cancellation executed in 2022 in relation to 2021 net income attributable to shareholders.

Deutsche Bank reaffirms its financial targets to be achieved by 2025 of a post-tax return on average tangible equity of above 10 %, a compound annual revenue growth in revenues of between 3.5 % and 4.5 % for 2021 to 2025 and a cost/income ratio of below 62.5 %. Deutsche Bank also confirms its capital objectives of a CET 1 capital ratio of around 13 % and a payout ratio of 50% from 2025 onwards. All forward-looking projections below are based on 31 January 2023, foreign exchange rates.

In 2023, Group revenues are expected to be slightly higher compared to the prior year. Deutsche Bank expects revenues to be in the middle of the range of € 28 billion to € 29 billion at Group level supported by the resilience and growth potential of its businesses and continued business momentum. Corporate Bank revenues are expected to be higher in 2023 driven by its growth initiatives and further improvements in the interest rate environment. Investment Bank revenues are expected to be essentially flat in 2023 driven by lower revenues in FIC Sales & Trading offset by significantly higher revenues in Origination & Advisory mainly from an expected recovery in the Debt Origination business. Private Bank net revenues are expected to remain essentially flat. The division should benefit from the rising interest rate environment and from continued business growth while beneficial impacts of specific revenue items and releases in certain provisions are not expected to repeat in 2023. In Asset Management, revenues are expected to be slightly lower assuming market stabilization.

Deutsche Bank is managing the Group's cost base towards its 2025 cost/income ratio target. The Group remains highly focused on cost discipline and delivery of the initiatives underway. Deutsche Bank expects noninterest expenses as well as adjusted costs in 2023 to be essentially flat compared to 2022. Costs in 2023 are expected to benefit from Deutsche Bank's structural efficiency measures. These include the optimization of its Germany platform, the upgrade of its technology architecture, the front-to-back redesign of processes and measures to increase infrastructure efficiency. These effects are expected to counterbalance inflationary headwinds and help funding selected investments in business growth and in the control environment.

As part of the focus on cost management and improving bank-wide efficiency, Deutsche Bank over the last few years has been rolling out driver-based cost management methodologies ("**DBCM**") to allocate infrastructure costs to the businesses. The recent methodology rollout will be effective from the first quarter of 2023 and aims to provide greater transparency over the drivers of infrastructure costs and links costs more closely to service consumption. While the Group's cost/income ratio and return on average tangible equity metrics will be unaffected by the change in internal allocations, the respective divisional metrics will change going forward. Prior periods will be restated accordingly. The divisional sections presented below regarding the statements on noninterest expenses and adjusted costs do therefore include the trends before and after the methodology change.

For the full year 2023, the Group expects provision for credit losses to be essentially flat compared to 2022 in a range of 25 to 30 basis points of average loans, reflecting persistent macro-economic and geopolitical uncertainties. As such and given the recent improvement in the macro-economic outlook, Deutsche Bank now foresees provision for credit losses in 2023 at the low end of this range. Deutsche Bank expects provision for credit losses in 2023, unlike in 2022, to be driven by single-name losses rather than a deterioration of macro-economic forward-looking indicators. Deutsche Bank remains committed to its stringent underwriting standards and tight risk management framework.

Common Equity Tier 1 ratio ("**CET 1 ratio**") by year-end 2023 is expected to remain essentially flat compared to 2022. The Group expects several regulatory decisions on internal credit and market risk models in 2023. On a net basis, risk weighted assets are expected to stay essentially flat when considering model impacts, respective mitigation initiatives and business growth. Deutsche Bank aims for a Common Equity Tier 1 capital ratio of around 13 % and to end 2023 with a CET 1 ratio of 200 basis points above the Maximum Distributable Amount ("**MDA**") threshold. The timing of model decisions might drive CET 1 ratio variability within the year.

Deutsche Bank is committed to delivering sustainably grown cash dividends and, over time, to returning excess capital that is over and above what is required to support profitable growth and upcoming regulatory changes to shareholders through share buybacks, subject to regulatory approval, shareholder authorization and meeting German corporate law requirements. To that end, subject to meeting the Group's strategic targets, the Management Board intends to grow the cash dividend per share by 50 % per annum in the next 3 years, starting from the € 0.20 per share paid for the financial year 2021. This would translate into approximately € 3.3 billion of cumulative dividend payments by 2025 with respect to financial years 2021 to 2024. In relation to the financial year 2024 Deutsche Bank intends to achieve a total payout ratio of 50 % from a combination of dividends paid and share buybacks executed in 2025; and Deutsche Bank intends to maintain a 50 % total payout ratio in subsequent years. In addition to the share buyback of € 0.3 billion already concluded in 2022, successfully executing the Group's financial and strategic plans through 2025 would therefore support the previously announced cumulative distributions to shareholders in the form of dividends paid or share buybacks executed of approximately € 8 billion in respect of financial years 2021 to 2025.

By the nature of its business, Deutsche Bank is involved in litigation, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside Germany, including in the United States. Such matters are subject to many uncertainties. While the Group has resolved a number of important legal matters and made progress on others, it expects the litigation and enforcement environment to remain challenging. For 2023, and with a caveat that forecasting litigation charges is subject to many uncertainties, Deutsche Bank expects net litigation charges to be lower than the levels experienced in the previous year.

Risks to the Group's outlook include potential impacts on the business model from macroeconomic as well as geopolitical uncertainties, including uncertainties associated with the war in Ukraine, possible intensification of U.S. versus China strategic competition, global inflationary pressures due to higher energy and commodity prices as well as ongoing supply chain disruptions, slower economic growth in the major operating countries including the risk of a deeper and longer recession, impact from changes in foreign exchange rates, and lower client activity. In addition, uncertainty around central bank policies, e.g., the interest rate environment, ongoing regulatory developments, e.g., the finalization of the Basel 3 framework as well as other geopolitical event risks may also have an adverse impact.

Adjusted costs as well as Post-tax Return on Average Tangible Equity are non-GAAP financial measures.

Corporate Bank

Corporate Bank expects the interest rate environment and its progress on its initiatives to support the performance in 2023, despite macro-economic uncertainties. Revenues are expected to be higher compared to the prior year, driven by the growth initiatives and further improvements in the interest rates.

Corporate Treasury Services revenues are anticipated to be higher due to strong momentum in the Corporate Cash Management business and growth in structured and flow trade finance solutions and lending. Institutional Client Services revenues are expected to be essentially flat, supported by business growth and higher deposit volumes. In Business Banking, revenues are expected to be significantly higher compared to the prior year, principally due to higher interest rates in Germany.

Provision for credit losses is expected to be essentially flat in 2023 in a range of 25 to 30 basis points of average loans.

Noninterest expenses and adjusted costs are expected to be higher in 2023 compared to 2022, mainly reflecting higher internal service cost allocations. Regulatory compliance, know-your-client ("**KYC**") and client on-boarding process enhancements, system stability and control and conduct continue to remain an area of strong focus. Adjusting the prior year for the aforementioned DBCM methodology change, Corporate Bank expects noninterest expenses and adjusted costs to be essentially flat versus 2022.

RWA in the Corporate Bank are anticipated to remain essentially flat in 2023 as increases from lending activities are expected to be offset by favorable model changes.

Risks to the division's outlook include potential impacts on its business model from macroeconomic and global geopolitical uncertainties, including uncertainties associated with the war in Ukraine, lower economic growth in the major operating countries from ongoing supply chain disruptions, higher energy and commodity prices as well as uncertainty around central bank policies (e.g., the interest rate environment). In addition, ongoing regulatory developments (e.g., the finalization of the Basel 3 framework) and lower levels of client activity may also have an adverse impact.

Investment Bank

Investment Bank revenues are expected to be essentially flat in 2023 compared to prior year. 2022 was another strong year for the Investment Bank driven by FIC Sales & Trading seeing its strongest revenue performance in a decade. This managed to offset the significant decline in Origination and Advisory revenues, which saw the industry fee pool drop by 36 % year-on-year combined with loan markdowns across the market. While the division expects a partial recovery in Origination and Advisory in 2023, this is likely to be largely offset by a normalization in FIC Sales & Trading.

FIC Sales & Trading revenues are expected to be lower compared to 2022. Rates plans to target and build out certain areas in the business where it sees opportunities, but expects a normalization in the market, meaning the business is unlikely to repeat the revenue performance seen in 2022. The Foreign Exchange business is expected to continue the momentum from the prior year, which saw a return to the #1 ranking in the Euromoney

FX survey. The Global Emerging Markets business will continue to develop its onshore footprint and client workflow solutions further, though no repeat of the Russian Ruble (RUB) asset volatility and associated revenue seen in 2022 is expected. Credit Trading intends to invest in targeted areas of the business where growth opportunities are present, and expects to see a certain improvement in the overall industry environment that was challenging throughout the prior year. The Financing business will continue to take a disciplined and selective approach to the deployment of resources and look to benefit from the increase in interest rates seen in 2022.

Origination and Advisory revenues are expected to be significantly higher in 2023 compared to 2022 primarily due to an expected recovery in the Debt Origination business. The Leveraged Debt and High Yield markets were largely inactive in the second half of 2022, and the division expects to see a partial recovery this year, as the macro-economic environment starts to normalize. Additionally, the division does not expect a recurrence of the loan markdowns that occurred across the industry in 2022. The Investment Grade Debt business should maintain its robust performance from the prior year and further develop its ESG capabilities for clients. Equity Origination will continue to provide a competitive offering across products and expects to see the market start to open up again throughout the year. Advisory plans to build on the momentum of investment and market share gains in the prior year, though the division expects the fee pool to be impacted by the reduced levels of announced volumes seen in the second half of 2022.

Provisions for credit losses are expected to be essentially flat in 2023 in a range of 30 to 35 basis points of average loans.

In 2023, noninterest expenses as well as adjusted costs are expected to be slightly higher compared to the previous year driven by inflation, higher bank levy costs, strategic growth initiatives including investments in people and technology, along with increased regulatory related costs within infrastructure support and higher internal service allocations. Adjusting the prior year for the aforementioned DBCM methodology change, Investment Bank expects noninterest expenses and adjusted costs to be essentially flat versus 2022.

For 2023, RWA in the Investment Bank is expected to be slightly higher driven by credit risk RWA from targeted business growth; regulatory inflation is expected to be largely offset by mitigating business actions.

There are several risks to the outlook of the Investment Bank in 2023, including potential impacts on the business model from macroeconomic changes, including uncertainties associated with the war in Ukraine, while the second order effects on energy and food prices will continue to have a significant impact on financial markets. Central bank policies, specifically around interest rates and further tapering of asset purchases, create risks, as does the current period of high inflation. In addition, the evolving regulatory framework could lead to unforeseen regulatory compliance costs and possible delays in the implementation of the division's efficiency measures, which could adversely impact its cost base. More broadly, other unforeseen geopolitical event risks may also have an adverse impact.

Private Bank

In 2023, the Private Bank expects to benefit from the rising interest rate environment and from continued business growth. Private Bank also expects that beneficial impacts of specific revenue items and releases in certain provisions will not repeat in the same magnitude as in 2022. Noninterest expenses in 2023 are expected to be burdened by continued inflationary impacts and investments as well as higher internal service cost allocations, which will in part be offset by continued savings from transformation initiatives.

Net revenues in 2023 are anticipated to remain essentially flat compared to 2022. The year-on-year comparison will be impacted by the non-recurrence of a gain on the sale of the Deutsche Bank Financial Advisors business in Italy and by lower revenues from workout activities in Sal. Oppenheim. Revenues excluding these specific items are expected to be slightly higher compared to 2022 driven by net positive effects from the rising interest rate environment and by continued business growth despite an expected slowdown of the growth of the German mortgage book.

In the Private Bank Germany, revenues are expected to be slightly higher compared to 2022. Net interest income is expected to grow driven by higher deposit revenues which will be largely offset by reduced funding benefits including from the ECB's Targeted Longer Term Refinancing Operations ("**TLTRO**") program. Fee income is expected to remain essentially flat with increases in investment product revenues in part offset by impacts from changes in contractual and regulatory conditions.

Net revenues in the International Private Bank are expected to be slightly lower compared to 2022 driven by the non-recurrence of the aforementioned gain in Italy of approximately € 310 million and Sal. Oppenheim workout revenues of approximately € 130 million. Excluding these specific items, revenues are anticipated to be slightly higher year-on-year reflecting continued business growth supported by prior relationship manager hiring. Positive impacts from rising interest rates are expected to more than compensate for the impact of reduced benefits from the ECB's TLTRO program.

Private Bank assumes continued business growth in 2023 across loans and assets under management with corresponding volumes in assets under management expected to be higher compared to year-end 2022. As usual, the overall development of volumes will highly depend on market parameters, including equity indices and foreign exchange rates.

Provision for credit losses is forecasted to be slightly higher in 2023 in a range of 20 to 25 basis points of average loans.

RWA are expected to be essentially flat in 2023 with selected growth in the loan book being partially offset by portfolio optimizations and updates in the implementation of regulatory requirements.

Noninterest expenses are expected to be higher in 2023 compared to 2022, driven by higher internal service cost allocations, the non-recurrence of provision releases recorded in 2022 and higher restructuring expenses for continued transformation initiatives in 2023. Adjusted costs are expected to be slightly higher year-on-year as continued savings from transformation initiatives will not fully offset the impacts of inflation and higher internal service cost allocations. Adjusting the prior year for the aforementioned DBCM methodology change, Private Bank expects noninterest expenses to be slightly higher and adjusted costs to remain essentially flat versus 2022.

Risks to Private Bank's outlook include potential impacts on the business model from macroeconomic changes, including uncertainties associated with the war in Ukraine, global inflationary pressures due to higher energy and commodity prices as well as ongoing supply chain disruptions, uncertainty on interest rates, slower economic growth in the major operating countries and lower client activity. Client activity could be impacted by market uncertainties including higher than expected volatility in equity and credit markets. The implementation of regulatory requirements including consumer protection measures and delays in the implementation of strategic projects or changes resulting from contract renegotiations could also have a negative impact on revenues, capital consumption and costs.

Asset Management

The Asset Management segment principally consists of the consolidated financial results of DWS Group GmbH & Co. KGaA ("**DWS**"), of which Deutsche Bank AG owns a controlling interest.

Given the current macroeconomic outlook and the asset management industry's challenges, DWS intends to focus on innovative products and services where it can differentiate and best serve clients, while also maintaining a disciplined cost approach as it invests in growth and transformation. DWS expects its diversified asset base to continue to provide some protection against current market challenges. DWS committed to a new set of medium-term financial targets in December 2022 as part of its refined strategy.

Asset Management expects Assets under Management to be higher at the end of 2023, compared to the year end of 2022, with net inflows expected into growth areas like Passive and Alternatives. This should be further enhanced by strategic partnerships and product innovations, including further ESG offerings. Total revenues are expected to be slightly lower in 2023 compared to 2022. Management fees are expected to be slightly lower in 2023 compared to 2022, with significantly higher expected performance and transactions fees to offset significantly lower other revenues. Moreover, the division expects further investment into growth and platform transformation, which will be partly compensated by ongoing cost discipline. Noninterest expenses are expected to be broadly flat and adjusted costs to be higher in 2023 compared to 2022. The aforementioned DBCM methodology change had no material impact on Asset Management.

Risks to Asset Management's outlook include macro-economic and market conditions, growth prospects and continued economic impact from the war in Ukraine, which could adversely affect its business, results of operations or strategic plans. Elevated levels of economic and political uncertainty worldwide, and protectionist and anti-trade policies, could have unpredictable consequences in the economy, market volatility and investors' confidence, which may lead to declines in business and could affect revenues and profits. In addition, the evolving regulatory framework could lead to unforeseen regulatory compliance costs and possible delays in the implementation of the efficiency measures, which could adversely impact the division's cost base.

Capital Release Unit

Having fulfilled its de-risking and cost reduction mandate from 2019 through the end of 2022, the Capital Release Unit will cease to be reported as a separate segment with effect from the first quarter of 2023. Its remaining portfolio, resources and employees will be reported within the Corporate & Other segment. The remaining Capital Release Unit assets will roll off over time. These are mostly interest rate derivatives but also include the Polish FX mortgage portfolio and certain other FIC & Equities assets.

Corporate & Other

As mentioned above, Corporate & Other will include the financial impact of the Capital Release Unit from 2023 onwards.

Corporate & Other will continue to retain certain transitional costs related to the Group's transfer pricing framework. In addition, there will be charges related to legacy activities relating to the merger of DB Privat- und Firmenkundenbank AG into Deutsche Bank AG. In aggregate, both items are expected to have negative impacts in Corporate & Other of approximately € 0.3 billion in 2023. Corporate & Other will also continue to retain shareholder expenses, which are expected to be around € 0.5 billion for the full year 2023, and to record the reversal of Noncontrolling interests, primarily from DWS. In addition, results in Corporate & Other will continue to be impacted by valuation and timing differences on positions that are economically hedged, but do not meet the hedge accounting requirements. In total, Corporate & Other is expected to generate a pre-tax loss in 2023."

IV. ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES AND SENIOR MANAGEMENT

The text of the section "Administrative, Management and Supervisory Bodies and Senior Management" commencing on page 50 of the Registration Document (as replaced by the First Supplement and the Third Supplement) is replaced by the following text:

"In accordance with German law, Deutsche Bank has both a **Management Board** (*Vorstand*) and a **Supervisory Board** (*Aufsichtsrat*). These Boards are separate; no individual may be a member of both. The Supervisory Board appoints the members of the Management Board and supervises the activities of this Board. The Management Board represents Deutsche Bank and is responsible for the management of its affairs.

The **Management Board** consists of the following members:

Christian Sewing	Chairman of the Management Board (Chief Executive Officer); Corporate Affairs & Strategy (including Communications and Corporate Social Responsibility and Political Affairs); Sustainability; Research; Group Audit (administratively only, in all other aspects collective responsibility of the Management Board); Human Resources (incl. Corporate Executive Matters); Global Real Estate
James von Moltke	Deputy Chairman of the Management Board (President); Chief Financial Officer (CFO); Group Finance; Chief Accounting Officer; Regional Finance; Business and Infrastructure Finance

	(CFOs); Group Tax; Treasury; Investor Relations; Planning and Performance Management
Karl von Rohr	Deputy Chairman of the Management Board (President); Head of Private Bank (PB); Head of Asset Management (AM); Head (CEO) of Region Germany; Head of Region EMEA
Fabrizio Campelli	Head of Investment Bank (IB); Head of Corporate Bank (CB); Head of Region UKI (UK & Ireland)
Bernd Leukert	Chief Technology, Data and Innovation Officer; Chief Information Office; Chief Technology Office; Data Governance and Oversight; Cloud and Innovation; Chief Security Office
Alexander von zur Mühlen	Head (CEO) of Region APAC
Christiana Riley	Head (CEO) of Region Americas
Rebecca Short	Chief Transformation Officer (CTO) and Management Board Member for Global Procurement; Transformation Governance and Oversight Office; Transformation Execution Office; US Transformation and Remediation; Infrastructure Transformation; Deutsche Bank Management Consulting; Global Procurement
Prof. Dr. Stefan Simon	Chief Administrative Officer (CAO); Legal and Group Governance (incl. Data Privacy); Regulatory Affairs; Chief Remediation Office; Compliance; Anti-Financial Crime (AFC); Controls Testing & Assurance; Business Selection and Conflicts Office
Olivier Vigneron	Chief Risk Officer (CRO); Business Aligned Risk Management (Divisional CROs); Regional Risk Management (Regional CROs); Enterprise Risk Management (ERM); Model Risk Management (MoRM); Credit Risk Management (CRM); Market & Valuation Risk Management (MVRM); Non-Financial Risk Management (NFRM); Treasury & Liquidity Risk Management (TLRM); Group Strategic Analytics (incl. Risk Methodology)

The **Supervisory Board** consists of the following members:

Alexander Wynaendts	Chairman of the Supervisory Board of Deutsche Bank AG; Member of the Board of Directors at Air France-KLM Group S.A., Paris, France; Member of the Board of Directors at Uber Technologies, Inc., San Francisco, USA; Non-Executive Director, Chairman, at Puissance Holding B.V., Rotterdam, Netherlands
Detlef Polaschek*	Deputy Chairman of the Supervisory Board of Deutsche Bank AG; Member of the General Staff Council of Deutsche Bank AG
Prof. Dr. Norbert Winkeljohann	Deputy Chairman of the Supervisory Board of Deutsche Bank AG; Self-employed corporate consultant, Norbert Winkeljohann Advisory & Investments;

	Chairman of the Supervisory Board of Bayer AG; Member of the Supervisory Board of Georgsmarienhütte Holding GmbH; Chairman of the Supervisory Board of Sievert SE; Chairman of the Supervisory Board of Bohnenkamp AG
Ludwig Blomeyer-Bartenstein*	Spokesperson of the Management Bremen of Deutsche Bank AG; Member of the Supervisory Board of Frowein & Co. Beteiligungs AG
Mayree Clark	Member of the Board of Directors of Ally Financial, Inc., Detroit, USA; Member of the Board of Directors of Allvue Systems Holdings, Inc., Florida, USA
Jan Duscheck*	Head of national working group Banking of trade union ver.di
Manja Eifert*	Chairperson of the Staff Council, Deutsche Bank AG, Berlin
Sigmar Gabriel	Former German Federal Government Minister; Chairman of the Supervisory Board of Thyssenkrupp Steel Europe AG; Member of the Supervisory Board of Siemens Energy AG
Timo Heider*	Chairman of the General Staff Council of PCC Services GmbH der Deutschen Bank; Chairman of the General Staff Council of BHW Bausparkasse AG / Postbank Finanzberatung AG; Chairman of the Staff Council of BHW Bausparkasse AG, PCC Services GmbH der Deutschen Bank, Postbank Finanzberatung AG and BHW Holding GmbH; Deputy Chairman of the Supervisory Board of BHW Bausparkasse AG; Deputy Chairman of the Supervisory Board of PCC Services GmbH der Deutschen Bank; Deputy Chairman of the Board of Pensionskasse der BHW Bausparkasse AG VVaG
Martina Klee*	Deputy Chairperson of the Staff Council PWCC Center Frankfurt of Deutsche Bank; General Staff Council member, Group Staff Council member, European Staff Council member and Chairperson of the Economic Committee, Deutsche Bank; Member of the Supervisory Board of Sterbekasse für die Angestellten der Deutschen Bank Gruppe VVa.G.
Gabriele Platscher*	Bank Employee
Bernd Rose*	Chairman of the General Staff Council of Postbank Filialvertrieb AG; Member of the General Staff Council of DP Retail/Postbank Filialvertrieb AG and member of the Committee for Economic Matters; Member of the Supervisory Board of Postbank Filialvertrieb AG; Deputy Chairman of the Supervisory Board of ver.di Vermögens-verwaltungsgesellschaft

Yngve Slyngstad	Chief Executive Officer of Aker Asset Management AS, Oslo, Norway
John Alexander Thain	Member of the Board of Directors, Aperture Investors LLC, New York, USA; Member of the Board of Directors, Uber Technologies, Inc., San Francisco, USA; Chairman of the Board of Directors, Pine Island Capital Partners LLC, Fort Lauderdale, USA
Michele Trogni	Operating Partner of Eldridge Industries LLC, Greenwich, Connecticut, USA; Chief Executive Officer and Chairperson of the Board of Directors of Zinnia Corporate Holdings, LLC, Kansas, USA
Dr. Dagmar Valcárcel	Member of the Supervisory Board of amedes Holding GmbH; Member of the Board of Directors, Antin Infrastructure Partners S.A., Paris, France
Stefan Viertel*	Member of the Workers Council Headoffice CB and PB, Deutsche Bank AG
Dr. Theodor Weimer	Chief Executive Officer of Deutsche Börse AG; Member of the Supervisory Board of Knorr Bremse AG
Frank Werneke*	Chairman of the trade union ver.di, Berlin; Member of the Supervisory Board of ZDF Studios GmbH; Member of the Television Council of the Zweites Deutsches Fernsehen (ZDF); Member of the Supervisory Board of the ver.di Vermögensverwaltungsgesellschaft m.b.H
Frank Witter	Member of the Supervisory Board of Traton SE; Chairman of the Supervisory Board, VfL Wolfsburg-Fußball GmbH Member of the Board of Directors of CGI Inc., Montreal, Canada

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* Elected by the employees in Germany.

The members of the Management Board accept membership on the Supervisory Boards of other corporations within the limits prescribed by law.

The business address of each member of the Management Board and of the Supervisory Board of Deutsche Bank is Taunusanlage 12, 60325 Frankfurt am Main, Germany.

There are no conflicts of interest between any duties carried out on behalf of Deutsche Bank and the private interests or other duties of the members of the Supervisory Board and the Management Board.

Deutsche Bank has issued and made available to its shareholders the declaration prescribed by Sec. 161 of the German Stock Corporation Act (AktG)."

V. MAJOR SHAREHOLDERS

The text of the section "Major Shareholders" on page 54 of the Registration Document (as replaced by the First Supplement) is replaced by the following text:

"Deutsche Bank is neither directly nor indirectly majority-owned or controlled by any other corporation, by any government or by any other natural or legal person severally or jointly.

Pursuant to German law and Deutsche Bank's Articles of Association, to the extent that the Bank may have major shareholders at any time, it may not give them different voting rights from any of the other shareholders.

Deutsche Bank is not aware of arrangements which may at a subsequent date result in a change of control of the company.

The German Securities Trading Act (*Wertpapierhandelsgesetz*) requires investors in publicly-traded corporations whose investments reach certain thresholds to notify both the corporation and the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) of such change within four trading days. The minimum disclosure threshold is 3 per cent. of the corporation's issued voting share capital. To the Bank's knowledge, there are only four shareholders holding more than 3 per cent. of Deutsche Bank shares or to whom more than 3 per cent. of voting rights are attributed, and none of these shareholders holds more than 10 per cent. of Deutsche Bank shares or voting rights."

VI. FINANCIAL INFORMATION CONCERNING DEUTSCHE BANK'S ASSETS AND LIABILITIES, FINANCIAL POSITION AND PROFITS AND LOSSES

The text of the section "Financial Information Concerning Deutsche Bank's Assets and Liabilities, Financial Information Position and Profits and Losses Major Shareholders" commencing on page 54 of the Registration Document (as amended by the First Supplement, the Second Supplement and the Third Supplement) is replaced by the following text:

"***Financial Statements***

Deutsche Bank's consolidated financial statements for the financial year 2021 (as included in the Annual Report 2021 of the Issuer as of 31 December 2021) and for the financial year 2022 (as included in the Annual Report 2022 of the Issuer as of 31 December 2022) are incorporated by reference in, and form part of, this Registration Document (see section "Information Incorporated by Reference").

Auditing of Annual Financial Information

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft audited Deutsche Bank's unconsolidated annual and consolidated financial statements for the financial years 2021 and 2022 in accordance with Directive 2014/56/EU and Regulation (EU) No. 537/2014, Sec. 317 of the German Commercial Code (*Handelsgesetzbuch*, "**HGB**") and German generally accepted standards for financial statements audit promulgated by the Institute of Public Auditors in Germany (*Institut der Wirtschaftsprüfer*, "**IDW**") and, in each case, issued an unqualified independent auditor's report thereon.

Interim Financial Information

The unaudited consolidated interim financial information for the three months ended 31 March 2022 (as included in the Earnings Report of the Issuer as of 31 March 2022) is incorporated by reference in, and forms part of, this Registration Document (see section "Information Incorporated by Reference").

The unaudited consolidated interim financial information for the six months ended 30 June 2022 (as included in the Interim Report of the Issuer as of 30 June 2022) is incorporated by reference in, and forms part of, this Registration Document (see section "Information Incorporated by Reference").

The unaudited consolidated interim financial information for the nine months ended 30 September 2022 (as included in the Earnings Report of the Issuer as of 30 September 2022) is incorporated by reference in, and forms part of, this Registration Document (see section "Information Incorporated by Reference").

Legal and Arbitration Proceedings

Deutsche Bank Group operates in a legal and regulatory environment that exposes it to significant litigation risks. As a result, Deutsche Bank Group is involved in litigation, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside Germany, including the United States, arising in the ordinary course of business.

Other than set out herein, Deutsche Bank Group is not involved (whether as defendant or otherwise) in, nor does it have knowledge of, any governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which Deutsche Bank is aware), during a period covering the previous 12 months that may have, or have had in the recent past, a significant effect on the financial position or profitability of the Bank or Deutsche Bank Group.

Anti-Money Laundering Matters Involving Former Correspondent Banking Relationships

Deutsche Bank has received requests for information from government authorities concerning certain former correspondent banking relationships, including Danske Bank. Deutsche Bank has provided information to and is otherwise cooperating with the investigating authorities. Deutsche Bank also completed an internal investigation focused on its historical processing of correspondent banking transactions on behalf of customers of Danske Bank's Estonia branch prior to cessation of the correspondent banking relationship with that branch in 2015, including of whether any violations of law, regulation or Deutsche Bank policy occurred and the effectiveness of the related internal control environment.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these investigations because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

On 7 July 2020, the New York State Department of Financial Services ("**DFS**") issued a Consent Order, finding that Deutsche Bank violated New York State banking laws in connection with its relationships with three former Deutsche Bank clients – Danske Bank's Estonia branch, Jeffrey Epstein and FBME Bank – and imposing a U.S.$ 150 million civil penalty in connection with these three former relationships, which Deutsche Bank paid in the third quarter of 2020.

On 15 July 2020, Deutsche Bank was named as a defendant in a securities class action filed in the U.S. District Court for the District of New Jersey, alleging that Deutsche Bank made material misrepresentations regarding the effectiveness of its anti-money laundering ("**AML**") controls and related remediation. The complaint cited allegations regarding control deficiencies raised in the DFS Consent Order related to Deutsche Bank's relationships with Danske Bank's Estonia branch, Jeffrey Epstein and FBME Bank. On 31 March 2022, the court granted a motion to transfer the action to the U.S. District Court for the Southern District of New York ("**SDNY**") and on 18 May 2022, the SDNY court granted in part and denied in part the motion to dismiss. On 23 September 2022, Deutsche Bank executed a settlement agreement with plaintiffs in the amount of U.S.$ 26.25 million to resolve this action, and has recorded a provision in the same amount. On 6 February 2023, the court entered a final judgment and order of dismissal with prejudice, approving the settlement and dismissing the action with prejudice.

Ongoing Regulatory Discussions

Deutsche Bank is engaged in ongoing regulatory discussions to resolve matters concerning adherence to prior orders and settlements related to sanctions and embargoes and AML compliance, and remedial agreements and obligations related to risk management issues.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this matter because it has concluded that such disclosure can be expected to seriously prejudice the outcome.

BGH

On 27 April 2021 the German Federal Court of Justice ("**BGH**") issued a ruling that certain clauses used in Deutsche Bank's General Terms and Conditions, which assume the customer consents following a notice and non-objection period, are void in relation to consumers (*Verbraucher*). The Group received the written reasoning for this judgment on 27 May 2021. The relevant clauses were widely used in the German banking industry. The BGH overturned the prior decisions of both the Regional Court and Higher Regional Court of Cologne, which had dismissed the claim brought forward by a consumer protection association. As a result of this ruling, fees introduced or increased since 2018 on the basis of this modification mechanism are potentially ineffective and consumers (*Verbraucher*) can claim repayment of respective banking fees. The Group has a civil litigation class provision of approximately € 6 million as of 31 December 2022 with respect to this matter.

Cum-ex Investigations and Litigations

Deutsche Bank has received inquiries from law enforcement authorities, including requests for information and documents, in relation to cum-ex transactions of clients. "**Cum-ex**" refers to trading activities in German shares around dividend record dates (trade date before and settlement date after dividend record date) for the purpose of obtaining German tax credits or refunds in relation to withholding tax levied on dividend payments including, in particular, transaction structures that have resulted in more than one market participant claiming such credit or refund with respect to the same dividend payment. Deutsche Bank is cooperating with the law enforcement authorities in these matters.

The Public Prosecutor in Cologne (*Staatsanwaltschaft Köln*, "**CPP**") has been conducting a criminal investigation since August 2017 concerning two former employees of Deutsche Bank in relation to cum-ex transactions of certain former clients of the Bank. Deutsche Bank is a potential secondary participant pursuant to Sec. 30 of the German Law on Administrative Offences in this proceeding. Deutsche Bank is cooperating with the CPP. At the end of May and beginning of June 2019, the CPP initiated criminal investigations against further current and former employees of Deutsche Bank and five former Management Board members. In July 2020, in the course of inspecting the CPP's investigation file, Deutsche Bank learned that the CPP had further extended its investigation to include further current and former bank personnel, including one former and one then current Management Board member. In October 2022, the CPP conducted a search at Deutsche Bank's offices in Frankfurt and Eschborn. Based on the search warrant the CPP expanded the scope of the investigation and included further current and former Deutsche Bank employees and one additional former Management Board member in the investigation. The investigation is still at an early stage and the scope of the investigation may be further broadened.

In May 2021, Deutsche Bank learned through an information request received by Deutsche Oppenheim Family Office AG ("**DOAG**") as legal successor of Sal. Oppenheim jr. & Cie. AG & Co. KGaA ("**Sal. Oppenheim**") that the CPP in 2021 opened a criminal investigation proceeding in relation to cum-ex transactions against unknown former personnel of Sal. Oppenheim. DOAG provided the requested information on 13 September and 15 October 2021.

Deutsche Bank acted as participant in and filed withholding tax refund claims through the electronic refund procedure (*elektronisches Datenträgerverfahren*) on behalf of, inter alia, two former custody clients in connection with their cum-ex transactions. In February 2018, Deutsche Bank received from the German Federal Tax Office (*Bundeszentralamt für Steuern*, "**FTO**") a demand of approximately € 49 million for tax refunds paid to a former custody client. Deutsche Bank expects to receive a formal notice for the same amount. On 20 December 2019, Deutsche Bank received a liability notice from the FTO requesting payment of € 2.1 million by 20 January 2020 in connection with tax refund claims Deutsche Bank had submitted on behalf of another former custody client. In 2020, Deutsche Bank made the requested payment and filed an objection against the liability notice. On 28 July 2021, Deutsche Bank received a letter from the FTO stating that the revised tax assessment notice dated December 2019 was not a valid administrative act as it could not be served to Deutsche Bank's client due to its liquidation already in 2016. On the same day, the FTO issued another liability notice to Deutsche Bank arguing that it issued incorrect tax certificates. On 30 May 2022, Deutsche Bank's objections against the liability notices were rejected. On 1 July 2022, Deutsche Bank filed a claim against this rejection with the Fiscal Court of Cologne (*Finanzgericht Köln*).

By letter dated 26 February 2018, The Bank of New York Mellon SA/NV ("**BNY**") informed Deutsche Bank of its intention to seek indemnification for potential cum-ex related tax liabilities incurred by BHF Asset Servicing GmbH ("**BAS**") and/or Frankfurter Service Kapitalanlage-GmbH ("**Service KAG**", now named BNY Mellon Service Kapitalanlage-Gesellschaft mbH). Deutsche Bank had acquired BAS and Service KAG as part of the acquisition of Sal. Oppenheim in 2010 and sold them to BNY in the same year. BNY estimates the potential tax liability to amount to up to € 120 million (excluding interest of 6 per cent p.a.). In November and December 2020 counsel to BNY informed Deutsche Bank that BNY and / or Service KAG (among others) have received notices from tax authorities in the estimated amount with respect to cum-ex related trades by certain investment funds in 2009 and 2010. BNY has filed objections against the notices. Following receipt of payment orders from tax authorities in the amount of € 60.6 million in relation to one of the investment funds and after consultation with Deutsche Bank, BNY in September 2022 paid € 13.6 million to tax authorities. The remaining € 47 million in relation to that fund were paid by Warburg Invest Kapitalanlagegesellschaft mbH (the investment fund's manager). Further, following receipt of payment orders from tax authorities in the amount of € 11.8 million regarding another one of the investment funds and after consultation with Deutsche Bank, BNY in January/February 2023 paid € 7.9 million to tax authorities. The remaining € 3.9 million was paid by Hansainvest Hanseatische Investment-GmbH (the investment fund's manager). In addition, BNY received from the Frankfurt Tax Office regarding another one of the investment funds a notice and payment request regarding penalty interest (*Hinterziehungszinsen*) in the amount of € 11.6 million with a payment deadline of 13 February 2023. BNY, after consultation with Deutsche Bank, applied for a suspension of enforcement (*Aussetzung der Vollziehung*) regarding the payment request. The underlying liability amount regarding this fund paid by BNY, after consultation with Deutsche Bank, to the Frankfurt Tax Office in 2021 was € 18.3 million.

On 6 February 2019, the Regional Court (*Landgericht*) Frankfurt am Main served Deutsche Bank with a claim by M.M.Warburg & CO Gruppe GmbH and M.M.Warburg & CO (AG & Co.) KGaA (together "**Warburg**") in connection with cum-ex transactions of Warburg with a custody client of Deutsche Bank during 2007 to 2011. Warburg claimed from Deutsche Bank indemnification against German taxes in relation to transactions conducted in the years 2007 to 2011. Further, Warburg claimed compensation of unspecified damages relating to these transactions. Based on the tax assessment notices received for 2007 to 2011, Warburg claimed a total of € 250 million (of which € 166 million is in relation to taxes and € 84 million is in relation to interest). On 20 March 2020, Warburg extended its claim against Deutsche Bank to indemnify Warburg in relation to a € 176 million (thereof € 166 million in relation to taxes and € 10 million in relation to interest) criminal confiscation order issued by the Regional Court Bonn in the criminal cum-ex trial on 18 March 2020 regarding the same transactions. On 28 July 2021 the German Federal Court of Justice ("**BGH**") confirmed the criminal confiscation. On 23 September 2020, the Frankfurt Regional Court fully dismissed Warburg's claim against Deutsche Bank on the grounds that Warburg as the tax debtor (*Steuerschuldner*) is primarily liable and cannot request payment from Deutsche Bank. The court further held that any claims are time-barred. On 29 October 2020, Warburg appealed the decision with the Higher Regional Court (*Oberlandesgericht*) Frankfurt am Main. On 1 December 2021, Warburg reduced its claim from the first instance proceeding. Warburg now claims € 86 million (thereof € 63 million in relation to taxes and € 23 million in relation to interest). Further, Warburg claims an amount of € 54 million in relation to the criminal confiscation. In a judgment dated 2 March 2022, the Higher Regional Court (*Oberlandesgericht*) Frankfurt am Main fully dismissed Warburg's appeal. The court did not admit an appeal of its decision to the BGH. Warburg filed an appeal against this non-admission (*Nichtzulassungsbeschwerde*).

On 25 January 2021, the Regional Court (*Landgericht*) Hamburg served Deutsche Bank with a claim by Warburg Invest Kapitalanlagegesellschaft mbH ("**Warburg Invest**") in relation to transactions of two investment funds in 2009 and 2010, respectively. Warburg Invest was fund manager for both funds. Warburg Invest claims, from Deutsche Bank together with several other parties as joint and several debtors (*Gesamt-schuldner*), indemnification against German taxes in relation to cum-ex transactions conducted by the two funds. Further, Warburg Invest claims compensation of unspecified damages relating to these transactions. In November 2020, Warburg Invest received a tax liability notice from tax authorities for one of the funds in the amount of € 61 million. Based on publicly available information Deutsche Bank estimates the tax amount for the second fund to be approximately € 49 million. Warburg Invest filed its claim against several parties including Deutsche Bank *inter alia* based on an allegation of intentional damage contrary to public policy (Sec. 826 German Civil Code) and the accusation that Deutsche Bank participated in a business model that was contrary to public policy (*sittenwidriges Geschäftsmodell*). On 5 July 2021, Deutsche Bank submitted its defense statement to the court. On 31 December 2021, two other defendants of the proceeding served a notice of dispute (*Streitverkündung*) to several parties including Deutsche Bank. On 30 September 2022, Warburg Invest withdrew its litigation (*Rücknahme der Klage*) as far as it relates to Deutsche Bank.

On 26 February 2021, the Regional Court (*Landgericht*) Frankfurt am Main served Deutsche Bank with a claim by Seriva Vermögensverwaltungs GmbH ("**Seriva**"). Seriva requested that Deutsche Bank reissue certain tax certificates (*Steuerbescheinigungen*) that Deutsche Bank withdrew in April 2017 in light of Seriva's cum-ex transactions. Deutsche Bank responded to Seriva's statement of claim on 6 April 2021. On 5 July 2021, Deutsche Bank received a reply brief from Seriva. Deutsche Bank responded on 17 August 2021. The hearing took place on 7 February 2022. In a judgment dated 28 February 2022, the court dismissed Seriva's claim. Seriva did not appeal the decision thus the dismissal is final and binding.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

FX Derivatives Products Investigations and Litigation

Deutsche Bank has received requests for information from certain regulators in connection with its internal investigation into the historical sales of certain FX derivatives products with a limited number of clients. Deutsche Bank is providing information to and otherwise cooperating with its regulators. Separately, on 30 September 2021, Deutsche Bank was served with a claim that was filed in the High Courts of England and Wales by four companies within the Palladium Hotels Group ("**PHG**"). PHG are claiming restitution or damages for alleged losses estimated at € 500 million in respect of FX derivatives trades entered into with Deutsche Bank between 2014 and 2019. They allege that Deutsche Bank made negligent misrepresentations, misstatements and/or breached a duty of care to PHG in relation to the trades. It is also alleged that one of the four PHG claimants lacked legal capacity to enter into some of the trades. On 17 December 2021, Deutsche Bank filed a defense disputing the claim on the following grounds: that PHG is a sophisticated investor with extensive experience of using derivatives, that Deutsche Bank did not act as either an advisor or fiduciary to PHG, that the trades reflected PHG's own trading strategy and commercial objectives and were carried out with PHG's full authorization, that there were no misrepresentations, that the relevant PHG claimant had capacity to enter into these trades, and that PHG well understood both the potential benefits and risks involved. On 1 April 2022, PHG filed their reply to Deutsche Bank's defense. A case management conference procedural hearing took place on 14 November 2022, where the Court made an order, timetabling the proceedings to trial, which is expected to commence in early 2025.

FX Investigations and Litigations

Deutsche Bank has received requests for information from certain regulatory and law enforcement agencies globally who investigated trading in, and various other aspects of, the foreign exchange market. Deutsche Bank cooperated with these investigations. Relatedly, Deutsche Bank has conducted its own internal global review of foreign exchange trading and other aspects of its foreign exchange business.

On 7 November 2018, a group of asset managers opted out of a consolidated class settlement and filed litigation on an individual basis (*Allianz, et al. v. Bank of America Corporation, et al.*). Defendants' motion to dismiss was granted and denied in part on 28 May 2020. Plaintiffs filed a third amended complaint on 28 July 2020. Fact discovery substantially concluded in 2022 and expert discovery is underway. Deutsche Bank has also been named as a defendant in an amended and consolidated class action filed in Israel. This action asserts factual allegations similar to those made in the consolidated action in the United States and seeks damages pursuant to Israeli antitrust law as well as other causes of action. This action is in preliminary stages.

On 11 November 2020, Deutsche Bank was named in an action issued in the UK High Court of Justice (Commercial Court) brought by many of the same plaintiffs who brought *Allianz, et al. v. Bank of America Corporation, et al.* referred to above. The claim is based upon factual allegations similar to those made in

Allianz, et al. v. Bank of America Corporation, et al. On 4 March 2022, the High Court ordered that the proceedings be transferred to the UK Competition Appeal Tribunal. The proceedings are at the pleadings stage. Deutsche Bank has reached an agreement in principle to resolve the *Allianz* proceedings in the US and UK.

On 4 May 2021, Deutsche Bank S.A. – Banco Alemao was named in a civil antitrust action brought in the São Paulo Civil Court of Central Jurisdiction by the Association of Brazilian Exporters ("**AEB**") against certain FX dealers and affiliated financial institutions in Brazil. This action asserts factual allegations based on conduct investigated by the Brazilian antitrust enforcement agency ("**CADE**") and seeks damages pursuant to Brazilian antitrust law. On 22 February 2022, the presiding judge dismissed the action on the basis that the action was not appropriate for a class proceeding. AEB has appealed the decision. Deutsche Bank has not yet been served.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

<u>Interbank and Dealer Offered Rates Matters</u>

Regulatory and Law Enforcement Matters

Deutsche Bank has responded to requests for information from, and cooperated with, various regulatory and law enforcement agencies, in connection with industry-wide investigations concerning the setting of the London Interbank Offered Rate ("**LIBOR**"), Euro Interbank Offered Rate ("**EURIBOR**"), Tokyo Interbank Offered Rate ("**TIBOR**") and other interbank and/or dealer offered rates.

From 2013 through 2017, Deutsche Bank entered into settlements with the European Commission, the U.S. Department of Justice ("**DOJ**"), the U.S. Commodity Futures Trading Commission ("**CFTC**"), the UK Financial Conduct Authority ("**FCA**"), the DFS and other regulators with respect to interbank and dealer offered rates matters. Other investigations of Deutsche Bank concerning the setting of various interbank and/or dealer offered rates remain ongoing.

The Group has not disclosed whether it has established a provision or contingent liability with respect to the remaining investigations because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

Overview of Civil Litigations

Deutsche Bank is party to 7 U.S. civil actions concerning alleged manipulation relating to the setting of various interbank and/or dealer offered rates which are described in the following paragraphs, as well as actions pending in each of the UK, Israel, Argentina and Spain. Most of the civil actions, including putative class actions, are pending in the U.S. District Court for the Southern District of New York ("**SDNY**"), against Deutsche Bank and numerous other defendants. All but two of the U.S. civil actions were filed on behalf of parties who allege losses as a result of manipulation relating to the setting of U.S. dollar LIBOR. The two U.S. civil actions pending against Deutsche Bank that do not relate to U.S. dollar LIBOR were also filed in the SDNY, and include one consolidated action concerning Pound Sterling ("**GBP**") LIBOR and one action concerning Swiss franc ("**CHF**") LIBOR.

Claims for damages for all 7 of the U.S. civil actions discussed have been asserted under various legal theories, including violations of the U.S. Commodity Exchange Act, federal and state antitrust laws, the U.S. Racketeer Influenced and Corrupt Organizations Act, and other federal and state laws. The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

U.S. dollar LIBOR

With one exception, all of the U.S. civil actions concerning U.S. dollar LIBOR are being coordinated as part of a multidistrict litigation (the "**U.S. dollar LIBOR MDL**") in the SDNY. In light of the large number of individual cases pending against Deutsche Bank and their similarity, the civil actions included in the U.S. dollar LIBOR MDL are now subsumed under the following general description of the litigation pertaining to all such actions, without disclosure of individual actions except when the circumstances or the resolution of an individual case is material to Deutsche Bank.

Following a series of decisions in the U.S. dollar LIBOR MDL between March 2013 and March 2019 narrowing their claims, plaintiffs are currently asserting antitrust claims, claims under the U.S. Commodity Exchange Act and U.S. Securities Exchange Act and state law fraud, contract, unjust enrichment and other tort claims. The court has also issued decisions dismissing certain plaintiffs' claims for lack of personal jurisdiction and on statute of limitations grounds.

On 20 December 2016, the district court issued a ruling dismissing certain antitrust claims while allowing others to proceed. Multiple plaintiffs have filed appeals of the district court's 20 December 2016 ruling to the U.S. Court of Appeals for the Second Circuit, and those appeals proceeded in parallel with the ongoing proceedings in the district court. On 30 December 2021, the Second Circuit affirmed the district court's decision on antitrust standing grounds but reversed the court's decision on personal jurisdiction grounds, and it remanded the cases to the district court for further proceedings. On 9 March 2022, defendants (including Deutsche Bank) filed a petition for a writ of certiorari to the U.S. Supreme Court to review the Court of Appeals' 30 December 2021 decision. The U.S. Supreme Court denied defendants' petition on 21 June 2022.

On 13 December 2022, plaintiff in a formerly stayed class action pending as part of the U.S. dollar LIBOR MDL (*Guaranty Bank & Trust Co. v. Credit Suisse Group AG, et al.*) filed a notice of voluntary dismissal, dismissing its case in its entirety. The court terminated the plaintiff from the MDL on 14 December 2022.

On 11 January 2023, Deutsche Bank and the plaintiff in a non-class action pending as part of the U.S. dollar LIBOR MDL (*City of Houston* v. *Bank of America Corp., et al.*) stipulated to the dismissal of plaintiff's claims against Deutsche Bank. The court dismissed the plaintiff's claims on 12 January 2023. On 11 January 2023, Deutsche Bank and the plaintiffs in ten consolidated non-class actions pending as part of the U.S. dollar LIBOR MDL (*The Regents of the University of California* v. *Bank of America Corp., et al.*; *City of Richmond, et al.* v. *Bank of America Corp., et al.*; *City of Riverside, et al.* v. *Bank of America Corp., et al.*; *County of Mendocino* v. *Bank of America Corp., et al.*; *County of Sacramento* v. *Bank of America Corp., et al.*; *County of San Diego* v. *Bank of America Corp., et al.*; *County of San Mateo, et al.* v. *Bank of America Corp., et al.*; *County of Sonoma, et al.* v. *Bank of America Corp., et al.*; *East Bay Municipal Utility District* v. *Bank of America Corp., et al.*; and *San Diego Association of Governments* v. *Bank of America Corp., et al.*) stipulated to the dismissal of plaintiffs' claims against Deutsche Bank. The court dismissed the plaintiffs' claims on 12 January 2023.

On 17 January 2023, plaintiff in a formerly stayed non-class action pending as part of the U.S. dollar LIBOR MDL (*George Maragos v. Bank of America Corp., et al.*) filed a notice of voluntary dismissal, dismissing its case in its entirety.

In August 2020, plaintiffs filed a non-class action in the U.S. District Court for the Northern District of California against several financial institutions, alleging that U.S. dollar LIBOR has been suppressed through the present. On 10 November 2020, plaintiffs moved the court for a preliminary and permanent injunction. On 11 November 2020, certain defendants moved to transfer the action to the SDNY; briefing of that motion is complete. On 24 May 2021, plaintiffs filed a motion for an order to show cause why the court should not order plaintiffs' previously requested injunction. Defendants moved to strike the motion. On 3 June 2021, the court issued an order (i) denying defendants' motion to transfer the action to the SDNY, (ii) denying defendants' motion to strike plaintiffs' 24 May 2021 motion and (iii) setting a hearing for the injunction motions for 9 September 2021. On 9 September 2021, the court held a hearing on the injunction motions and tentatively denied the motions. On 23 December 2021, the court issued a written decision denying the injunction motions. On 13 September 2022, the court granted the defendants' motion to dismiss, but granted plaintiffs leave to amend. On 5 October 2022, plaintiffs filed an amended complaint. Defendants filed a motion to dismiss the amended complaint on 4 November 2022, which remains pending.This action is not part of the U.S. dollar LIBOR MDL.

There is a further UK civil action regarding U.S. dollar LIBOR brought by the U.S. Federal Deposit Insurance Corporation ("**FDIC**") acting as receiver for 19 failed financial institutions headquartered in the U.S., in which a claim for damages has been asserted pursuant to Art. 101 of the Treaty on the Functioning of the European Union, Sec. 2 of Chapter 1 of the UK Competition Act 1998 and U.S. state laws. In February 2022, following a ruling issued by the U.S. Court of Appeals for the Second Circuit in relation to USD LIBOR antitrust claims, the UK LIBOR proceedings were stayed until 31 July 2022, to allow for clarification of the position in relation to the parallel proceedings brought by the FDIC against Deutsche Bank in the U.S. The FDIC filed an application to reinstate proceedings in the United States on 18 July 2022. Following the expiration of the UK stay, at a case management conference that took place in December 2022, the UK court ordered a trial of a sample of three of the failed financial institutions. This 'sample bank' trial has been listed for a 19-week trial in February 2026. On 28 December 2022, the SDNY granted the FDIC's application to reinstate certain of its claims against Deutsche Bank (and the other foreign defendants) in the U.S. to the extent these claims survived a motion to dismiss on the merits and subject to defendants' reservation of rights to dispute the claims in the future.

A further class action regarding LIBOR has been filed in Argentina seeking damages for losses allegedly suffered by holders of Argentine bonds with interest rates based on LIBOR. Deutsche Bank is defending this action.

SIBOR and SOR

A putative class action alleging manipulation of the Singapore Interbank Offered Rate (SIBOR) and Swap Offer Rate (SOR) remains pending. On 26 July 2019, the SDNY granted defendants' motion to dismiss the action, dismissing all claims against Deutsche Bank, and denied plaintiff's motion for leave to file a fourth amended complaint. Plaintiff appealed that decision to the U.S. Court of Appeals for the Second Circuit. On 17 March 2021, the court reversed the SDNY's decision and remanded the case to the district court. On 1 October 2021, defendants (including Deutsche Bank) filed a petition for a writ of certiorari to the U.S. Supreme Court to review the Court of Appeals' 17 March 2021 decision. The petition was denied on 10 January 2022. On 25 October 2021, plaintiffs filed their fourth amended complaint, which defendants moved to dismiss on 24 November 2021. On 17 March 2022, Deutsche Bank executed a settlement agreement with plaintiffs in the amount of U.S.$ 11 million to resolve this action. On 9 June 2022, the court granted preliminary approval of the settlement. On 10 October 2022, plaintiffs filed a motion seeking final approval of the settlement. On 29 November 2022, the court granted final approval of the settlement. Accordingly, the action is not included in the total number of actions above. The settlement amount, which Deutsche Bank has paid, is no longer reflected in Deutsche Bank's litigation provisions.

GBP LIBOR

A putative class action alleging manipulation of the Pound Sterling (GBP) LIBOR remains pending. On 21 December 2018, the SDNY partially granted defendants' motions to dismiss the action, dismissing all claims against Deutsche Bank. Plaintiffs filed a notice of appeal; the U.S. Court of Appeals for the Second Circuit ordered that the appeal be held in abeyance pending that court's decision in the appeal of the SIBOR and SOR class action. Following that court's decision in the SIBOR and SOR class action on 17 March 2021, the appeal is moving forward. Plaintiffs filed their opening brief on 21 October 2021, and all defendants-appellees' except Deutsche Bank filed their briefs on 20 January 2022. Also on 20 January 2022, plaintiffs filed a motion for (1) severance of their appeal with respect to Deutsche Bank, (2) stay of the severed appeal as to Deutsche Bank, and (3) limited remand of that portion of the matter concerning Deutsche Bank to the district court to consider the approval of a proposed settlement between plaintiffs and Deutsche Bank. The Second Circuit granted plaintiffs' motion on 26 January 2022. On 31 March 2022, Deutsche Bank executed a settlement agreement with plaintiffs in the amount of U.S.$ 5 million to resolve this action. Plaintiffs filed a motion for preliminary approval of the settlement on 29 July 2022.

CHF LIBOR

A putative class action alleging manipulation of the Swiss Franc (CHF) LIBOR remains pending. On 16 September 2019, the SDNY granted defendants' motion to dismiss the action, dismissing all claims against Deutsche Bank. Plaintiffs filed a notice of appeal; the U.S. Court of Appeals for the Second Circuit ordered that the appeal be held in abeyance pending that court's decision in the appeal of the SIBOR and

SOR class action. Following that court's decision in the SIBOR and SOR class action on 17 March 2021, the CHF LIBOR action was remanded to the district court for further proceedings. On 18 April 2022, Deutsche Bank executed a settlement agreement with plaintiffs in the amount of U.S.$ 13 million to resolve this action. Plaintiffs filed a motion for preliminary approval of the settlement on 29 June 2022. On 23 November 2022, plaintiffs filed their third amended complaint. On 15 February 2023, the court granted preliminary approval of the settlement.

Bank Bill Swap Rate Claims

On 16 August 2016, a putative class action was filed in the U.S. District Court for the Southern District of New York against Deutsche Bank and other defendants, bringing claims based on alleged collusion and manipulation in connection with the Australian Bank Bill Swap Rate ("**BBSW**") on behalf of persons and entities that engaged in U.S.-based transactions in BBSW-linked financial instruments from 2003 through the date on which the effects of the alleged unlawful conduct ceased. The complaint alleged that the defendants, among other things, engaged in money market transactions intended to influence the BBSW fixing, made false BBSW submissions, and used their control over BBSW rules to further the alleged misconduct. On 29 April 2022, Deutsche Bank and four other defendant banks entered into a settlement agreement with plaintiffs to resolve the dispute. The court granted final approval of the settlement on 2 November 2022.

Spanish EURIBOR Claims

77 claims in Spain (incorporating at least 258 claimants) have been notified or issued in court against Deutsche Bank by claimants with mortgage loans held by banks and other financial institutions for damages resulting from alleged collusive behavior by Deutsche Bank following the European Commission decision of 4 December 2013. Of those 77 claims, 69 have quantified their alleged losses with a total value of € 1 million and 6 (one of which includes 184 potential claimants) are yet to do so. Of the 77 claims, 51 claims have commenced in court and are at varying stages of maturity, with a 35 claims having now been finally dismissed by the courts or withdrawn by the claimants, one decision pending a potential appeal and some claims stayed pending the outcome of the Trucks Cartel decision by the European Court of Justice ("**ECJ**") and/or further referrals to the ECJ. The ECJ's Trucks Cartel decision of 22 June 2022 confirmed that the limitation period for claimants to notify/issue claims in Spanish EURIBOR would expire on 30 June 2022. Accordingly, the final date for claimants to notify/issue claims has passed.

<u>Investigations into Certain Business Relationships</u>

Deutsche Bank has reached settlements with the U.S. Department of Justice ("**DOJ**") and the U.S. Securities and Exchange Commission ("**SEC**"), respectively, regarding their investigations of the Bank's compliance with the U.S. Foreign Corrupt Practices Act ("**FCPA**") and other laws with respect to the Bank's engagement of finders and consultants. On 8 January 2021, Deutsche Bank entered into a deferred prosecution agreement ("**DPA**") with the DOJ concerning its historical engagements of finders and consultants and, as part of its obligations in the DPA, agreed to pay approximately U.S.$ 80 million in connection with this conduct. On the same day, Deutsche Bank also reached a settlement with the SEC to resolve its investigation into conduct regarding the Bank's compliance with the FCPA with respect to the Bank's engagement of finders and consultants. The Bank agreed to pay approximately U.S.$ 43 million in this SEC settlement. On 28 February 2022, following a finding by the DOJ that the Bank violated the 2021 DPA based on untimely reporting by the Bank of certain allegations relating to environmental, social and governance ("**ESG**")-related information at the Bank's subsidiary DWS Group GmbH & Co. KGaA, the Bank agreed with the DOJ to extend an existing monitorship and abide by the terms of a prior DPA until February 2023 to allow the monitor to certify to the Bank's implementation of the related internal controls. The DOJ has reserved all rights to take further action regarding the 2021 DPA if it deems necessary.

<u>Jeffrey Epstein Investigations and Litigation</u>

Deutsche Bank has received requests for information from regulatory and law enforcement agencies concerning the Bank's former client relationship with Jeffrey Epstein (individually, and through related parties and entities). In December 2018, Deutsche Bank began the process to terminate its relationship with Epstein, which began in August 2013. Deutsche Bank has provided information to and otherwise cooperated with the investigating agencies. The Bank has also completed an internal investigation into the Epstein relationship.

As mentioned above, on 7 July 2020, the New York State Department of Financial Services ("**DFS**") issued a Consent Order, finding that Deutsche Bank violated New York State banking laws in connection with its relationships with three former Deutsche Bank clients, Danske Bank's Estonia branch, Jeffrey Epstein and FBME Bank, and imposing a U.S.$ 150 million civil penalty in connection with these three former relationships, which Deutsche Bank paid in the third quarter of 2020. Also as mentioned above, Deutsche Bank was also named as a defendant in a securities class action pending in the U.S. District Court for the Southern District of New York ("**SDNY**") that included allegations relating to the Bank's relationship with Jeffrey Epstein and other entities. Deutsche Bank executed a settlement agreement in that lawsuit, which the Court approved in an order dated 6 February 2023.

The Group has not established a provision or contingent liability with respect to the Jeffrey Epstein investigations. The remaining investigations relating to Jeffrey Epstein are understood to be ongoing.

On 24 November 2022, Deutsche Bank was named as a defendant in a putative class action complaint filed in the U.S. District Court for the Southern District of New York ("**SDNY**") by an unnamed alleged sex trafficking victim of Jeffrey Epstein ("**Epstein**"), alleging claims against Deutsche Bank under the Trafficking Victims Protection Act ("**TVPA**"), Racketeer Influenced and Corrupt Organizations Act ("**RICO**") and New York state law in connection with the bank's provision of banking services to Epstein between August 2013 and December 2018. The lawsuit cites allegations regarding control deficiencies raised in the DFS Consent Order related to the bank's relationship with Jeffrey Epstein. Deutsche Bank filed a motion to dismiss the complaint on 30 December 2022. On 13 January 2023, the plaintiff filed an amended complaint. On 7 February 2023, Deutsche Bank filed a motion to dismiss the amended complaint. On 20 March 2023, the Court issued an order granting in part and denying in part Deutsche Bank's motion to dismiss. The case is currently in discovery, and trial is scheduled to begin on 5 September 2023.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this litigation because it has concluded that such disclosure can be expected to prejudice seriously the outcome.

KOSPI Index Unwind Matters

Following the decline of the Korea Composite Stock Price Index 200 (the "**KOSPI 200**") in the closing auction on 11 November 2010 by approximately 2.7 %, the Korean Financial Supervisory Service ("**FSS**") commenced an investigation and expressed concerns that the fall in the KOSPI 200 was attributable to a sale by Deutsche Bank of a basket of stocks, worth approximately € 1.6 billion, that was held as part of an index arbitrage position on the KOSPI 200. On 23 February 2011, the Korean Financial Services Commission, which oversees the work of the FSS, reviewed the FSS' findings and recommendations and resolved to take the following actions: (i) to file a criminal complaint to the Korean Prosecutor's Office for alleged market manipulation against five employees of Deutsche Bank group and Deutsche Bank's subsidiary Deutsche Securities Korea Co. ("**DSK**") for vicarious corporate criminal liability; and (ii) to impose a suspension of six months, commencing 1 April 2011 and ending 30 September 2011, of DSK's business for proprietary trading of cash equities and listed derivatives and DMA (direct market access) cash equities trading, and the requirement that DSK suspend the employment of one named employee for six months. On 19 August 2011, the Korean Prosecutor's Office announced its decision to indict DSK and four employees of Deutsche Bank group on charges of spot/futures-linked market manipulation. The criminal trial commenced in January 2012. On 25 January 2016, the Seoul Central District Court rendered guilty verdicts against a DSK trader and DSK. A criminal fine of KRW 1.5 billion (less than € 2.0 million) was imposed on DSK. The Court also ordered forfeiture of the profits generated on the underlying trading activity. The Group disgorged the profits on the underlying trading activity in 2011. The criminal trial verdicts against both the DSK trader and against DSK were overturned on appeal in a decision rendered by the Seoul High Court on 12 December 2018. The Korean Prosecutor's Office has appealed the Seoul High Court decision.

In addition, a number of civil actions have been filed in Korean courts against Deutsche Bank and DSK by certain parties who allege they incurred losses as a consequence of the fall in the KOSPI 200 on 11 November 2010. First instance court decisions were rendered against the Bank and DSK in some of these cases starting in the fourth quarter of 2015. The one outstanding claim known to Deutsche Bank is for an amount of approximately € 50 million (at present exchange rates).

<u>Monte Dei Paschi</u>

In March 2013, Banca Monte dei Paschi di Siena ("**MPS**") initiated civil proceedings in Italy against Deutsche Bank alleging that Deutsche Bank assisted former MPS senior management in an accounting fraud on MPS, by undertaking repo transactions with MPS and "Santorini", a wholly owned special-purpose vehicle of MPS, which helped MPS defer losses on a previous transaction undertaken with Deutsche Bank. Subsequently, in July 2013, the Fondazione Monte dei Paschi di Siena ("**FMPS**"), MPS' largest shareholder, also commenced civil proceedings in Italy for damages based on substantially the same facts. In December 2013, Deutsche Bank reached an agreement with MPS to settle the civil proceedings and the transactions were unwound. The civil proceedings initiated by FMPS, in which damages of between € 220 million and € 381 million were claimed, were also settled in December 2018 upon payment by Deutsche Bank of € 17.5 million. FMPS's separate claim filed in July 2014 against FMPS's former administrators and a syndicate of 12 banks including Deutsche Bank S.p.A. for € 286 million has been settled and on 26 July 2022, the Court in Florence ended the proceedings. The impact of this settlement on Deutsche Bank was not material.

A criminal investigation was launched by the Siena Public Prosecutor into the transactions entered into by MPS with Deutsche Bank and certain unrelated transactions entered into by MPS with other parties. Such investigation was moved in summer 2014 from Siena to the Milan Public Prosecutors as a result of a change in the alleged charges being investigated. On 16 February 2016, the Milan Public Prosecutors issued a request of committal to trial against Deutsche Bank and six current and former employees. The committal process concluded with a hearing on 1 October 2016, during which the Milan court committed all defendants in the criminal proceedings to trial. Deutsche Bank's potential exposure was for administrative liability under Italian Legislative Decree n. 231/2001 and for civil vicarious liability as an employer of current and former Deutsche Bank employees who are being criminally prosecuted.

On 8 November 2019, the Milan court issued its verdicts, finding five former employees and one current employee of Deutsche Bank guilty and sentencing them to either 3 years and 6 months or 4 years and 8 months. Deutsche Bank was found liable under Italian Legislative Decree n. 231/2001 and the court ordered the seizure of alleged profits of € 64.9 million and a fine of € 3 million. The Court also found Deutsche Bank had civil vicarious liability for damages (to be quantified by the civil court) as an employer of the current and former employees who were convicted. The sentences and fines were not due until the conclusion of any appeal process. The final judgment was issued by the Court on 13 May 2020. Deutsche Bank and the six former or current employees filed an appeal to the Milan Court of Appeal on 22 September 2020. The Milan Court of Appeal heard the appeal between 2 December 2021 and 31 March 2022. On 6 May 2022, the Milan Court of Appeal delivered the second instance verdict by which they acquitted all the Deutsche Bank defendants from all the charges, found Deutsche bank not liable under Italian Legislative Decree n. 231/2001, revoked the confiscation of € 64.9 million and the fine of € 3 million ordered against Deutsche Bank, and revoked the finding of civil vicarious liability for damages. The Milan Court of Appeal published its written reasons on 3 October 2022 and the Public Prosecutor filed an appeal against the Milan Court of Appeal verdicts before the Supreme Court on 16 November 2022. The hearing of the Supreme Court has not been scheduled yet.

On 22 May 2018, CONSOB, the authority responsible for regulating the Italian financial markets, issued fines of € 100,000 each against the six current and former employees of Deutsche Bank who are defendants in the criminal proceedings. The six individuals were also banned from performing management functions in Italy and for Italian based institutions for three to six months each. No separate fine or sanction was imposed on Deutsche Bank but it is jointly and severally liable for the six current/former Deutsche Bank employees' fines. On 14 June 2018, Deutsche Bank and the six individuals filed an appeal in the Milan Court of Appeal challenging CONSOB's decision and one of the individuals sought a stay of enforcement of the fine against that individual. The stay was granted on 21 July 2018. On 17 December 2020, the Milan Court of Appeal allowed the appeals filed by Deutsche Bank and the six current and former employees and annulled the resolution sanctioning them. CONSOB filed an appeal to the Supreme Court against the decision on 17 June 2021. Deutsche Bank and the six individuals have opposed the appeal.

Mortgage-Related and Asset-Backed Securities Matters and Investigation

Issuer and Underwriter Civil Litigation

Deutsche Bank has been named as defendant in numerous civil litigations brought by private parties in connection with its various roles, including issuer or underwriter, in offerings of residential mortgage-backed securities ("**RMBS**") and other asset-backed securities. These cases, described below, allege that the offering documents contained material misrepresentations and omissions, including with regard to the underwriting standards pursuant to which the underlying mortgage loans were issued, or assert that various representations or warranties relating to the loans were breached at the time of origination. The Group has recorded provisions with respect to several of these civil cases, but has not recorded provisions with respect to all of these matters. The Group has not disclosed the amount of these provisions because it has concluded that such disclosure can be expected to seriously prejudice the resolution of these matters.

Deutsche Bank is a defendant in a class action relating to its role as one of the underwriters of six RMBS offerings issued by Novastar Mortgage Corporation. No specific damages are alleged in the complaint. The lawsuit was brought by plaintiffs representing a class of investors who purchased certificates in those offerings. The parties reached a settlement to resolve the matter for a total of U.S.$ 165 million, a portion of which was paid by the Bank. On 30 August 2017, FHFA/Freddie Mac filed an objection to the settlement and shortly thereafter appealed the district court's denial of their request to stay settlement approval proceedings, which appeal was resolved against FHFA/Freddie Mac. The court approved the settlement on 7 March 2019 over FHFA/Freddie Mac's objections. FHFA filed its appeal on 28 June 2019, which was denied on 14 March 2022 and a subsequent petition for rehearing was denied on 2 June 2022. FHFA elected not to file a petition for certiorari in the U.S. Supreme Court, thus ending its challenge to the settlement.

Deutsche Bank is a defendant in an action related to two RMBS offerings brought by the U.S. Federal Deposit Insurance Corporation ("**FDIC**") as receiver for Citizens National Bank and Strategic Capital Bank (alleging an unspecified amount in damages against all defendants). In this action, the appellate court reinstated claims previously dismissed on statute of limitations grounds and petitions for rehearing and certiorari to the U.S. Supreme Court were denied. On 31 July 2017, the FDIC filed a second amended complaint, which defendants moved to dismiss on 14 September 2017. On 18 October 2019, defendants' motion to dismiss was denied. On 13 May 2022, the FDIC voluntarily dismissed its claim with respect to one of the RMBS offerings and Deutsche Bank filed a motion for summary judgment seeking dismissal of the remaining claim. Deutsche Bank's motion has been fully briefed as of 8 July 2022. Discovery is stayed pending resolution of Deutsche Bank's motion.

In June 2014, HSBC, as trustee, brought an action in New York state court against Deutsche Bank to revive a prior action, alleging that Deutsche Bank failed to repurchase mortgage loans in the ACE Securities Corp. 2006-SL2 RMBS offering. The revival action was stayed during the pendency of an appeal of the dismissal of a separate action wherein HSBC, as trustee, brought an action against Deutsche Bank alleging breaches of representations and warranties made by Deutsche Bank concerning the mortgage loans in the same offering. On 29 March 2016, the court dismissed the revival action. Plaintiff appealed and on 19 November 2019, the appellate court affirmed the dismissal. On 19 December 2019, plaintiff filed a motion to appeal to the New York Court of Appeals in the appeals court, which was denied on 13 February 2020. On 16 March 2020, plaintiff petitioned the New York Court of Appeals for leave to appeal, which was granted on 1 September 2020. The Court of Appeals heard argument on 19 May 2022 and affirmed the dismissal of the action on 16 June 2022.

Deutsche Bank is a defendant in cases concerning two RMBS trusts that were brought initially by RMBS investors and subsequently by HSBC, as trustee, in New York state court. The cases allege breaches of loan-level representations and warranties in the ACE Securities Corp. 2006-FM1 and ACE Securities Corp. 2007-ASAP1 RMBS offerings, respectively. Both cases were dismissed on statute of limitations grounds by the trial court on 28 March 2018. Plaintiff appealed the dismissals. On 25 April 2019, the First Department affirmed the dismissals on claims for breach of representations and warranties and for breach of the implied covenant of good faith and fair dealing, but reversed the denial of the motions for leave to file amended complaints alleging failure to notify the trustee of alleged representations and warranty breaches. HSBC filed amended complaints on 30 April 2019, and Deutsche Bank filed its answers on 3 June 2019. Discovery is ongoing. On 25 October 2019, plaintiffs filed two complaints (one by HSBC and one by a certificateholder) seeking to revive, under Sec. 205(a) of the New York Civil Practice Law and Rules, the breach of representations and warranties claims as to which dismissal was affirmed in the case concerning ACE 2006-FM1. On 16 December 2019, Deutsche Bank moved to dismiss these actions. On 2 July 2022, the Court granted the motion to dismiss the certificateholder action. Plaintiff appealed to the First Department on 4 August 2022, and the appeal remains outstanding. On 4 October 2022, the Court dismissed the HSBC action in light of the Court of Appeals' decision in the SL2 case described above. On 7 November 2022, plaintiff filed an appeal that remains pending.

In the actions against Deutsche Bank solely as an underwriter of other issuers' RMBS offerings, Deutsche Bank has contractual rights to indemnification from the issuers, but those indemnity rights may in whole or in part prove effectively unenforceable where the issuers are now or may in the future be in bankruptcy or otherwise defunct.

Trustee Civil Litigation

Deutsche Bank National Trust Company ("**DBNTC**") and Deutsche Bank Trust Company Americas ("**DBTCA**") (collectively, the "**Trustees**") are defendants in three separate civil lawsuits, and DBNTC is a defendant in a fourth civil lawsuit, brought by investors concerning the Trustees' role as trustees of certain RMBS trusts. The actions generally allege claims for breach of contract, breach of fiduciary duty, breach of the duty to avoid conflicts of interest, negligence and/or violations of the U.S. Trust Indenture Act of 1939, based on the Trustees' alleged failure to perform adequately certain obligations and/or duties as trustee for the trusts.

The four lawsuits include actions by (a) the National Credit Union Administration Board ("**NCUA**"), as an investor in 18 trusts that allegedly suffered total realised collateral losses of more than U.S.$ 3.7 billion; (b) certain CDOs (collectively, "**Phoenix Light**") as investors in 43 RMBS trusts, and seeking "hundreds of millions of dollars in damages"; (c) Commerzbank AG, as an investor in 50 RMBS trusts, seeking "hundreds of millions of dollars in losses"; and (d) IKB International, S.A. in Liquidation and IKB Deutsche Industriebank A.G. (collectively, "**IKB**"), as an investor in 17 RMBS trusts, originally seeking more than U.S.$ 268 million of damages before IKB voluntarily discontinued its claims as to certain RMBS certificates. In the NCUA case, DBNTC's motion to dismiss the amended complaint was granted in part and denied in part, dismissing NCUA's tort claims but preserving its breach-of-contract claims. Both parties filed motions for partial summary judgment and those motions are fully briefed and pending before the court. On 8 February 2022, the court in the Phoenix Light case granted DBNTC's and DBTCA's motion for summary judgment, denied Phoenix Light's motion for summary judgment, and dismissed the action. On 10 March 2022, Phoenix Light filed a notice of appeal with respect to the court's orders on the motions to dismiss and for summary judgment. That appeal is fully briefed and pending oral argument. On 8 February 2022, the court in the Commerzbank case granted in part and denied in part DBNTC's and DBTCA's motion for summary judgment, dismissing all of the tort claims and dismissing the breach of contract claim relating to certain of the trusts, and denied Commerzbank's motion for summary judgment in its entirety. Discovery is ongoing. On 27 January 2021, the court in the IKB case granted in part and denied in part the Trustees' motion to dismiss, dismissing certain of IKB's claims but allowing certain of its breach of contract and tort claims to go forward; on 10 May 2021, the Trustees filed a notice of appeal regarding certain aspects of that order and, on 20 May 2021, IKB filed a notice of cross-appeal with respect to other aspects of that order. On 30 August 2022, the New York Supreme Court, Appellate Division, First Department, affirmed in part and reversed in part the trial court's order on the motion to dismiss. On 30 September 2022, DBNTC and DBTCA filed a motion for leave to appeal the decision to the Court of Appeals, and on that same day, IKB filed a motion for reargument or for leave to appeal to the New York Court of Appeals, as to certain aspects of the First Department's decision. On 10 November 2022, the First Department granted DBNTC's and DBTCA's motion for leave to appeal to the Court of Appeals, denied IKB's motion for reargument, and denied as moot IKB's motion for leave to appeal to the Court of Appeals. DBNTC's and DBTCA's appeal is currently being briefed. Discovery is ongoing.

The Group has established contingent liabilities with respect to certain of these matters, but the Group has not disclosed the amounts because it has concluded that such disclosure can be expected to seriously prejudice the outcome of these matters.

Off-Channel Communications Investigations.

On 27 September 2022, the U.S. Securities and Exchange Commission ("**SEC**") and the U.S. Commodity Futures Trading Commission ("**CFTC**") announced resolutions with multiple financial institutions including Deutsche Bank AG and its subsidiaries Deutsche Bank Securities Inc. ("**DBSI**"), DWS Investment Management Americas, Inc. ("**DIMA**") and DWS Distributors, Inc. ("**DDI**" and, together with DIMA, "**DWS**"), with respect to industry-wide investigations regarding compliance with record retention requirements applicable to broker-dealer firms, investment advisers, swap dealers, and futures commission merchants. The SEC and CFTC found that Deutsche Bank, DBSI and DWS, as applicable, did not maintain certain electronic communications required to be maintained pursuant to their respective record retention obligations because the communications were sent or received by employees over unapproved electronic messaging channels from personal devices. The SEC and CFTC also found related supervisory failures. Under these resolutions, DBSI and DWS paid a U.S.$ 125 million civil monetary penalty to the SEC, and Deutsche Bank and DBSI paid a U.S.$ 75 million civil monetary penalty to the CFTC. As part of the resolutions, Deutsche Bank, DBSI and DWS have hired a compliance consultant to conduct a review of relevant policies and procedures, trainings, surveillance measures, technological solutions, and disciplinary framework, and submit a report to the SEC and CFTC with findings and recommendations.

Polish Mortgage Matters

Starting in 2016, certain clients of Deutsche Bank Polska S.A. have reached out to Deutsche Bank Polska S.A. alleging that their mortgage loan agreements in foreign currency include unfair clauses and are invalid. These clients have demanded reimbursement of the alleged overpayments under such agreements totaling over € 384 million with more than 3,000 civil claims having been commenced in Polish courts. This type of cases is an industry wide issue in Poland and other banks are facing similar claims. Deutsche Bank Polska S.A. has and will take necessary legal actions to defend itself and challenge such claims in courts.

The Group has established a portfolio provision to cover potential losses from the existing and potential litigation related to mortgage loans in foreign currency. The amount of the portfolio provision is approximately € 283 million and may be subject to future changes in estimate depending in particular on the jurisprudence of local courts as well as the Court of Justice of European Union.

Postbank Voluntary Public Takeover Offer

On 12 September 2010, Deutsche Bank announced the decision to make a voluntary takeover offer for the acquisition of all shares in Deutsche Postbank AG ("**Postbank**"). On 7 October 2010, the Bank published its official takeover offer and offered Postbank shareholders a consideration of € 25 for each Postbank share. This offer was accepted for a total of approximately 48.2 million Postbank shares.

In November 2010, a former shareholder of Postbank, Effecten-Spiegel AG, which had accepted the takeover offer, brought a claim against Deutsche Bank alleging that the offer price was too low and was not determined in accordance with the applicable German laws. The plaintiff alleges that Deutsche Bank had been obliged to make a mandatory takeover offer for all shares in Postbank, at the latest, in 2009 as the voting rights of Deutsche Post AG in Postbank had to be attributed to Deutsche Bank pursuant to Sec. 30 of the German Takeover Act. Based thereon, the plaintiff alleges that the consideration offered by Deutsche Bank for the shares in Postbank in the 2010 voluntary takeover offer needed to be raised to € 57.25 per share.

The Regional Court Cologne (*Landgericht*) dismissed the claim in 2011 and the Cologne appellate court dismissed the appeal in 2012. The Federal Court set this judgment aside and referred the case back to the Higher Regional Court Cologne to take evidence on certain allegations of the plaintiff.

Starting in 2014, additional former shareholders of Postbank, who accepted the 2010 tender offer, brought similar claims as Effecten-Spiegel AG against Deutsche Bank which are pending with the Regional Court Cologne and the Higher Regional Court of Cologne, respectively. On 20 October 2017, the Regional Court Cologne handed down a decision granting the claims in a total of 14 cases which were combined in one proceeding. The Regional Court Cologne took the view that Deutsche Bank was obliged to make a mandatory takeover offer already in 2008 so that the appropriate consideration to be offered in the takeover offer should have been € 57.25 per Postbank share (instead of € 25). The additional consideration per share owed to shareholders which have accepted the takeover offer would thus amount to € 32.25. Deutsche Bank appealed this decision and the appeal was assigned to the 13th Senate of the Higher Regional Court of Cologne, which also heard the appeal of Effecten-Spiegel AG.

In 2019 and 2020, the Higher Regional Court Cologne called a number of witnesses in both cases. The individuals heard included current and former board members of Deutsche Bank, Deutsche Post AG and Postbank as well as other persons involved in the Postbank transaction. In addition, the Higher Regional Court Cologne issued orders for the production of relevant transaction documents entered into between Deutsche Bank and Deutsche Post AG in 2008 and 2009. Deutsche Bank had therefore deposited the originals of these documents with the court in 2019.

On 16 December 2020, the Higher Regional Court Cologne handed down a decision and fully dismissed the claims of Effecten-Spiegel AG. Further, in a second decision handed down on 16 December 2020, the Higher Regional Court Cologne allowed the appeal of Deutsche Bank against the decision of the Regional Court Cologne dated 20 October 2017 and dismissed all related claims of the relevant plaintiffs. The Higher Regional Court Cologne has granted leave to appeal to the German Federal Court of Justice ("**BGH**") as regards both decisions and all relevant plaintiffs lodged their respective appeals with the BGH by February 2021. On 13 December 2022, the BGH announced its decision, setting aside the judgments of the Higher Regional Court of Cologne and remanding the cases back to the Higher Regional Court.

Deutsche Bank has been served with a large number of additional lawsuits filed against Deutsche Bank shortly before the end of 2017, almost all of which are now pending with the Regional Court Cologne. Some of the new plaintiffs allege that the consideration offered by Deutsche Bank AG for the shares in Postbank in the 2010 voluntary takeover should be raised to € 64.25 per share.

The claims for payment against Deutsche Bank in relation to these matters total almost € 700 million (excluding interest).

The Group has established a contingent liability with respect to these matters but the Group has not disclosed the amount of this contingent liability because it has concluded that such disclosure can be expected to seriously prejudice the outcome of these matters.

Further Proceedings Relating to the Postbank Takeover

In September 2015, former shareholders of Postbank filed in the Regional Court Cologne shareholder actions against Postbank to set aside the squeeze-out resolution taken in the shareholders meeting of Postbank in August 2015 (actions for voidance). Among other things, the plaintiffs alleged that Deutsche Bank was subject to a suspension of voting rights with respect to its shares in Postbank based on the allegation that Deutsche Bank failed to make a mandatory takeover offer. The squeeze out is final and the proceeding itself has no reversal effect, but may result in damage payments. The claimants refer to legal arguments similar to those asserted in the Effecten-Spiegel proceeding described above. In a decision on 20 October 2017, the Regional Court Cologne declared the squeeze-out resolution to be void. The court, however, did not rely on a suspension of voting rights due to an alleged failure of Deutsche Bank to make a mandatory takeover offer, but argued that Postbank violated information rights of Postbank shareholders in Postbank's shareholders meeting in August 2015. Postbank has appealed this decision. On 15 May 2020 DB Privat- und Firmenkundenbank AG (legal successor of Postbank due to a merger in 2018) was merged into Deutsche Bank AG. On 3 July 2020 Deutsche Bank AG withdrew the appeal as regards the actions for voidance because efforts and costs to pursue this appeal became disproportionate to the minor remaining economic importance of the case considering that the 2015 squeeze-out cannot be reversed. As a consequence, the first instance judgment which found that Postbank violated the information rights of its shareholders in the shareholders' meeting became final.

The legal question of whether Deutsche Bank had been obliged to make a mandatory takeover offer for all Postbank shares prior to its 2010 voluntary takeover may also impact two pending appraisal proceedings (*Spruchverfahren*). These proceedings were initiated by former Postbank shareholders with the aim to increase the cash compensation offered in connection with the squeeze-out of Postbank shareholders in 2015 and the cash compensation offered and annual compensation paid in connection with the execution of a domination and profit and loss transfer agreement (*Beherrschungs- und Gewinnabführungsvertrag*) between DB Finanz-Holding AG (now DB Beteiligungs-Holding GmbH) and Postbank in 2012.

The applicants in the appraisal proceedings claim that a potential obligation of Deutsche Bank to make a mandatory takeover offer for Postbank at an offer price of € 57.25 should be decisive when determining the adequate cash compensation in the appraisal proceedings. The Regional Court Cologne had originally followed this legal view of the applicants in two resolutions. In a decision dated June 2019, the Regional Court Cologne expressly gave up this legal view in the appraisal proceedings in connection with execution of a domination and profit and loss transfer agreement. According to this decision, the question whether Deutsche Bank was obliged to make a mandatory offer for all Postbank shares prior to its voluntary takeover offer in 2010 shall not be relevant for determining the appropriate cash compensation. It is likely that the Regional Court Cologne will take the same legal position in the appraisal proceedings in connection with the squeeze-out. On 1 October 2020, the Regional Court Cologne handed down a decision in the appraisal proceeding concerning the domination and profit and loss transfer agreement (dated 5 December 2012) according to which the annual compensation pursuant to Sec. 304 of the German Stock Corporation Act (*jährliche Ausgleichszahlung*) shall be increased by € 0.12 to € 1.78 per Postbank share and the settlement amount pursuant to Sec. 305 of the German Stock Corporation Act (*Abfindungsbetrag*) shall be increased by € 4.56 to € 29.74 per Postbank share. The increase of the settlement amount is of relevance for approximately 492,000 former Postbank shares whereas the increase of the annual compensation is of relevance for approximately 7 million former Postbank shares. Deutsche Bank as well as the applicants have lodged an appeal against this decision.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this matter because it has concluded that such disclosure can be expected to seriously prejudice its outcome.

Precious Metals Investigations and Litigations

Deutsche Bank received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to investigations of precious metals trading and related conduct. Deutsche Bank has cooperated with these investigations. On 29 January 2018, Deutsche Bank entered into a U.S.$ 30 million settlement with the U.S. Commodity Futures Trading Commission ("**CFTC**") concerning spoofing, and manipulation and attempted manipulation in precious metals futures and of stop loss orders. On 8 January 2021, Deutsche Bank entered into a deferred prosecution agreement with the U.S. Department of Justice concerning spoofing and the Foreign Corrupt Practices Act ("**FCPA**") conduct. As part of its obligations in the deferred prosecution agreement, Deutsche Bank agreed to pay approximately U.S.$ 8 million, of which approximately U.S.$ 6 million would be credited by virtue of the aforementioned CFTC resolution.

Deutsche Bank was a defendant in two consolidated class action lawsuits pending in the U.S. District Court for the Southern District of New York. The suits allege violations of U.S. antitrust law, the U.S. Commodity Exchange Act and related state law arising out of the alleged manipulation of gold and silver prices through participation in the Gold and Silver Fixes. Deutsche Bank previously settled the silver action and has reached an agreement to settle the gold action for U.S.$ 60 million, and the court granted final approval to the settlement on 4 May 2022.

Pre-Release ADRs

Deutsche Bank and certain affiliates have received inquiries from certain European regulatory, tax and law enforcement authorities, including requests for documents and information, with respect to American Depositary Receipts (ADRs), including ADRs that have been issued on a "pre-release" basis ("**pre-release ADRs**"). Deutsche Bank is cooperating with these inquiries.

Russia/UK Equities Trading Investigation

Deutsche Bank has investigated the circumstances around equity trades entered into by certain clients with Deutsche Bank in Moscow and London. The total volume of transactions reviewed is significant. Deutsche Bank's internal investigation of potential violations of law, regulation and policy and into the related internal control environment has concluded, and Deutsche Bank has assessed the findings identified during the investigation; to date it has identified certain violations of Deutsche Bank's policies and deficiencies in Deutsche Bank's control environment. Deutsche Bank has advised regulators and law enforcement authorities in several jurisdictions (including Germany, Russia, the UK and the United States) of this investigation. Deutsche Bank has taken disciplinary measures with regards to certain individuals in this matter.

On 30 January 2017, the DFS and the FCA announced settlements with the Bank related to their investigations into this matter. The settlements conclude the DFS's and the FCA's investigations into the Bank's AML control function in its investment banking division, including in relation to the equity trading described above. Under the terms of the settlement agreement the DFS issued a Consent Order pursuant to which Deutsche Bank agreed to pay a civil monetary penalty of U.S.$ 425 million and to engage an independent monitor for a term of up to two years. Under the terms of the settlement agreement with the FCA, Deutsche Bank agreed to pay a civil monetary penalty of approximately GBP 163 million.

On 30 May 2017, the Federal Reserve announced its settlement with the Bank resolving this matter as well as additional AML issues identified by the Federal Reserve. Deutsche Bank paid a penalty of U.S.$ 41 million. Deutsche Bank also agreed to retain independent third parties to assess its Bank Secrecy Act/AML program and review certain foreign correspondent banking activity of its subsidiary Deutsche Bank Trust Company Americas. The Bank was also required to submit written remediation plans is conducting ongoing remediation.

Deutsche Bank continues to cooperate with regulators and law enforcement authorities, including the DOJ which has its own investigation into these securities trades that is understood to be ongoing. The Group has recorded a provision with respect to the remaining investigation. The Group has not disclosed the amount of this provision because it has concluded that such disclosure can be expected to seriously prejudice the outcome of this matter.

Sovereign, Supranational and Agency Bonds (SSA) Investigations and Litigations

Deutsche Bank has received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to SSA bond trading. Deutsche Bank is cooperating with these investigations.

On 6 December 2022, the European Commission sent a Statement of Objections to Deutsche Bank regarding a potential breach of EU antitrust rules in relation to secondary market trading of Euro-denominated SSA bonds, Sovereign bonds, Covered bonds, and Government guaranteed bonds. Deutsche Bank proactively cooperated with the European Commission in this matter and as a result was granted immunity. The sending of a Statement of Objections is a step in the European Commission's investigation and does not prejudge the outcome of the investigation, which is ongoing.

Deutsche Bank is a defendant in a putative class action filed on 9 December 2022 in the U.S. District Court for the Southern District of New York by alleged direct market participants claiming a violation of antitrust law related to alleged manipulation of the secondary trading market for Euro-denominated Sovereign bonds. The complaint seeks treble damages and attorneys' fees. The case is in the early stages.

Deutsche Bank is also a defendant in putative class actions filed on 7 November 2017 and 5 December 2017 in the Ontario Superior Court of Justice and Federal Court of Canada, respectively, claiming violations of antitrust law and the common law relating to alleged manipulation of secondary trading of SSA bonds. The complaints seek compensatory and punitive damages. On 20 July 2022, Deutsche Bank entered into a national settlement agreement that would resolve the Federal SSA Claim against all Deutsche Bank defendants. The settlement agreement remains subject to approval by the Federal Court of Canada.

Deutsche Bank was named as a defendant in a consolidated putative class action filed in the U.S. District Court for the Southern District of New York alleging violations of U.S. antitrust law and a claim for unjust enrichment relating to Mexican government bond trading. In October 2019, the court granted defendants' motion to dismiss plaintiffs' consolidated amended complaint without prejudice. In December 2019, plaintiffs filed a Second Amended Complaint, which the court dismissed without prejudice on 30 November 2020. On 20 May 2021, plaintiffs filed a motion for reconsideration, which was denied on 30 March 2022. On

15 September 2022, plaintiffs-appellants noticed an appeal to the Second Circuit and filed their opening brief on 7 November 2022. Defendants-appellees' opposition was filed on 6 February 2023. On 22 January 2021, Deutsche Bank was notified that the Mexican competition authority, COFECE, reached a resolution that imposes fines against DB Mexico and two of its former traders, as well as six other financial institutions and nine other traders, for engaging in alleged monopolistic practices in the Mexican government bond secondary market. DB Mexico has appealed. The fine against DB Mexico was approximately U.S.$ 427,000.

Other than as noted above, the Group has not disclosed whether it has established provisions or contingent liabilities with respect to the matters referred to above because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

U.S. Treasury Securities Investigations

Deutsche Bank has received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to U.S. Treasuries auctions, trading, and related market activity. Deutsche Bank has cooperated with these investigations.

Deutsche Bank Securities Inc. ("**DBSI**") was a defendant in several putative class actions alleging violations of U.S. antitrust law, the U.S. Commodity Exchange Act and common law related to the alleged manipulation of the U.S. Treasury securities market. These cases have been consolidated in the Southern District of New York. On 16 November 2017, plaintiffs filed a consolidated amended complaint, which did not name DBSI as a defendant. On 11 December 2017, the court dismissed DBSI from the class action without prejudice. On 31 March 2021, the court granted the defendants' motion to dismiss. On 14 May 2021, the plaintiffs filed a second amended complaint, which also did not name DBSI as a defendant. Defendants filed a motion to dismiss this second amended complaint, which was granted on 31 March 2022. The plaintiffs filed a notice of appeal on 28 April 2022.

On 18 June 2020, the CFTC entered an order pursuant to settlement with DBSI for alleged spoofing by two Tokyo-based traders between January and December 2013. Without admitting or denying the findings or conclusions therein, Deutsche Bank consented to the entry of the order, including a civil monetary fine of U.S.$ 1.25 million.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

U.S. Treasury Spoofing Litigation

Following the Bank's settlement with the CFTC mentioned above, five separate putative class actions were filed in the Northern District of Illinois against Deutsche Bank AG and DBSI. The cases allege that Deutsche Bank and other unnamed entities participated in a scheme from January to December 2013 to spoof the market for Treasuries futures and options contracts and Eurodollar futures and options contracts. Plaintiffs filed a consolidated complaint on 13 November 2020. Deutsche Bank AG and DBSI filed a motion to dismiss on 15 January 2021; briefing on the motion to dismiss concluded on 16 April 2021. On 20 September 2021, the judge ordered supplemental briefing on the issues of standing and jurisdictional discovery. On 20 July 2022, the judge ordered limited jurisdictional discovery on the issue of standing. Jurisdictional discovery is ongoing, with the next status report due on or before 5 April 2023.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

Statement of no Significant Change in Financial Position

There has been no significant change in the financial position of Deutsche Bank Group since 31 December 2022."

VII. DOCUMENTS AVAILABLE

The text of the section "Documents Available" on page 73 of the Registration Document (as replaced by the First Supplement and the Third Supplement) is replaced by the following text:

"As long as any prospectus constituted from this Registration Document is valid, the following documents will be available in the Investor Relations section of Deutsche Bank's website (https://www.db.com/ir/index_en.htm):

(a) the current Articles of Association (with an English translation where applicable) of the Issuer;

(b) the Annual Report of the Issuer as of 31 December 2021 (English language version);

(c) the Earnings Report of the Issuer as of 31 March 2022 (English language version);

(d) the Interim Report of the Issuer as of 30 June 2022 (English language version);

(e) the Earnings Report of the Issuer as of 30 September 2022 (English language version); and

(f) the Annual Report of the Issuer as of 31 December 2022 (English language version)."

VIII. INFORMATION INCORPORATED BY REFERENCE

The text of the section "Information Incorporated by Reference" commencing on page 73 of the Registration Document (as replaced by the First Supplement and the Third Supplement) is replaced by the following text:

"The following documents which have previously been published and have been filed with the CSSF shall be incorporated by reference in, and form part of, this Registration Document (the "**Documents Incorporated by Reference**") to the extent set out in the paragraph entitled "Cross-Reference List of Documents Incorporated by Reference" below:

- the English language version of the Annual Report of the Issuer as of 31 December 2021 (http://dl.bourse.lu/dlp/10151dd6f605e647d1a95c20ad2550a7e3);

- the English language version of the Earnings Report of the Issuer as of 31 March 2022 (http://dl.bourse.lu/dlp/10b28cad8d3e8a4d71b4351eb869b812fb);

- the English language version of the Interim Report of the Issuer as of 30 June 2022 (https://dl.bourse.lu/dlp/10c0558e1270854a3190687a8e8251008f);

- the English language version of the Earnings Report of the Issuer as of 30 September 2022 (https://dl.bourse.lu/dlp/10079adfe21b7947ebbb5c2568d4c78745); and

- the English language version of the Annual Report of the Issuer as of 31 December 2022 (https://dl.bourse.lu/dlp/109045a441991345219d192d15fa97fa17);

save that any statement contained herein or in a document which is incorporated by reference herein shall be deemed to be modified or superseded for the purpose of this Registration Document to the extent that a statement contained in any such subsequent document which is incorporated by reference herein modifies or supersedes such earlier statement (whether expressly, by implication or otherwise). Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Document. For the avoidance of doubt, the content of any website referred to in this Registration Document does not form part of this Registration Document. The documents listed above will remain publicly available in electronic form for at least ten years after their publication on the websites referred to above. Copies of all documents incorporated by reference in this Registration Document will also be available in electronic form on the Luxembourg Stock Exchange's website (www.luxse.com) and on the website of the Issuer (www.db.com under "Investor Relations").

Cross-Reference List of Documents Incorporated by Reference

In the subsection "Financial Information concerning Deutsche Bank's Assets and Liabilities, Financial Position and Profits and Losses – Financial Statements" reference is made to Deutsche Bank's consolidated financial statements for the financial year 2021 (as included in the Annual Report 2021 of the Issuer as of 31 December 2021), the unaudited consolidated interim financial information of the Issuer for the three months ended 31 March 2022 (as included in the Earnings Report of the Issuer as of 31 March 2022), the unaudited consolidated interim financial information of the Issuer for the six months ended 30 June 2022 (as included in the Interim Report of the Issuer as of 30 June 2022), the unaudited consolidated interim financial information of the Issuer for the nine months ended 30 September 2022 (as included in the Earnings Report of the Issuer as of 30 September 2022) and Deutsche Bank's consolidated financial statements for the financial year 2022 (as included in the Annual Report 2022 of the Issuer as of 31 December 2022).

(1) The following information is set forth in the Annual Report of the Issuer as of 31 December 2021:

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(2) The following information is set forth in the Earnings Report of the Issuer as of 31 March 2022:

(3) The following information is set forth in the Interim Report of the Issuer as of 30 June 2022:

(4) The following information is set forth in the Earnings Report of the Issuer as of 30 September 2022:

(5) The following information is set forth in the Annual Report of the Issuer as of 31 December 2022:

Any other information referred to in the Documents Incorporated by Reference that is not included in the cross-reference list above is either not relevant for an investor or is covered elsewhere in this Registration Document and shall therefore not be deemed to be included in this Registration Document."

IX. APPENDIX 1 – INFORMATION FOR THE PURPOSES OF ART. 26 (4) OF REGULATION (EU) 2017/1129

The text of Appendix 1 to the Registration Document commencing on page 76 of the Registration Document (as replaced by the First Supplement and the Third Supplement) is replaced by the following text:

"

Key information on the Issuer
Who is the Issuer of the Securities?
Domicile and legal form, law under which the Issuer operates and country of incorporation Deutsche Bank Aktiengesellschaft (commercial name: Deutsche Bank) is a credit institution and a stock corporation incorporated in Germany and accordingly operates under the laws of Germany. The Legal Entity Identifier (LEI) of Deutsche Bank is 7LTWFZYICNSX8D621K86. The Bank has its registered office in Frankfurt am Main, Germany. It maintains its head office at Taunusanlage 12, 60325 Frankfurt am Main, Germany.
Issuer's principal activities The objects of Deutsche Bank, as laid down in its Articles of Association, include the transaction of all kinds of banking business, the provision of financial and other services and the promotion of international economic relations. The Bank may realise these objectives itself or through subsidiaries and affiliated companies. To the extent permitted by law, the Bank is entitled to transact all business and to take all steps which appear likely to promote the objectives of the Bank, in particular to acquire and dispose of real estate, to establish branches at home and abroad, to acquire, administer and dispose of participations in other enterprises, and to conclude enterprise agreements. Deutsche Bank is organized into the following segments: — Corporate Bank (CB); — Investment Bank (IB); — Private Bank (PB); — Asset Management (AM); and — Corporate & Other (C&O). In addition, Deutsche Bank has a country and regional organizational layer to facilitate a consistent implementation of global strategies. The Bank has operations or dealings with existing and potential customers in most countries in the world. These operations and dealings include working through: — subsidiaries and branches in many countries; — representative offices in many other countries; and — one or more representatives assigned to serve customers in a large number of additional countries.
Major shareholders, including whether it is directly or indirectly owned or controlled and by whom

Deutsche Bank is neither directly nor indirectly majority-owned or controlled by any other corporation, by any government or by any other natural or legal person severally or jointly.

Pursuant to German law and Deutsche Bank's Articles of Association, to the extent that the Bank may have major shareholders at any time, it may not give them different voting rights from any of the other shareholders.

Deutsche Bank is not aware of arrangements which may at a subsequent date result in a change of control of the company.

The German Securities Trading Act (*Wertpapierhandelsgesetz*) requires investors in publicly-traded corporations whose investments reach certain thresholds to notify both the corporation and the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) of such change within four trading days. The minimum disclosure threshold is 3 per cent. of the corporation's issued voting share capital. To the Bank's knowledge, there are only four shareholders holding more than 3 per cent. of Deutsche Bank shares or to whom more than 3 per cent. of voting rights are attributed, and none of these shareholders holds more than 10 per cent. of Deutsche Bank shares or voting rights.

Key managing directors

The key managing directors of the issuer are members of the issuer's Executive Board. These are: Christian Sewing, James von Moltke, Karl von Rohr, Fabrizio Campelli, Bernd Leukert, Alexander von zur Mühlen, Christiana Riley, Rebecca Short, Prof. Dr. Stefan Simon and Olivier Vigneron.

Statutory auditors

With effect as of 1 January 2020, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft ("**EY**") has been appointed as independent auditor of Deutsche Bank. EY is a member of the chamber of public accountants (*Wirtschaftsprüferkammer*).

What is the key financial information regarding the Issuer?

The key financial information included in the tables below as of and for the financial years ended 31 December 2021 and 31 December 2022 has been extracted from the audited consolidated financial statements prepared in accordance with IFRS as issued by the International Accounting Standards Board (IASB) and endorsed by the European Union as of 31 December 2022.

Statement of income (in million Euro)	**Year ended 31 December 2022**	**Year ended 31 December 2021**
Net interest income	13,650	11,155
Commissions and fee income	9,838	10,934
Provision for credit losses	1,226	515
Net gains (losses) on financial assets/liabilities at fair value through profit or loss	2,999	3,045
Profit (loss) before income taxes	5,594	3,390

Profit (loss)	5,659	2,510
Balance sheet (amounts in million Euro)	**31 December 2022**	**31 December 2021**
Total assets	1,336,788	1,323,993
Senior debt	78,556	81,629
Subordinated debt	11,135	8,603
Loans at amortized cost	483,700	471,319
Deposits	621,456	603,750
Total equity	72,328	68,030
Common Equity Tier 1 capital ratio	13.4 %	13.2 %
Total capital ratio (reported / phase-in)	18.4 %	17.8 %
Leverage ratio (reported / phase-in)	4.6 %	4.9 %

What are the key risks that are specific to the Issuer?

The Issuer is subject to the following key risks:

Macroeconomic, Geopolitical and Market Environment: As a global corporate and investment bank with a large private client franchise, Deutsche Bank is materially affected by global macroeconomic and financial market conditions. Significant challenges may arise from persistent inflation and rising interest rates, the continuing war in Ukraine, supply chain disruptions, a deteriorating macroeconomic environment and elevated geopolitical risks, the ongoing headwinds posed by regulatory reforms and/or the effects on Deutsche Bank's legal and regulatory proceedings. Other risks exist with respect to China and from political and economic instability in key markets. These risks could negatively affect the business environment, leading to weaker economic activity and a broader correction in the financial markets. Materialization of these risks could negatively affect the results of operations in some of Deutsche Bank's businesses and its financial condition as well as its strategic plans. Deutsche Bank's ability to protect itself against these risks is limited.

Business and Strategy: Deutsche Bank's results of operation and financial condition have in the past been negatively impacted by the market environment, uncertain macroeconomic and geopolitical conditions, lower levels of client activity, increased competition and regulation, along with tightening labor market conditions. If Deutsche Bank is unable to sustain its improved profitability resulting from its transformation, it may be unable to meet its 2025 targets, and may have difficulty maintaining capital, liquidity and leverage at levels expected by market participants and its regulators.

Regulation and Supervision: Regulatory reforms enacted and proposed in response to weaknesses in the financial sector and, more recently, to the envisaged transition towards a sustainable economy, together with increased regulatory scrutiny more generally, have had and continue to have a significant impact on Deutsche Bank and may adversely affect its business and ability to execute its strategic plans. Competent regulators may prohibit Deutsche Bank from making dividend payments, share repurchases or payments on its regulatory capital instruments or take other actions if the Group fails to comply with regulatory requirements.

Internal Control Environment: A robust and effective internal control environment and adequate infrastructure (comprising people, policies and procedures, controls testing and IT systems) are necessary to ensure that Deutsche Bank conducts its business in compliance with the laws, regulations and associated supervisory expectations applicable to Deutsche Bank. Deutsche Bank has identified the need to strengthen its internal control environment and infrastructure and has embarked on initiatives to accomplish this. If these initiatives are not successful or proceed too slowly, Deutsche Bank's reputation, regulatory position and financial condition may be materially adversely affected, and its ability to achieve Deutsche Bank's strategic ambitions may be impaired.

Litigation, Regulatory Enforcement Matters, Investigations and Tax Examinations: Deutsche Bank operates in a highly and increasingly regulated and litigious environment, potentially exposing the bank to liability and other costs, the amounts of which may be substantial and difficult to estimate, as well as to legal and regulatory sanctions and reputational harm.

Environmental, Social and Governance (ESG)-Related Changes: The impacts of rising global temperatures, and the enhanced focus on climate change and the transition to a "net-zero" economy from society, the regulators and the banking sector, have led to new sources of financial and non-financial risks. These include the physical risks arising from extreme weather events which are growing in frequency and severity, as well as transition risks as carbon-intensive sectors are faced with higher taxation, reduced demand and potentially restricted access to financing, and risks relating to the portrayal of ESG aspects of activities. These risks can impact Deutsche Bank across a broad range of financial and non-financial risk types.

"

TO THE EXTENT THAT THERE IS ANY INCONSISTENCY BETWEEN (A) ANY STATEMENT IN THIS SUPPLEMENT AND (B) ANY STATEMENT IN, OR INCORPORATED BY REFERENCE IN, THE REGISTRATION DOCUMENT, THE STATEMENTS IN (A) ABOVE SHALL PREVAIL.

Annex 1

Consolidated version of the Registration Document dated 4 May 2022 as supplemented by the First Supplement dated 3 August 2022, the Second Supplement dated 23 September 2022, the Third Supplement dated 2 November 2022, the Fourth Supplement dated 7 February 2023 and the Fifth Supplement dated 22 March 2023

Registration Document
for Secondary Issuances of Non-Equity Securities

4 May 2022

Deutsche Bank Aktiengesellschaft

(Frankfurt am Main, Federal Republic of Germany)

This document constitutes a registration document for secondary issuances of non-equity securities (the "**Registration Document**"), which has been prepared by Deutsche Bank Aktiengesellschaft ("**Deutsche Bank AG**" or "**Deutsche Bank**" or the "**Bank**" or the "**Issuer**" or "**we**" or "**our**") pursuant to Art. 6 (3) and Art. 14 of Regulation (EU) 2017/1129 as amended from time to time (the "**Prospectus Regulation**") and Art. 9 of Commission Delegated Regulation (EU) 2019/980. Deutsche Bank and its consolidated subsidiaries are hereinafter referred to as "**Deutsche Bank Group**" or the "**Group**".

This Registration Document has been approved by the *Commission de Surveillance du Secteur Financier* (the "**CSSF**") of the Grand Duchy of Luxembourg as competent authority under the Prospectus Regulation in line with the provisions of Art. 6 (4) of the Luxembourg Law on Prospectuses for securities. In accordance with Art. 25 (1) of the Prospectus Regulation, the Issuer has requested the CSSF to provide the competent authority in Germany with a certificate of approval attesting that this Registration Document has been drawn up in accordance with the Prospectus Regulation (a "**Notification**"). The Issuer may request the CSSF to provide competent authorities in additional member states within the European Economic Area (the "**EEA**") with further Notifications.

This Registration Document will be valid for a period of twelve months following the date of its approval and will expire on 4 May 2023. It reflects the status as of its date of approval. The obligation to supplement this Registration Document pursuant to Art. 23 of the Prospectus Regulation in the event of a significant new factor, material mistake or material inaccuracy shall not apply once this Registration Document is no longer valid.

This Registration Document and all documents incorporated by reference in this Registration Document will be published in electronic form on the website of the Luxembourg Stock Exchange (www.bourse.lu) and on the website of the Issuer (www.db.com under "Investor Relations").

This Registration Document does not constitute an offer of or an invitation by or on behalf of Deutsche Bank to subscribe for or purchase any securities and should not be considered as a recommendation by Deutsche Bank that any recipient of this Registration Document should subscribe for or purchase any securities Deutsche Bank may issue. No person has been authorized by Deutsche Bank to give any information or to make any representation other than those contained in this Registration Document or consistent with this Registration Document. If given or made, any such information or representation should not be relied upon as having been authorized by Deutsche Bank.

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RISK FACTORS

This section describes the specific risks with regard to Deutsche Bank that affect its ability to meet its obligations as issuer of debt securities.

The risk factors are divided into six categories, each indicated in this section by a title (in ***bold italic font***), according to their nature. Within the different categories, each individual risk factor is indicated by a heading (in **bold regular font**) with the most significant risks being listed first in each category. The assessment of materiality was made based on the probability of their occurrence and the expected extent of their negative impact on the ability to meet the obligations as issuer of debt securities. Subsequent risk factors in the same category are not necessarily ranked in order of materiality.

Investors should consider the following specific and material risk factors, in addition to the other information and risk factors contained in the relevant simplified prospectus, when deciding to purchase securities of Deutsche Bank.

The occurrence of the following risks may have a material adverse effect on the net assets, financial position, and results of operations of Deutsche Bank and thus impair its ability to fulfil its obligations under debt securities to investors.

Risks Relating to the Macroeconomic, Geopolitical and Market Environment

Macroeconomic and financial market conditions: As a global corporate and investment bank with a large private client franchise, Deutsche Bank is materially affected by global macroeconomic and financial market conditions. Significant challenges may arise from persistent inflation and rising interest rates, the continuing war in Ukraine, supply chain disruptions, a deteriorating macroeconomic environment and elevated geopolitical risks, the ongoing headwinds posed by regulatory reforms and/or the effects on Deutsche Bank's legal and regulatory proceedings. Other risks exist with respect to China and from political and economic instability in key markets. These risks could negatively affect the business environment, leading to weaker economic activity and a broader correction in the financial markets. Materialization of these risks could negatively affect the results of operations in some of Deutsche Bank's businesses and its financial condition as well as its strategic plans. Deutsche Bank's ability to protect itself against these risks is limited.

The war in Ukraine and the related further increase in global inflationary pressures due to higher energy prices, as well as supply chain disruptions, have led to a significant downward revision in global growth forecasts for 2023 and 2024. The likelihood of at least a moderate economic downturn remains elevated as the effects of higher inflation, higher interest rates and tighter financial conditions weigh on economic activity, including in the U.S. economy as the Federal Reserve leads the global tightening cycle. Higher interest rates may also lead to refinancing risks and potential downgrades across Deutsche Bank's client franchise, and corporate default rates are likely to rise in 2023 and 2024 as clients' earnings fall.

A renewed sharp spike in energy prices or physical shortages diminished remains a downside risk for European corporates and households for 2023 and 2024. Industries which could be affected by energy rationing, in combination with existing supply chain constraints and high commodity prices, include but are not limited to manufacturing, automotive, construction, chemicals and steel, metals and mining as well as critical infrastructure such as utilities, transportation and agriculture. While the majority of Deutsche Bank's clients, especially the larger ones, consider themselves adequately positioned, certain clients are seeing more acute pressures on sales and margins. Also, private clients and households have yet to feel the full impact of energy price increases due to government support measures and could face increasing repayment difficulties should energy prices and broader inflation stay persistently elevated. Amidst the recently improved outlook, Deutsche Bank also views the risk of a potential gas shortage or need for energy rationing in the winter of 2023/2024 as lower, but downside risks cannot be fully discounted and could have a material impact on Deutsche Bank due to direct impacts on client defaults and second order effects on economic growth.

Throughout 2022, market and rates developments impacted the Group's ability to distribute and de-risk capital markets commitments, making pricing, hedging and distribution of transactions more challenging. While the Group actively manages systemic risks, it has experienced delays in de-risking individual commitments as well as taken mark-to-market losses in 2022, driven by widening in credit spreads and higher interest rates. The Group could see additional losses in 2023.

Interest rates increased sharply over the course of 2022 and there are expectations that monetary authorities will continue to increase interest rates over the course of 2023. If such increases take place to a greater extent or rate increases are greater than Deutsche Bank or the market anticipates, this may have negative effects on the economy, markets and Deutsche Bank's businesses. Higher interest rates may also lead to refinancing risks and potential downgrades across Deutsche Bank's client franchise and corporate default rates are likely to rise in 2023/2024 as clients' earnings fall. Such an environment may also lead to higher instances of idiosyncratic defaults. In addition, inflation, interest rates and market volatility (including also secondary effects on market prices due to supply chain issues) could lead to collateral price reductions with risks related to recovery values in case of liquidation and therefore respective higher impacts on provisions for credit losses. This is particularly relevant in instances where financing is asset based and without recourse to a third party. Deutsche Bank could therefore experience higher than expected provisions for credit losses.

Provisions for credit losses for the full year 2022 were significantly higher compared to 2021 at 25 bps of average loans. The Group expects provisions in 2023 to be at the low end of a range of 25 to 30 basis points of average loans and, unlike in 2022, to be driven by single-name losses rather than a deterioration of macro-economic forward-looking indicators. Despite the Group's current expectations, there is a risk the macroeconomic environment does not improve and there is further weakening in GDPs, persistent inflation, interest rates continue to rise, and energy prices remain elevated. The implications of such events could become visible across regions and specific, if not all, industries. Overall, the degree of uncertainty remains high and there is the risk of materially higher-than-expected provisions for credit losses, driven by the effects mentioned above, along with potential supply chain disruptions, the fragile geopolitical environment and the overall risk of entering a more recessionary cycle. Deutsche Bank regularly utilizes collateralized loan obligations and credit default swaps to manage concentration risk. However, this may not be sufficient to fully offset potential credit losses.

China related risks are elevated. The government of China has announced a rapid easing of COVID-19 restrictions which led to a notable surge in COVID-19 cases. Recently announced far-reaching U.S. export controls on high-tech goods including advanced semiconductors to China could dent the country's longer term growth potential. Also, there are ongoing concerns over the potential for a broad and persistent deterioration of China's highly leveraged property sector, despite recently announced government support measures. There have been numerous rating actions by external agencies, noting that some of the companies which have seen significant rating deterioration were up until recently investment-grade rated, and widespread liquidity shortages for the sector. Stabilising the economy has become a key priority for the Chinese government, but risks of ongoing liquidity constraints and selected defaults in the property sector remain elevated. In a severe downside, this may lead to broader contagion across weaker enterprises which could drive higher credit provisions.

Overall, in isolation or combination with other risk factors, these risks could lead to a significant deterioration in the Group's portfolio quality and higher-than-expected credit and market losses. This could also lead to accelerated rating declines among clients, leading to increasing provisioning levels as well as increased numbers of clients drawing down on credit facilities which would lead to higher capital requirements and liquidity demands. There would also be a higher risk of idiosyncratic defaults. Higher volatility in financial markets could lead to increased margin calls, higher market risk RWA and elevated valuation reserves. These developments can also impact Deutsche Bank's revenue-generating capabilities and costs, while market declines and volatility could negatively impact the value of financial instruments, drive volatility in Deutsche Bank's valuation and timing differences and result in impairments of non-financial assets. Also, a decline in financial market liquidity can exacerbate price volatility and the risk of broader market stress. Market volatility, which can also be triggered by unexpected policy decisions or policy mistakes, and by the challenging macro environment, can also lead to increased inherent risks in several non-financial risk types, including transaction processing, internal and external fraud and conduct risks, attempts to conceal losses and increased litigation attempts from clients.

If these risks materialize, or current negative conditions persist or worsen, Deutsche Bank's business, results of operations or strategic plans could be adversely affected.

War in Ukraine: In addition to its broader macroeconomic impacts, the war in Ukraine may adversely affect the Group's business and operations.

In response to the war in Ukraine, the West has moved to impose broad-based sanctions (including asset-freeze / blocking sanctions) targeting Russia and Belarus. The sanctions environment remains dependent on the development of the war in Ukraine, and it is possible that new direct or indirect secondary sanctions could be imposed at short notice. It is also likely that current, significant comprehensive sanctions remain in place and that further restrictions will be introduced. The unprecedented scale of sanctions announced to date, not all of which are fully aligned across jurisdictions, has significantly increased operational complexity including the risk of making errors in managing day-to-day business activities within the rapidly evolving sanctions environment. New sanctions as well as countermeasures by the Russian government could also result in differences between the local application / implementation of relevant requirements by Deutsche Bank Moscow and the Deutsche Bank Group (as Deutsche Bank Moscow would have to adhere to local law). Subsequently, this would create conflict of law situations and certain exemptions would have to be applied. Sanctions and Russian countermeasures may also complicate the wind-down of transactions and / or relationships that Deutsche Bank may wish or need to exit as a result of the war in Ukraine. More broadly, there is an increasing risk that Russia will turn to asymmetric warfare and that Russia or proxy actors will take retaliatory action against the West, which could directly or indirectly affect Deutsche Bank and its operations.

Deutsche Bank utilises inhouse technology resources in Russia, which contribute to the development of a number of Deutsche Bank's critical applications, while Deutsche Bank Moscow also relies on certain resources from the Group. The Group is subject to the risk that its ability to utilize these technology resources could be impaired or lost, for instance due to sanctions from the West, Russian state-initiated actions or management actions. Also, the provision of corporate banking services to local subsidiaries of international companies could be negatively affected if its operating subsidiary in Russia is impacted. The impact of the ongoing situation, from both a financial and non-financial risk perspective, remains uncertain and while its direct financial exposures to Russia and Ukraine are contained and have been reduced throughout 2022, higher order effects may materialize in a downside scenario, impacting the Group's ability to meet its stated targets. The regulatory environment or other restrictions including sanctions imposed may result in Deutsche Bank's business activities related to Russia becoming unviable or the loss of control over its assets. Despite the business continuity and crisis management policies currently in place, the conflict also poses challenges related to personnel as well as loss of business continuity, which may disrupt its business and lead to material losses.

Other macroeconomic and geopolitical risks: Deutsche Bank is subject to other macroeconomic and geopolitical risks, including with respect to China, which could negatively affect the business environment, leading to weaker economic activity and a broader correction in the financial markets.

The broader geopolitical implications of the war in Ukraine remain uncertain. Over the medium to long term, the International Monetary Fund ("**IMF**") among others has highlighted the potential impact of deglobalization on living standards and growth. Against this backdrop, tensions between the U.S. and China remain elevated across a wide range of areas, including trade and technology-related issues, Hong Kong, Taiwan, human rights, and cybersecurity. The U.S. has imposed selected sanctions as well as export and investment restrictions on Chinese companies and officials, and China has imposed sanctions on certain U.S. companies and officials and introduced a framework for blocking regulations aimed at the extraterritorial application of sanctions against China. Likewise, the EU has imposed sanctions on China in relation to human rights issues, which were reciprocated by China. Such measures raise potential regulatory compliance and conflicts of law challenges, and the impacts could be material and adverse. While the Group does not expect a China/Taiwan military conflict in the near-term, potential downside impacts from an escalation of tensions are significant and could substantially and adversely affect Deutsche Bank's planned results of operations and financial targets. Likewise, similarly to what was observed in the context of Russia, the intensifying tensions could drive further economic polarization with emergence of distinct China vs. U.S.-led blocks with potential impacts difficult to predict.

Other geopolitical risks which could negatively impact Deutsche Bank's business environment and its financial targets include an escalation of the war in Ukraine and/or rising political tensions in the Middle East which could drive energy prices even higher. Iran has blamed foreign countries for stoking the ongoing anti-government protests whilst their violent repression and Tehran's closer alignment with Russia diminish the likelihood of a successful revival of the Iran nuclear deal. These developments could increase the risk of conflict in the region.

If any of these risks materialize, they may adversely affect Deutsche Bank's results of operations, strategic plans and targets, and the prices of its shares.

Brexit: The withdrawal of the United Kingdom from the European Union may have adverse effects on Deutsche Bank's business, results of operations or financial targets.

Since the 2020 departure of the United Kingdom ("**UK**") from the European Union's ("**EU**") single market and customs union, uncertainty regarding its business impact to Deutsche Bank and associated economic downside have declined. Deutsche Bank has been able to continue to service European Economic Area ("**EEA**") based clients thanks to its program to move booking of EEA clients to Deutsche Bank AG Frankfurt which was completed before the end of 2020. Sales and coverage staff are in place in European Union member countries to ensure all regulated activity relating to EEA clients is performed within the new licensing laws post Brexit. However, some uncertainty remains as negotiations between the UK and the EU have continued for financial services not extensively covered by the existing deal. In the first half of 2022, the European Commission announced an extension to the current temporary equivalence arrangements for UK central clearing counterparties ("**CCPs**") until June 2025 from June 2022 (when the previous extension expired). Without equivalence between EU and UK regimes for financial services, Deutsche Bank will be restricted in its ability to provide financial services to and from the UK. Discussions on the nature of this extension and the final outcome in June 2025 will continue in 2023. The European Commission has advised that firms should not expect a further extension to the temporary equivalence in 2025 and should plan accordingly. With effect from 19 December 2022, Deutsche Bank is authorised by the Prudential Regulation Authority ("**PRA**") and subject to regulation by the Financial Conduct Authority ("**FCA**") and limited regulation by the PRA.

Although the economic downside risks related to Brexit has declined, there is still the potential risk the Group's business and financial targets could be adversely affected, particularly since it will depend on future political and market developments.

Risks Relating to Deutsche Bank's Business and Strategy

Business environment and strategic decisions: Deutsche Bank's results of operation and financial condition have in the past been negatively impacted by the market environment, uncertain macroeconomic and geopolitical conditions, lower levels of client activity, increased competition and regulation, along with tightening labor market conditions. If Deutsche Bank is unable to sustain its improved profitability resulting from its transformation, it may be unable to meet its 2025 targets, and may have difficulty maintaining capital, liquidity and leverage at levels expected by market participants and its regulators.

Deutsche Bank's net revenues increased by 7 % in 2022 compared to 2021. Contributing to this was a significant increase in the Corporate Bank's revenues as well as the Fixed Income & Currencies ("**FIC**") business in the Investment Bank. Private Bank also had significantly higher revenues, although much of the increase was from profit on the sale of the Deutsche Bank Financial Advisors business in Italy. Asset Management had slightly reduced revenues.

The ability of the Corporate Bank to continue its positive performance of 2022 is dependent on its ability to benefit from the higher interest rate environment. The Investment Bank's ability to continue its 2022 performance is dependent on the continuation of FIC's high levels of market activity, and increases in activity and fee pools of the Origination & Advisory business. The performance of the Private Bank and Asset Management divisions will depend in large part on market performance and their ability to counter ongoing fee compression and rising costs. The performance of all divisions will be strongly impacted by macroeconomic effects, in particular whether interest rates and inflation continue to rise, and by geopolitical events and pressures, such as the war in Ukraine and tensions with China, all of which, if they develop unfavorably, would likely impede economic growth and market activity.

Changes in Deutsche Bank's business mix towards lower-margin, lower-risk products can limit the Deutsche Bank's opportunities to profit from volatility. Regulators have generally encouraged the banking sector to focus more on the facilitation of client flow and less on risk taking, for instance by increasing capital requirements for higher-risk activities. In addition, some of the regulators have encouraged or welcomed changes to the banks business perimeter, consistent with their emphasis on lower-risk activities for banks generally. In recent years, Deutsche Bank has reduced its exposure to a number of businesses that focused on riskier but more capital-intensive products, which in previous periods had more potential to be highly profitable. Further pressure on revenues and profitability has resulted from long-term structural trends driven by regulation (especially increased regulatory capital, leverage and liquidity requirements and increased compliance costs) and competition that have further compressed margins in many of the Group's businesses. Should a combination of these factors continue to lead to reduced margins and subdued activity levels in Deutsche Bank's trading and markets business over the longer term, this could impair Deutsche Bank's ability to reach its financial targets.

Market conditions: Adverse market conditions, asset price deteriorations, volatility and cautious investor sentiment have affected and may in the future materially and adversely affect Deutsche Bank's revenues and profits, particularly in its investment banking, brokerage and other commission- and fee-based businesses. As a result, Deutsche Bank has in the past incurred and may in the future incur significant losses from its trading and investment activities.

As a global investment bank, Deutsche Bank has significant exposure to the financial markets and are more at risk from adverse developments in the financial markets than institutions predominantly engaged in traditional banking activities. Sustained market declines have in the past caused and can in the future cause Deutsche Bank's revenues to decline, and, if Deutsche Bank is unable to reduce its expenses at the same pace, can cause Deutsche Bank's profitability to erode or cause Deutsche Bank to show material losses. Volatility can also adversely affect the Group, by causing the value of financial assets it holds to decline or the expense of hedging its risks to rise. Reduced customer activity can also lead to lower revenues in the "flow" business.

Specifically, investment banking revenues, in the form of financial advisory and underwriting fees, directly relate to the number and size of the transactions in which the Group participates and are susceptible to adverse effects from sustained market downturns. These fees and other income are generally linked to the value of the underlying transactions and therefore can decline with asset values. In addition, periods of market decline and uncertainty tend to dampen client appetite for market and credit risk, a critical driver of transaction volumes and investment banking revenues, especially transactions with higher margins. In recent and other times in the past, decreased client appetite for risk has led to lower levels of activity and lower levels of profitability in the Investment Bank. Deutsche Bank's revenues and profitability could sustain material adverse effects from a significant reduction in the number or size of debt and equity offerings and merger and acquisition transactions.

Market downturns also have led and may in the future lead to declines in the volume of transactions that Deutsche Bank executes for its clients and result in a decline in its noninterest income. In addition, because the fees that Deutsche Bank charges for managing its clients' portfolios are in many cases based on the value or performance of those portfolios, a market downturn that reduces the value of clients' portfolios, or increases withdrawals, reduces the revenues Deutsche Bank receives from its Asset Management and Private Banking businesses. In 2022, Asset Management was impacted by reductions in assets under management arising from negative market performance, as well as the ongoing margin erosion in the asset management industry through both fee compression and rising costs. Even in the absence of a market downturn, below market or negative performance by Asset Management's investment funds may result in increased withdrawals and reduced inflows, which would reduce the revenue the Group receives. While clients would be responsible for losses incurred in taking positions for their accounts, Deutsche Bank may be exposed to additional credit risk as a result of its need to cover the losses where Deutsche Bank does not hold adequate collateral or cannot realize it. Deutsche Bank's businesses may also suffer if clients lose money and lose confidence in Deutsche Bank's products and services.

In addition, the revenues and profits the Group derives from many of its trading and investment positions and transactions in connection with them can be directly and negatively impacted by market prices. In each of the product and business lines in which Deutsche Bank enters into trading and investment positions, part of Deutsche Bank's business entails making assessments about the financial markets and trends in them. When Deutsche Bank owns assets, market price declines can expose Deutsche Bank to losses. Many of the more sophisticated transactions of the Investment Bank are influenced by price movements and differences among prices. If prices move in a way not anticipated, Deutsche Bank may experience losses. Also, when markets are volatile, transactions and positions Deutsche Bank has entered into may prove to lead to lower revenues or profits, or may lead to losses. In addition, Deutsche Bank has committed capital and takes market risk to facilitate certain capital markets transactions; doing so can result in losses as well as income volatility. Such losses may especially occur on assets Deutsche Bank holds for which there are not very liquid markets to begin with. Assets that are not traded on stock exchanges or other public trading markets, such as derivatives contracts between banks without publicly quoted prices, may have values that Deutsche Bank calculates using models. Monitoring the deterioration of prices of assets like these is difficult and could lead to losses Deutsche Bank does not anticipate. Deutsche Bank can also be adversely affected if general perceptions of risk cause uncertain investors to remain on the sidelines of the market, curtailing clients' activity and in turn reducing the levels of activity in those businesses dependent on transaction flow.

Credit ratings and access to funding: Deutsche Bank's liquidity, business activities and profitability may be adversely affected by an inability to access the debt capital markets or to sell assets during periods of market-wide or firm-specific liquidity constraints. Credit rating downgrades have contributed to increases in its funding costs in the past, and any future downgrade could materially adversely affect its funding costs and the willingness of counterparties to continue to do business with Deutsche Bank and significantly impact aspects of its business model.

Deutsche Bank has a continuous demand for liquidity to fund its business activities. The Group's liquidity may be impaired by an inability to access secured and/or unsecured debt markets, an inability to access funds from its subsidiaries or otherwise allocate liquidity optimally across its businesses, an inability to sell assets or redeem investments, or unforeseen outflows of cash or collateral. This situation may arise due to circumstances unrelated to the Group's businesses and outside its control, such as disruptions in the financial markets, or circumstances specific to Deutsche Bank, such as reluctance of counterparties or the market to finance the Group's operations due to perceptions about potential outflows (including deposit outflows) resulting from litigation, regulatory and similar matters, actual or perceived weaknesses in its businesses, business model or strategy, as well as in the Group's resilience to counter negative economic and market conditions. Reflecting these conditions, internal estimates of Deutsche Bank's available liquidity over the duration of a stressed scenario could at times be negatively impacted.

In addition, negative developments concerning other financial institutions perceived to be comparable to the Group and negative views about the financial services industry in general can also affect Deutsche Bank. These perceptions could affect the prices at which the Group could access the capital markets to obtain the necessary funding to support its business activities; should these perceptions exist, continue or worsen, the Group's ability to obtain this financing on acceptable terms may be adversely affected. Among other things, an inability to refinance assets on its balance sheet or maintain appropriate levels of capital to protect against deteriorations in its value could force Deutsche Bank to liquidate assets it holds at depressed prices or on unfavorable terms, and could also force Deutsche Bank to curtail business, such as the extension of new credit. This could have an adverse effect on Deutsche Bank's business, financial condition and results of operations. Additionally, the Group needs to ensure its ongoing ability to refinance business activities in their respective currencies.

Quantitative tightening by central banks, as a way of managing inflation, has led to rising interest rates. This in turn, is reducing money supply, increasing the pressure on funding markets and impacting the valuations of liquid assets. If inflation persists, this could necessitate even further central bank tightening, which could trigger a significant economic slowdown in Europe and the U.S. and could lead to a rise of defaults across corporates. As a result, disruptions in the financial markets, or circumstances specific to the Group, such as a reluctance of counterparties to finance Deutsche Bank's operations due to perceptions of Deutsche Bank's financial strength resulting from litigation, regulatory matters, actual or perceived weaknesses in Deutsche Bank's businesses, business model or strategy, as well as in Deutsche Bank's resilience in countering negative economic and market conditions, could occur. The ECB may also amend the terms of its monetary policy tools which could adversely impact Deutsche Bank's revenue development, change Deutsche Bank's interest rate sensitivity and may affect broader market pricing.

Additionally, persistently high inflation and consumer price levels could lead to a decline in levels of deposits in Deutsche Bank's core retail markets as consumers use their savings to compensate for higher expenses. This might foster price competition among banks for retail deposits increasing Deutsche Bank's funding costs, as well as putting further pressure on the volume of Deutsche Bank's retail deposits, which are one of the main funding sources for Deutsche Bank.

Uncertain macroeconomic developments could negatively affect Deutsche Bank's ability to transact foreign exchange ("**FX**") trades due to volatility in the FX markets or if counterparties are concerned about its ability to fulfil agreed transaction terms and therefore seek to limit their exposure. Additionally, increased FX mismatches on Deutsche Bank's balance sheet may lead to increased collateral outflows if the euro (Deutsche Bank's local currency) materially depreciates against other major currencies and may lead to difficulties to support liquidity needs in different currencies.

As part of emerging risks, digital payments and blockchain are assessed as areas which could impact the depth and volatility of market liquidity and funding and may temporarily impact cost of funding and thereby adversely affect profitability.

Liquidity risk could also arise from lower value and marketability of Deutsche Bank's liquidity reserves, as these would affect the amount of proceeds available for covering cash outflows during a stress event. Additional haircuts may be incurred on top of already impaired asset values. Moreover, securities might lose their eligibility as collateral necessary for accessing central bank facilities, as well as their value in the repo/wholesale funding market. At the same time, the Group's liquidity position may also be impaired in situations where its counterparty on, for example, a derivative contract is not current on an obligation to post collateral, in which case Deutsche Bank has to cover for the shortfall through other means.

In addition, Deutsche Bank has benefited in recent years from a number of incremental measures by the ECB and other central banks that provided additional liquidity to financial institutions and the financial markets, particularly in the Eurozone. For example, Deutsche Bank's interest income in 2022 included € 211 million related to EU government grants under the TLTRO III program. To the extent these actions are curtailed or halted, the Group's funding costs could increase, or its funding supply could decrease, which could in turn result in a reduction in business activities. A large tranche of the TLTRO III will expire in June 2023, which will reduce its benefits going forward. In 2022, the ECB and the Federal Reserve have tightened their monetary policy.

Deutsche Bank's credit ratings have been upgraded in 2022 by all three leading rating agencies. Despite the recent upgrades, rating agencies regularly review Deutsche Bank's credit ratings, and such reviews could be negatively affected by a number of factors that can change over time, including the credit rating agency's assessment of: the Group's strategy and management's capability; its financial condition including in respect of profitability, asset quality, capital, funding and liquidity; the level of political support for the industries in which Deutsche Bank operates; the implementation of structural reform; the legal and regulatory frameworks applicable to Deutsche Bank's legal structure; business activities and the rights of Deutsche Bank's creditors; changes in rating methodologies; changes in the relative size of the loss-absorbing buffers protecting bondholders and depositors; the competitive environment, political and economic conditions in Deutsche Bank's key markets; and market uncertainty. In addition, credit ratings agencies are increasingly taking into account environmental, social and governance factors, including climate risk, as part of the credit ratings analysis, as are investors in their investment decisions.

Any reductions in the Group's credit ratings, including, in particular, downgrades below investment grade, or a deterioration in the capital markets' perception of its financial resilience could significantly affect Deutsche Bank's access to money markets, reduce the size of its deposit base and trigger additional collateral or other requirements in derivatives contracts and other secured funding arrangements or the need to amend such arrangements, which could adversely affect the cost of funding and access to capital markets and could limit the range of counterparties willing to enter into transactions with Deutsche Bank. This could in turn adversely impact Deutsche Bank's competitive position and threaten its prospects in the short to medium-term.

In the past, major credit rating agencies lowered Deutsche Bank's credit ratings or placed them on review or negative watch on multiple occasions. These credit rating downgrades contributed to an increase in funding costs. Despite the recent upgrades, the Group's credit spread levels (meaning the difference between the yields on its securities as compared to benchmark government bonds) are sensitive to further adverse developments and severe future downgrades could bring its credit rating into the non-investment grade category. This could materially and adversely affect the Group's funding costs and significant aspects of its business model. The effect would depend on a number of factors including whether a downgrade affects financial institutions across the industry or on a regional basis, or is intended to reflect circumstances specific to Deutsche Bank, such as potential settlement of regulatory, litigation and similar matters; any actions senior management may take in advance of or in response to the downgrade; the willingness of counterparties to continue to do business with Deutsche Bank; any impact of other market events and the state of the macroeconomic environment more generally.

Additionally, under many of the contracts governing derivative instruments to which Deutsche Bank is a party, a downgrade could require Deutsche Bank to post additional collateral, lead to terminations of contracts with accompanying payment obligations for Deutsche Bank or give counterparties additional remedies.

Implementation of strategic plans: If Deutsche Bank is unable to meet its 2025 financial targets or incurs future losses, including further impairments and provisions, or low profitability, its financial condition, results of operations and share price may be materially and adversely affected, and it may be unable to make contemplated distributions of profits to its shareholders or carry out share buybacks.

In March 2022, Deutsche Bank outlined its strategic and financial roadmap through 2025, which aims to position Deutsche Bank as a "Global Hausbank", and communicated Deutsche Bank's 2025 financial targets and capital objectives.

The "Global Hausbank" strategy is underpinned by key themes which have become even more important in the light of the geopolitical and macro-economic upheavals of 2022. In this environment, Deutsche Bank aims to leverage a more favorable interest rate environment, deploy its risk management expertise to support clients, and allocate capital to high-return growth opportunities. As sustainability becomes ever more important, Deutsche Bank aims to deepen its dialogue with and support for clients and broaden the agenda in respect of its own operations. As technology continues to evolve, Deutsche Bank aims to reap further cost savings, accelerate the transition to a digital bank, and expand upon strategic partnerships which are already creating substantial value.

Furthermore, the Group also announced several key pillars of efficiency measures contributing to Deutsche Bank's 2025 targets, which are expected to deliver structural cost savings of more than € 2 billion between 2022 and 2025. These include:

- Germany platform optimization: Branch reductions and technology integration of the IT platform aimed at creating efficiencies by simplifying the Group's infrastructure

- Re-architecture and simplification of the Group's application landscape: Decommissioning unnecessary software applications and migrating key applications to the cloud

- Front-to-back process re-design: Continue automating controls and processes, including front-to-back loans processing, risk management and reporting processes

- Infrastructure efficiency: Continue to focus on optimizing Deutsche Bank's workforce management and to optimize its global office space footprint. Deutsche Bank has identified additional cost savings in infrastructure efficiency

Deutsche Bank's financial targets and capital objectives for 2025 are:

Financial targets:

- Post-tax Return on Average Tangible Equity of above 10 % for the Group

- Compounded annual growth rate of revenues of 3.5 to 4.5 %

- Cost/income ratio of less than 62.5%

Capital objectives:

- Common Equity Tier 1 capital ratio approximately 13 %
- 50 % Total payout ratio from 2025

Deutsche Bank is committed to delivering sustainably growing cash dividends and, over time, returning to shareholders excess capital that is over and above what is required to support profitable growth and upcoming regulatory changes through share buybacks, subject to regulatory approval, shareholder authorization and meeting German corporate law requirements. To that end, subject to meeting the Group's strategic targets, the Management Board intends to grow the cash dividend per share by 50 % per annum in the next 3 years, starting from the € 0.20 per share paid for the financial year 2021. This would translate into approximately € 3.3 billion of cumulative dividend payments by 2025 with respect to financial years 2021-2024. In relation to the financial year 2024 Deutsche Bank intends to achieve a total payout ratio of 50 % from a combination of dividends paid and share buybacks executed in 2025; and Deutsche Bank intends to maintain a 50 % total payout ratio in subsequent years. In addition to the share buyback of € 0.3 billion already concluded in 2022, successfully executing the Group's financial and strategic plans through 2025 would therefore support the previously announced cumulative distributions to shareholders in the form of dividends paid or share buybacks executed of approximately € 8 billion in respect of financial years 2021-2025. Deutsche Bank's ambition to return capital to shareholders is further underpinned by Deutsche Bank's aim to maintain a robust Common Equity Tier 1 ("**CET 1**") capital ratio of approximately 13 %, i.e. to operate with a buffer of 200 basis points above the Maximum Distributable Amount ("**MDA**") threshold the Group currently assumes to prevail over time.

Deutsche Bank's strategic goals are subject to various internal and external factors and to market, regulatory, economic and political uncertainties, and to limitations relating to Deutsche Bank's operating model. These could negatively impact the implementation of Deutsche Bank's strategic goals, the realization of their anticipated benefits, or the ability to achieve Deutsche Bank's financial targets for 2025. In particular, Deutsche Bank's strategic objectives are subject to the following assumptions and risks:

- Geopolitical developments, especially the war in Ukraine, may impact global and regional economies and markets other than in short-term ways and may result in adverse effects on Deutsche Bank's business, results of operations or strategic plans and targets, and the prices of Deutsche Bank's securities. Other geopolitical risks exist with respect to China and from political and economic instability in key markets.

- While the COVID-19 pandemic receded rapidly in 2022, the ongoing impact on economies, as well as the potential for resurgence, remain as risks.

- The base case scenario for Deutsche Bank's financial and capital plan includes revenue growth estimates which are dependent on positive macroeconomic developments. Stagnation or a downturn in the macroeconomic environment could significantly impact Deutsche Bank's ability to generate the revenue growth necessary to achieve these strategic financial and capital targets. This base case scenario also includes assumptions regarding Deutsche Bank's ability to reduce costs in future periods.

- In addition, Deutsche Bank's base case scenario is based on current market implied forward interest rate curves. If interest rates do not evolve as expected, Deutsche Bank's revenues may not develop as Deutsche Bank anticipates.

- Deutsche Bank's objectives are also based on assumptions regarding inflation levels, which have risen sharply over the past year, in particular for fossil fuels, other raw materials and food, and the outlook for which remains uncertain. If inflation does not develop as Deutsche Bank expects, or if Deutsche Bank's commercial leverage with suppliers and third parties does not enable Deutsche Bank to resist inflationary pressures, Deutsche Bank's businesses may be adversely impacted and Deutsche Bank's costs may increase.

- Deutsche Bank's plans are based upon 31 December 2022 foreign exchange rates, particularly with respect to the euro and U.S. dollar. If exchange rates change from these levels, Deutsche Bank's ability to achieve its goals may be adversely affected.

- Results in 2022 of the Corporate Bank and Investment Bank FIC division were supported by high levels of market activity. The ability of these businesses to continue their performance is dependent on the continuation of these conditions.

- For 2023, the Group expects provisions for credit losses to be at the low end of the range between 25 and 30 basis points as a percentage of average loans. Should higher levels of provisions for credit losses be required, Deutsche Bank's results of operations and Deutsche Bank's ability to meet its financial and capital targets may be adversely affected.

- Deutsche Bank continues to rely on Deutsche Bank's trading and markets businesses as a significant source of profit, but, depending on economic and market conditions, such businesses may be adversely impacted or be unable to achieve the profitability expected from them.

- From time to time, asset and client levels have been impacted by the negative market perceptions of Deutsche Bank. A continued or renewed negative market focus on Deutsche Bank could result in lower client levels and asset outflows.

- In the event that staff attrition levels increase versus historical levels, this may adversely affect Deutsche Bank's ability to attract and retain talented personnel, particularly in front-office positions that are key to revenue generation and in positions key to improving the bank's control environment.

- Regulatory changes, including tax law changes, could also adversely impact Deutsche Bank's ability to achieve its targets and objectives. In particular, regulators could demand changes to the bank's business model or organization that could reduce Deutsche Bank's profitability, or force it to make changes that reduce Deutsche Bank's profitability in an effort to remain compliant with laws and regulations.

- Deutsche Bank is involved in numerous litigation, arbitration and regulatory proceedings, investigations and tax examinations in Germany and in a number of jurisdictions outside of Germany, especially in the United States. Such matters are subject to many uncertainties. The Group expects the litigation environment to continue to be challenging. If litigation and regulatory matters occur at the same or higher rate and magnitude than they have in some recent years or if Deutsche Bank is subject to sustained market speculation about its potential exposure to such matters, Deutsche Bank may not be able to achieve its targets and objectives.

- Deutsche Bank currently operates a highly complex infrastructure, which can compromise the quality of the overall control environment. Establishing a more efficient bank with a strong control environment depends on successfully streamlining and simplifying Deutsche Bank's IT landscape as well as cultural change.

- A robust and effective internal control environment is necessary to ensure that Deutsche Bank conducts its business in compliance with the laws and regulations applicable to Deutsche Bank. Deutsche Bank may be unable to complete initiatives to enhance the efficacy of Deutsche Bank's internal control environment as quickly as intended or as regulators demand, and Deutsche Bank's efforts may be insufficient to prevent all future deficiencies in its control environment or result in fewer litigations or regulatory and enforcement investigations and proceedings in the future. Furthermore, implementation of enhanced controls may result in higher-than- expected costs of regulatory compliance that could offset efficiency gains.

- If some of the above risks were to materialize such that Deutsche Bank's revenues would be negatively impacted or the cost base would significantly increase, Deutsche Bank may not be able to achieve its cost-income ratio target of less than 62.5 % for 2025. For example, revenues could fall short of Deutsche Bank's expectations or expenses such as bank levies, litigation expenses, or staff costs may be higher than expected.

If the Group fails to implement its strategic initiatives in whole or in part or should the initiatives that are implemented fail to produce the anticipated benefits, or the costs incurred to implement the initiatives exceed the amounts anticipated, or the Group fails to achieve the publicly communicated targets it has set for implementation of these initiatives, Deutsche Bank may fail to achieve its financial objectives, incur losses or have low profitability or erosions of its capital base, and its financial condition, results of operations and share price may be materially and adversely affected.

Sale of assets: Deutsche Bank may have difficulties selling companies, businesses or assets at favorable prices or at all and may experience material losses from these assets and other investments irrespective of market developments.

The Group seeks to sell or otherwise reduce its exposure to assets that are not part of its core business or as part of its strategy to simplify and focus the business and to meet or exceed capital and leverage requirements, as well as to help Deutsche Bank meet its return on tangible equity targets. The Group has already sold a substantial portion of its non-core assets, and its remaining non-core assets may be particularly difficult to sell as quickly as the Group had expected at prices it deems acceptable. Where Deutsche Bank sells companies or businesses, it may remain exposed to certain losses or risks under the terms of the sale contracts, and the process of separating and selling such companies or businesses may give rise to operating risks or other losses. Unfavorable business or market conditions may make it difficult for Deutsche Bank to sell companies, businesses or assets at favorable prices, or may preclude a sale altogether. If Deutsche Bank cannot reduce its assets according to plan, it may not be able to achieve the capital targets set out under its strategy.

Business combinations: Deutsche Bank may have difficulty in identifying and executing business combinations, and both engaging in combinations and avoiding them could materially harm the Group's results of operations and its share price.

The Group considers business combinations from time to time. Were Deutsche Bank to announce or complete a significant business combination, its share price or the share price of the combined entity could decline significantly if investors viewed the transaction as too costly, dilutive to existing shareholders or unlikely to improve its competitive position. Also, the need to revalue certain classes of assets at fair value in a business combination may make transactions infeasible. It is generally not feasible for reviews of any business with which Deutsche Bank might engage in a combination to be completed in all respects. As a result, a combination may not perform as well as expected. In addition, Deutsche Bank may fail to integrate its operations successfully with any entity with which it participates in a business combination. Failure to complete announced business combinations or failure to achieve the expected benefits of any such combination could materially and adversely affect profitability. Such failures could also affect investors' perception of the business prospects and management, and thus cause the share price to fall. It could also lead to departures of key employees, or lead to increased costs and reduced profitability if Deutsche Bank felt compelled to offer key employees financial incentives to remain.

If Deutsche Bank avoids entering into business combinations or if announced or expected transactions fail to materialize, market participants may perceive Deutsche Bank negatively. The Group may also be unable to expand its businesses, especially into new business areas, as quickly or successfully as competitors if the Group does so through organic growth alone. These perceptions and limitations could cost Deutsche Bank business and harm its reputation, which could have material adverse effects on the financial condition, results of operations and liquidity.

Competitive environment: Intense competition, in Deutsche Bank's home market of Germany as well as in international markets, has and could continue to materially adversely impact revenues and profitability.

Competition is intense in all of Deutsche Bank's primary business areas, in Germany as well as in international markets. If Deutsche Bank is unable to respond to the competitive environment in these markets with attractive product and service offerings that are profitable, Deutsche Bank may lose market share in important areas of its business or incur losses on some or all of its activities. In addition, downturns in the economies of these markets could add to the competitive pressure, for example, through increased price pressure and lower business volumes.

There has been substantial consolidation and convergence among financial services companies. This trend has significantly increased the capital base and geographic reach of some competitors and has hastened the globalization of the securities and other financial services markets. As a result, Deutsche Bank must compete with financial institutions that may be larger and better capitalized and may have a stronger position in local markets.

In addition to the Group's traditional competitors such as other universal banks and financial services firms, an emerging group of future competitors in the form of start-ups and technology firms, including those providing "fintech" services, are showing an increasing interest in banking services and products. These new competitors could increase competition in both core products, e.g., payments, basic accounts and loans and investment advisory, as well as in new products, e.g., peer to peer lending and equity crowd funding. Such firms are also potential competitors in attracting and retaining talented personnel.

Risks Relating to Regulation and Supervision

Regulatory reforms: Regulatory reforms enacted and proposed in response to weaknesses in the financial sector and, more recently, to the envisaged transition towards a sustainable economy, together with increased regulatory scrutiny more generally, have had and continue to have a significant impact on Deutsche Bank and may adversely affect its business and ability to execute its strategic plans. Competent regulators may prohibit Deutsche Bank from making dividend payments, share repurchases or payments on its regulatory capital instruments or take other actions if the Group fails to comply with regulatory requirements.

Governments and regulatory authorities have worked and continue to work to enhance the resilience of the financial services industry against future crises through changes to the regulatory framework. The pace of change of new proposals has slowed as the focus turns more to the final implementation of the regulatory reform agenda outlined by the Basel Committee on Banking Supervision (the "**Basel Committee**") and, more recently, to efforts to facilitate the envisaged transition towards a sustainable economy (the "**Green Deal**") As a result, there continues to be uncertainty for the Group and the financial industry in general, though the level of uncertainty is reduced from prior periods. The range of new (or revised) laws and regulations or current proposals includes, among other things:

- Provisions for more stringent regulatory capital, leverage and liquidity standards, now also focusing on the financial sector's transformation towards climate neutrality,
- Prudential treatment of crypto, green and brown assets,
- Restrictions on compensation practices,
- Restrictions on proprietary trading and other investment services,
- Special bank levies,
- Tightened large exposure limits,
- Stress testing and capital planning regimes, also with respect to environment, social and governance risks,
- Heightened reporting requirements, and
- Reforms of derivatives, other financial instruments, investment products and market infrastructures.

As a core element of the reform of the regulatory framework, the Basel Committee developed and continuously refined and supplemented a comprehensive set of rules regarding minimum capital adequacy and liquidity standards as well as other rules, known as Basel 3. The initial set of rules was implemented into European and national law (including German, under which Deutsche Bank AG is incorporated) beginning in 2014, with the European legislative package also referred to as "**CRR / CRD IV**" and the Bank Recovery and Resolution Directive (or "**BRRD**"), which provides for a resolution framework for banks. The set of rules was further strengthened with a comprehensive package of reforms in 2019 also referred to as "**CRR II / CRD V**" and

"**BRRD II**". The reform package also implemented certain regulatory proposals of the Financial Stability Board ("**FSB**") regarding a requirement for global systemically important institutions ("**G-SIIs**"), such as Deutsche Bank, to hold certain minimum levels of capital and other instruments which are capable of bearing losses in resolution ("**Total Loss-Absorbing Capacity**" or "**TLAC**").

On 27 October 2021, the European Commission published a comprehensive package of reforms with respect to the European Union banking rules (the "**Banking Package 2021**") to ensure that banks become more resilient to potential future economic shocks while contributing to the European Union's recovery from the COVID-19 pandemic and its transition to climate neutrality. The proposals aim to amend the Capital Requirements Regulation ("**CRR**"), the Capital Requirements Directive ("**CRD**") and the BRRD. If adopted, the proposals to amend the CRR and CRD (commonly referred to as "**CRR III**" and "**CRD VI**") will, in particular, finalize the implementation of the Basel 3 framework in the European Union and also fully implement the market risk capital changes in the Fundamental Review of the Trading Book ("**FRTB**"). Another separate proposal entails combined amendments to the CRR and the BRRD with respect to the resolution regime.

CRR III and CRD VI include, among other things, a gradually introduced output floor establishing minimum risk-weighted assets that will ultimately be set at 72.5 % of the risk-weighted assets calculated under the standardized approach, changes to standardized and internal ratings-based approaches for determining credit risk, changes to the credit valuation adjustment, a revision of the approaches for operational risks and reforms to the market risk framework as set out in the FRTB, adjustments to the Pillar 2 requirements and the systemic risk buffer ("**SyRB**") and a "fit-and-proper" set of rules for the senior staff managing banks. Other proposed measures are aimed to address sustainability risks by requiring banks to identify, disclose and manage environmental, social and governance risks as part of their risk management framework and include regular climate stress testing by the banks' supervisors. The proposal does not entail any adjustments to the capital requirements for green or brown assets. However, the European Commission has already stated that it is exploring this idea and has asked the European Banking Authority ("**EBA**") to assess possible adjustments. It is expected that the EBA will provide its final report by mid-2023. Depending on the outcome of the negotiation, CRR III and CRD VI may include provisions on the capital treatment of crypto assets.

The proposals regarding the resolution regime include clarifications with respect to some aspects of the TLAC / minimum requirement for own funds and eligible liabilities ("**MREL**") regime in relation to single point of entry and multiple point of entry resolution strategies and, in particular, a deduction regime requiring intermediate parents to deduct from their own internal MREL capacity the amount of their holdings of internal MREL eligible instruments, including own funds, issued by their subsidiaries belonging to the same resolution group.

The Banking Package 2021 will continue to be negotiated with EU lawmakers, i.e. the European Parliament and the Council. The Council reached its position on the implementation of the Banking Package 2021 in November 2022, and the European Parliament reached its position in February 2023. The proposal of the European Parliament entails, in particular, an amendment that would require banks to apply a risk-weighting of 1,250 % of capital to crypto assets exposures. It is expected that CRR III and CRD VI will start entering into force at the end of 2023 at the earliest with the new rules implementing Basel 3 to apply from 1 January 2025. According to an assessment conducted by the EBA, the full implementation of the Basel 3 framework in the European Union could lead to an increase in the minimum capital requirements of all European banks of 10.7 % and of 20.0 % for G-SIIs.

The implementation of the remaining outstanding proposals under Basel 3 as contained in the Banking Package 2021 has the potential to increase risk-weighted assets and will likely affect the business by raising Deutsche Bank's regulatory capital and liquidity requirements and by leading to increased costs. Such requirements may be in addition to regulatory capital buffers that may also be increased or be in addition to those already imposed on the Group and could materially increase the Group's capital requirements.

In addition, regulatory scrutiny of compliance with existing laws and regulations has become more intense and supervisory expectations remain significant. The specific effects of a number of new (or revised) laws and regulations remain uncertain because the drafting and implementation of these laws and regulations are still on-going and supervisory expectations continue to develop.

Regulatory authorities have substantial discretion in how to regulate banks, and this discretion, and the means available to the regulators, have been steadily increasing during recent years. Regulation may be imposed on an ad hoc basis by governments and regulators in response to ongoing or future crises (such as the COVID-19 pandemic) and the Green Deal and may especially affect financial institutions such as Deutsche Bank that are deemed to be systemically important.

In particular, the regulators with jurisdiction over Deutsche Bank, including the ECB under the Single Supervisory Mechanism (also referred to as the "**SSM**"), may, in connection with the supervisory review and evaluation process ("**SREP**"), SSM-wide reviews of asset quality or internal risk models or otherwise, conduct stress tests. They have discretion to impose capital surcharges on financial institutions for risks, including for litigation, regulatory and similar matters, that are not otherwise recognized in risk-weighted assets or other surcharges depending on the individual situation of Deutsche Bank. Such adjustments may, for example, reflect additional risks posed by deficiencies in Deutsche Bank's control environment, or come as a result of supervisory inspections concerning the treatment of specific products or transactions. One of these areas in focus of the ECB with regard to risk taking is leveraged lending, for which the ECB in March 2022 clarified their expectations for all banks under the SSM. The ECB announced that it intends to follow up on its expectation using a wide range of supervisory tools and to take measures in future SREP decisions for institutions which the ECB assesses as non-compliant with these expectations. The ECB may take or require other measures, such as restrictions on or changes to the business. In this context, the ECB may impose, and has imposed, on Deutsche Bank individual capital requirements resulting from the SREP which are referred to as Pillar 2 requirements. Institutions must meet their Pillar 2 requirements with at least 75 % of Tier 1 capital and at least 56.25 % of Common Equity Tier 1 capital. Pillar 2 requirements must be fulfilled in addition to the statutory minimum capital and buffer requirements and any non-compliance may have immediate legal consequences such as restrictions on dividend payments.

Also following the SREP, the ECB may communicate to individual banks, and has communicated to Deutsche Bank, an expectation to hold a further Pillar 2 Common Equity Tier 1 capital add-on, the so-called Pillar 2 guidance. Although the Pillar 2 guidance is not legally binding and failure to meet it does not automatically trigger legal action, the ECB has stated that it generally expects banks to meet the Pillar 2 guidance. During the COVID-19 pandemic, the ECB temporarily allowed banks to operate below the level of capital defined by the Pillar 2 guidance. Since 1 January 2023, banks are expected again to operate above Pillar 2 guidance.

Further, effective as of 1 February 2022, the BaFin set the countercyclical capital buffer ("**CCyB**") at 0.75 %, and banks have had to comply with this CCyB requirement since 1 February 2023.

Following the 2022 SREP, Deutsche Bank has been informed by the ECB of its decision regarding prudential capital requirements to be maintained from 1 January 2023 onwards, that Deutsche Bank's Pillar 2 requirement will increase by 20 bps. The increase is driven by the ECB's newly introduced separate assessment of risks stemming from leveraged finance activities.

Also, more generally, competent regulators may, if Deutsche Bank fails to comply with regulatory requirements, in particular with statutory minimum capital requirements or Pillar 2 requirements, or if there are shortcomings in Deutsche Bank's governance and risk management processes, prohibit Deutsche Bank from making dividend payments to shareholders or distributions to holders of other regulatory capital instruments. This could occur, for example, if Deutsche Bank fails to make sufficient profits due to declining revenues, or as a result of substantial outflows due to litigation, regulatory and similar matters. Generally, a failure to comply with the quantitative and qualitative regulatory requirements could have a material adverse effect on Deutsche Bank's business, financial condition and results of operations, including the Group's ability to pay out dividends to shareholders or distributions on other regulatory capital instruments or, in certain circumstances, conduct business which Deutsche Bank currently conducts or plans to conduct in the future.

Capital requirements: The regulatory and legislative environment requires Deutsche Bank to maintain increased capital and bail-inable debt (debt that can be bailed in in resolution) and abide by tightened liquidity requirements. These requirements may significantly affect Deutsche Bank's business model, financial condition and results of operations, as well as the competitive environment generally. Any perceptions in the market that Deutsche Bank may be unable to meet its capital or liquidity requirements with an adequate buffer, or that Deutsche Bank should maintain capital or liquidity in excess of these requirements, or any other failure to meet these requirements, could intensify the effect of these factors on its business and results.

The implementation of the CRR / CRD IV legislative package resulted, among other things, in increased capital and tightened liquidity requirements, including additional capital buffer requirements which were gradually phased in through 1 January 2019. Further revisions, such as stricter rules on the measurement of risks and the changes introduced by the CRR II / CRD V / BRRD II reform package, increased risk-weighted assets and the corresponding capital demand for banks, as well as tightened liquidity requirements (such as the introduction of a binding Net Stable Funding Ratio ("**NSFR**")). In addition, the introduction of a binding leverage ratio (including the leverage ratio buffer) affected the business model, financial conditions and results of operations.

Furthermore, under the SRM Regulation, the BRRD and the German Recovery and Resolution Act (*Sanierungs- und Abwicklungsgesetz*), Deutsche Bank is required to meet at all times a robust MREL which is determined on a case-by-case basis by the competent resolution authority. In addition, the CRR II / CRD V / BRRD II reform package implemented the FSB's TLAC standard for global systemically important banks ("**G-SIBs**", such as Deutsche Bank) by introducing a Pillar 1 MREL requirement for G-SIIs (the European equivalent term for G-SIBs). This requirement is based on both risk-based and non-risk-based denominators and will be set at the higher of 18 % of total risk exposure and 6.75 % of the leverage ratio exposure measure. It can be met with Tier 1 or Tier 2 capital instruments or debt that meets specific eligibility criteria. Deduction rules apply for holdings by G-SIIs of TLAC instruments of other G-SIIs. In addition, the competent authorities have the ability to impose on G-SIIs individual MREL requirements that exceed the statutory minimum requirements. As described above, the European Commission included clarifications with respect to the TLAC / MREL regime in its legislative proposals of 27 October 2021.

Both the TLAC (or Pillar 1 MREL) and MREL requirements are specifically designed to require banks to maintain a sufficient amount of instruments which are eligible to absorb losses in resolution with the aim of ensuring that failing banks can be resolved without recourse to taxpayers' money. To that end, in order to facilitate the meeting of TLAC requirements by German banks, obligations of German banks under certain specifically defined senior unsecured debt instruments issued by them (such as bonds that are not structured debt instruments) rank, since 2017, junior to all other outstanding unsecured unsubordinated obligations of such bank (such as deposits, derivatives, money market instruments and certain structured debt instruments), but continue to rank in priority to contractually subordinated debt instruments (such as Tier 2 instruments).

As part of the harmonization of national rules on the priority of claims of banks' creditors in the European Union, the BRRD allows banks to issue "senior non-preferred" debt instruments ranking according to their terms (and not only statutorily) junior to the banks' other unsubordinated debt instruments (including bonds that are not treated as "senior non-preferred" debt instruments), but in priority to Deutsche Bank's contractually subordinated liabilities (such as Tier 2 instruments). Any such "senior non-preferred" debt instruments issued by Deutsche Bank AG under such rules rank on parity with its then outstanding "senior non-preferred" debt instruments under the prior rules. This BRRD amendment was finalized and implemented into German law as of 21 July 2018.

The need to comply with these requirements may affect the Group's business, financial condition and results of operation and in particular may increase its financing costs.

The Group may not have sufficient capital or other loss-absorbing liabilities to meet these increasing regulatory requirements. This could occur due to regulatory changes and other factors, such as the banks' inability to issue new securities which are recognized as regulatory capital or loss-absorbing liabilities under the applicable standards, due to an increase of risk-weighted assets based on more stringent rules for the measurement of risks or as a result of a future decline in the value of the euro as compared to other currencies, due to stricter requirements for the compliance with the non-risk based leverage ratio, due to any substantial losses the bank may incur, which would reduce retained earnings, a component of Common Equity Tier 1 capital, or due to a combination of these or other factors.

If Deutsche Bank is unable to maintain sufficient capital to meet the applicable minimum capital ratios, the buffer requirements, any specific Pillar 2 capital requirements, leverage ratio requirements, or TLAC or MREL requirements, Deutsche Bank may become subject to enforcement actions and/or restrictions on the pay-out of dividends, share buybacks, payments on other regulatory capital instruments, and discretionary compensation payments. In addition, any requirement to increase risk-based capital ratios or the leverage ratio could lead the Group to adopt a strategy focusing on capital preservation and creation over revenue generation and profit growth, including the reduction of higher margin risk-weighted assets. If Deutsche Bank is unable to increase its capital ratios to the regulatory minimum in such a case or by raising new capital through the capital markets, through the reduction of risk-weighted assets or through other means, Deutsche Bank may be required to activate its group recovery plan. If these actions or other private or supervisory actions do not restore capital ratios to the required levels, and the Group is deemed to be failing or likely to fail, competent authorities may apply resolution powers under the Single Resolution Mechanism ("**SRM**") and applicable rules and regulations, which could lead to a significant dilution of shareholders' or even the total loss of the Group's shareholders' or creditors' investment.

The CRR introduced a liquidity coverage requirement intended to ensure that banks have an adequate stock of unencumbered high quality liquid assets that can be easily and quickly converted into cash to meet its liquidity needs for a 30-calendar day liquidity stress scenario. The required liquidity coverage ratio ("**LCR**") is calculated as the ratio of a bank's liquidity buffer to its net liquidity outflows. Also, banks must regularly report the composition of the liquid assets in its liquidity buffer to their competent authorities.

In addition, the CRR II / CRD V / BRRD II reform package introduced the NSFR to reduce medium- to long-term funding risks by requiring banks to fund its activities with sufficiently stable sources of funding over a one-year period. The NSFR, which applies since 28 June 2021, is defined as the ratio of a bank's available stable funding relative to the amount of required stable funding over a one-year period. Banks must maintain an NSFR of at least 100 %. The ECB may impose on individual banks liquidity requirements which are more stringent than the general statutory requirements if the bank's continuous liquidity would otherwise not be ensured. The NSFR applies to both the Group as a whole and to individual SSM regulated entities, including the parent entity Deutsche Bank AG.

If Deutsche Bank fails to meet liquidity requirements, Deutsche Bank may become subject to enforcement actions. In addition, any requirement to maintain or increase liquidity could lead the bank to reduce activities that pursue revenue generation and profit growth.

Deutsche Bank is regularly subject to stress tests, including stress tests on the effects of climate change. The next EU-wide stress test will be carried out in 2023 and the EBA plans to publish the results for the individual banks by the end of July 2023. The EBA will coordinate the EU-wide stress test in cooperation with the ECB and national supervisory authorities. A total of 99 directly supervised banks, including Deutsche Bank, will be stress tested by the ECB which announced that it will carry out a deep dive on leveraged finance exposures for selected banks with material leveraged finance activities. The adverse scenario used in the test is based on a narrative of hypothetical heightened geopolitical tensions, with high inflation and higher interest rates having strong adverse effects on private consumption and investments, both domestically and globally. In terms of GDP decline, the 2023 adverse scenario is the most severe used in the European Union wide stress testing up to now. The stress test results will be used to update each bank's Pillar 2 guidance in the context of the SREP. Qualitative findings on weaknesses in Deutsche Bank's stress testing practices could also affect Deutsche Bank's Pillar 2 requirements.

Local capital requirements: In some cases, Deutsche Bank is required to hold and calculate capital and to comply with rules on liquidity and risk management separately for its local operations in different jurisdictions, in particular in the United States.

Deutsche Bank is required to hold and calculate capital and to comply with rules on liquidity and risk management separately for its local operations in different jurisdictions. Federal Reserve Board rules set forth how the U.S. operations of certain foreign banking organizations ("**FBOs**"), such as Deutsche Bank, are required to be structured, as well as the enhanced prudential standards that apply to their U.S. operations. Under these rules, a large FBO with U.S.$ 50 billion or more in U.S. non-branch assets, such as Deutsche Bank, is required to establish or designate a separately capitalized top-tier U.S. intermediate holding company (an "**IHC**") that would hold substantially all of the FBO's ownership interests in its U.S. subsidiaries. The Federal Reserve Board may permit an FBO subject to the U.S. IHC requirement to establish or designate multiple U.S. IHCs upon written request. Deutsche Bank has designated two IHCs: DB USA Corporation and DWS USA Corporation. DWS USA Corporation is a subsidiary of DWS Group GmbH & Co. KGaA, which is approximately 80 % owned by Deutsche Bank and holds Deutsche Bank's Asset Management division and subsidiaries. Each IHC is subject, on a consolidated basis, to the risk-based and leverage capital requirements under the U.S. Basel 3 capital framework, capital planning and stress testing requirements, U.S. liquidity buffer requirements and other enhanced prudential standards comparable to those applicable to large U.S. banking organizations. They are also subject to supplementary leverage ratio requirements. The Federal Reserve Board has the authority to examine an IHC, such as DB USA Corporation and DWS USA Corporation, and its subsidiaries, as well as U.S. branches and agencies of FBOs, such as Deutsche Bank's New York branch.

On 10 October 2019, the Federal Reserve Board finalized rules to categorize the U.S. operations of large FBOs based on size, complexity and risk for purposes of tailoring the application of the U.S. enhanced prudential standards (the "**Tailoring Rules**"). The Tailoring Rules do not significantly change the capital requirements that apply to DB USA Corporation or DWS USA Corporation although they provide the option to comply with certain simplifications to the capital requirements. However, the Tailoring Rules provide modest relief for Deutsche Bank's U.S. IHCs with respect to applicable liquidity requirements so long as Deutsche Bank's IHCs' combined weighted short term wholesale funding remains below U.S.$ 75 billion.

As a bank holding company with assets of U.S.$ 250 billion or more, Deutsche Bank AG is required under Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, as amended (the "**Dodd-Frank Act**"), and the implementing regulations thereunder to prepare and submit to the Federal Reserve Board and the Federal Deposit Insurance Corporation ("**FDIC**") either a full or targeted resolution plan (the "**U.S. Resolution Plan**") on a timeline prescribed by such agencies. The U.S. Resolution Plan must demonstrate that Deutsche Bank AG has the ability to execute a strategy for the orderly resolution of its designated U.S. material entities and operations. For foreign-based companies subject to these resolution planning requirements such as Deutsche Bank AG, the U.S. Resolution Plan relates only to subsidiaries, branches, agencies and businesses that are domiciled in or whose activities are carried out in whole or in material part in the United States. Deutsche Bank's U.S. Resolution Plan describes the single point of entry strategy for Deutsche Bank's U.S. material entities and operations and prescribes that DB USA Corporation, one of Deutsche Bank's IHCs, would provide liquidity and capital support to its U.S. material entity subsidiaries and ensure their solvent wind-down outside of applicable resolution proceedings.

By 17 December 2021, Deutsche Bank filed its first 'targeted' 2021 U.S. Resolution Plan, which described the core elements of Deutsche Bank's U.S. resolution strategy – such as capital, liquidity, and recapitalization strategies – as well as how Deutsche Bank has integrated lessons learned from its response to the COVID-19 pandemic into its resolution planning process. On 16 December 2022, the Federal Reserve Board and the FDIC announced the results of their review of Deutsche Bank's 2021 U.S. Resolution Plan, as well as those of other banks and did not find any shortcomings or deficiencies in Deutsche Bank's plan. In their feedback letter to Deutsche Bank, the agencies noted areas where further progress will help improve resolvability, which Deutsche Bank must address in its next full resolution plan submission, which is due on 1 July 2024.

If the Federal Reserve Board and the FDIC were to jointly deem Deutsche Bank's U.S. Resolution Plan not credible and Deutsche Bank failed to remediate any deficiencies in the required timeframe prescribed by the Federal Reserve Board and FDIC, these agencies could impose restrictions on Deutsche Bank or require the restructuring or reorganization of businesses, legal entities, operational systems and/or intra-company transactions which could negatively impact Deutsche Bank's operations and/or strategy. Additionally, the Federal Reserve Board and FDIC could also subject Deutsche Bank to more stringent capital, leverage or liquidity requirements, or require Deutsche Bank to divest certain assets or operations.

DB USA Corporation and DWS USA Corporation are each subject, on an annual basis, to the Federal Reserve Board's supervisory stress testing and capital requirements. DB USA Corporation and DWS USA Corporation are also subject to the Federal Reserve's Comprehensive Capital Analysis and Review ("**CCAR**"), which is an annual supervisory exercise that assesses the capital positions and planning practices of large bank holding companies and IHCs. On 23 June 2022, the Federal Reserve Board publicly released the results of its annual supervisory stress test, which showed that DB USA Corporation and DWS USA Corporation would continue to have capital levels above minimum requirements even under the stress test's severely adverse scenario. DB USA Corporation and DWS USA Corporation submitted their annual capital plans in April 2022 and will make their next capital plan submissions to the Federal Reserve Board in April 2023. If the Federal Reserve Board were to object to these capital plans, Deutsche Bank could be required to increase capital or restructure businesses in ways that may negatively impact Deutsche Bank's operations and strategy or could be subject to restrictions on growth in the United States.

Following amendments in 2020, the CCAR process combines the CCAR quantitative assessment and the buffer requirements in the Federal Reserve Board's capital rules to create an integrated capital buffer requirement. The amendments eliminated the quantitative and qualitative 'pass/fail' assessments from CCAR and modified the static capital conservation buffer to incorporate an institution-specific stress capital buffer ("**SCB**"), which is floored at 2.5 %. The stress capital buffer equals (i) a bank holding company's projected peak-to-trough decline in common equity tier 1 capital under the annual CCAR supervisory severely adverse stress testing scenario prior to any planned capital actions, plus (ii) one year of planned common stock dividends. The stress capital buffer will be reset each year. On 4 August 2022, the Federal Reserve Board announced an SCB for each CCAR firm based on 2022 supervisory stress testing results, which for DB USA Corporation was 4.5 % and for DWS USA Corporation was 8.7 %. This SCB became effective 1 October 2022 and will remain in effect until 30 September 2023, at which point the size of the SCB for each of Deutsche Bank's IHCs will be recalibrated based on the results of the 2023 stress tests, which are expected to be released in June 2023.

Large U.S. bank holding companies and certain of their subsidiary depositary institutions are subject to liquidity coverage ratio ("**LCR**") requirements that are generally consistent with the Basel Committee's revised Basel 3 liquidity standards. DB USA Corporation, DWS USA Corporation and Deutsche Bank's principal U.S. bank subsidiary, Deutsche Bank Trust Company Americas ("**DBTCA**"), are subject to the LCR requirements. The Tailoring Rules reduced the LCR requirements applicable to these entities from 100 to 85 % coverage of net outflows over a projected 30-day period.

On 20 October 2020, the Federal Reserve Board and other U.S. regulators finalized rules implementing the second element of the Basel 3 liquidity framework, the net stable funding ratio ("**NSFR**"). Under the Tailoring Rules, DB USA Corporation, DWS USA Corporation and DBTCA are subject to an 85 per cent. NSFR so long as the IHCs' combined weighted short term wholesale funding remains below U.S.$ 75 billion. Effective 1 July 2021, these firms are required to calculate the NSFR on a daily basis. Beginning in 2023, these firms will be required to publicly report NSFR information on a periodic basis.

On 15 December 2016, the Federal Reserve Board adopted final rules that implement the FSB's TLAC standard in the United States. The final rules require, among other things, U.S. IHCs of non-U.S. G-SIBs, including Deutsche Bank's IHCs, DB USA Corporation and DWS USA Corporation, to maintain a minimum amount of TLAC, and separately require them to maintain a minimum amount of long-term debt meeting certain requirements.

U.S. rules and interpretations, including those described above, could cause Deutsche Bank to reduce assets held in the United States, or to inject capital and/or liquidity into or otherwise change the structure of the Group's U.S. operations, and could also restrict the ability of the U.S. subsidiaries to pay dividends or the amount of such dividends. To the extent that the Group is required to reduce operations in the United States or deploy capital or liquidity in the United States that could be deployed more profitably elsewhere, these requirements could have an adverse effect on the Group's business, financial condition and results of operations.

Any increased capital or liquidity requirements, including those described above, could have adverse effects on the Group's business, financial condition and results of operations, as well as on perceptions in the market of its stability, particularly if any such requirement and results in the Group having to raise capital at a time when Deutsche Bank or the financial markets are distressed, or take other measures to increase liquidity in certain jurisdictions due to local requirements. The measures required or Deutsche Bank might find necessary to take in response to these shifting local requirements may be inconsistent with, and hinder the achievement of, its strategic goals. In addition, if these regulatory requirements must be implemented more quickly than currently foreseen, the Group may decide that the quickest and most reliable path to compliance is to reduce the level of assets on its balance sheet, dispose of assets or otherwise segregate certain activities or reduce or close down certain business lines. The effects on capital raising efforts in such a case could be amplified due to the expectation that Deutsche Bank's competitors, at least those subject to the same or similar capital requirements, would likely also be required to raise capital at the same time. Moreover, some of Deutsche Bank's competitors, particularly those outside the European Union, may not face the same or similar regulations, which could put the bank at a competitive disadvantage.

In addition to these regulatory initiatives, market sentiment may encourage financial institutions such as Deutsche Bank to maintain significantly more capital, liquidity and loss-absorbing capital instruments than the regulatory-mandated minima, which could exacerbate the effects described above or, if the bank does not increase its capital to the encouraged levels, could lead to the perception in the market that the bank is undercapitalized relative to peers.

It is unclear whether the U.S. capital and other requirements described above, as well as similar developments in other jurisdictions, could lead to a fragmentation of supervision of global banks that could adversely affect the Group's reliance on regulatory waivers allowing Deutsche Bank to meet capital adequacy requirements, large exposure limits and certain organizational requirements on a consolidated basis only rather than on both a consolidated and non-consolidated basis. Should the Group no longer be entitled to rely on these waivers, the Group would have to adapt and take the steps necessary in order to meet regulatory capital requirements and other requirements on a consolidated as well as a non-consolidated basis, which could result also in significantly higher costs and potential adverse effects on the Group's profitability and dividend paying ability.

Regulatory capital and liquidity ratios: Deutsche Bank's regulatory capital and liquidity ratios and its funds available for distributions on its shares or regulatory capital instruments will be affected by business decisions and, in making such decisions, the Group's interests and those of the holders of such instruments may not be aligned, and Deutsche Bank may make decisions in accordance with applicable law and the terms of the relevant instruments that result in no or lower payments being made on Deutsche Bank shares or regulatory capital instruments.

Deutsche Bank's regulatory capital and liquidity ratios are affected by a number of factors, including decisions Deutsche Bank makes relating to its businesses and operations as well as the management of its capital position, risk-weighted assets and balance sheet, and external factors, such as regulations regarding the risk weightings of Deutsche Bank's assets, commercial and market risks or the costs of its legal or regulatory proceedings. While Deutsche Bank's management is required to take into account a broad range of considerations in managerial decisions, including the interests of Deutsche Bank as a regulated institution and those of Deutsche Bank's shareholders and creditors, particularly in times of weak earnings and increasing capital requirements, the regulatory requirements to build capital and liquidity may become paramount. Accordingly, in making decisions in respect of capital and liquidity management, Deutsche Bank is not required to adhere to the interests of the holders of instruments issued that qualify for inclusion in regulatory capital, such as Deutsche Bank's shares or Additional Tier 1 capital instruments. Deutsche Bank may decide to refrain from taking certain actions, including increasing capital at a time when it is feasible to do so (through securities issuances or otherwise), even if its failure to take such actions would result in a non-payment or a write-down or other recovery- or resolution-related measure in respect of any of its regulatory capital instruments. Deutsche Bank's decisions could cause the holders of such regulatory capital instruments to lose all or part of the value of their investments in these instruments due to the effect on the Group's regulatory capital ratios, and such holders will not have any claim against Deutsche Bank AG relating to such decisions, even if they result in a non-payment or a write-down or other recovery- or resolution-related measure in respect of such instruments it holds.

In addition, the annual profit and distributable reserves, which form an important part of the funds available to pay dividends on shares and make payments on other regulatory capital instruments, as determined in the case of each such instrument by its terms or by operation of law, are calculated on an unconsolidated basis generally in accordance with German accounting rules set forth in the Commercial Code (*Handelsgesetzbuch*). Any adverse change in Deutsche Bank's financial prospects, financial position or profitability, or Deutsche Bank AG's distributable reserves, each as calculated on an unconsolidated basis, may have a material adverse effect on the Group's ability to make dividend or other payments on these instruments. In addition, as part of the implementation of Deutsche Bank's strategy, it may record impairments that reduce the carrying value of subsidiaries on Deutsche Bank AG's unconsolidated balance sheet and reduce profits and distributable reserves. Future impairments or other events that reduce its profit or distributable reserves on an unconsolidated basis could lead Deutsche Bank to be unable to make such payments in respect of future years in part or at all. In particular, the direct costs of Deutsche Bank's potential settlements of litigation, enforcement and similar matters, especially to the extent in excess of provisions Deutsche Bank has established for them, and their related business impacts, if they occur, could impact such distributable amounts.

In addition, German law places limits on the extent to which annual profits and otherwise-distributable reserves, as calculated on an unconsolidated basis, may be distributed to shareholders or the holders of other regulatory capital instruments, such as Additional Tier 1 capital instruments. The Group's management also has, subject to applicable law, broad discretion under the applicable accounting principles to influence all amounts relevant for calculating funds available for distribution. Such decisions may impact the ability to make dividend or other payments under the terms of Deutsche Bank's regulatory capital instruments.

Resolution legislation: European and German legislation regarding the recovery and resolution of banks and investment firms could, if steps were taken to ensure resolvability or resolution measures were imposed on Deutsche Bank, significantly affect the Group's business operations, and lead to losses for shareholders and creditors.

Germany participates in the SRM, which centralizes at a European level the key competences and resources for managing the failure of any bank in member states of the European Union participating in the banking union. The SRM is based on the SRM Regulation and the BRRD, which was implemented in Germany through the German Recovery and Resolution Act. In addition, the German Resolution Mechanism Act (*Abwicklungs-mechanismusgesetz*) adapted German bank resolution laws to the SRM.

The SRM Regulation and the German Recovery and Resolution Act require the preparation of recovery and resolution plans for banks and grant broad powers to public authorities to intervene in a bank which is failing or likely to fail. For a bank directly supervised by the ECB, such as Deutsche Bank, the Single Resolution Board (referred to as the "**SRB**") assesses its resolvability and may require legal and operational changes to the bank's structure to ensure its resolvability. In the event that such bank is deemed by the ECB or the SRB as failing or likely to fail and certain other conditions are met, the SRB is responsible for adopting a resolution scheme for resolving the bank pursuant to the SRM Regulation. The European Commission and, to a lesser extent, the Council of the European Union, have a role in endorsing or objecting to the resolution scheme proposed by the SRB. The resolution scheme would be addressed to and implemented by the competent national resolution authorities (in Germany, the German Federal Financial Supervisory Authority (*Bundes-anstalt für Finanzdienstleistungsaufsicht*, "**BaFin**")) in line with the national laws implementing the BRRD. Resolution measures that could be imposed upon a bank in resolution may include the transfer of shares, assets or liabilities of the bank to another legal entity, the reduction, including to zero, of the nominal value of shares, the dilution of shareholders or the cancellation of shares outright, or the amendment, modification or variation of the terms of the bank's outstanding debt instruments, for example by way of a deferral of payments or a reduction of the applicable interest rate. Furthermore, certain eligible unsecured liabilities, in particular certain senior "non-preferred" debt instruments specified by the German Banking Act, may be written down, including to zero, or converted into equity (commonly referred to as "**bail-in**") if the bank becomes subject to resolution.

The SRM is intended to eliminate, or reduce, the need for public support of troubled banks. Therefore, financial public support for such banks, if any, would be used only as a last resort after having assessed and exploited, to the maximum extent practicable, the resolution powers, including a bail-in. The taking of actions to ensure Deutsche Bank's resolvability or the exercise of resolution powers by the competent resolution authority could materially affect the Group's business operations and lead to a significant dilution of shareholders or even the total loss of shareholders' or creditors' investment.

Other regulatory reforms: Other regulatory reforms that have been adopted or proposed – for example, extensive new regulations governing derivatives activities, compensation, bank levies, deposit protection, data protection, investment firms and ESG – may materially increase Deutsche Bank's operating costs and negatively impact its business model.

Beyond capital requirements and the other requirements discussed above, Deutsche Bank is affected, or expect to be affected, by various additional regulatory reforms, including, among other things, regulations governing its derivatives activities, compensation, bank levies, deposit protection, data protection, investment firms and ESG.

On 16 August 2012, the EU Regulation on over-the-counter ("**OTC**") derivatives, central counterparties and trade repositories, referred to as European Market Infrastructure Regulation ("**EMIR**"), entered into force. EMIR introduced a number of requirements, including clearing obligations for certain classes of OTC derivatives and various reporting and disclosure obligations. EMIR implementation has led and may lead to changes that may negatively impact Deutsche Bank's profit margins. The revised Markets in Financial Instruments Directive ("**MiFID II**") and the corresponding Regulation ("**MiFIR**") became applicable to Deutsche Bank on 3 January 2018 and provide for, among other things, a trading obligation for those OTC derivatives which are subject to mandatory clearing and which are sufficiently standardized. On 25 November 2021, the European Commission published a proposal for a review of MiFIR (referred to as the "**MiFIR Review**") that entails amendments to MiFIR and MiFID II. The proposals in the MiFIR Review, among other things, introduce an EU-wide consolidated tape for each asset class, enhanced transparency requirements for small trades in equities (such as shares) and for non-equities (such as derivatives and bonds), and adjust the scope of the EU share trading obligation and derivatives trading obligation.

In the United States, the Dodd-Frank Act has numerous provisions that affect or may affect operations. Pursuant to regulations implementing provisions of the Dodd-Frank Act, Deutsche Bank provisionally registered as a swap dealer with the U.S. Commodity Futures Trading Commission ("**CFTC**") and became subject to the CFTC's extensive oversight. Regulation of swap dealers by the CFTC imposes numerous corporate governance, business conduct, capital, margin, reporting, clearing, execution and other regulatory requirements on Deutsche Bank. It also requires the Group to comply with certain U.S. rules in some circumstances with respect to transactions conducted outside of the United States or with non-U.S. persons. Although the coverage of EMIR and CFTC regulations implementing the Dodd-Frank Act is in many ways similar, certain swaps may be subject to both regulatory regimes to a significant extent.

Additionally, under the Dodd-Frank Act, security-based swaps are subject to a standalone regulatory regime under the jurisdiction of the U.S. Securities and Exchange Commission ("**SEC**"). The SEC has implemented rules regarding registration, capital, risk-mitigation techniques, reporting, business conduct standards, trade acknowledgement and verification requirements, and cross-border requirements for security-based swap dealers that are generally similar to the CFTC's rules for swap dealers. These rules generally came into effect in November 2021, the first compliance date for registration of security-based swap dealers. Pursuant to these rules, Deutsche Bank is conditionally registered as a security-based swap dealer and are now subject to further regulation of its derivatives business.

Pursuant to these CFTC and SEC regulations, there may be instances where Deutsche Bank can comply with European and/or German requirements in lieu of complying with the U.S. regulatory requirements. These requirements under the Dodd-Frank Act may adversely affect its derivatives business and make Deutsche Bank less competitive, especially as compared to competitors not subject to such regulation.

In addition, the CRR / CRD IV legislative package provided for executive compensation reforms including caps on bonuses that may be awarded to "material risk takers" and other employees as defined therein and in the German Banking Act and other applicable rules and regulations such as the Remuneration Regulation for Institutions (*Institutsvergütungsverordnung*). Such restrictions on compensation, including the amendments introduced by the CRR II / CRD V / BRRD II reform package and any guidelines issued by the EBA to further implement them, could put Deutsche Bank at a disadvantage to its competitors in attracting and retaining talented employees, especially compared to those outside the European Union that are not subject to these caps and other constraints.

Bank levies have been introduced in some countries including, among others, Germany and the United Kingdom. Deutsche Bank paid € 762 million for bank levies in 2022, € 553 million in 2021 and € 633 million in 2020. Also, Deutsche Bank is required to contribute substantially to the Single Resolution Fund under the SRM (which is intended to reach by the end of 2023 a target level of 1 % of insured deposits of all banks in member states participating in the SRM) and the statutory deposit guarantee and investor compensation schemes under the recast European Union directive on deposit guarantee schemes ("**DGS Directive**") and the European Union directive on investor compensation schemes. The DGS Directive defines a 0.8 % target level of prefunding by 3 July 2024 (similar to resolution funds), which has significantly increased the costs of the statutory deposit protection scheme. Deutsche Bank also participates in the voluntary deposit protection provided by the private banks in Germany through the Deposit Protection Fund (*Einlagensicherungsfonds*) which is funded through contributions by its members. While the total impact of future levies cannot currently be quantified, it may have a material adverse effect on the Group's business, financial condition and results of operations in future periods. Failure of banks, resolution measures and a decline of the value of the assets held by the SRM by the relevant DGS can cause an increase of contributions in order to replenish the shortfall.

Deutsche Bank is subject to the General Data Protection Regulation ("**GDPR**") which has increased its regulatory obligations in connection with the processing of personal data, including requiring compliance with the GDPR's data protection principles, the increased number of data subject rights and strict data breach notification requirements. The GDPR grants broad enforcement powers to supervisory authorities, including the potential to levy significant fines for non-compliance and provides for a private right of action for individuals who are affected by a violation of the GDPR. Compliance with the GDPR requires investment in appropriate technical and organizational measures and Deutsche Bank may be required to devote significant resources to data protection on an ongoing basis. In the event that Deutsche Bank is found to have not met the standards required by the GDPR, Deutsche Bank may incur damage to its reputation and the imposition by data protection supervisory authorities of significant fines or restrictions on its ability to process personal data, and Deutsche Bank may be required to defend claims for compensation brought by affected individuals, all of which could have a material adverse effect on Deutsche Bank.

On 27 November 2019, the European Parliament and the Council adopted the Investment Firm Regulation and the Investment Firm Directive, which introduced substantive regulatory changes (including to the calculation of capital requirements) in respect of investment firms, such as the Group's subsidiary DWS. The Investment Firm Regulation and the Investment Firm Directive (as implemented into German law) are in full force since 26 June 2021.

A number of jurisdictions where Deutsche Bank is active are starting to discuss rules related to environmental, social and governance ("**ESG**") aspects of Deutsche Bank's business and exposure. It is currently difficult to estimate how these rules could impact Deutsche Bank.

Protection of retail customers: Scrutiny of regulators and courts in respect of the protection of retail customers has increased in particular with respect to the enforceability and transparency of standard business terms and compensation for alleged damages.

In the recent past, regulators and courts have put further emphasis on the protection of retail customers. Examples of this are (i) BaFin's general order of 21 June 2021, pursuant to which credit institutions must inform customers of certain invalid interest rate adjustment clauses in their standard business terms; (ii) the German Federal Court of Justice's ("**BGH**") decision of 27 April 2021, according to which typical clauses in the standard business terms of banks providing for deemed consent to proposed amendments if the customer does not object within a certain period are unenforceable; and (iii) the FX mortgages loan cases in Poland, which constitute an industry-wide and highly disputed and litigated issue, where courts have found that certain mortgage loan agreements in foreign currencies include unfair conditions and are therefore unenforceable. Customer restitution practices in respect of such matters have varied significantly across the industry, and if Deutsche Bank's practices differ from accepted norms, the Group may be subject to civil or regulatory claims. These matters may result in the imposition of additional costs to Deutsche Bank or require the Group to reimburse or pay damages to clients.

Risks Relating to Deutsche Bank's Internal Control Environment

Internal control environment: A robust and effective internal control environment and adequate infrastructure (comprising people, policies and procedures, controls testing and IT systems) are necessary to ensure that Deutsche Bank conducts its business in compliance with the laws, regulations and associated supervisory expectations applicable to Deutsche Bank. Deutsche Bank has identified the need to strengthen its internal control environment and infrastructure and has embarked on initiatives to accomplish this. If these initiatives are not successful or proceed too slowly, Deutsche Bank's reputation, regulatory position and financial condition may be materially adversely affected, and its ability to achieve Deutsche Bank's strategic ambitions may be impaired.

Deutsche Bank's businesses are highly dependent on its ability to maintain a robust and effective internal control environment. This is needed for Deutsche Bank to process and monitor, on a daily basis, a wide variety of transactions, many of which are highly complex and occur at high speeds, volumes and frequencies, and across numerous and diverse markets and currencies. Such a robust and effective control environment is in turn dependent on the sufficiency of Deutsche Bank's infrastructure to support that environment. This infrastructure consists broadly of internal policies and procedures, testing protocols, and the IT systems and employees needed to enforce and enable them. An effective control environment is dependent on infrastructure systems and procedures that cover the processing and settling of transactions; the valuation of assets; the identification, monitoring, aggregation, measurement and reporting of risks and positions against various metrics; the evaluation of counterparties and customers for legal, regulatory and compliance purposes; the escalation of reviews; and the taking of mitigating and remedial actions where necessary. They are also critical for regulatory reporting and other data processing and compliance activities.

Both the internal control environment and the infrastructure that underlies it fall short in a number of areas of Deutsche Bank's standards for completeness and comprehensiveness and are not well integrated across the bank. The Group's IT infrastructure, in particular, is fragmented, with numerous distinct platforms, many of which need significant upgrades, in operation across the bank. The Group's business processes and the related control systems often require manual procedures and actions that increase the risks of human error and other operational problems that can lead to delays in reporting information to management and to the need for more adjustments and revisions than would be the case with more seamlessly integrated and automated systems and processes. As a result, it is often difficult and labor-intensive for Deutsche Bank to obtain or provide information of a consistently high quality and on a timely basis to comply with regulatory reporting and other compliance requirements or to meet regulatory expectations on a consistent basis and, in certain cases, to manage the Group's risk comprehensively. Furthermore, it often takes intensive efforts to identify, when possible, inappropriate behavior by staff and attempts by third parties to misuse the Group's services as a conduit for prohibited activities, including those relating to anti-financial crime laws and regulation.

In addition, Deutsche Bank may not always have the personnel with the appropriate experience, seniority and skill levels to compensate for shortcomings in its processes and infrastructure, or to identify, manage or control risks, and it often has been difficult to attract and retain the requisite talent. This has impacted Deutsche Bank's ability to remediate existing weaknesses and manage the risks inherent in its activities. Additionally, attrition in positions key to improving the Group's control environment remains a risk. Furthermore, engagement of third-party service providers may not be sufficient to address Deutsche Bank's staffing issues in these areas or the underlying shortcomings themselves.

Against this backdrop, regulators, the Management Board and the Group Audit function have increasingly and more intensively focused on internal controls and infrastructure through numerous formal reviews and audits of the Group's operations. These reviews and audits have identified various areas for improvement relating to a number of elements of Deutsche Bank's control environment and infrastructure. These include the infrastructure relating to transaction capturing and recognition, classification of assets, asset valuation frameworks, models, data and process consistency, information security, software license management, payment services, risk identification, measurement and management and other processes required by laws, regulations, and supervisory expectations. They also include regulatory reporting, anti-money laundering ("**AML**"), transaction monitoring, "know-your-customer" ("**KYC**"), sanctions and embargoes, market conduct and other internal processes that are aimed at preventing use of Deutsche Bank's products and services for the purpose of committing or concealing financial crime.

Deutsche Bank's principal regulators, including BaFin, the ECB and the Federal Reserve Board, have also conducted numerous reviews focused on Deutsche Bank's internal controls and the related infrastructure. These regulators have required Deutsche Bank formally to commit to remediate its AML and other weaknesses, including the fragmented and manual nature of its infrastructure. For example, on 21 September 2018, BaFin issued an order requiring Deutsche Bank to implement measures on specified timelines over the coming months and years to improve its control and compliance infrastructure relating to AML and, in particular, the KYC processes in certain of Deutsche Bank's businesses. Local regulators in other countries in which the Group does business also review the sufficiency of the Group's control environment and infrastructure with respect to their jurisdictions. While the overall goals of the various prudential regulators having authority over Deutsche Bank in the many places in which it does business are broadly consistent, and the general themes of deficiencies in internal controls and the supporting infrastructure are similar, the regulatory frameworks applicable to Deutsche Bank in the area of internal controls are generally applicable at a national or EU-wide level and are not always consistent across the jurisdictions in which the Group operates around the world. This adds complexity and cost to its efforts to reduce fragmentation and put in place automated systems that communicate seamlessly and quickly with one another.

In order to improve in the areas discussed above, Deutsche Bank is undertaking several major initiatives to enhance the efficacy of the transaction processing environment, strengthen its controls and infrastructure, manage non-financial risks and enhance the skill set of personnel. Deutsche Bank believes that these initiatives will better enable it to avoid the circumstances that have resulted in many of the litigations and regulatory and enforcement investigations and proceedings to which Deutsche Bank has been subject, and will improve its ability to comply with laws and regulations and meet supervisory expectations. In particular, making efforts to reduce the complexity of the Group's business and to integrate and automate processes and business and second-line controls. Deutsche Bank has also exited certain businesses and high-risk countries, selectively off-boarded a number of clients and worked to strengthen its compliance culture and control functions. However, the Group may be unable to complete these initiatives as quickly as it intends or regulators demand, and its efforts may be insufficient to remediate existing deficiencies and prevent future deficiencies or to result in fewer litigations or regulatory and enforcement investigations, proceedings and criticism in the future. The Group may also, when faced with the considerable expense of these initiatives, fail to provide sufficient resources for them quickly enough or at all or underestimate the extent of resource requirements.

The slow pace of Deutsche Bank's remediation efforts and progress on achieving significant and durable improvements in the areas discussed above, may result in regulatory action of the type that has been taken against other financial institutions whose progress regulators have deemed insufficient or too slow. If Deutsche Bank is unable to significantly improve its infrastructure and control environment in a timely manner, Deutsche Bank may be subject to fines or penalties, as well as to regulatory intervention in aspects of its businesses. For example, the Group might feel pressure or be required by regulators to reduce its exposure to or terminate certain kinds of products or businesses, counterparties or regions, which could, depending on the extent of such requirement, significantly challenge its ability to operate profitably under the current business model.

In particular, Deutsche Bank is engaged in ongoing regulatory discussions to resolve matters concerning adherence to prior orders and settlements related to sanctions and embargoes and AML compliance, and remedial agreements and obligations related to risk management issues.

Regulators can also impose capital surcharges, requiring capital buffers in addition to those directly required under the regulatory capital rules applicable to Deutsche Bank, to reflect the additional risks posed by deficiencies in its control environment. In extreme cases, regulators can suspend Deutsche Bank permission to operate in the businesses and regions within their jurisdictions or require extensive and costly remedial actions. Furthermore, implementation of enhanced infrastructure and controls may result in higher-than-expected costs of regulatory compliance that could offset or exceed efficiency gains or significantly affect Deutsche Bank's profitability. Any of these factors could affect the Group's ability to implement its strategy in a timely manner or at all.

Anti-money laundering and know-your-client processes: BaFin has ordered Deutsche Bank to improve its control and compliance infrastructure relating to anti-money laundering and know-your-client processes, and appointed a special representative to monitor these measures' implementation. Deutsche Bank's results of operations, financial condition and reputation could be materially and adversely affected if the bank is unable to significantly improve its infrastructure and control environment by the set deadline.

BaFin ordered Deutsche Bank in September 2018 to take appropriate internal safeguards and comply with general due diligence obligations to prevent money laundering and terrorist financing, in February 2019 to review its group-wide risk management processes in correspondent banking and adjust them where necessary, and in April 2021 to adopt further appropriate internal safeguards and comply with due diligence obligations, with regards to regular client file reviews. This expansion also applies to correspondent relationships and transaction monitoring. On 28 September 2022, BaFin ordered Deutsche Bank AG to take specific measures aimed at preventing money laundering and terrorist financing in order to implement the orders that BaFin issued on 21 September 2018 and 15 February 2019. While the order only requires Deutsche Bank to adhere to its self-imposed remediation deadlines and no new obligations or findings were raised against Deutsche Bank, BaFin may impose financial penalties in case of non-compliance with these measures. The BaFin has appointed a special representative to monitor the implementation of the ordered measures as well as to assess and report on the progress of the implementation to the BaFin.

Deutsche Bank's AML and KYC processes and controls aimed at preventing misuse of its products and services to commit financial crime, continue to be subject of regulatory reviews, investigations, and enforcement actions in several jurisdictions. Deutsche Bank continually seeks to enhance the efficacy of its internal control environment and improve its infrastructure to revised regulatory requirements and to close gaps identified by the bank and/or by regulators and monitors.

If Deutsche Bank is unable to significantly improve its infrastructure and control environment by the set deadlines, the Group's results of operations, financial condition and reputation could be materially and adversely affected. Regulators can impose fines or require Deutsche Bank to reduce its exposure to or terminate certain kinds of products or businesses or relationships with counterparties or regions. Deutsche Bank may also face additional legal proceedings, investigations or regulatory actions in the future, including in other jurisdictions with material impact on Deutsche Bank's business and profitability. These could, depending on the extent of any resulting requirements, significantly challenge Deutsche Bank's reputation and its ability to operate profitably under its current business model.

Risks Relating to Litigation, Regulatory Enforcement Matters, Investigations and Tax Examinations

Litigation environment: Deutsche Bank operates in a highly and increasingly regulated and litigious environment, potentially exposing the bank to liability and other costs, the amounts of which may be substantial and difficult to estimate, as well as to legal and regulatory sanctions and reputational harm.

The financial services industry is among the most highly regulated industries. The Group's operations throughout the world are regulated and supervised by the central banks and regulatory authorities in the jurisdictions in which it operates. In recent years, regulation and supervision in a number of areas has increased, and regulators, law enforcement authorities, governmental bodies and others have sought to subject financial services providers to increasing oversight and scrutiny, which in turn has led to additional regulatory investigations or enforcement actions which are often followed by civil litigation. There has been a steep escalation in the severity of the terms which regulatory and law enforcement authorities have required to settle legal and regulatory proceedings against financial institutions, with settlements in recent years including unprecedented monetary penalties as well as criminal sanctions. As a result, it may continue to be subject to increasing levels of liability and regulatory sanctions, and may be required to make greater expenditures and devote additional resources to addressing these liabilities and sanctions. Regulatory sanctions may include status changes to local licenses or orders to discontinue certain business practices.

Deutsche Bank and its subsidiaries are involved in various litigation proceedings, including civil class action lawsuits, arbitration proceedings and other disputes with third parties, as well as regulatory proceedings and investigations by both civil and criminal authorities in jurisdictions around the world. The Group expects that the costs arising from the resolution of litigation, enforcement and similar matters pending against the Group to continue to be significant in the near to medium term and to adversely affect its business, financial condition and results of operations. Litigation and regulatory matters are subject to many uncertainties, and the outcome of individual matters is not predictable with assurance. Deutsche Bank may settle litigation or regulatory proceedings prior to a final judgment or determination of liability. Deutsche Bank may do so for a number of reasons, including to avoid the cost, management efforts or negative business, regulatory or reputational consequences of continuing to contest liability, even when Deutsche Bank believes it has valid defenses to liability. The Group may also do so when the potential consequences of failing to prevail would be disproportionate to the costs of settlement. Furthermore, it may, for similar reasons, reimburse counterparties for their losses even in situations where the Group does not believe it is compelled to do so. The financial impact of legal risks might be considerable but may be difficult or impossible to estimate and to quantify, so that amounts eventually paid may exceed the amount of provisions made or contingent liabilities assessed for such risks.

Actions currently pending against Deutsche Bank or its current or former employees may not only result in judgments, settlements, fines or penalties, but may also cause substantial reputational harm to Deutsche Bank. The risk of damage to the Group's reputation arising from such proceedings is also difficult or impossible to quantify.

Regulators have increasingly sought admissions of wrongdoing in connection with settlement of matters brought by them. This could lead to increased exposure in subsequent civil litigation or in consequences under so-called "bad actor" laws, in which persons or entities determined to have committed offenses under some laws can be subject to limitations on business activities under other laws, as well as adverse reputational consequences. In addition, the U.S. Department of Justice ("**DOJ**") conditions the granting of cooperation credit in civil and criminal investigations of corporate wrongdoing on the company involved having provided to investigators all relevant facts relating to the individuals responsible for the alleged misconduct. This policy may result in increased fines and penalties if the DOJ determines that Deutsche Bank has not provided sufficient information about applicable individuals in connection with an investigation. Other governmental authorities could adopt similar policies.

In addition, the financial impact of legal risks arising out of matters similar to some of those Deutsche Bank faces have been very large for a number of participants in the financial services industry, with fines and settlement payments greatly exceeding what market participants may have expected and, as noted above, escalating steeply in recent years to unprecedented levels. The experience of others, including settlement terms, in similar cases is among the factors Deutsche Bank takes into consideration in determining the level of provisions the Group maintains in respect of these legal risks. Developments in cases involving other financial institutions in recent years have led to greater uncertainty as to the predictability of outcomes and could lead the Group to add provisions. Moreover, the costs of Deutsche Bank's investigations and defenses relating to these matters are themselves substantial. Further uncertainty may arise as a result of a lack of coordination among regulators from different jurisdictions or among regulators with varying competencies in a single jurisdiction, which may make it difficult for Deutsche Bank to reach concurrent settlements with each regulator. Should Deutsche Bank be subject to financial impacts arising out of litigation and regulatory matters to which the bank is subject in excess of those it has calculated in accordance with its expectations and the relevant accounting rules, provisions in respect of such risks may prove to be materially insufficient to cover these impacts. This could have a material adverse effect on the Group's results of operations, financial condition or reputation as well as on Deutsche Bank's ability to maintain capital, leverage and liquidity ratios at levels expected by market participants and regulators. In such an event, the Group could find it necessary to reduce its risk-weighted assets (including on terms disadvantageous to Deutsche Bank) or substantially cut costs to improve these ratios, in an amount corresponding to the adverse effects of the provisioning shortfall.

Examination by tax authorities: The Group is under continuous examination by tax authorities in the jurisdictions in which it operates. Tax laws are increasingly complex and are evolving. The cost to Deutsche Bank arising from the resolution of routine tax examinations, tax litigation and other forms of tax proceedings or tax disputes may increase and may adversely affect the Group's business, financial condition and results of operation.

Deutsche Bank is under continuous examination by tax authorities in the jurisdictions in which it operates. Tax laws are increasingly complex. In the current political and regulatory environment, tax administrations' and courts' interpretation of tax laws and regulations and their application are evolving, and scrutiny by tax authorities has become increasingly intense. Wide ranging and continuous changes in the principles of international taxation emanating from the OECD's Base Erosion and Profit Shifting agenda are generating significant uncertainties for Deutsche Bank and its subsidiaries and may result in an increase in instances of tax disputes or instances of double taxation going forward, as member states may take different approaches in transposing these requirements into national law or may choose to implement unilateral measures. Examples are the EU directive requiring disclosure of arrangements with specific tax features that took effect in 2020, or the recent EU directive to implement the OECD global minimum taxation rules (Pillar 2) that will take effect beginning with tax year 2024. Tax administrations have also been focusing on the eligibility of taxpayers for reduced withholding taxes on dividends in connection with certain cross-border lending or derivative transactions with the German Federal Ministry of Finance having issued additional administrative guidance in this area during 2021. In addition, while a significant amount of guidance has been issued since the enactment of the U.S. tax reform at the end of 2017 which included the Base Erosion Anti-Abuse Tax provisions, uncertainties remain and further interpretative guidance may be necessary over the coming years. In August 2022, the Inflation Reduction Act of 2022 was enacted in the U.S. which included a new corporate alternative minimum tax or "CAMT" effective starting with tax year 2023. Uncertainties remain as these provisions are subject to interpretation and further interpretative guidance may be forthcoming. As a result, the cost to Deutsche Bank arising from the resolution of routine tax examinations, tax litigation and other forms of tax proceedings or tax disputes, as well as from rapidly changing and increasingly complex and uncertain tax laws and principles, may increase and may adversely affect the Group's business, financial condition and results of operation.

Potential dealings with certain former members of the U.S. government: U.S. Congressional committees and other U.S. governmental entities have sought and may seek information from the Group concerning, among other topics, potential dealings between Deutsche Bank and certain former members of the U.S. executive branch, including former President Trump, his family and other close associates, exposing Deutsche Bank in particular to risk to its reputation and potential loss of business as a result of extensive media attention.

A number of media entities have reported that U.S. Congressional committees and other U.S. governmental entities are seeking or may seek information from Deutsche Bank concerning, among other topics, potential dealings between the bank and certain former members of the executive branch of the U.S. government, including former President Trump, his family, and other close associates. Attention surrounding such actual or potential requests and inquiries and the Group's responses can create reputational and other risks that could have a material adverse effect on the bank. Deutsche Bank's policy is to cooperate with all authorized government inquiries.

Risks Relating to Environmental, Social and Governance (ESG)-related changes, Nontraditional Credit Business, Accounting, Risk Management and Operations, Benchmark Reforms

Environmental, social and governance ("ESG")-related changes: The impacts of rising global temperatures, and the enhanced focus on climate change and the transition to a "net-zero" economy from society, the regulators and the banking sector, have led to new sources of financial and non-financial risks. These include the physical risks arising from extreme weather events which are growing in frequency and severity, as well as transition risks as carbon-intensive sectors are faced with higher taxation, reduced demand and potentially restricted access to financing, and risks relating to the portrayal of ESG aspects of activities. These risks can impact Deutsche Bank across a broad range of financial and non-financial risk types.

Deutsche Bank operates in many regions around the world where its businesses, and the activities of its clients and customers, could be impacted by climate change. Climate change could manifest as a financial risk to Deutsche Bank either through changes in the physical climate or from the process of transitioning to a low-carbon economy, including further changes in climate policy or in the regulation of financial institutions with respect to risks posed by climate change.

Climate-related physical risks include both acute weather events and chronic shifts in the climate. Potential physical risks from climate change may include altered distribution and intensity of rainfall, prolonged droughts or flooding, increased frequency of wildfires, rising sea levels, or a rising heat index. Transition risks arise from the process of adjusting to a low-carbon economy. In addition to possible further changes in climate policy and financial regulation, potential transition risks may include economic and other changes engendered by the development of low-carbon technological advances and/or changes in consumer preferences towards low-carbon goods and services. Transition risks could be further accelerated by the occurrence of changes in the physical climate. These climate-related physical risks and transition risks could have a financial impact on Deutsche Bank both directly on its business and operations and as a result of material adverse impacts to its clients and customers, inter alia, through declines in asset values, reduced availability of insurance, significant interruptions to business operations, and negative consequences to business models, and the need to make changes in response to those consequences.

Furthermore, financial institutions are facing increased scrutiny on climate and ESG-related issues from governments, regulators, shareholders and other bodies (including non-governmental organizations), leading to reputational risks if Deutsche Bank is not seen to support the transition to a lower carbon economy, and to protect biodiversity and human rights. Deutsche Bank is also required to review and further develop its ESG risk management frameworks in alignment with emerging regulatory guidance and to ensure that Deutsche Bank accurately portrays the ESG aspects of its activities. There is a lack of consistent and comprehensive ESG data and methodologies available today which means that Deutsche Bank has to rely on proxy estimates and qualitative approaches when assessing the risks to its balance sheet, which introduces a high degree of uncertainty into climate-related disclosures. This increases the risk that third parties may assert that Deutsche Bank's sustainability-related disclosures constitute so-called "greenwashing". In addition to the reputational risks associated with such allegations, competent supervisory authorities and law enforcement agencies may commence investigations based on such allegations, as was recently the case with Deutsche Bank's subsidiary DWS which has received requests for information from various regulatory and law enforcement agencies concerning certain ESG related matters.

Deutsche Bank is committed to managing its business activities and operations in a sustainable manner, including aligning portfolios with net zero emissions by 2050. Deutsche Bank continues to develop and implement its approach to environmental risk assessments and management in order to promote the integration of environmental-related factors across its business activities. This includes the ability to identify, monitor and manage risks and to conduct regular scenario analysis and stress testing. Rapidly changing regulatory as well as stakeholder demands, combined with significant focus by stakeholders, may adversely affect its businesses if it fails to adopt such demands or appropriately implement its plans.

Nontraditional credit business: In addition to Deutsche Bank's traditional banking businesses of deposit-taking and lending, the Group also engages in nontraditional credit businesses in which credit is extended in transactions that include, for example, its holding of securities of third parties or engaging in complex derivative transactions. These nontraditional credit businesses materially increase Deutsche Bank's exposure to credit risk.

As a bank and provider of financial services, the Group is exposed to the risk that third parties who owe the bank money, securities or other assets will not perform their obligations. Many of Deutsche Bank's businesses in beyond the traditional banking businesses of deposit-taking and lending also expose the Group to credit risk.

In particular, much of the business Deutsche Bank conducts through the Investment Bank entails credit transactions, frequently ancillary to other transactions. Nontraditional sources of credit risk can arise, for example, from holding securities of third parties; entering into swap or other derivative contracts under which counterparties have obligations to make payments to Deutsche Bank; executing securities, futures, currency or commodity trades that fail to settle at the required time due to nondelivery by the counterparty or systems failure by clearing agents, exchanges, clearing houses or other financial intermediaries; and extending credit through other arrangements. Parties to these transactions, such as trading counterparties, may default on their obligations to Deutsche Bank due to bankruptcy, political and economic events, lack of liquidity, operational failure or other reasons.

Many of the Group's derivative transactions are individually negotiated and non-standardized, which can make exiting, transferring or settling the position difficult. Certain credit derivatives require that Deutsche Bank delivers to the counterparty the underlying security, loan or other obligation in order to receive payment. In a number of cases, Deutsche Bank does not hold, and may not be able to obtain, the underlying security, loan or other obligation. This could cause the Group to forfeit the payments otherwise due to it or result in settlement delays, which could damage Deutsche Bank's reputation and ability to transact future business, as well as impose increased costs on the Group. Legislation in the European Union ("**EMIR**") and the United States (the "**Dodd-Frank Act**") has introduced requirements for the standardization, margining, central clearing and transaction reporting of certain over-the-counter derivatives. While such requirements are aimed at reducing the risk posed to counterparties and the financial system by such derivatives, they may reduce the volume and profitability of the transactions in which Deutsche Bank engages, and compliance with such provisions may impose substantial costs on Deutsche Bank.

The exceptionally difficult market conditions experienced during the global financial crisis severely adversely affected certain areas in which the Group does business that entail nontraditional credit risks, including the leveraged finance and structured credit markets, and similar market conditions, should they occur, may do so in the future.

Fair value accounting: A substantial proportion of Deutsche Bank's assets and liabilities comprise financial instruments that it carries at fair value, with changes in fair value recognized in the income statement. As a result of such changes, Deutsche Bank has incurred losses in the past, and may incur further losses in the future.

A substantial proportion of the assets and liabilities on the balance sheet comprise financial instruments that the bank carries at fair value, with changes in fair value recognized in the income statement. Fair value is defined as the price at which an asset or liability could be exchanged in an arm's length transaction between knowledgeable, willing parties, other than in a forced or liquidation sale. If the value of an asset carried at fair value declines (or the value of a liability carried at fair value increases) a corresponding unfavorable change in fair value is recognized in the income statement. These changes have been and could in the future be significant.

Observable prices or inputs are not available for certain classes of financial instruments. Fair value is determined in these cases using valuation techniques the Group believes to be appropriate for the particular instrument. The application of valuation techniques to determine fair value involves estimation and management judgment, the extent of which will vary with the degree of complexity of the instrument and liquidity in the market. Management judgment is required in the selection and application of the appropriate parameters, assumptions and modeling techniques. If any of the assumptions change due to negative market conditions or for other reasons, subsequent valuations may result in significant changes in the fair values of Deutsche Bank's financial instruments, requiring Deutsche Bank to record losses.

Deutsche Bank's exposure and related changes in fair value are reported net of any fair value gains that may be recorded in connection with hedging transactions related to the underlying assets. However, Deutsche Bank may never realize these gains, and the fair value of the hedges may change in future periods for a number of reasons, including as a result of deterioration in the credit of its hedging counterparties. Such declines may be independent of the fair values of the underlying hedged assets or liabilities and may result in future losses.

Goodwill accounting: Pursuant to accounting rules, Deutsche Bank must test the value of the goodwill in its Asset Management division and of its other intangible assets at least annually for impairment. In the event the test determines that impairment exists, the bank must write down the value of the asset. Impairments of goodwill and other intangible assets have had and may have a material adverse effect on the Group's profitability results of operations.

Goodwill arises on the acquisition of subsidiaries and associates and represents the excess of the aggregate of the cost of an acquisition and any noncontrolling interests in the acquiree over the fair value of the identifiable net assets acquired at the date of the acquisition. As of 31 December 2022 and 31 December 2021, Deutsche Bank recognized goodwill in the amount of € 2.9 billion and € 2.8 billion, respectively. Goodwill on the acquisition of subsidiaries is capitalized and reviewed for impairment annually or more frequently if there are indications that impairment may have occurred. Intangible assets are recognized separately from goodwill when they are separable or arise from contractual or other legal rights and their fair value can be measured reliably. These assets are tested for impairment and its useful lives reaffirmed at least annually. The Group recorded an impairment of € 68 million on an unamortized intangible asset in 2022. The intangible asset is related to retail investment management agreements in Asset Management and the impairment was driven by net outflows and increase in discount rate in the fourth quarter of 2022. The determination of the recoverable amount in the impairment assessment of non-financial assets requires estimates based on quoted market prices, prices of comparable businesses, present value or other valuation techniques, or a combination thereof, necessitating management to make subjective judgments and assumptions. These estimates and assumptions could result in significant differences to the amounts reported if underlying circumstances were to change.

Impairments of goodwill and other intangible assets have had and may have a material adverse effect on the Group's profitability and results of operations.

Deferred tax assets: Pursuant to accounting rules, Deutsche Bank must review its deferred tax assets at the end of each reporting period. To the extent that it is no longer probable that sufficient taxable income will be available to allow all or a portion of Deutsche Bank's deferred tax assets to be utilized, it has to reduce the carrying amounts. These reductions have had and may in the future have material adverse effects on the Group's profitability, equity and financial condition.

Deutsche Bank recognizes deferred tax assets for future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, unused tax losses and unused tax credits. Deferred tax assets are recognized only to the extent that it is probable that sufficient taxable profit will be available against which those unused tax losses, unused tax credits and deductible temporary differences can be utilized. As of 31 December 2022 and 31 December 2021, Deutsche Bank recognized deferred tax assets of € 7.2 billion and € 6.2 billion, respectively.

In determining the amount of deferred tax assets, Deutsche Bank uses historical tax capacity and profitability information and, if relevant, forecasted operating results based upon approved business plans, including a review of the eligible carry-forward periods, available tax planning opportunities and other relevant considerations. The analysis of historical tax capacity includes the determination as to whether a history of recent losses exists at the reporting date, and is generally based on the pre-tax results adjusted for permanent differences for the current and the two preceding financial years. Each quarter, Deutsche Bank re-evaluates its estimate related to deferred tax assets, which can change from period to period and requires significant management judgment. For example, tax law changes or variances in future projected operating performance could result in an adjustment to the deferred tax assets that would be charged to income tax expense or directly to equity in the period such determination was made.

These adjustments have had and may in the future have material adverse effects on the Group's profitability or equity.

Pension risks: Deutsche Bank is exposed to pension risks which can materially impact the measurement of its pension obligations, including interest rate, inflation, longevity and liquidity risks that can materially impact the Group's earnings.

Deutsche Bank sponsors a number of post-employment benefit plans on behalf of its employees, including defined benefit plans. Deutsche Bank's plans are accounted for based on the nature and substance of the plan. Generally, for defined benefit plans the value of a participant's accrued benefit is based on each employee's remuneration and length of service. The Group maintains various external pension trusts to fund the majority of its defined benefit plan obligations. The Group's funding principle is to maintain funding of the defined benefit obligation by plan assets within a range of 90 % to 100 % of the obligation, subject to meeting any local statutory requirements. Deutsche Bank has also determined that certain plans should remain unfunded, although its funding approach is subject to periodic review, for example, when local regulations or practices change. Obligations for Deutsche Bank's unfunded plans are accrued on the balance sheet. For most of the externally funded defined benefit plans there are local minimum funding requirements. The Group can decide on any additional plan contributions, with reference to its funding principle. There are some locations, for example the United Kingdom, where the trustees and Deutsche Bank jointly agree contribution levels. Deutsche Bank also sponsors retirement and termination indemnity plans in several countries, as well as some post-employment medical plans for a number of current and retired employees, mainly in the United States. The post-employment medical plans typically pay fixed percentages of medical expenses of eligible retirees after a set deductible has been met.

Deutsche Bank develops and maintain guidelines for governance and risk management, including funding, asset allocation and actuarial assumption setting. In this regard, risk management means the management and control of risks for the bank related to market developments (e.g., interest rate, credit spread, price inflation), asset investment, regulatory or legislative requirements, as well as monitoring demographic changes (e.g., longevity). To the extent that pension plans are funded, the assets held mitigate some of the liability risks, but introduce investment risk. In its key pension countries, Deutsche Bank's largest post-employment benefit plan risk exposures relate to potential changes in credit spreads, interest rates, price inflation, longevity risk and liquidity risk, although these have been partially mitigated through the investment strategy adopted. Overall, Deutsche Bank seeks to minimize the impact of pensions on its financial position from market movements, subject to balancing the trade-offs involved in financing post-employment benefits, regulatory capital and constraints from local funding or accounting requirements.

All plans are valued annually by independent qualified actuaries using the projected unit credit method, with inputs including the discount rate, inflation rate, rate of increase in future compensation and for pensions in payment and longevity expectations. For the Group's most significant pension plans in the key countries, the discount rate used at each measurement date is set based on a high-quality corporate bond yield curve, which is derived using a bond universe sourced from reputable third-party index data providers and rating agencies, and reflects the timing, amount and currency of the future expected benefit payments for the respective plan.

Deutsche Bank's investment objective in funding the plans and its obligations in respect of them is to protect the bank from adverse impacts of its defined benefit pension plans on key financial metrics. The Group seek to allocate plan assets closely to the market risk factor exposures of the pension liability to interest rates, credit spreads and inflation and, thereby, plan assets broadly reflect the underlying risk profile and currency of the pension obligations.

To the extent that the factors that drive the Group's pension liabilities move in a manner adverse to the bank, or that its assumptions regarding key variables prove incorrect, or that funding of the pension liabilities does not sufficiently hedge those liabilities, Deutsche Bank could be required to make additional contributions or be exposed to actuarial or accounting losses in respect of its pension plans.

Risk management: The Group's risk management policies, procedures and methods leave the Group exposed to unidentified or unanticipated risks, which could lead to material losses.

Deutsche Bank has devoted significant resources to developing its risk management policies, procedures and assessment methods and intends to continue to do so in the future. Nonetheless, the risk management techniques and strategies have not been and may in the future not be fully effective in mitigating Deutsche Bank's risk exposure in all economic market environments or against all types of risk, including risks that it fails to identify or anticipate. Some of Deutsche Bank's quantitative tools and metrics for managing risk are based upon its use of observed historical market behavior. The Group applies statistical and other tools to these observations to arrive at quantifications of its risk exposures. During the 2008 financial crisis, the financial markets experienced unprecedented levels of volatility (rapid changes in price direction) and the breakdown of historically observed correlations (the extent to which prices move in tandem) across asset classes, compounded by extremely limited liquidity. In this volatile market environment, the Group's risk management tools and metrics failed to predict some of the losses it experienced, and it may in the future fail to predict important risk exposures. In addition, Deutsche Bank's quantitative modeling does not take all risks into account and makes numerous assumptions regarding the overall environment, which may not be borne out by events. As a result, risk exposures have arisen and could continue to arise from factors the bank did not anticipate or correctly evaluate in its models. This has limited and could continue to limit the Group's ability to manage its risks especially in light of geopolitical developments, many of the outcomes of which are currently unforeseeable. Deutsche Bank's losses thus have been and may in the future be significantly greater than the historical measures indicate.

In addition, Deutsche Bank's more qualitative approach to managing those risks not taken into account by the quantitative methods could also prove insufficient, exposing the bank to material unanticipated losses. Also, if existing or potential customers or counterparties believe its risk management is inadequate, they could take their business elsewhere or seek to limit their transactions with Deutsche Bank. This could harm the Group's reputation as well as its revenues and profits.

Operational risks: Operational risks, which may arise from errors in the performance of Deutsche Bank's processes, the conduct of its employees, instability, malfunction or outage of its IT system and infrastructure, or loss of business continuity, or comparable issues with respect to the Group's vendors, may disrupt its businesses and lead to material losses.

Deutsche Bank faces operational risk arising from errors, inadvertent or intentional, made in the execution, confirmation or settlement of transactions or from transactions not being properly recorded, evaluated or accounted for. An example of this risk concerns derivative contracts, which are not always confirmed with the counterparties on a timely basis. For so long as the transaction remains unconfirmed, the bank is subject to heightened credit and operational risk and in the event of a default may find it more difficult to enforce the contract.

In addition, Deutsche Bank's businesses are highly dependent on its ability to process manually or through its systems a large number of transactions on a daily basis, across numerous and diverse markets in many currencies. Some of the transactions have become increasingly complex. Moreover, management relies heavily on its financial, accounting and other data processing systems that include manual processing components. If any of these processes or systems do not operate properly, or are disabled, or subject to intentional or inadvertent human error, the bank could suffer financial loss, a disruption of its businesses, liability to clients, regulatory intervention or reputational damage.

Deutsche Bank is also dependent on its employees to conduct its business in accordance with applicable laws, regulations and generally accepted business standards. If Deutsche Bank's employees do not conduct its business in this manner, the bank may be exposed to material losses. Furthermore, if an employee's misconduct reflects fraudulent intent, the Group could also be exposed to reputational damage. Deutsche Bank categorizes these risks as conduct risk, a term used to describe the risks associated with behavior by employees and agents, including third parties, that could harm clients, customers or the integrity of the markets, such as selling products that are not suitable for a particular customer, fraud, unauthorized trading and failure to comply with applicable regulations, laws and internal policies. U.S. regulators in particular have been increasingly focused on conduct risk, and such heightened regulatory scrutiny and expectations could lead to investigations and other inquiries, as well as remediation requirements, more regulatory or other enforcement proceedings, civil litigation and higher compliance and other risks and costs.

The Group in particular faces the risk of loss events due to the instability, malfunction or outage of its IT system and IT infrastructure, as well as breaches in IT system and infrastructure (including cyber-attacks). Such losses could materially affect Deutsche Bank's ability to perform business processes and may, for example, arise from the erroneous or delayed execution of processes as a result of system outages, degraded services in systems and IT applications or the inaccessibility of its IT systems. A delay in processing a transaction, for example, could result in an operational loss if market conditions worsen during the period after the error. IT-related errors may also result in the mishandling of confidential information, damage to Deutsche Bank's computer systems, financial losses, additional costs for repairing systems, reputational damage, customer dissatisfaction or potential regulatory or litigation exposure (including under data protection laws such as the GDPR).

The continuing move across global industries to conduct business from home and away from primary office locations is driving a more accelerated evolution of business practices compared to historic trends. The demand on Deutsche Bank's technology infrastructure and the risk of cyber-attacks could lead to technology failures, security breaches, unauthorized access, loss or destruction of data or unavailability of services, as well as increase the likelihood of conduct breaches.

Business continuity risk is the risk of incurring losses resulting from the interruption of normal business activities. Deutsche Bank operates in many geographic locations and is frequently subject to the occurrence of events outside of its control. Despite the contingency plans Deutsche Bank has in place, its ability to conduct business in any of these locations may be adversely impacted by a disruption to the infrastructure that supports the bank's business, whether as a result of, for example, events that affect Deutsche Bank's third-party vendors or the community or public infrastructure in which the bank operates. Any number of events could cause such a disruption including deliberate acts such as acts of war or other military action, sabotage, terrorist activities, bomb threats, strikes, riots and assaults on Deutsche Bank's staff; natural calamities such as hurricanes, snowstorms, floods, disease pandemics (such as the COVID-19 pandemic) and earthquakes; or other unforeseen incidents such as accidents, fires, explosions, utility outages and political unrest. Any such disruption could have a material adverse effect on the bank's business and financial position.

As a global bank, Deutsche Bank is often the subject of news reports. Deutsche Bank conducts its media dialogue through official teams. However, members of the media sometimes approach Deutsche Bank staff outside of these channels and Deutsche Bank-internal information, including confidential matters, have been subject to external news media coverage, which may result in publication of confidential information. Leaks to the media can have severe consequences for Deutsche Bank, particularly when they involve inaccurate statements, rumors, speculation or unsanctioned opinions. This can result in financial consequences such as the loss of confidence or business with clients and may impact Deutsche Bank's share price or capital instruments by undermining investor confidence. Then Deutsche Bank's ability to protect itself against these risks is limited.

Services by third parties: Deutsche Bank utilizes a variety of third parties in support of its business and operations. Services provided by third parties pose risks to Deutsche Bank comparable to those it bears when it performs the services, and the bank remains ultimately responsible for the services its third parties provide. Furthermore, if a third party does not conduct business in accordance with applicable standards or its expectations, Deutsche Bank could be exposed to material losses or regulatory action or litigation or fail to achieve the benefits it sought from the relationship.

Deutsche Bank utilizes a variety of third parties in support of its business and operations. In support of the Group's business and operations, the use of and dependence upon third parties in the sector has increased over the years, necessitating a corresponding increase in capabilities to manage them. Deutsche Bank does so in order to focus on its core competencies and to seek improvements in costs, efficiency and effectiveness in its operations, for instance in connection with Deutsche Bank's IT modernization efforts. The nature of what the bank uses third parties for has evolved and now includes more fundamental aspects of services including the use of Cloud and other advanced technology providers. This represents different risks and requires more robust risk assessments, appropriate contracting and ongoing oversight commensurate with those risks. It has also led to steady increase in regulation and regulatory scrutiny over not just how the Group manages third parties day to day but also assessing the levels of resiliency needed that is proportional to the importance of the business services supported by the third party.

Services provided by third parties pose risks to the bank comparable to those the Group bears when it performs the services itself, and it remains ultimately responsible for the services the third parties provide. The Group depends on such third parties to conduct its delivery of services in compliance with applicable laws, regulations and generally accepted business standards and in accordance with the contractual terms and service levels it has agreed with the Group. If the third parties do not conduct business in accordance with these standards, the bank may be exposed to material losses and could be subject to regulatory action or litigation as well as be exposed to reputational damage. More generally, if a third-party relationship does not meet Deutsche Bank's expectations, the Group could be exposed to financial risks, such as the costs and expenses associated with migration of the services to another third party and business and operational risks related to the transition, and the bank could fail to achieve the benefits it sought from the relationship.

In situations where Deutsche Bank is the third party service provider, the bank may be exposed to financial risks, such as lost revenues, costs and expenses associated with the cancellation of the service agreement, if Deutsche Bank were no longer able to benefit from the relationship.

Cyber-attacks: Deutsche Bank's operational systems are subject to an increasing risk of cyber-attacks and other internet crime, which could result in material losses of client or customer information, damage its reputation and lead to regulatory penalties and financial losses.

Deutsche Bank faces the risk of breaches of the confidentiality, integrity and availability of the bank or its clients' information. This includes risks such as breaches of the security of the bank or its vendors' computer systems due to unauthorized access to networks or resources, the introduction of computer viruses or malware, or other forms of cybersecurity attacks or incidents.

Financially motivated and other sophisticated cyber-attacks, including ransomware, can be observed as a persistent threat across industries and are anticipated to become more frequent. Additional threats are posed by supply chain attacks, an increasing frequency of high-rated zero-day exploits and an expanding threat surface introduced by, for example, remote ways of working or the use of cloud services.

Deutsche Bank may face operational risks arising from failures in the control environment, including errors in the performance of processes or security controls, as well as loss of data, which may disrupt its business and lead to material losses. At the same time, the bank may also face risks of material losses or reputational damage if services are not provided as agreed or in line with internal standards. Cyber-attacks could impact the Group both directly and indirectly including impact at third parties.

Deutsche Bank continues to invest toward the protection of its computer systems against such breaches and toward ensuring that its vendors employ appropriate cybersecurity safeguards. Of particular importance in 2022 was the continued focus on addressing the following main threat scenarios: financial theft, data disclosure, and service disruption along with system misuse, asset or data destruction, data distortion and information security regulatory adherence and conduct risk. To address the evolving cyber threat risk, the bank continues to modify and enhance its protective measures and to investigate and remediate information security vulnerabilities. These measures, however, may not be effective against the many security threats the Group faces.

The increasing frequency and sophistication of recent cyber-attacks has resulted in an elevated risk profile for many organizations around the world including Deutsche Bank, and significant attention by the bank's management has been paid to the overall level of preparedness against such attacks. Cybersecurity is growing in importance due to factors such as the continued and increasing reliance on the bank's technology environment as well as potential risks arising from the need for digital innovation such as the usage of public cloud. Deutsche Bank and other financial institutions have experienced attacks on computer systems, including attacks aimed at obtaining unauthorized access to confidential company or customer information or damaging or interfering with company data, resources, or business activities, or otherwise exploiting vulnerabilities in its infrastructure. The Group expects to continue to be the target of such attacks in the future. Although to date the bank has not experienced any material business impact from these attacks, the Group may not be able to effectively anticipate and prevent more material attacks from occurring in the future.

The move across global industries to conduct business from home and away from primary office locations in the wake of the so called 'New Work' transformation also exposes Deutsche Bank to a greater risk of cyber-attacks, which could lead to technology failures, security breaches, unauthorized access, loss or destruction of data or unavailability of services.

A successful attack could have a significant negative impact on the group, including as a result of disclosure or misappropriation of client or proprietary information, damage to computer systems, an inability to access information technology ("**IT**") systems, financial losses, remediation costs (such as for investigation and re-establishing services), increased cybersecurity costs (such as for additional personnel, technology, or third-party vendors), personal data breach notification obligations, reputational damage, customer dissatisfaction and potential regulatory or litigation exposure.

New competitors: Digital innovation offers market entry opportunities for new competitors such as cross-industry entrants, global high-tech companies or financial technology companies. Therefore, Deutsche Bank expects its businesses to have an increased need for investment in digital product and process resources to mitigate the risk of a potential loss of market share.

To be able to respond to market developments, respond more quickly to clients' needs and to have more flexibility, and to improve IT resiliency, Deutsche Bank has decided to migrate a large number of applications to public cloud computing and storage systems through a strategic partnership with Google Cloud. This partnership with Google Cloud is a major milestone in Deutsche Bank's digital journey and shows a commitment to embracing new technologies. The objective is to enhance the client experience through improved products and services, system resiliency and security as well as reducing the cost inefficiencies of running legacy platforms. Such a major technology migration requires robust governance and planning, including required allocation of funding, to manage the risk of security and stability issues. Additionally, there is significant regulatory interest in this program. Also, as with any external service providers, Deutsche Bank must ensure the highest standards of data privacy and security controls to safeguard client and bank information. Failure to do so can compromise client trust, lead to financial losses and, in severe cases, regulatory penalties, litigation and the obligation to compensate individuals for damage.

Deutsche Bank continues to mature its overall data management strategy against its core processes and data sets such as transactional, client and reference data. This includes the development and implementation of Deutsche Bank's enterprise architecture principles across the core technology infrastructure. This is central to Deutsche Bank's wider technology and data strategy, enabling business growth and efficiencies, while also enhancing the control environment. Deutsche Bank's regulators are actively focused on the bank's progress on this component of its strategy. Furthermore, Deutsche Bank also faces challenges with respect to embracing and incorporating new and disruptive technologies in conjunction with existing technological architecture in order to ensure industry standards of information security and customer experience.

Major technology transformations in Deutsche Bank's business and infrastructure areas are executed via dedicated initiatives. The intended benefits of these include IT and business cost reduction, control improvements, revenue growth through provision of new client features or targeted client growth. One of these initiatives, UNITY, which aims at simplifying Deutsche Bank's IT environment through the migration of IT systems from the former Postbank into those of Deutsche Bank, faces important milestones before its completion in 2023. Program execution risks include resource shortages, dependencies on other programs and key deliverables, extended implementation timelines, impact of the change-related activity on the control environment and functionality issues in the upgraded applications or underlying technology. While Deutsche Bank endeavors to manage its initiatives to mitigate such risks, it cannot be assured that all risks have been completely mitigated and the risk remains that the initiatives may not fully achieve the expected benefits on the expected timetable.

Volatility of crypto assets: The crypto-assets ecosystem experienced significant volatility in 2022 and continues to carry significant inherent risks.

Crypto assets carry extreme price volatility risk, unclear price transparency, have underdeveloped liquidity and may be susceptible to market manipulation. Deutsche Bank's crypto-related activities and direct risk exposures are extremely limited and the risk of broader contagion to financial markets is still considered to be limited. Despite the risks currently posed by crypto assets, the bank is cognizant of the innovation that is occurring in this space and is considering possible opportunities to leverage the benefits of the underlying technology and address customer needs. However, by maintaining a cautious and highly selective approach, Deutsche Bank may miss out on opportunities.

The ability for banks to be able to engage in digital asset activities will vary depending on the stances taken within each jurisdiction and this may limit Deutsche Bank's ability to engage in these activities. Discussions regarding the required policy frameworks required to address the risks and opportunities of digital assets have increased due to numerous insolvency and fraud cases related to individual crypto assets or platforms.

Clearing operations: The size of the Group's clearing operations exposes Deutsche Bank to a heightened risk of material losses should these operations fail to function properly.

The Group has large clearing and settlement businesses and an increasingly complex and interconnected IT landscape. These give rise to the risk that Deutsche Bank's customers or other third parties could lose substantial sums if the systems fail to operate properly for even short periods. This will be the case even where the reason for the interruption is external to Deutsche Bank. In such a case, the Group might suffer harm to its reputation even if no material amounts of money are lost. This could cause customers to take their business elsewhere, which could materially harm the Group's revenues and profits.

Benchmark reforms: Ongoing global benchmark reform efforts, specifically the transition from interbank offered rates to alternative reference rates, including "risk-free-rates", introduce a number of inherent risks to Deutsche Bank's business and the financial industry. These risks, should they materialize, may have adverse effects on the Group's business, results of operations and profitability.

Regulators and central banks have set the goal of improving the robustness of financial benchmarks, especially interest rate benchmarks. As a result of this initiative, as of the end of 2022, most LIBOR settings have ceased to be published or are no longer available in representative form. Certain tenors of GBP LIBOR remain available in synthetic form for a limited time period, only to enable so called 'tough legacy' transactions to transition to suitable Risk-Free Rate ("**RFR**") alternatives. A reduced number of USD LIBOR tenors will be published until the end of June 2023, however, the new use of USD LIBOR is subject to significant limitations. The FCA is currently consulting on the requirement for a synthetic USD LIBOR for 1-, 3- and 6-month settings, including the methodology and allowable 'tough legacy' use cases.

In the United States, the Adjustable Interest Rate (LIBOR) Act was signed into law by President Biden on March 15, 2022. The Act provides a clear federal solution for transitioning legacy contracts that either lack or contain insufficient contractual provisions by providing for the transition from LIBOR to a replacement rate. The Federal Reserve Board has also adopted the final rule that implements this Act, which establishes benchmark replacements for contracts governed by U.S. law that reference certain tenors of USD LIBOR that do not have suitable fallback provisions after June 30, 2023.

A material portion of the Group's assets and liabilities, including financial instruments in which the bank trades and other transactions and services in which the bank is involved, have interest rates that are linked to LIBOR, EONIA or similar inter-bank offered rates ("**IBORs**"), predominantly to USD LIBOR, and other financial benchmarks that have already ceased or that will be subject to future discontinuation. Transition of legacy transactions will depend, in some cases on client engagement and agreement to spread adjustments, which may not be forthcoming. In some cases, transition of legacy products may be hampered by structural factors, such as technical inability to contact numerous bondholders. Risks remain in respect of Deutsche Bank's tough legacy exposures which reference IBORs, especially USD LIBOR. Uncertainties around the timing and method of transition of certain products continues to present a number of risks for Deutsche Bank's, its customers and the financial services industry more widely. Ongoing risks include:

- Legal and compliance risk (including conduct risk) may arise due to possible disputes regarding either the terms of financial contracts with counterparties, or the manner of transition to replacement rates. Many financial instruments linked to financial benchmarks contain provisions, known as fallbacks, for the use of a successor interest rate in the event of the discontinuation of the benchmark, while others do not. The quality of fallbacks in contracts has improved in respect of a number of products in very recent times, but risks remain that some fallbacks may not perform well. In connection with discontinuation and transition, the counterparty to the financial instrument may challenge the rate determined by a fallback for such an instrument, particularly if Deutsche Bank is involved in the determination or setting of the successor rate. Such disputes could result in litigation or regulatory action founded in claims of breach of contract, anti-trust violations, market abuse, and/or other mistreatment of customers.

- Legal and compliance risk may derive from any failure to comply with regulators' expectations that new use of financial benchmarks will cease.

- While liquidity has developed in SOFR-related products, liquidity risk remains for USD LIBOR exposures toward the date of discontinuation and in relation to tough-legacy products which use synthetic LIBOR, which may perform differently than historic LIBORs.

- The replacement of financial benchmarks, or use of synthetic LIBOR, could adversely impact the value of and return on existing instruments and contracts and the market for securities and other instruments whose returns are linked to such benchmarks.

- Market risk may arise due to interest rate "basis" risks – the risks posed by different interest rate provisions applying to assets than to liabilities – across tenors and currencies, driven by differing fallback methodologies and timings. Different timings of adoption of fallback protocols will create new basis and potentially make hedging more costly or less effective, and losses may result from value transfer in the fallback methodology adopted. Due to the unavailability and discontinuation of financial benchmarks that have already happened, and that are yet to come, Deutsche Bank may incur losses in respect of its assets and liabilities if the successor interest rate is not economically equivalent to the discontinued benchmarks.

- Finance and tax risk may arise due to the discontinuation of financial benchmarks and transition to RFRs, which could cause hedge accounting items to be derecognized, adversely impacting the bank's profitability or causing the bank to incur losses. Discontinuation and transition could also pose difficulties for the independent price verification of financial instruments, where market data is unavailable for the new or modified financial instrument. Tax uncertainties could arise, for example, if a discontinuation or transition is viewed as a significant modification of a financial instrument that results in a profit or loss recognition event for tax purposes.

- Technology and operational risk may arise as a result of the complexity of transition processes, which will require collaboration with regulators and central banks as well as a wide range of market participants. Also, ongoing change efforts – relating to RFR product development, re-documentation of client contracts and infrastructure change, including to systems, processes and models across the business and Deutsche Bank's Finance, Risk and Treasury functions –, has been required. There is a risk that not all systems and process dependencies on financial benchmark availability have been identified and remediated. Successful transition processes are, to some extent, dependent on achieving industry and client consensus on standards and conventions, timing and sequencing of transition steps, creation of forward-looking term versions of the RFRs and the timely re-documenting of client contracts.

While the Group continues to actively manage the transition to alternative reference rates, the risk remains that implementation of any alternative RFRs may be impossible or impracticable under the existing terms of such financial instruments and could have an adverse effect on the value of certain financial instruments and on the Group's profitability. There is also the risk of an adverse effect to reported performance arising from the transition rules established by accounting bodies.

More broadly, initiatives to reform existing benchmarks and the Group's participation in them, including as benchmark submitter, could potentially expose the Group to legal, reputational or other risks. In particular, legal and compliance risk (including conduct risk) may arise due to the operational risks of participating in benchmark submissions, either as part of a panel with the requirement to use models and potentially exercise expert judgement or as provider of transactions data to a benchmark administrator.

Sanctions and embargoes: Deutsche Bank is subject to laws and other requirements relating to financial and trade sanctions and embargoes. If the bank breaches such laws and requirements, it can be subject, and in the past has been subject, to material regulatory enforcement actions and penalties.

Deutsche Bank is required to monitor, evaluate, and observe laws and other requirements relating to financial and trade sanctions and embargoes set by the EU, the Deutsche Bundesbank, Germany's Federal Office for Economic Affairs and Export Control, and other authorities, such as the U.S. Treasury Department's Office of Foreign Assets Control ("**OFAC**") and the UK Treasury Department's Office of Financial Sanctions Implementation ("**OFSI**"). Sanctions are subject to rapid change, and it is also possible that new direct or indirect secondary sanctions could be imposed by the United States or other jurisdictions without warning as a result of geopolitical developments. New and far-reaching sanctions against Russian entities and individuals have been imposed by the United States, the EU, the United Kingdom and other individual countries very rapidly following the commencement by Russia of the war in Ukraine, and many of these sanctions require very rapid implementation. Should Deutsche Bank fail to comply timely and in all respects with these new sanctions, the Group could be exposed to legal penalties and its reputation could suffer. New sanctions may also be imposed on other entities and individuals beyond the war in Ukraine at any time. If Deutsche Bank breaches any such new or preexisting laws and requirements, it can be subject, and has in the past been subject, to material regulatory enforcement actions and penalties.

U.S. economic sanctions: Transactions with counterparties in countries designated by the U.S. State Department as state sponsors of terrorism or persons targeted by U.S. economic sanctions may lead potential customers and investors to avoid doing business with the bank or investing in the bank's securities, harm its reputation or result in regulatory or enforcement action which could materially and adversely affect its business.

Deutsche Bank engages or has engaged in a limited amount of business with counterparties, including government-owned or -controlled counterparties, in certain countries or territories that are subject to comprehensive U.S. sanctions, including Iran and Cuba (referred to as "**Sanctioned Countries**"), or with persons targeted by U.S. economic sanctions (referred to as "**Sanctioned Persons**"). U.S. law generally prohibits U.S. persons or any other persons acting within U.S. jurisdiction (which includes business with a U.S. nexus) from dealings with or relating to Sanctioned Countries or Sanctioned Persons. Additionally, U.S. indirect or "secondary" sanctions threaten the imposition of sanctions against non-U.S. persons entirely outside of U.S. jurisdiction for engaging in certain activities, including categories of transactions with certain entities and countries. Thus, U.S. sanctions may implicate activities in other geographic areas and by non-U.S. persons depending on the circumstances. Deutsche Bank's U.S. subsidiaries, branch offices, and employees are, and, in some cases, its non-U.S. subsidiaries, branch offices, and employees are or may become, subject to such prohibitions and other regulations.

Deutsche Bank is a German bank and its activities with respect to Sanctioned Countries and Sanctioned Persons have been subject to policies and procedures designed to avoid the involvement of U.S. jurisdiction, including U.S. persons acting in any managerial or operational role and to ensure compliance with United Nations, European Union and German sanctions and embargoes; in reflection of legal developments in recent years, the bank has further developed its policies and procedures with the aim of promoting – to the extent legally permitted – compliance with regulatory requirements extending to other geographic areas regardless of jurisdiction. However, should its policies prove to be, or have been, ineffective, Deutsche Bank may be subject to regulatory or enforcement action that could materially and adversely affect its reputation, financial condition, or business. The Group has also taken other action to reduce the risk of compliance violations. In 2007, the Management Board decided that it will not engage in new business with counterparties in countries such as Iran, Syria, Sudan and North Korea and to exit existing business to the extent legally possible. In 2014, the bank added the Crimea Region, and in 2021 Afghanistan, to this list of countries, while de-listing Sudan. Deutsche Bank also decided to limit its business with counterparties in Cuba. Iran, North Korea, Syria and Cuba are currently designated as state sponsors of terrorism by the U.S. State Department. In 2022, the bank expanded its policy and included broad prohibitions relating to the areas in Ukraine occupied through Russia's war in 2022 and policy restrictions going beyond regulatory requirements related to Russia and Belarus in light of the war against Ukraine.

Deutsche Bank had a representative office in Tehran, Iran, which Deutsche Bank discontinued on 31 December 2007. The Group's remaining business with Iranian counterparties consisted mostly of participations as lender and/or agent in a few large trade finance facilities arranged before 2007 to finance the export contracts of exporters in Europe and Asia. As of 31 December 2018, those loans were fully paid back, and subsequently the majority of the remaining Iranian business consists of legacy contractual obligations related to guarantees. The Group does not believe its business activities with Iranian counterparties are or had been material to its overall business, with the aforementioned guarantees having notional amounts of substantially less than 0.01 % of total assets over recent years. The revenues from such activities represented substantially less than 0.01 % of total revenues for the year ended 31 December 2022.

As required by Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (Sec. 13(r) of the Securities Exchange Act of 1934, as amended) Deutsche Bank has disclosed certain information regarding its activities or transactions with persons subject to U.S. sanctions against Iran and other persons subject to such provision.

Deutsche Bank is also engaged in a limited amount of business with counterparties domiciled in Cuba, which is not subject to any United Nations, European Union or German embargoes. The business consists of a limited number of letters of credit and of cash payments, each without a U.S. nexus, and it represented substantially less than 0.01 % of the Group's assets as of 31 December 2022. The letters of credit served to finance commercial products such as machinery as well as medical products.

The Group has set up processes and procedures aimed at complying with other substantial changes in U.S. economic sanctions that have occurred since 2017. In August 2017, the United States enacted the "Countering America's Adversaries Through Sanctions Act" (referred to as "**CAATSA**"), which codifies existing U.S. sanctions against Russia (including designation of Russian entities under U.S. sanctions), expands U.S. secondary sanctions against Russia, tightens existing sectoral sanctions (targeting specific sectors of the Russian economy), and permits the imposition of sectoral sanctions against additional sectors of the Russian economy. In particular, expanded U.S. secondary sanctions under CAATSA allow for the imposition of U.S. sanctions on, among others, non-U.S. entities who engage in, among other activities, "significant" transactions with persons targeted under Russia-related sanctions or specific entities in the Russian defense and intelligence sectors, as well as certain energy projects relating to Russia. Deutsche Bank does not believe it has engaged or is currently engaged in any transactions with Russian entities that violate, or are sanctionable under, U.S. sanctions. However, given the broad discretion U.S. authorities have in interpreting and enforcing U.S. sanctions, there can be no assurances that U.S. authorities will not bring enforcement actions against Deutsche Bank, or impose secondary sanctions on Deutsche Bank for its ongoing activities. Any such actions could have a material impact on the Group's business and harm its reputation. Further, in response to the war in Ukraine, the United States, as well as other nations and the EU, have expanded sanctions on Russia and Russian entities; such sanctions could have a material impact on Deutsche Bank's business activities. In response to the war in Ukraine and following the imposition of further far-reaching sanctions by democratic countries against Russia, Deutsche Bank took a range of preparatory and responsive actions to implement the high number of, and in part newly developed, sanctions by inter alia filter and control updates, additional due diligence steps in transaction and client reviews with a nexus to Russia and by further restricting its policy and adjusting processes. Even though Deutsche Bank believes that it reacted quickly and thoroughly to these challenges, the sheer amount of changes and their quality and complexity have increased the operational risk that the bank will have missed out unintentionally on some of the regulatory requirements; given the strict liability applied in areas of this regulatory environment, this operational risk may translate into regulatory risks for Deutsche Bank leading to consequential losses.

Additionally, since 2017, the U.S. Administration has imposed a number of sanctions against the Government of Venezuela and Venezuelan officials. These sanctions prohibit (beginning on August 5, 2019) virtually all unlicensed transactions involving the Government of Venezuela, including state-owned or state-controlled companies, and also threaten to impose sanctions on (non-U.S.) persons having materially assisted such transactions or dealings. The Group has taken steps and established processes and procedures aimed at complying with these U.S. sanctions against the Government of Venezuela. In response to these U.S. sanctions, Deutsche Bank has wound down several client relationships. With respect to entities of the

Government of Venezuela, the Group are currently only engaged in legacy transactions. Deutsche Bank does not believe that any of its remaining activities related to the Government of Venezuela violate U.S. sanctions. However, given the broad discretion U.S. authorities have in interpreting and enforcing U.S. sanctions, there can be no assurances that U.S. authorities will not allege that the Group's ongoing activities violate U.S. sanctions.

Political and trade tensions between the United States and China led to a series of sanctions and countermeasures in 2020 and 2021, some of which were particularly relevant to financial institutions. In June 2021, the United States adopted Executive Order 14032, which amended an existing restriction and restricts purchases and sales by U.S. persons of certain publicly traded securities linked to companies the United States determines are affiliated with the Chinese military-industrial complex, as well as publicly traded securities that are derivative of or designed to provide investment exposure to such securities. Executive Order 14032 amended and clarified similar restrictions that had been imposed under a previous executive order. While Deutsche Bank has implemented changes in its control processes to promote compliance with these requirements, such measures raise potential regulatory compliance and conflicts of laws challenges and the impacts of such measures could be material and adverse.

The Group is aware, through press reports and other means, of initiatives by governmental and non-governmental entities in the United States and elsewhere to adopt laws, regulations or policies prohibiting transactions with or investment in, or requiring divestment from, entities doing business with Sanctioned Countries, particularly China, Iran and Russia. Such initiatives may result in Deutsche Bank being unable to gain or retain entities subject to such prohibitions as customers or as investors in its securities. In addition, the Group's reputation may suffer due to its association with such countries. Such a result could have significant adverse effects on the business or the price of Deutsche Bank's securities. Sanctions are subject to rapid change and it is also possible that new direct or indirect secondary sanctions could be imposed by the United States or other jurisdictions without warning as a result of geopolitical developments.

PERSONS RESPONSIBLE, THIRD PARTY INFORMATION AND COMPETENT AUTHORITY APPROVAL

Persons Responsible

Deutsche Bank Aktiengesellschaft accepts responsibility for the information contained in this Registration Document. To the best knowledge of Deutsche Bank the information contained in this Registration Document is in accordance with the facts and the Registration Document makes no omission likely to affect its import.

Third Party Information

Where information has been sourced from a third party, Deutsche Bank confirms that this information has been accurately reproduced and that so far as Deutsche Bank is aware and able to ascertain from information published by such third party no facts have been omitted which would render the reproduced information inaccurate or misleading.

Competent Authority Approval

This Registration Document has been approved by the CSSF as competent authority under the Prospectus Regulation. The CSSF only approves this Registration Document as meeting the standards of completeness, comprehensibility and consistency imposed by the Prospectus Regulation. Such approval shall not be considered as an endorsement of Deutsche Bank that is the subject of this Registration Document. This Registration Document has been drawn up as part of a simplified prospectus in accordance with Art. 14 of the Prospectus Regulation.

STATUTORY AUDITORS

With effect as of 1 January 2020, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft ("**EY**") has been appointed as independent auditor of Deutsche Bank. EY is a member of the chamber of public accountants (*Wirtschaftsprüferkammer*).

INFORMATION ABOUT DEUTSCHE BANK

Deutsche Bank Aktiengesellschaft (commercial name: Deutsche Bank) is a credit institution and a stock corporation incorporated in Germany and accordingly operates under the laws of Germany. The Legal Entity Identifier (LEI) of Deutsche Bank is 7LTWFZYICNSX8D621K86. The Bank has its registered office in Frankfurt am Main, Germany. It maintains its head office at Taunusanlage 12, 60325 Frankfurt am Main, Germany, telephone: +49-69-910-00, www.db.com (information shown on the Bank's website does not form part of this Registration Document, unless that information is incorporated by reference into this Registration Document).

BUSINESS OVERVIEW

Principal activities

The objects of Deutsche Bank, as laid down in its Articles of Association, include the transaction of all kinds of banking business, the provision of financial and other services and the promotion of international economic relations. The Bank may realise these objectives itself or through subsidiaries and affiliated companies. To the extent permitted by law, the Bank is entitled to transact all business and to take all steps which appear likely to promote the objectives of the Bank, in particular to acquire and dispose of real estate, to establish branches at home and abroad, to acquire, administer and dispose of participations in other enterprises, and to conclude enterprise agreements.

Deutsche Bank maintains its head office in Frankfurt am Main and branch offices in Germany and abroad including in London, New York, Sydney, Tokyo, Hong Kong and an Asia-Pacific Head Office in Singapore which serve as hubs for its operations in the respective regions.

Deutsche Bank is organized into the following segments:

- Corporate Bank (CB);
- Investment Bank (IB);
- Private Bank (PB);
- Asset Management (AM); and
- Corporate & Other (C&O).

The Capital Release Unit has ceased to be reported as a separate segment with effect from the first quarter of 2023.

In addition, Deutsche Bank has a country and regional organizational layer to facilitate a consistent implementation of global strategies.

The Bank has operations or dealings with existing and potential customers in most countries in the world. These operations and dealings include working through:

(a) subsidiaries and branches in many countries;

(b) representative offices in many other countries; and

(c) one or more representatives assigned to serve customers in a large number of additional countries.

The following paragraphs describe the business operations in the different segments:

Corporate Bank

The Corporate Bank (CB) comprises Global Transaction Banking as well as Commercial Banking in Germany. The segment is primarily focused on serving corporate clients, including the German "Mittelstand", larger and smaller sized commercial clients in Germany as well as multinational companies. It is also a partner to financial institutions with regards to certain Transaction Banking services. Global Transaction Banking consists of the four businesses Cash Management, Trade Finance & Lending, Trust & Agency Services and Securities Services. Commercial Banking provides integrated expertise and a holistic product offering across the Deutsche Bank and Postbank brands in Germany.

Investment Bank

The Investment Bank (IB) combines Deutsche Bank's Fixed Income, Currency (FIC) Sales & Trading and Origination & Advisory as well as Deutsche Bank Research. It focuses on its traditional strengths in financing, advisory, fixed income and currencies, bringing together wholesale banking expertise across coverage, risk management, sales and trading, investment banking and infrastructure.

FIC Sales & Trading combines an institutional sales force and research with trading and structuring expertise across Foreign Exchange, Rates, Credit and Emerging Markets. The FIC Sales & Trading business are positioned strategically to respond to increasing automation, regulatory expectations and client demand for standardization and transparency in execution across credit, fixed income and currency products in industrialized countries and emerging markets.

Origination & Advisory is responsible for Deutsche Bank's debt origination business, mergers and acquisitions (M&A), and a focused equity advisory and origination platform. It is comprised of regional and industry-focused coverage teams, co-led from the bank's hubs in Europe, the U.S. and Asia Pacific that facilitate the delivery of a range of financial products and services to the bank's corporate clients.

Private Bank

The Private Bank (PB) comprises three business units. The Private Bank Germany serves private customers in Germany. The Private and Commercial Business International serves private and small business clients, as well as commercial and corporate clients in Italy, Spain, Belgium and India. In addition, Private Bank covers Wealth Management clients globally.

With its "Deutsche Bank" brand Private Bank Germany focusses on providing its private customers with banking and financial products and services that include sophisticated and individual advisory solutions. The focus of its "Postbank" brand remains on providing Deutsche Bank's retail customers with standard products and daily retail banking services. In cooperation with Deutsche Post DHL AG, Deutsche Bank also offers postal and parcel services in the Postbank brand branches.

Private & Commercial Business International ("**PCBI**") provides banking and other financial services to private and commercial clients in Italy, Spain, Belgium and India with some variations in the product offering among countries that are driven by local market, regulatory and customer requirements.

Wealth Management ("**WM**") serves wealthy individuals and families as well as entrepreneurs and foundations. It supports clients in planning, managing and investing their wealth, financing their personal and business interests and servicing their institutional and corporate needs. The unit also provides institutional-type services for sophisticated clients and complements its offerings by closely collaborating with the Investment Bank, the Corporate Bank and Asset Management.

As announced in June 2020, Deutsche Bank has decided to combine WM and PCBI into one unit, the International Private Bank ("**IPB**"). This will allow Deutsche Bank to centralize its product and infrastructure activities to maximize economies of scale and scope.

Asset Management

Asset Management (AM) operates under the DWS brand. AM provides investment solutions to individual investors and institutions with a diversified range of Active, Passive and Alternative Asset Management products and services.

AM's investment offerings span all major asset classes including equity, fixed income, cash and multi asset as well as alternative investments. Deutsche Bank's alternative investments include real estate, infrastructure, private equity, liquid real assets and sustainable investments. Deutsche Banks also offers a range of passive investments. In addition, AM's solution strategies are targeted to client needs that may not be addressed by traditional asset classes alone. Such services include insurance and pension solutions, asset-liability management, portfolio management solutions, asset allocation advisory, structuring and overlay.

Corporate & Other (C&O)

Corporate & Other includes revenues, costs and resources held centrally that are not allocated to the individual business segments.

From 2023 onwards, the remaining portfolio, resources and employees of the former segment Capital Release Unit will be reported within the Corporate & Other segment.

TREND INFORMATION

Statement of no Material Adverse Change

There has been no material adverse change in the prospects of Deutsche Bank since 31 December 2022.

Statement of no Significant Change in Financial Performance

There has been no significant change in the financial performance of Deutsche Bank Group since 31 December 2022.

Recent Developments

Other than the developments mentioned elsewhere in this Registration Document, there have been no recent developments since 31 December 2022.

Outlook

The Group believes that the fundamental transformation announced in 2019 and completed at year-end 2022 has led to a strong foundation for the Group and positioned it to build and maintain a trajectory of sustainable growth. In March 2022, Deutsche Bank outlined its strategic and financial road map through 2025, referred to as "Global Hausbank", and communicated its 2025 financial targets and capital objectives.

Deutsche Bank's key performance indicators are shown in the table below:

	31 December 2022*	Financial targets and capital objectives 2025
Financial targets		
Post-tax Return on Average Tangible Equity[1]	9.4 %	Above 10.0 %
Compound annual growth rate of revenues[2]	N/M	3.5 to 4.5 %
Cost/income ratio[3]	74.9 %	Less than 62.5 %
Capital objectives		
Common Equity Tier 1 capital ratio	13.4 %	~13.0 %
Total payout ratio[4]	36 %	50 %

N/M – Not meaningful

* Extracted from the Annual Report 2022.

1 Based on Net Income attributable to Deutsche Bank shareholders.

2 Based on net revenues.

3 Noninterest expenses as a percentage of total net revenues, which are defined as net interest income before provision for credit losses plus noninterest income.

4 2022 distributions in the form of common share dividend paid and share buybacks for cancellation executed in 2022 in relation to 2021 net income attributable to shareholders.

Deutsche Bank reaffirms its financial targets to be achieved by 2025 of a post-tax return on average tangible equity of above 10 %, a compound annual revenue growth in revenues of between 3.5 % and 4.5 % for 2021 to 2025 and a cost/income ratio of below 62.5 %. Deutsche Bank also confirms its capital objectives of a CET 1 capital ratio of around 13 % and a payout ratio of 50% from 2025 onwards. All forward-looking projections below are based on 31 January 2023, foreign exchange rates.

In 2023, Group revenues are expected to be slightly higher compared to the prior year. Deutsche Bank expects revenues to be in the middle of the range of € 28 billion to € 29 billion at Group level supported by the resilience and growth potential of its businesses and continued business momentum. Corporate Bank revenues are expected to be higher in 2023 driven by its growth initiatives and further improvements in the interest rate environment. Investment Bank revenues are expected to be essentially flat in 2023 driven by lower revenues in FIC Sales & Trading offset by significantly higher revenues in Origination & Advisory mainly from an expected recovery in the Debt Origination business. Private Bank net revenues are expected to remain essentially flat. The division should benefit from the rising interest rate environment and from continued business growth while beneficial impacts of specific revenue items and releases in certain provisions are not expected to repeat in 2023. In Asset Management, revenues are expected to be slightly lower assuming market stabilization.

Deutsche Bank is managing the Group's cost base towards its 2025 cost/income ratio target. The Group remains highly focused on cost discipline and delivery of the initiatives underway. Deutsche Bank expects noninterest expenses as well as adjusted costs in 2023 to be essentially flat compared to 2022. Costs in 2023 are expected to benefit from Deutsche Bank's structural efficiency measures. These include the optimization of its Germany platform, the upgrade of its technology architecture, the front-to-back redesign of processes and measures to increase infrastructure efficiency. These effects are expected to counterbalance inflationary headwinds and help funding selected investments in business growth and in the control environment.

As part of the focus on cost management and improving bank-wide efficiency, Deutsche Bank over the last few years has been rolling out driver-based cost management methodologies ("**DBCM**") to allocate infrastructure costs to the businesses. The recent methodology rollout will be effective from the first quarter of 2023 and aims to provide greater transparency over the drivers of infrastructure costs and links costs more closely to service consumption. While the Group's cost/income ratio and return on average tangible equity metrics will be unaffected by the change in internal allocations, the respective divisional metrics will change going forward. Prior periods will be restated accordingly. The divisional sections presented below regarding the statements on noninterest expenses and adjusted costs do therefore include the trends before and after the methodology change.

For the full year 2023, the Group expects provision for credit losses to be essentially flat compared to 2022 in a range of 25 to 30 basis points of average loans, reflecting persistent macro-economic and geopolitical uncertainties. As such and given the recent improvement in the macro-economic outlook, Deutsche Bank now foresees provision for credit losses in 2023 at the low end of this range. Deutsche Bank expects provision for credit losses in 2023, unlike in 2022, to be driven by single-name losses rather than a deterioration of macro-economic forward-looking indicators. Deutsche Bank remains committed to its stringent underwriting standards and tight risk management framework.

Common Equity Tier 1 ratio ("**CET 1 ratio**") by year-end 2023 is expected to remain essentially flat compared to 2022. The Group expects several regulatory decisions on internal credit and market risk models in 2023. On a net basis, risk weighted assets are expected to stay essentially flat when considering model impacts, respective mitigation initiatives and business growth. Deutsche Bank aims for a Common Equity Tier 1 capital ratio of around 13 % and to end 2023 with a CET 1 ratio of 200 basis points above the Maximum Distributable Amount ("**MDA**") threshold. The timing of model decisions might drive CET 1 ratio variability within the year.

Deutsche Bank is committed to delivering sustainably grown cash dividends and, over time, to returning excess capital that is over and above what is required to support profitable growth and upcoming regulatory changes to shareholders through share buybacks, subject to regulatory approval, shareholder authorization and meeting German corporate law requirements. To that end, subject to meeting the Group's strategic targets, the Management Board intends to grow the cash dividend per share by 50 % per annum in the next 3 years, starting from the € 0.20 per share paid for the financial year 2021. This would translate into approximately € 3.3 billion of cumulative dividend payments by 2025 with respect to financial years 2021 to 2024. In relation to the financial year 2024 Deutsche Bank intends to achieve a total payout ratio of 50 % from a combination of dividends paid and share buybacks executed in 2025; and Deutsche Bank intends to maintain a 50 % total payout ratio in subsequent years. In addition to the share buyback of € 0.3 billion already concluded in 2022, successfully executing the Group's financial and strategic plans through 2025 would therefore support the previously announced cumulative distributions to shareholders in the form of dividends paid or share buybacks executed of approximately € 8 billion in respect of financial years 2021 to 2025.

By the nature of its business, Deutsche Bank is involved in litigation, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside Germany, including in the United States. Such matters are subject to many uncertainties. While the Group has resolved a number of important legal matters and made progress on others, it expects the litigation and enforcement environment to remain challenging. For 2023, and with a caveat that forecasting litigation charges is subject to many uncertainties, Deutsche Bank expects net litigation charges to be lower than the levels experienced in the previous year.

Risks to the Group's outlook include potential impacts on the business model from macroeconomic as well as geopolitical uncertainties, including uncertainties associated with the war in Ukraine, possible intensification of U.S. versus China strategic competition, global inflationary pressures due to higher energy and commodity prices as well as ongoing supply chain disruptions, slower economic growth in the major operating countries including the risk of a deeper and longer recession, impact from changes in foreign exchange rates, and lower client activity. In addition, uncertainty around central bank policies, e.g., the interest rate environment, ongoing regulatory developments, e.g., the finalization of the Basel 3 framework as well as other geopolitical event risks may also have an adverse impact.

Adjusted costs as well as Post-tax Return on Average Tangible Equity are non-GAAP financial measures.

Corporate Bank

Corporate Bank expects the interest rate environment and its progress on its initiatives to support the performance in 2023, despite macro-economic uncertainties. Revenues are expected to be higher compared to the prior year, driven by the growth initiatives and further improvements in the interest rates.

Corporate Treasury Services revenues are anticipated to be higher due to strong momentum in the Corporate Cash Management business and growth in structured and flow trade finance solutions and lending. Institutional Client Services revenues are expected to be essentially flat, supported by business growth and higher deposit volumes. In Business Banking, revenues are expected to be significantly higher compared to the prior year, principally due to higher interest rates in Germany.

Provision for credit losses is expected to be essentially flat in 2023 in a range of 25 to 30 basis points of average loans.

Noninterest expenses and adjusted costs are expected to be higher in 2023 compared to 2022, mainly reflecting higher internal service cost allocations. Regulatory compliance, know-your-client ("**KYC**") and client on-boarding process enhancements, system stability and control and conduct continue to remain an area of strong focus. Adjusting the prior year for the aforementioned DBCM methodology change, Corporate Bank expects noninterest expenses and adjusted costs to be essentially flat versus 2022.

RWA in the Corporate Bank are anticipated to remain essentially flat in 2023 as increases from lending activities are expected to be offset by favorable model changes.

Risks to the division's outlook include potential impacts on its business model from macroeconomic and global geopolitical uncertainties, including uncertainties associated with the war in Ukraine, lower economic growth in the major operating countries from ongoing supply chain disruptions, higher energy and commodity prices as well as uncertainty around central bank policies (e.g., the interest rate environment). In addition, ongoing regulatory developments (e.g., the finalization of the Basel 3 framework) and lower levels of client activity may also have an adverse impact.

Investment Bank

Investment Bank revenues are expected to be essentially flat in 2023 compared to prior year. 2022 was another strong year for the Investment Bank driven by FIC Sales & Trading seeing its strongest revenue performance in a decade. This managed to offset the significant decline in Origination and Advisory revenues, which saw the industry fee pool drop by 36 % year-on-year combined with loan markdowns across the market. While the division expects a partial recovery in Origination and Advisory in 2023, this is likely to be largely offset by a normalization in FIC Sales & Trading.

FIC Sales & Trading revenues are expected to be lower compared to 2022. Rates plans to target and build out certain areas in the business where it sees opportunities, but expects a normalization in the market, meaning the business is unlikely to repeat the revenue performance seen in 2022. The Foreign Exchange business is expected to continue the momentum from the prior year, which saw a return to the #1 ranking in the Euromoney FX survey. The Global Emerging Markets business will continue to develop its onshore footprint and client workflow solutions further, though no repeat of the Russian Ruble (RUB) asset volatility and associated revenue seen in 2022 is expected. Credit Trading intends to invest in targeted areas of the business where growth opportunities are present, and expects to see a certain improvement in the overall industry environment that was challenging throughout the prior year. The Financing business will continue to take a disciplined and selective approach to the deployment of resources and look to benefit from the increase in interest rates seen in 2022.

Origination and Advisory revenues are expected to be significantly higher in 2023 compared to 2022 primarily due to an expected recovery in the Debt Origination business. The Leveraged Debt and High Yield markets were largely inactive in the second half of 2022, and the division expects to see a partial recovery this year, as the macro-economic environment starts to normalize. Additionally, the division does not expect a recurrence of the loan markdowns that occurred across the industry in 2022. The Investment Grade Debt business should maintain its robust performance from the prior year and further develop its ESG capabilities for clients. Equity Origination will continue to provide a competitive offering across products and expects to see the market start to open up again throughout the year. Advisory plans to build on the momentum of investment and market share gains in the prior year, though the division expects the fee pool to be impacted by the reduced levels of announced volumes seen in the second half of 2022.

Provisions for credit losses are expected to be essentially flat in 2023 in a range of 30 to 35 basis points of average loans.

In 2023, noninterest expenses as well as adjusted costs are expected to be slightly higher compared to the previous year driven by inflation, higher bank levy costs, strategic growth initiatives including investments in people and technology, along with increased regulatory related costs within infrastructure support and higher internal service allocations. Adjusting the prior year for the aforementioned DBCM methodology change, Investment Bank expects noninterest expenses and adjusted costs to be essentially flat versus 2022.

For 2023, RWA in the Investment Bank is expected to be slightly higher driven by credit risk RWA from targeted business growth; regulatory inflation is expected to be largely offset by mitigating business actions.

There are several risks to the outlook of the Investment Bank in 2023, including potential impacts on the business model from macroeconomic changes, including uncertainties associated with the war in Ukraine, while the second order effects on energy and food prices will continue to have a significant impact on financial markets. Central bank policies, specifically around interest rates and further tapering of asset purchases, create risks, as does the current period of high inflation. In addition, the evolving regulatory framework could lead to unforeseen regulatory compliance costs and possible delays in the implementation of the division's efficiency measures, which could adversely impact its cost base. More broadly, other unforeseen geopolitical event risks may also have an adverse impact.

Private Bank

In 2023, the Private Bank expects to benefit from the rising interest rate environment and from continued business growth. Private Bank also expects that beneficial impacts of specific revenue items and releases in certain provisions will not repeat in the same magnitude as in 2022. Noninterest expenses in 2023 are expected to be burdened by continued inflationary impacts and investments as well as higher internal service cost allocations, which will in part be offset by continued savings from transformation initiatives.

Net revenues in 2023 are anticipated to remain essentially flat compared to 2022. The year-on-year comparison will be impacted by the non-recurrence of a gain on the sale of the Deutsche Bank Financial Advisors business in Italy and by lower revenues from workout activities in Sal. Oppenheim. Revenues excluding these specific items are expected to be slightly higher compared to 2022 driven by net positive effects from the rising interest rate environment and by continued business growth despite an expected slowdown of the growth of the German mortgage book.

In the Private Bank Germany, revenues are expected to be slightly higher compared to 2022. Net interest income is expected to grow driven by higher deposit revenues which will be largely offset by reduced funding benefits including from the ECB's Targeted Longer Term Refinancing Operations ("**TLTRO**") program. Fee income is expected to remain essentially flat with increases in investment product revenues in part offset by impacts from changes in contractual and regulatory conditions.

Net revenues in the International Private Bank are expected to be slightly lower compared to 2022 driven by the non-recurrence of the aforementioned gain in Italy of approximately € 310 million and Sal. Oppenheim workout revenues of approximately € 130 million. Excluding these specific items, revenues are anticipated to be slightly higher year-on-year reflecting continued business growth supported by prior relationship manager hiring. Positive impacts from rising interest rates are expected to more than compensate for the impact of reduced benefits from the ECB's TLTRO program.

Private Bank assumes continued business growth in 2023 across loans and assets under management with corresponding volumes in assets under management expected to be higher compared to year-end 2022. As usual, the overall development of volumes will highly depend on market parameters, including equity indices and foreign exchange rates.

Provision for credit losses is forecasted to be slightly higher in 2023 in a range of 20 to 25 basis points of average loans.

RWA are expected to be essentially flat in 2023 with selected growth in the loan book being partially offset by portfolio optimizations and updates in the implementation of regulatory requirements.

Noninterest expenses are expected to be higher in 2023 compared to 2022, driven by higher internal service cost allocations, the non-recurrence of provision releases recorded in 2022 and higher restructuring expenses for continued transformation initiatives in 2023. Adjusted costs are expected to be slightly higher year-on-year as continued savings from transformation initiatives will not fully offset the impacts of inflation and higher internal service cost allocations. Adjusting the prior year for the aforementioned DBCM methodology change, Private Bank expects noninterest expenses to be slightly higher and adjusted costs to remain essentially flat versus 2022.

Risks to Private Bank's outlook include potential impacts on the business model from macroeconomic changes, including uncertainties associated with the war in Ukraine, global inflationary pressures due to higher energy and commodity prices as well as ongoing supply chain disruptions, uncertainty on interest rates, slower economic growth in the major operating countries and lower client activity. Client activity could be impacted by market uncertainties including higher than expected volatility in equity and credit markets. The implementation of regulatory requirements including consumer protection measures and delays in the implementation of strategic projects or changes resulting from contract renegotiations could also have a negative impact on revenues, capital consumption and costs.

Asset Management

The Asset Management segment principally consists of the consolidated financial results of DWS Group GmbH & Co. KGaA ("**DWS**"), of which Deutsche Bank AG owns a controlling interest.

Given the current macroeconomic outlook and the asset management industry's challenges, DWS intends to focus on innovative products and services where it can differentiate and best serve clients, while also maintaining a disciplined cost approach as it invests in growth and transformation. DWS expects its diversified asset base to continue to provide some protection against current market challenges. DWS committed to a new set of medium-term financial targets in December 2022 as part of its refined strategy.

Asset Management expects Assets under Management to be higher at the end of 2023, compared to the year end of 2022, with net inflows expected into growth areas like Passive and Alternatives. This should be further enhanced by strategic partnerships and product innovations, including further ESG offerings. Total revenues are expected to be slightly lower in 2023 compared to 2022. Management fees are expected to be slightly lower in 2023 compared to 2022, with significantly higher expected performance and transactions fees to offset significantly lower other revenues. Moreover, the division expects further investment into growth and platform transformation, which will be partly compensated by ongoing cost discipline. Noninterest expenses are expected to be broadly flat and adjusted costs to be higher in 2023 compared to 2022. The aforementioned DBCM methodology change had no material impact on Asset Management.

Risks to Asset Management's outlook include macro-economic and market conditions, growth prospects and continued economic impact from the war in Ukraine, which could adversely affect its business, results of operations or strategic plans. Elevated levels of economic and political uncertainty worldwide, and protectionist and anti-trade policies, could have unpredictable consequences in the economy, market volatility and investors' confidence, which may lead to declines in business and could affect revenues and profits. In addition, the evolving regulatory framework could lead to unforeseen regulatory compliance costs and possible delays in the implementation of the efficiency measures, which could adversely impact the division's cost base.

Capital Release Unit

Having fulfilled its de-risking and cost reduction mandate from 2019 through the end of 2022, the Capital Release Unit will cease to be reported as a separate segment with effect from the first quarter of 2023. Its remaining portfolio, resources and employees will be reported within the Corporate & Other segment. The remaining Capital Release Unit assets will roll off over time. These are mostly interest rate derivatives but also include the Polish FX mortgage portfolio and certain other FIC & Equities assets.

Corporate & Other

As mentioned above, Corporate & Other will include the financial impact of the Capital Release Unit from 2023 onwards.

Corporate & Other will continue to retain certain transitional costs related to the Group's transfer pricing framework. In addition, there will be charges related to legacy activities relating to the merger of DB Privat- und Firmenkundenbank AG into Deutsche Bank AG. In aggregate, both items are expected to have negative impacts in Corporate & Other of approximately € 0.3 billion in 2023. Corporate & Other will also continue to retain shareholder expenses, which are expected to be around € 0.5 billion for the full year 2023, and to record the reversal of Noncontrolling interests, primarily from DWS. In addition, results in Corporate & Other will continue to be impacted by valuation and timing differences on positions that are economically hedged, but do not meet the hedge accounting requirements. In total, Corporate & Other is expected to generate a pre-tax loss in 2023.

ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES AND SENIOR MANAGEMENT

In accordance with German law, Deutsche Bank has both a **Management Board** (*Vorstand*) and a **Supervisory Board** (*Aufsichtsrat*). These Boards are separate; no individual may be a member of both. The Supervisory Board appoints the members of the Management Board and supervises the activities of this Board. The Management Board represents Deutsche Bank and is responsible for the management of its affairs.

The **Management Board** consists of the following members:

Christian Sewing	Chairman of the Management Board (Chief Executive Officer); Corporate Affairs & Strategy (including Communications and Corporate Social Responsibility and Political Affairs); Sustainability; Research; Group Audit (administratively only, in all other aspects collective responsibility of the Management Board); Human Resources (incl. Corporate Executive Matters); Global Real Estate
James von Moltke	Deputy Chairman of the Management Board (President); Chief Financial Officer (CFO); Group Finance; Chief Accounting Officer; Regional Finance; Business and Infrastructure Finance (CFOs); Group Tax; Treasury; Investor Relations; Planning and Performance Management
Karl von Rohr	Deputy Chairman of the Management Board (President); Head of Private Bank (PB); Head of Asset Management (AM); Head (CEO) of Region Germany; Head of Region EMEA
Fabrizio Campelli	Head of Investment Bank (IB); Head of Corporate Bank (CB); Head of Region UKI (UK & Ireland)
Bernd Leukert	Chief Technology, Data and Innovation Officer; Chief Information Office; Chief Technology Office; Data Governance and Oversight; Cloud and Innovation; Chief Security Office
Alexander von zur Mühlen	Head (CEO) of Region APAC

Christiana Riley	Head (CEO) of Region Americas
Rebecca Short	Chief Transformation Officer (CTO) and Management Board Member for Global Procurement; Transformation Governance and Oversight Office; Transformation Execution Office; US Transformation and Remediation; Infrastructure Transformation; Deutsche Bank Management Consulting; Global Procurement
Prof. Dr. Stefan Simon	Chief Administrative Officer (CAO); Legal and Group Governance (incl. Data Privacy); Regulatory Affairs; Chief Remediation Office; Compliance; Anti-Financial Crime (AFC); Controls Testing & Assurance; Business Selection and Conflicts Office
Olivier Vigneron	Chief Risk Officer (CRO); Business Aligned Risk Management (Divisional CROs); Regional Risk Management (Regional CROs); Enterprise Risk Management (ERM); Model Risk Management (MoRM); Credit Risk Management (CRM); Market & Valuation Risk Management (MVRM); Non-Financial Risk Management (NFRM); Treasury & Liquidity Risk Management (TLRM); Group Strategic Analytics (incl. Risk Methodology)

The **Supervisory Board** consists of the following members:

Alexander Wynaendts	Chairman of the Supervisory Board of Deutsche Bank AG; Member of the Board of Directors at Air France-KLM Group S.A., Paris, France; Member of the Board of Directors at Uber Technologies, Inc., San Francisco, USA; Non-Executive Director, Chairman, at Puissance Holding B.V., Rotterdam, Netherlands
Detlef Polaschek*	Deputy Chairman of the Supervisory Board of Deutsche Bank AG; Member of the General Staff Council of Deutsche Bank AG
Prof. Dr. Norbert Winkeljohann	Deputy Chairman of the Supervisory Board of Deutsche Bank AG; Self-employed corporate consultant, Norbert Winkeljohann Advisory & Investments; Chairman of the Supervisory Board of Bayer AG; Member of the Supervisory Board of Georgsmarienhütte Holding GmbH; Chairman of the Supervisory Board of Sievert SE; Chairman of the Supervisory Board of Bohnenkamp AG
Ludwig Blomeyer-Bartenstein*	Spokesperson of the Management Bremen of Deutsche Bank AG; Member of the Supervisory Board of Frowein & Co. Beteiligungs AG
Mayree Clark	Member of the Board of Directors of Ally Financial, Inc., Detroit, USA; Member of the Board of Directors of Allvue Systems Holdings, Inc., Florida, USA

Jan Duscheck*	Head of national working group Banking of trade union ver.di
Manja Eifert*	Chairperson of the Staff Council, Deutsche Bank AG, Berlin
Sigmar Gabriel	Former German Federal Government Minister; Chairman of the Supervisory Board of Thyssenkrupp Steel Europe AG; Member of the Supervisory Board of Siemens Energy AG
Timo Heider*	Chairman of the General Staff Council of PCC Services GmbH der Deutschen Bank; Chairman of the General Staff Council of BHW Bausparkasse AG / Postbank Finanzberatung AG; Chairman of the Staff Council of BHW Bausparkasse AG, PCC Services GmbH der Deutschen Bank, Postbank Finanzberatung AG and BHW Holding GmbH; Deputy Chairman of the Supervisory Board of BHW Bausparkasse AG; Deputy Chairman of the Supervisory Board of PCC Services GmbH der Deutschen Bank; Deputy Chairman of the Board of Pensionskasse der BHW Bausparkasse AG VVaG
Martina Klee*	Deputy Chairperson of the Staff Council PWCC Center Frankfurt of Deutsche Bank; General Staff Council member, Group Staff Council member, European Staff Council member and Chairperson of the Economic Committee, Deutsche Bank; Member of the Supervisory Board of Sterbekasse für die Angestellten der Deutschen Bank Gruppe VVa.G.
Gabriele Platscher*	Bank Employee
Bernd Rose*	Chairman of the General Staff Council of Postbank Filialvertrieb AG; Member of the General Staff Council of DP Retail/Postbank Filialvertrieb AG and member of the Committee for Economic Matters; Member of the Supervisory Board of Postbank Filialvertrieb AG; Deputy Chairman of the Supervisory Board of ver.di Vermögens-verwaltungsgesellschaft
Yngve Slyngstad	Chief Executive Officer of Aker Asset Management AS, Oslo, Norway
John Alexander Thain	Member of the Board of Directors, Aperture Investors LLC, New York, USA; Member of the Board of Directors, Uber Technologies, Inc., San Francisco, USA; Chairman of the Board of Directors, Pine Island Capital Partners LLC, Fort Lauderdale, USA
Michele Trogni	Operating Partner of Eldridge Industries LLC, Greenwich, Connecticut, USA; Chief Executive Officer and Chairperson of the Board of Directors of Zinnia Corporate Holdings, LLC, Kansas, USA

Dr. Dagmar Valcárcel	Member of the Supervisory Board of amedes Holding GmbH; Member of the Board of Directors, Antin Infrastructure Partners S.A., Paris, France
Stefan Viertel*	Member of the Workers Council Headoffice CB and PB, Deutsche Bank AG
Dr. Theodor Weimer	Chief Executive Officer of Deutsche Börse AG; Member of the Supervisory Board of Knorr Bremse AG
Frank Werneke*	Chairman of the trade union ver.di, Berlin; Member of the Supervisory Board of ZDF Studios GmbH; Member of the Television Council of the Zweites Deutsches Fernsehen (ZDF); Member of the Supervisory Board of the ver.di Vermögensverwaltungsgesellschaft m.b.H
Frank Witter	Member of the Supervisory Board of Traton SE; Chairman of the Supervisory Board, VfL Wolfsburg-Fußball GmbH Member of the Board of Directors of CGI Inc., Montreal, Canada

* Elected by the employees in Germany.

The members of the Management Board accept membership on the Supervisory Boards of other corporations within the limits prescribed by law.

The business address of each member of the Management Board and of the Supervisory Board of Deutsche Bank is Taunusanlage 12, 60325 Frankfurt am Main, Germany.

There are no conflicts of interest between any duties carried out on behalf of Deutsche Bank and the private interests or other duties of the members of the Supervisory Board and the Management Board.

Deutsche Bank has issued and made available to its shareholders the declaration prescribed by Sec. 161 of the German Stock Corporation Act (AktG).

MAJOR SHAREHOLDERS

Deutsche Bank is neither directly nor indirectly majority-owned or controlled by any other corporation, by any government or by any other natural or legal person severally or jointly.

Pursuant to German law and Deutsche Bank's Articles of Association, to the extent that the Bank may have major shareholders at any time, it may not give them different voting rights from any of the other shareholders.

Deutsche Bank is not aware of arrangements which may at a subsequent date result in a change of control of the company.

The German Securities Trading Act (*Wertpapierhandelsgesetz*) requires investors in publicly-traded corporations whose investments reach certain thresholds to notify both the corporation and the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) of such change within four trading days. The minimum disclosure threshold is 3 per cent. of the corporation's issued voting share capital. To the Bank's knowledge, there are only four shareholders holding more than 3 per cent. of Deutsche Bank shares or to whom more than 3 per cent. of voting rights are attributed, and none of these shareholders holds more than 10 per cent. of Deutsche Bank shares or voting rights.

FINANCIAL INFORMATION CONCERNING DEUTSCHE BANK'S ASSETS AND LIABILITIES, FINANCIAL POSITION AND PROFITS AND LOSSES

Financial Statements

Deutsche Bank's consolidated financial statements for the financial year 2021 (as included in the Annual Report 2021 of the Issuer as of 31 December 2021) and for the financial year 2022 (as included in the Annual Report 2022 of the Issuer as of 31 December 2022) are incorporated by reference in, and form part of, this Registration Document (see section "Information Incorporated by Reference").

Auditing of Annual Financial Information

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft audited Deutsche Bank's unconsolidated annual and consolidated financial statements for the financial years 2021 and 2022 in accordance with Directive 2014/56/EU and Regulation (EU) No. 537/2014, Sec. 317 of the German Commercial Code (*Handelsgesetzbuch*, "**HGB**") and German generally accepted standards for financial statements audit promulgated by the Institute of Public Auditors in Germany (*Institut der Wirtschaftsprüfer*, "**IDW**") and, in each case, issued an unqualified independent auditor's report thereon.

Interim Financial Information

The unaudited consolidated interim financial information for the three months ended 31 March 2022 (as included in the Earnings Report of the Issuer as of 31 March 2022) is incorporated by reference in, and forms part of, this Registration Document (see section "Information Incorporated by Reference").

The unaudited consolidated interim financial information for the six months ended 30 June 2022 (as included in the Interim Report of the Issuer as of 30 June 2022) is incorporated by reference in, and forms part of, this Registration Document (see section "Information Incorporated by Reference").

The unaudited consolidated interim financial information for the nine months ended 30 September 2022 (as included in the Earnings Report of the Issuer as of 30 September 2022) is incorporated by reference in, and forms part of, this Registration Document (see section "Information Incorporated by Reference").

Legal and Arbitration Proceedings

Deutsche Bank Group operates in a legal and regulatory environment that exposes it to significant litigation risks. As a result, Deutsche Bank Group is involved in litigation, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside Germany, including the United States, arising in the ordinary course of business.

Other than set out herein, Deutsche Bank Group is not involved (whether as defendant or otherwise) in, nor does it have knowledge of, any governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which Deutsche Bank is aware), during a period covering the previous 12 months that may have, or have had in the recent past, a significant effect on the financial position or profitability of the Bank or Deutsche Bank Group.

Anti-Money Laundering Matters Involving Former Correspondent Banking Relationships

Deutsche Bank has received requests for information from government authorities concerning certain former correspondent banking relationships, including Danske Bank. Deutsche Bank has provided information to and is otherwise cooperating with the investigating authorities. Deutsche Bank also completed an internal investigation focused on its historical processing of correspondent banking transactions on behalf of customers of Danske Bank's Estonia branch prior to cessation of the correspondent banking relationship with that branch in 2015, including of whether any violations of law, regulation or Deutsche Bank policy occurred and the effectiveness of the related internal control environment.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these investigations because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

On 7 July 2020, the New York State Department of Financial Services ("**DFS**") issued a Consent Order, finding that Deutsche Bank violated New York State banking laws in connection with its relationships with three former Deutsche Bank clients – Danske Bank's Estonia branch, Jeffrey Epstein and FBME Bank – and imposing a U.S.$ 150 million civil penalty in connection with these three former relationships, which Deutsche Bank paid in the third quarter of 2020.

On 15 July 2020, Deutsche Bank was named as a defendant in a securities class action filed in the U.S. District Court for the District of New Jersey, alleging that Deutsche Bank made material misrepresentations regarding the effectiveness of its anti-money laundering ("**AML**") controls and related remediation. The complaint cited allegations regarding control deficiencies raised in the DFS Consent Order related to Deutsche Bank's relationships with Danske Bank's Estonia branch, Jeffrey Epstein and FBME Bank. On 31 March 2022, the court granted a motion to transfer the action to the U.S. District Court for the Southern District of New York ("**SDNY**") and on 18 May 2022, the SDNY court granted in part and denied in part the motion to dismiss. On 23 September 2022, Deutsche Bank executed a settlement agreement with plaintiffs in the amount of U.S.$ 26.25 million to resolve this action, and has recorded a provision in the same amount. On 6 February 2023, the court entered a final judgment and order of dismissal with prejudice, approving the settlement and dismissing the action with prejudice.

Ongoing Regulatory Discussions

Deutsche Bank is engaged in ongoing regulatory discussions to resolve matters concerning adherence to prior orders and settlements related to sanctions and embargoes and AML compliance, and remedial agreements and obligations related to risk management issues.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this matter because it has concluded that such disclosure can be expected to seriously prejudice the outcome.

<u>BGH</u>

On 27 April 2021 the German Federal Court of Justice ("**BGH**") issued a ruling that certain clauses used in Deutsche Bank's General Terms and Conditions, which assume the customer consents following a notice and non-objection period, are void in relation to consumers (*Verbraucher*). The Group received the written reasoning for this judgment on 27 May 2021. The relevant clauses were widely used in the German banking industry. The BGH overturned the prior decisions of both the Regional Court and Higher Regional Court of Cologne, which had dismissed the claim brought forward by a consumer protection association. As a result of this ruling, fees introduced or increased since 2018 on the basis of this modification mechanism are potentially ineffective and consumers (*Verbraucher*) can claim repayment of respective banking fees. The Group has a civil litigation class provision of approximately € 6 million as of 31 December 2022 with respect to this matter.

<u>Cum-ex Investigations and Litigations</u>

Deutsche Bank has received inquiries from law enforcement authorities, including requests for information and documents, in relation to cum-ex transactions of clients. "**Cum-ex**" refers to trading activities in German shares around dividend record dates (trade date before and settlement date after dividend record date) for the purpose of obtaining German tax credits or refunds in relation to withholding tax levied on dividend payments including, in particular, transaction structures that have resulted in more than one market participant claiming such credit or refund with respect to the same dividend payment. Deutsche Bank is cooperating with the law enforcement authorities in these matters.

The Public Prosecutor in Cologne (*Staatsanwaltschaft Köln*, "**CPP**") has been conducting a criminal investigation since August 2017 concerning two former employees of Deutsche Bank in relation to cum-ex transactions of certain former clients of the Bank. Deutsche Bank is a potential secondary participant pursuant to Sec. 30 of the German Law on Administrative Offences in this proceeding. Deutsche Bank is cooperating with the CPP. At the end of May and beginning of June 2019, the CPP initiated criminal investigations against further current and former employees of Deutsche Bank and five former Management Board members. In July 2020, in the course of inspecting the CPP's investigation file, Deutsche Bank learned that the CPP had further extended its investigation to include further current and former bank personnel, including one former and one then current Management Board member. In October 2022, the CPP conducted a search at Deutsche Bank's offices in Frankfurt and Eschborn. Based on the search warrant the CPP expanded the scope of the investigation and included further current and former Deutsche Bank employees and one additional former Management Board member in the investigation. The investigation is still at an early stage and the scope of the investigation may be further broadened.

In May 2021, Deutsche Bank learned through an information request received by Deutsche Oppenheim Family Office AG ("**DOAG**") as legal successor of Sal. Oppenheim jr. & Cie. AG & Co. KGaA ("**Sal. Oppenheim**") that the CPP in 2021 opened a criminal investigation proceeding in relation to cum-ex transactions against unknown former personnel of Sal. Oppenheim. DOAG provided the requested information on 13 September and 15 October 2021.

Deutsche Bank acted as participant in and filed withholding tax refund claims through the electronic refund procedure (*elektronisches Datenträgerverfahren*) on behalf of, inter alia, two former custody clients in connection with their cum-ex transactions. In February 2018, Deutsche Bank received from the German Federal Tax Office (*Bundeszentralamt für Steuern*, "**FTO**") a demand of approximately € 49 million for tax refunds paid to a former custody client. Deutsche Bank expects to receive a formal notice for the same amount. On 20 December 2019, Deutsche Bank received a liability notice from the FTO requesting payment of € 2.1 million by 20 January 2020 in connection with tax refund claims Deutsche Bank had submitted on behalf of another former custody client. In 2020, Deutsche Bank made the requested payment and filed an objection against the liability notice. On 28 July 2021, Deutsche Bank received a letter from the FTO stating that the revised tax assessment notice dated December 2019 was not a valid administrative act as it could not be served to Deutsche Bank's client due to its liquidation already in 2016. On the same day, the FTO issued another liability notice to Deutsche Bank arguing that it issued incorrect tax certificates. On 30 May 2022, Deutsche Bank's objections against the liability notices were rejected. On 1 July 2022, Deutsche Bank filed a claim against this rejection with the Fiscal Court of Cologne (*Finanzgericht Köln*).

By letter dated 26 February 2018, The Bank of New York Mellon SA/NV ("**BNY**") informed Deutsche Bank of its intention to seek indemnification for potential cum-ex related tax liabilities incurred by BHF Asset Servicing GmbH ("**BAS**") and/or Frankfurter Service Kapitalanlage-GmbH ("**Service KAG**", now named BNY Mellon Service Kapitalanlage-Gesellschaft mbH). Deutsche Bank had acquired BAS and Service KAG as part of the acquisition of Sal. Oppenheim in 2010 and sold them to BNY in the same year. BNY estimates the potential tax liability to amount to up to € 120 million (excluding interest of 6 per cent p.a.). In November and December 2020 counsel to BNY informed Deutsche Bank that BNY and / or Service KAG (among others) have received notices from tax authorities in the estimated amount with respect to cum-ex related trades by certain investment funds in 2009 and 2010. BNY has filed objections against the notices. Following receipt of payment orders from tax authorities in the amount of € 60.6 million in relation to one of the investment funds and after consultation with Deutsche Bank, BNY in September 2022 paid € 13.6 million to tax authorities. The remaining € 47 million in relation to that fund were paid by Warburg Invest Kapitalanlagegesellschaft mbH (the investment fund's manager). Further, following receipt of payment orders from tax authorities in the amount of € 11.8 million regarding another one of the investment funds and after consultation with Deutsche Bank, BNY in January/February 2023 paid € 7.9 million to tax authorities. The remaining € 3.9 million was paid by Hansainvest Hanseatische Investment-GmbH (the investment fund's manager). In addition, BNY received from the Frankfurt Tax Office regarding another one of the investment funds a notice and payment request regarding penalty interest (*Hinterziehungszinsen*) in the amount of € 11.6 million with a payment deadline of 13 February 2023. BNY, after consultation with Deutsche Bank, applied for a suspension of enforcement (*Aussetzung der Vollziehung*) regarding the payment request. The underlying liability amount regarding this fund paid by BNY, after consultation with Deutsche Bank, to the Frankfurt Tax Office in 2021 was € 18.3 million.

On 6 February 2019, the Regional Court (*Landgericht*) Frankfurt am Main served Deutsche Bank with a claim by M.M.Warburg & CO Gruppe GmbH and M.M.Warburg & CO (AG & Co.) KGaA (together "**Warburg**") in connection with cum-ex transactions of Warburg with a custody client of Deutsche Bank during 2007 to 2011. Warburg claimed from Deutsche Bank indemnification against German taxes in relation to transactions conducted in the years 2007 to 2011. Further, Warburg claimed compensation of unspecified damages relating to these transactions. Based on the tax assessment notices received for 2007 to 2011, Warburg claimed a total of € 250 million (of which € 166 million is in relation to taxes and € 84 million is in relation to interest). On 20 March 2020, Warburg extended its claim against Deutsche Bank to indemnify Warburg in relation to a € 176 million (thereof € 166 million in relation to taxes and € 10 million in relation to interest) criminal confiscation order issued by the Regional Court Bonn in the criminal cum-ex trial on 18 March 2020 regarding the same transactions. On 28 July 2021 the German Federal Court of Justice ("**BGH**") confirmed the criminal confiscation. On 23 September 2020, the Frankfurt Regional Court fully dismissed Warburg's claim against Deutsche Bank on the grounds that Warburg as the tax debtor (*Steuerschuldner*) is primarily liable and cannot request payment from Deutsche Bank. The court further held that any claims are time-barred. On 29 October 2020, Warburg appealed the decision with the Higher Regional Court (*Oberlandesgericht*) Frankfurt am Main. On 1 December 2021, Warburg reduced its claim from the first instance proceeding. Warburg now claims € 86 million (thereof € 63 million in relation to taxes and € 23 million in relation to interest). Further, Warburg claims an amount of € 54 million in relation to the criminal confiscation. In a judgment dated 2 March 2022, the Higher Regional Court (*Oberlandesgericht*) Frankfurt am Main fully dismissed Warburg's appeal. The court did not admit an appeal of its decision to the BGH. Warburg filed an appeal against this non-admission (*Nichtzulassungsbeschwerde*).

On 25 January 2021, the Regional Court (*Landgericht*) Hamburg served Deutsche Bank with a claim by Warburg Invest Kapitalanlagegesellschaft mbH ("**Warburg Invest**") in relation to transactions of two investment funds in 2009 and 2010, respectively. Warburg Invest was fund manager for both funds. Warburg Invest claims, from Deutsche Bank together with several other parties as joint and several debtors (*Gesamtschuldner*), indemnification against German taxes in relation to cum-ex transactions conducted by the two funds. Further, Warburg Invest claims compensation of unspecified damages relating to these transactions. In November 2020, Warburg Invest received a tax liability notice from tax authorities for one of the funds in the amount of € 61 million. Based on publicly available information Deutsche Bank estimates the tax amount for the second fund to be approximately € 49 million. Warburg Invest filed its claim against several parties including Deutsche Bank *inter alia* based on an allegation of intentional damage contrary to public policy (Sec. 826 German Civil Code) and the accusation that Deutsche Bank participated in a business model that was contrary to public policy (*sittenwidriges Geschäftsmodell*). On 5 July 2021, Deutsche Bank submitted its defense statement to the court. On 31 December 2021, two other defendants of the proceeding served a notice of dispute (*Streitverkündung*) to several parties including Deutsche Bank. On 30 September 2022, Warburg Invest withdrew its litigation (*Rücknahme der Klage*) as far as it relates to Deutsche Bank.

On 26 February 2021, the Regional Court (*Landgericht*) Frankfurt am Main served Deutsche Bank with a claim by Seriva Vermögensverwaltungs GmbH ("**Seriva**"). Seriva requested that Deutsche Bank reissue certain tax certificates (*Steuerbescheinigungen*) that Deutsche Bank withdrew in April 2017 in light of Seriva's cum-ex transactions. Deutsche Bank responded to Seriva's statement of claim on 6 April 2021. On 5 July 2021, Deutsche Bank received a reply brief from Seriva. Deutsche Bank responded on 17 August 2021. The hearing took place on 7 February 2022. In a judgment dated 28 February 2022, the court dismissed Seriva's claim. Seriva did not appeal the decision thus the dismissal is final and binding.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

<u>FX Derivatives Products Investigations and Litigation</u>

Deutsche Bank has received requests for information from certain regulators in connection with its internal investigation into the historical sales of certain FX derivatives products with a limited number of clients. Deutsche Bank is providing information to and otherwise cooperating with its regulators. Separately, on 30 September 2021, Deutsche Bank was served with a claim that was filed in the High Courts of England and Wales by four companies within the Palladium Hotels Group ("**PHG**"). PHG are claiming restitution or damages for alleged losses estimated at € 500 million in respect of FX derivatives trades entered into with Deutsche Bank between 2014 and 2019. They allege that Deutsche Bank made negligent misrepresentations, misstatements and/or breached a duty of care to PHG in relation to the trades. It is also alleged that one of the four PHG claimants lacked legal capacity to enter into some of the trades. On 17 December 2021, Deutsche Bank filed a defense disputing the claim on the following grounds: that PHG is a sophisticated investor with extensive experience of using derivatives, that Deutsche Bank did not act as either an advisor or fiduciary to PHG, that the trades reflected PHG's own trading strategy and commercial objectives and were carried out with PHG's full authorization, that there were no misrepresentations, that the relevant PHG claimant had capacity to enter into these trades, and that PHG well understood both the potential benefits and risks involved. On 1 April 2022, PHG filed their reply to Deutsche Bank's defense. A case management conference procedural hearing took place on 14 November 2022, where the Court made an order, timetabling the proceedings to trial, which is expected to commence in early 2025.

FX Investigations and Litigations

Deutsche Bank has received requests for information from certain regulatory and law enforcement agencies globally who investigated trading in, and various other aspects of, the foreign exchange market. Deutsche Bank cooperated with these investigations. Relatedly, Deutsche Bank has conducted its own internal global review of foreign exchange trading and other aspects of its foreign exchange business.

On 7 November 2018, a group of asset managers opted out of a consolidated class settlement and filed litigation on an individual basis (*Allianz, et al. v. Bank of America Corporation, et al.*). Defendants' motion to dismiss was granted and denied in part on 28 May 2020. Plaintiffs filed a third amended complaint on 28 July 2020. Fact discovery substantially concluded in 2022 and expert discovery is underway. Deutsche Bank has also been named as a defendant in an amended and consolidated class action filed in Israel. This action asserts factual allegations similar to those made in the consolidated action in the United States and seeks damages pursuant to Israeli antitrust law as well as other causes of action. This action is in preliminary stages.

On 11 November 2020, Deutsche Bank was named in an action issued in the UK High Court of Justice (Commercial Court) brought by many of the same plaintiffs who brought *Allianz, et al. v. Bank of America Corporation, et al.* referred to above. The claim is based upon factual allegations similar to those made in *Allianz, et al. v. Bank of America Corporation, et al.* On 4 March 2022, the High Court ordered that the proceedings be transferred to the UK Competition Appeal Tribunal. The proceedings are at the pleadings stage. Deutsche Bank has reached an agreement in principle to resolve the *Allianz* proceedings in the US and UK.

On 4 May 2021, Deutsche Bank S.A. – Banco Alemao was named in a civil antitrust action brought in the São Paulo Civil Court of Central Jurisdiction by the Association of Brazilian Exporters ("**AEB**") against certain FX dealers and affiliated financial institutions in Brazil. This action asserts factual allegations based on conduct investigated by the Brazilian antitrust enforcement agency ("**CADE**") and seeks damages pursuant to Brazilian antitrust law. On 22 February 2022, the presiding judge dismissed the action on the basis that the action was not appropriate for a class proceeding. AEB has appealed the decision. Deutsche Bank has not yet been served.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

Interbank and Dealer Offered Rates Matters

Regulatory and Law Enforcement Matters

Deutsche Bank has responded to requests for information from, and cooperated with, various regulatory and law enforcement agencies, in connection with industry-wide investigations concerning the setting of the London Interbank Offered Rate ("**LIBOR**"), Euro Interbank Offered Rate ("**EURIBOR**"), Tokyo Interbank Offered Rate ("**TIBOR**") and other interbank and/or dealer offered rates.

From 2013 through 2017, Deutsche Bank entered into settlements with the European Commission, the U.S. Department of Justice ("**DOJ**"), the U.S. Commodity Futures Trading Commission ("**CFTC**"), the UK Financial Conduct Authority ("**FCA**"), the DFS and other regulators with respect to interbank and dealer offered rates matters. Other investigations of Deutsche Bank concerning the setting of various interbank and/or dealer offered rates remain ongoing.

The Group has not disclosed whether it has established a provision or contingent liability with respect to the remaining investigations because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

Overview of Civil Litigations

Deutsche Bank is party to 7 U.S. civil actions concerning alleged manipulation relating to the setting of various interbank and/or dealer offered rates which are described in the following paragraphs, as well as actions pending in each of the UK, Israel, Argentina and Spain. Most of the civil actions, including putative class actions, are pending in the U.S. District Court for the Southern District of New York ("**SDNY**"), against Deutsche Bank and numerous other defendants. All but two of the U.S. civil actions were filed on behalf of parties who allege losses as a result of manipulation relating to the setting of U.S. dollar LIBOR. The two U.S. civil actions pending against Deutsche Bank that do not relate to U.S. dollar LIBOR were also filed in the SDNY, and include one consolidated action concerning Pound Sterling ("**GBP**") LIBOR and one action concerning Swiss franc ("**CHF**") LIBOR.

Claims for damages for all 7 of the U.S. civil actions discussed have been asserted under various legal theories, including violations of the U.S. Commodity Exchange Act, federal and state antitrust laws, the U.S. Racketeer Influenced and Corrupt Organizations Act, and other federal and state laws. The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

U.S. dollar LIBOR

With one exception, all of the U.S. civil actions concerning U.S. dollar LIBOR are being coordinated as part of a multidistrict litigation (the "**U.S. dollar LIBOR MDL**") in the SDNY. In light of the large number of individual cases pending against Deutsche Bank and their similarity, the civil actions included in the U.S. dollar LIBOR MDL are now subsumed under the following general description of the litigation pertaining to all such actions, without disclosure of individual actions except when the circumstances or the resolution of an individual case is material to Deutsche Bank.

Following a series of decisions in the U.S. dollar LIBOR MDL between March 2013 and March 2019 narrowing their claims, plaintiffs are currently asserting antitrust claims, claims under the U.S. Commodity Exchange Act and U.S. Securities Exchange Act and state law fraud, contract, unjust enrichment and other tort claims. The court has also issued decisions dismissing certain plaintiffs' claims for lack of personal jurisdiction and on statute of limitations grounds.

On 20 December 2016, the district court issued a ruling dismissing certain antitrust claims while allowing others to proceed. Multiple plaintiffs have filed appeals of the district court's 20 December 2016 ruling to the U.S. Court of Appeals for the Second Circuit, and those appeals proceeded in parallel with the ongoing proceedings in the district court. On 30 December 2021, the Second Circuit affirmed the district court's decision on antitrust standing grounds but reversed the court's decision on personal jurisdiction grounds, and it remanded the cases to the district court for further proceedings. On 9 March 2022, defendants (including Deutsche Bank) filed a petition for a writ of certiorari to the U.S. Supreme Court to review the Court of Appeals' 30 December 2021 decision. The U.S. Supreme Court denied defendants' petition on 21 June 2022.

On 13 December 2022, plaintiff in a formerly stayed class action pending as part of the U.S. dollar LIBOR MDL (*Guaranty Bank & Trust Co. v. Credit Suisse Group AG, et al.*) filed a notice of voluntary dismissal, dismissing its case in its entirety. The court terminated the plaintiff from the MDL on 14 December 2022.

On 11 January 2023, Deutsche Bank and the plaintiff in a non-class action pending as part of the U.S. dollar LIBOR MDL (*City of Houston* v. *Bank of America Corp., et al.*) stipulated to the dismissal of plaintiff's claims against Deutsche Bank. The court dismissed the plaintiff's claims on 12 January 2023. On 11 January 2023, Deutsche Bank and the plaintiffs in ten consolidated non-class actions pending as part of the U.S. dollar LIBOR MDL (*The Regents of the University of California* v. *Bank of America Corp., et al.*; *City of Richmond, et al.* v. *Bank of America Corp., et al.*; *City of Riverside, et al.* v. *Bank of America Corp., et al.*; *County of Mendocino* v. *Bank of America Corp., et al.*; *County of Sacramento* v. *Bank of America Corp., et al.*; *County* *of San Diego* v. *Bank of America Corp., et al.*; *County of San Mateo, et al.* v. *Bank of America Corp., et al.*; *County of Sonoma, et al.* v. *Bank of America Corp., et al.*; *East Bay Municipal Utility District* v. *Bank of America Corp., et al.*; and *San Diego Association of Governments* v. *Bank of America Corp., et al.*) stipulated to the dismissal of plaintiffs' claims against Deutsche Bank. The court dismissed the plaintiffs' claims on 12 January 2023.

On 17 January 2023, plaintiff in a formerly stayed non-class action pending as part of the U.S. dollar LIBOR MDL (*George Maragos v. Bank of America Corp., et al.*) filed a notice of voluntary dismissal, dismissing its case in its entirety.

In August 2020, plaintiffs filed a non-class action in the U.S. District Court for the Northern District of California against several financial institutions, alleging that U.S. dollar LIBOR has been suppressed through the present. On 10 November 2020, plaintiffs moved the court for a preliminary and permanent injunction. On 11 November 2020, certain defendants moved to transfer the action to the SDNY; briefing of that motion is complete. On 24 May 2021, plaintiffs filed a motion for an order to show cause why the court should not order plaintiffs' previously requested injunction. Defendants moved to strike the motion. On 3 June 2021, the court issued an order (i) denying defendants' motion to transfer the action to the SDNY, (ii) denying defendants' motion to strike plaintiffs' 24 May 2021 motion and (iii) setting a hearing for the injunction motions for 9 September 2021. On 9 September 2021, the court held a hearing on the injunction motions and tentatively denied the motions. On 23 December 2021, the court issued a written decision denying the injunction motions. On 13 September 2022, the court granted the defendants' motion to dismiss, but granted plaintiffs leave to amend. On 5 October 2022, plaintiffs filed an amended complaint. Defendants filed a motion to dismiss the amended complaint on 4 November 2022, which remains pending.This action is not part of the U.S. dollar LIBOR MDL.

There is a further UK civil action regarding U.S. dollar LIBOR brought by the U.S. Federal Deposit Insurance Corporation ("**FDIC**") acting as receiver for 19 failed financial institutions headquartered in the U.S., in which a claim for damages has been asserted pursuant to Art. 101 of the Treaty on the Functioning of the European Union, Sec. 2 of Chapter 1 of the UK Competition Act 1998 and U.S. state laws. In February 2022, following a ruling issued by the U.S. Court of Appeals for the Second Circuit in relation to USD LIBOR antitrust claims, the UK LIBOR proceedings were stayed until 31 July 2022, to allow for clarification of the position in relation to the parallel proceedings brought by the FDIC against Deutsche Bank in the U.S. The FDIC filed an application to reinstate proceedings in the United States on 18 July 2022. Following the expiration of the UK stay, at a case management conference that took place in December 2022, the UK court ordered a trial of a sample of three of the failed financial institutions. This 'sample bank' trial has been listed for a 19-week trial in February 2026. On 28 December 2022, the SDNY granted the FDIC's application to reinstate certain of its claims against Deutsche Bank (and the other foreign defendants) in the U.S. to the extent these claims survived a motion to dismiss on the merits and subject to defendants' reservation of rights to dispute the claims in the future.

A further class action regarding LIBOR has been filed in Argentina seeking damages for losses allegedly suffered by holders of Argentine bonds with interest rates based on LIBOR. Deutsche Bank is defending this action.

SIBOR and SOR

A putative class action alleging manipulation of the Singapore Interbank Offered Rate (SIBOR) and Swap Offer Rate (SOR) remains pending. On 26 July 2019, the SDNY granted defendants' motion to dismiss the action, dismissing all claims against Deutsche Bank, and denied plaintiff's motion for leave to file a fourth amended complaint. Plaintiff appealed that decision to the U.S. Court of Appeals for the Second Circuit. On 17 March 2021, the court reversed the SDNY's decision and remanded the case to the district court. On 1 October 2021, defendants (including Deutsche Bank) filed a petition for a writ of certiorari to the U.S. Supreme Court to review the Court of Appeals' 17 March 2021 decision. The petition was denied on 10 January 2022. On 25 October 2021, plaintiffs filed their fourth amended complaint, which defendants moved to dismiss on 24 November 2021. On 17 March 2022, Deutsche Bank executed a settlement agreement with plaintiffs in the amount of U.S.$ 11 million to resolve this action. On 9 June 2022, the court granted preliminary approval of the settlement. On 10 October 2022, plaintiffs filed a motion seeking final approval of the settlement. On 29 November 2022, the court granted final approval of the settlement.

Accordingly, the action is not included in the total number of actions above. The settlement amount, which Deutsche Bank has paid, is no longer reflected in Deutsche Bank's litigation provisions.

GBP LIBOR

A putative class action alleging manipulation of the Pound Sterling (GBP) LIBOR remains pending. On 21 December 2018, the SDNY partially granted defendants' motions to dismiss the action, dismissing all claims against Deutsche Bank. Plaintiffs filed a notice of appeal; the U.S. Court of Appeals for the Second Circuit ordered that the appeal be held in abeyance pending that court's decision in the appeal of the SIBOR and SOR class action. Following that court's decision in the SIBOR and SOR class action on 17 March 2021, the appeal is moving forward. Plaintiffs filed their opening brief on 21 October 2021, and all defendants-appellees' except Deutsche Bank filed their briefs on 20 January 2022. Also on 20 January 2022, plaintiffs filed a motion for (1) severance of their appeal with respect to Deutsche Bank, (2) stay of the severed appeal as to Deutsche Bank, and (3) limited remand of that portion of the matter concerning Deutsche Bank to the district court to consider the approval of a proposed settlement between plaintiffs and Deutsche Bank. The Second Circuit granted plaintiffs' motion on 26 January 2022. On 31 March 2022, Deutsche Bank executed a settlement agreement with plaintiffs in the amount of U.S.$ 5 million to resolve this action. Plaintiffs filed a motion for preliminary approval of the settlement on 29 July 2022.

CHF LIBOR

A putative class action alleging manipulation of the Swiss Franc (CHF) LIBOR remains pending. On 16 September 2019, the SDNY granted defendants' motion to dismiss the action, dismissing all claims against Deutsche Bank. Plaintiffs filed a notice of appeal; the U.S. Court of Appeals for the Second Circuit ordered that the appeal be held in abeyance pending that court's decision in the appeal of the SIBOR and SOR class action. Following that court's decision in the SIBOR and SOR class action on 17 March 2021, the CHF LIBOR action was remanded to the district court for further proceedings. On 18 April 2022, Deutsche Bank executed a settlement agreement with plaintiffs in the amount of U.S.$ 13 million to resolve this action. Plaintiffs filed a motion for preliminary approval of the settlement on 29 June 2022. On 23 November 2022, plaintiffs filed their third amended complaint. On 15 February 2023, the court granted preliminary approval of the settlement.

Bank Bill Swap Rate Claims

On 16 August 2016, a putative class action was filed in the U.S. District Court for the Southern District of New York against Deutsche Bank and other defendants, bringing claims based on alleged collusion and manipulation in connection with the Australian Bank Bill Swap Rate ("**BBSW**") on behalf of persons and entities that engaged in U.S.-based transactions in BBSW-linked financial instruments from 2003 through the date on which the effects of the alleged unlawful conduct ceased. The complaint alleged that the defendants, among other things, engaged in money market transactions intended to influence the BBSW fixing, made false BBSW submissions, and used their control over BBSW rules to further the alleged misconduct. On 29 April 2022, Deutsche Bank and four other defendant banks entered into a settlement agreement with plaintiffs to resolve the dispute. The court granted final approval of the settlement on 2 November 2022.

Spanish EURIBOR Claims

77 claims in Spain (incorporating at least 258 claimants) have been notified or issued in court against Deutsche Bank by claimants with mortgage loans held by banks and other financial institutions for damages resulting from alleged collusive behavior by Deutsche Bank following the European Commission decision of 4 December 2013. Of those 77 claims, 69 have quantified their alleged losses with a total value of € 1 million and 6 (one of which includes 184 potential claimants) are yet to do so. Of the 77 claims, 51 claims have commenced in court and are at varying stages of maturity, with a 35 claims having now been finally dismissed by the courts or withdrawn by the claimants, one decision pending a potential appeal and some claims stayed pending the outcome of the Trucks Cartel decision by the European Court of Justice ("**ECJ**") and/or further referrals to the ECJ. The ECJ's Trucks Cartel decision of 22 June 2022 confirmed that the limitation period for claimants to notify/issue claims in Spanish EURIBOR would expire on 30 June 2022. Accordingly, the final date for claimants to notify/issue claims has passed.

Investigations into Certain Business Relationships

Deutsche Bank has reached settlements with the U.S. Department of Justice ("**DOJ**") and the U.S. Securities and Exchange Commission ("**SEC**"), respectively, regarding their investigations of the Bank's compliance with the U.S. Foreign Corrupt Practices Act ("**FCPA**") and other laws with respect to the Bank's engagement of finders and consultants. On 8 January 2021, Deutsche Bank entered into a deferred prosecution agreement ("**DPA**") with the DOJ concerning its historical engagements of finders and consultants and, as part of its obligations in the DPA, agreed to pay approximately U.S.$ 80 million in connection with this conduct. On the same day, Deutsche Bank also reached a settlement with the SEC to resolve its investigation into conduct regarding the Bank's compliance with the FCPA with respect to the Bank's engagement of finders and consultants. The Bank agreed to pay approximately U.S.$ 43 million in this SEC settlement. On 28 February 2022, following a finding by the DOJ that the Bank violated the 2021 DPA based on untimely reporting by the Bank of certain allegations relating to environmental, social and governance ("**ESG**")-related information at the Bank's subsidiary DWS Group GmbH & Co. KGaA, the Bank agreed with the DOJ to extend an existing monitorship and abide by the terms of a prior DPA until February 2023 to allow the monitor to certify to the Bank's implementation of the related internal controls. The DOJ has reserved all rights to take further action regarding the 2021 DPA if it deems necessary.

Jeffrey Epstein Investigations and Litigation

Deutsche Bank has received requests for information from regulatory and law enforcement agencies concerning the Bank's former client relationship with Jeffrey Epstein (individually, and through related parties and entities). In December 2018, Deutsche Bank began the process to terminate its relationship with Epstein, which began in August 2013. Deutsche Bank has provided information to and otherwise cooperated with the investigating agencies. The Bank has also completed an internal investigation into the Epstein relationship.

As mentioned above, on 7 July 2020, the New York State Department of Financial Services ("**DFS**") issued a Consent Order, finding that Deutsche Bank violated New York State banking laws in connection with its relationships with three former Deutsche Bank clients, Danske Bank's Estonia branch, Jeffrey Epstein and FBME Bank, and imposing a U.S.$ 150 million civil penalty in connection with these three former relationships, which Deutsche Bank paid in the third quarter of 2020. Also as mentioned above, Deutsche Bank was also named as a defendant in a securities class action pending in the U.S. District Court for the Southern District of New York ("**SDNY**") that included allegations relating to the Bank's relationship with Jeffrey Epstein and other entities. Deutsche Bank executed a settlement agreement in that lawsuit, which the Court approved in an order dated 6 February 2023.

The Group has not established a provision or contingent liability with respect to the Jeffrey Epstein investigations. The remaining investigations relating to Jeffrey Epstein are understood to be ongoing.

On 24 November 2022, Deutsche Bank was named as a defendant in a putative class action complaint filed in the U.S. District Court for the Southern District of New York ("**SDNY**") by an unnamed alleged sex trafficking victim of Jeffrey Epstein ("**Epstein**"), alleging claims against Deutsche Bank under the Trafficking Victims Protection Act ("**TVPA**"), Racketeer Influenced and Corrupt Organizations Act ("**RICO**") and New York state law in connection with the bank's provision of banking services to Epstein between August 2013 and December 2018. The lawsuit cites allegations regarding control deficiencies raised in the DFS Consent Order related to the bank's relationship with Jeffrey Epstein. Deutsche Bank filed a motion to dismiss the complaint on 30 December 2022. On 13 January 2023, the plaintiff filed an amended complaint. On 7 February 2023, Deutsche Bank filed a motion to dismiss the amended complaint. On 20 March 2023, the Court issued an order granting in part and denying in part Deutsche Bank's motion to dismiss. The case is currently in discovery, and trial is scheduled to begin on 5 September 2023.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this litigation because it has concluded that such disclosure can be expected to prejudice seriously the outcome.

KOSPI Index Unwind Matters

Following the decline of the Korea Composite Stock Price Index 200 (the "**KOSPI 200**") in the closing auction on 11 November 2010 by approximately 2.7 %, the Korean Financial Supervisory Service ("**FSS**") commenced an investigation and expressed concerns that the fall in the KOSPI 200 was attributable to a sale by Deutsche Bank of a basket of stocks, worth approximately € 1.6 billion, that was held as part of an index arbitrage position on the KOSPI 200. On 23 February 2011, the Korean Financial Services Commission, which oversees the work of the FSS, reviewed the FSS' findings and recommendations and resolved to take the following actions: (i) to file a criminal complaint to the Korean Prosecutor's Office for alleged market manipulation against five employees of Deutsche Bank group and Deutsche Bank's subsidiary Deutsche Securities Korea Co. ("**DSK**") for vicarious corporate criminal liability; and (ii) to impose a suspension of six months, commencing 1 April 2011 and ending 30 September 2011, of DSK's business for proprietary trading of cash equities and listed derivatives and DMA (direct market access) cash equities trading, and the requirement that DSK suspend the employment of one named employee for six months. On 19 August 2011, the Korean Prosecutor's Office announced its decision to indict DSK and four employees of Deutsche Bank group on charges of spot/futures-linked market manipulation. The criminal trial commenced in January 2012. On 25 January 2016, the Seoul Central District Court rendered guilty verdicts against a DSK trader and DSK. A criminal fine of KRW 1.5 billion (less than € 2.0 million) was imposed on DSK. The Court also ordered forfeiture of the profits generated on the underlying trading activity. The Group disgorged the profits on the underlying trading activity in 2011. The criminal trial verdicts against both the DSK trader and against DSK were overturned on appeal in a decision rendered by the Seoul High Court on 12 December 2018. The Korean Prosecutor's Office has appealed the Seoul High Court decision.

In addition, a number of civil actions have been filed in Korean courts against Deutsche Bank and DSK by certain parties who allege they incurred losses as a consequence of the fall in the KOSPI 200 on 11 November 2010. First instance court decisions were rendered against the Bank and DSK in some of these cases starting in the fourth quarter of 2015. The one outstanding claim known to Deutsche Bank is for an amount of approximately € 50 million (at present exchange rates).

<u>Monte Dei Paschi</u>

In March 2013, Banca Monte dei Paschi di Siena ("**MPS**") initiated civil proceedings in Italy against Deutsche Bank alleging that Deutsche Bank assisted former MPS senior management in an accounting fraud on MPS, by undertaking repo transactions with MPS and "Santorini", a wholly owned special-purpose vehicle of MPS, which helped MPS defer losses on a previous transaction undertaken with Deutsche Bank. Subsequently, in July 2013, the Fondazione Monte dei Paschi di Siena ("**FMPS**"), MPS' largest shareholder, also commenced civil proceedings in Italy for damages based on substantially the same facts. In December 2013, Deutsche Bank reached an agreement with MPS to settle the civil proceedings and the transactions were unwound. The civil proceedings initiated by FMPS, in which damages of between € 220 million and € 381 million were claimed, were also settled in December 2018 upon payment by Deutsche Bank of € 17.5 million. FMPS's separate claim filed in July 2014 against FMPS's former administrators and a syndicate of 12 banks including Deutsche Bank S.p.A. for € 286 million has been settled and on 26 July 2022, the Court in Florence ended the proceedings. The impact of this settlement on Deutsche Bank was not material.

A criminal investigation was launched by the Siena Public Prosecutor into the transactions entered into by MPS with Deutsche Bank and certain unrelated transactions entered into by MPS with other parties. Such investigation was moved in summer 2014 from Siena to the Milan Public Prosecutors as a result of a change in the alleged charges being investigated. On 16 February 2016, the Milan Public Prosecutors issued a request of committal to trial against Deutsche Bank and six current and former employees. The committal process concluded with a hearing on 1 October 2016, during which the Milan court committed all defendants in the criminal proceedings to trial. Deutsche Bank's potential exposure was for administrative liability under Italian Legislative Decree n. 231/2001 and for civil vicarious liability as an employer of current and former Deutsche Bank employees who are being criminally prosecuted.

On 8 November 2019, the Milan court issued its verdicts, finding five former employees and one current employee of Deutsche Bank guilty and sentencing them to either 3 years and 6 months or 4 years and 8 months. Deutsche Bank was found liable under Italian Legislative Decree n. 231/2001 and the court ordered the seizure of alleged profits of € 64.9 million and a fine of € 3 million. The Court also found Deutsche Bank had civil vicarious liability for damages (to be quantified by the civil court) as an employer of the current and former employees who were convicted. The sentences and fines were not due until the conclusion of any appeal process. The final judgment was issued by the Court on 13 May 2020. Deutsche Bank and the six former or current employees filed an appeal to the Milan Court of Appeal on 22 September

2020. The Milan Court of Appeal heard the appeal between 2 December 2021 and 31 March 2022. On 6 May 2022, the Milan Court of Appeal delivered the second instance verdict by which they acquitted all the Deutsche Bank defendants from all the charges, found Deutsche bank not liable under Italian Legislative Decree n. 231/2001, revoked the confiscation of € 64.9 million and the fine of € 3 million ordered against Deutsche Bank, and revoked the finding of civil vicarious liability for damages. The Milan Court of Appeal published its written reasons on 3 October 2022 and the Public Prosecutor filed an appeal against the Milan Court of Appeal verdicts before the Supreme Court on 16 November 2022. The hearing of the Supreme Court has not been scheduled yet.

On 22 May 2018, CONSOB, the authority responsible for regulating the Italian financial markets, issued fines of € 100,000 each against the six current and former employees of Deutsche Bank who are defendants in the criminal proceedings. The six individuals were also banned from performing management functions in Italy and for Italian based institutions for three to six months each. No separate fine or sanction was imposed on Deutsche Bank but it is jointly and severally liable for the six current/former Deutsche Bank employees' fines. On 14 June 2018, Deutsche Bank and the six individuals filed an appeal in the Milan Court of Appeal challenging CONSOB's decision and one of the individuals sought a stay of enforcement of the fine against that individual. The stay was granted on 21 July 2018. On 17 December 2020, the Milan Court of Appeal allowed the appeals filed by Deutsche Bank and the six current and former employees and annulled the resolution sanctioning them. CONSOB filed an appeal to the Supreme Court against the decision on 17 June 2021. Deutsche Bank and the six individuals have opposed the appeal.

Mortgage-Related and Asset-Backed Securities Matters and Investigation

Issuer and Underwriter Civil Litigation

Deutsche Bank has been named as defendant in numerous civil litigations brought by private parties in connection with its various roles, including issuer or underwriter, in offerings of residential mortgage-backed securities ("**RMBS**") and other asset-backed securities. These cases, described below, allege that the offering documents contained material misrepresentations and omissions, including with regard to the underwriting standards pursuant to which the underlying mortgage loans were issued, or assert that various representations or warranties relating to the loans were breached at the time of origination. The Group has recorded provisions with respect to several of these civil cases, but has not recorded provisions with respect to all of these matters. The Group has not disclosed the amount of these provisions because it has concluded that such disclosure can be expected to seriously prejudice the resolution of these matters.

Deutsche Bank is a defendant in a class action relating to its role as one of the underwriters of six RMBS offerings issued by Novastar Mortgage Corporation. No specific damages are alleged in the complaint. The lawsuit was brought by plaintiffs representing a class of investors who purchased certificates in those offerings. The parties reached a settlement to resolve the matter for a total of U.S.$ 165 million, a portion of which was paid by the Bank. On 30 August 2017, FHFA/Freddie Mac filed an objection to the settlement and shortly thereafter appealed the district court's denial of their request to stay settlement approval proceedings, which appeal was resolved against FHFA/Freddie Mac. The court approved the settlement on 7 March 2019 over FHFA/Freddie Mac's objections. FHFA filed its appeal on 28 June 2019, which was denied on 14 March 2022 and a subsequent petition for rehearing was denied on 2 June 2022. FHFA elected not to file a petition for certiorari in the U.S. Supreme Court, thus ending its challenge to the settlement.

Deutsche Bank is a defendant in an action related to two RMBS offerings brought by the U.S. Federal Deposit Insurance Corporation ("**FDIC**") as receiver for Citizens National Bank and Strategic Capital Bank (alleging an unspecified amount in damages against all defendants). In this action, the appellate court reinstated claims previously dismissed on statute of limitations grounds and petitions for rehearing and certiorari to the U.S. Supreme Court were denied. On 31 July 2017, the FDIC filed a second amended complaint, which defendants moved to dismiss on 14 September 2017. On 18 October 2019, defendants' motion to dismiss was denied. On 13 May 2022, the FDIC voluntarily dismissed its claim with respect to one of the RMBS offerings and Deutsche Bank filed a motion for summary judgment seeking dismissal of the remaining claim. Deutsche Bank's motion has been fully briefed as of 8 July 2022. Discovery is stayed pending resolution of Deutsche Bank's motion.

In June 2014, HSBC, as trustee, brought an action in New York state court against Deutsche Bank to revive a prior action, alleging that Deutsche Bank failed to repurchase mortgage loans in the ACE Securities Corp. 2006-SL2 RMBS offering. The revival action was stayed during the pendency of an appeal of the dismissal of a separate action wherein HSBC, as trustee, brought an action against Deutsche Bank alleging breaches of representations and warranties made by Deutsche Bank concerning the mortgage loans in the same offering. On 29 March 2016, the court dismissed the revival action. Plaintiff appealed and on 19 November 2019, the appellate court affirmed the dismissal. On 19 December 2019, plaintiff filed a motion to appeal to the New York Court of Appeals in the appeals court, which was denied on 13 February 2020. On 16 March 2020, plaintiff petitioned the New York Court of Appeals for leave to appeal, which was granted on 1 September 2020. The Court of Appeals heard argument on 19 May 2022 and affirmed the dismissal of the action on 16 June 2022.

Deutsche Bank is a defendant in cases concerning two RMBS trusts that were brought initially by RMBS investors and subsequently by HSBC, as trustee, in New York state court. The cases allege breaches of loan-level representations and warranties in the ACE Securities Corp. 2006-FM1 and ACE Securities Corp. 2007-ASAP1 RMBS offerings, respectively. Both cases were dismissed on statute of limitations grounds by the trial court on 28 March 2018. Plaintiff appealed the dismissals. On 25 April 2019, the First Department affirmed the dismissals on claims for breach of representations and warranties and for breach of the implied covenant of good faith and fair dealing, but reversed the denial of the motions for leave to file amended complaints alleging failure to notify the trustee of alleged representations and warranty breaches. HSBC filed amended complaints on 30 April 2019, and Deutsche Bank filed its answers on 3 June 2019. Discovery is ongoing. On 25 October 2019, plaintiffs filed two complaints (one by HSBC and one by a certificateholder) seeking to revive, under Sec. 205(a) of the New York Civil Practice Law and Rules, the breach of representations and warranties claims as to which dismissal was affirmed in the case concerning ACE 2006-FM1. On 16 December 2019, Deutsche Bank moved to dismiss these actions. On 2 July 2022, the Court granted the motion to dismiss the certificateholder action. Plaintiff appealed to the First Department on 4 August 2022, and the appeal remains outstanding. On 4 October 2022, the Court dismissed the HSBC action in light of the Court of Appeals' decision in the SL2 case described above. On 7 November 2022, plaintiff filed an appeal that remains pending.

In the actions against Deutsche Bank solely as an underwriter of other issuers' RMBS offerings, Deutsche Bank has contractual rights to indemnification from the issuers, but those indemnity rights may in whole or in part prove effectively unenforceable where the issuers are now or may in the future be in bankruptcy or otherwise defunct.

Trustee Civil Litigation

Deutsche Bank National Trust Company ("**DBNTC**") and Deutsche Bank Trust Company Americas ("**DBTCA**") (collectively, the "**Trustees**") are defendants in three separate civil lawsuits, and DBNTC is a defendant in a fourth civil lawsuit, brought by investors concerning the Trustees' role as trustees of certain RMBS trusts. The actions generally allege claims for breach of contract, breach of fiduciary duty, breach of the duty to avoid conflicts of interest, negligence and/or violations of the U.S. Trust Indenture Act of 1939, based on the Trustees' alleged failure to perform adequately certain obligations and/or duties as trustee for the trusts.

The four lawsuits include actions by (a) the National Credit Union Administration Board ("**NCUA**"), as an investor in 18 trusts that allegedly suffered total realised collateral losses of more than U.S.$ 3.7 billion; (b) certain CDOs (collectively, "**Phoenix Light**") as investors in 43 RMBS trusts, and seeking "hundreds of millions of dollars in damages"; (c) Commerzbank AG, as an investor in 50 RMBS trusts, seeking "hundreds of millions of dollars in losses"; and (d) IKB International, S.A. in Liquidation and IKB Deutsche Industriebank A.G. (collectively, "**IKB**"), as an investor in 17 RMBS trusts, originally seeking more than U.S.$ 268 million of damages before IKB voluntarily discontinued its claims as to certain RMBS certificates. In the NCUA case, DBNTC's motion to dismiss the amended complaint was granted in part and denied in part, dismissing NCUA's tort claims but preserving its breach-of-contract claims. Both parties filed motions for partial summary judgment and those motions are fully briefed and pending before the court. On 8 February 2022, the court in the Phoenix Light case granted DBNTC's and DBTCA's motion for summary judgment, denied Phoenix Light's motion for summary judgment, and dismissed the action. On 10 March 2022, Phoenix Light filed a notice of appeal with respect to the court's orders on the motions to dismiss and for summary judgment.

That appeal is fully briefed and pending oral argument. On 8 February 2022, the court in the Commerzbank case granted in part and denied in part DBNTC's and DBTCA's motion for summary judgment, dismissing all of the tort claims and dismissing the breach of contract claim relating to certain of the trusts, and denied Commerzbank's motion for summary judgment in its entirety. Discovery is ongoing. On 27 January 2021, the court in the IKB case granted in part and denied in part the Trustees' motion to dismiss, dismissing certain of IKB's claims but allowing certain of its breach of contract and tort claims to go forward; on 10 May 2021, the Trustees filed a notice of appeal regarding certain aspects of that order and, on 20 May 2021, IKB filed a notice of cross-appeal with respect to other aspects of that order. On 30 August 2022, the New York Supreme Court, Appellate Division, First Department, affirmed in part and reversed in part the trial court's order on the motion to dismiss. On 30 September 2022, DBNTC and DBTCA filed a motion for leave to appeal the decision to the Court of Appeals, and on that same day, IKB filed a motion for reargument or for leave to appeal to the New York Court of Appeals, as to certain aspects of the First Department's decision. On 10 November 2022, the First Department granted DBNTC's and DBTCA's motion for leave to appeal to the Court of Appeals, denied IKB's motion for reargument, and denied as moot IKB's motion for leave to appeal to the Court of Appeals. DBNTC's and DBTCA's appeal is currently being briefed. Discovery is ongoing.

The Group has established contingent liabilities with respect to certain of these matters, but the Group has not disclosed the amounts because it has concluded that such disclosure can be expected to seriously prejudice the outcome of these matters.

Off-Channel Communications Investigations.

On 27 September 2022, the U.S. Securities and Exchange Commission ("**SEC**") and the U.S. Commodity Futures Trading Commission ("**CFTC**") announced resolutions with multiple financial institutions including Deutsche Bank AG and its subsidiaries Deutsche Bank Securities Inc. ("**DBSI**"), DWS Investment Management Americas, Inc. ("**DIMA**") and DWS Distributors, Inc. ("**DDI**" and, together with DIMA, "**DWS**"), with respect to industry-wide investigations regarding compliance with record retention requirements applicable to broker-dealer firms, investment advisers, swap dealers, and futures commission merchants. The SEC and CFTC found that Deutsche Bank, DBSI and DWS, as applicable, did not maintain certain electronic communications required to be maintained pursuant to their respective record retention obligations because the communications were sent or received by employees over unapproved electronic messaging channels from personal devices. The SEC and CFTC also found related supervisory failures. Under these resolutions, DBSI and DWS paid a U.S.$ 125 million civil monetary penalty to the SEC, and Deutsche Bank and DBSI paid a U.S.$ 75 million civil monetary penalty to the CFTC. As part of the resolutions, Deutsche Bank, DBSI and DWS have hired a compliance consultant to conduct a review of relevant policies and procedures, trainings, surveillance measures, technological solutions, and disciplinary framework, and submit a report to the SEC and CFTC with findings and recommendations.

Polish Mortgage Matters

Starting in 2016, certain clients of Deutsche Bank Polska S.A. have reached out to Deutsche Bank Polska S.A. alleging that their mortgage loan agreements in foreign currency include unfair clauses and are invalid. These clients have demanded reimbursement of the alleged overpayments under such agreements totaling over € 384 million with more than 3,000 civil claims having been commenced in Polish courts. This type of cases is an industry wide issue in Poland and other banks are facing similar claims. Deutsche Bank Polska S.A. has and will take necessary legal actions to defend itself and challenge such claims in courts.

The Group has established a portfolio provision to cover potential losses from the existing and potential litigation related to mortgage loans in foreign currency. The amount of the portfolio provision is approximately € 283 million and may be subject to future changes in estimate depending in particular on the jurisprudence of local courts as well as the Court of Justice of European Union.

Postbank Voluntary Public Takeover Offer

On 12 September 2010, Deutsche Bank announced the decision to make a voluntary takeover offer for the acquisition of all shares in Deutsche Postbank AG ("**Postbank**"). On 7 October 2010, the Bank published its official takeover offer and offered Postbank shareholders a consideration of € 25 for each Postbank share. This offer was accepted for a total of approximately 48.2 million Postbank shares.

In November 2010, a former shareholder of Postbank, Effecten-Spiegel AG, which had accepted the takeover offer, brought a claim against Deutsche Bank alleging that the offer price was too low and was not determined in accordance with the applicable German laws. The plaintiff alleges that Deutsche Bank had been obliged to make a mandatory takeover offer for all shares in Postbank, at the latest, in 2009 as the voting rights of Deutsche Post AG in Postbank had to be attributed to Deutsche Bank pursuant to Sec. 30 of the German Takeover Act. Based thereon, the plaintiff alleges that the consideration offered by Deutsche Bank for the shares in Postbank in the 2010 voluntary takeover offer needed to be raised to € 57.25 per share.

The Regional Court Cologne (*Landgericht*) dismissed the claim in 2011 and the Cologne appellate court dismissed the appeal in 2012. The Federal Court set this judgment aside and referred the case back to the Higher Regional Court Cologne to take evidence on certain allegations of the plaintiff.

Starting in 2014, additional former shareholders of Postbank, who accepted the 2010 tender offer, brought similar claims as Effecten-Spiegel AG against Deutsche Bank which are pending with the Regional Court Cologne and the Higher Regional Court of Cologne, respectively. On 20 October 2017, the Regional Court Cologne handed down a decision granting the claims in a total of 14 cases which were combined in one proceeding. The Regional Court Cologne took the view that Deutsche Bank was obliged to make a mandatory takeover offer already in 2008 so that the appropriate consideration to be offered in the takeover offer should have been € 57.25 per Postbank share (instead of € 25). The additional consideration per share owed to shareholders which have accepted the takeover offer would thus amount to € 32.25. Deutsche Bank appealed this decision and the appeal was assigned to the 13th Senate of the Higher Regional Court of Cologne, which also heard the appeal of Effecten-Spiegel AG.

In 2019 and 2020, the Higher Regional Court Cologne called a number of witnesses in both cases. The individuals heard included current and former board members of Deutsche Bank, Deutsche Post AG and Postbank as well as other persons involved in the Postbank transaction. In addition, the Higher Regional Court Cologne issued orders for the production of relevant transaction documents entered into between Deutsche Bank and Deutsche Post AG in 2008 and 2009. Deutsche Bank had therefore deposited the originals of these documents with the court in 2019.

On 16 December 2020, the Higher Regional Court Cologne handed down a decision and fully dismissed the claims of Effecten-Spiegel AG. Further, in a second decision handed down on 16 December 2020, the Higher Regional Court Cologne allowed the appeal of Deutsche Bank against the decision of the Regional Court Cologne dated 20 October 2017 and dismissed all related claims of the relevant plaintiffs. The Higher Regional Court Cologne has granted leave to appeal to the German Federal Court of Justice ("**BGH**") as regards both decisions and all relevant plaintiffs lodged their respective appeals with the BGH by February 2021. On 13 December 2022, the BGH announced its decision, setting aside the judgments of the Higher Regional Court of Cologne and remanding the cases back to the Higher Regional Court.

Deutsche Bank has been served with a large number of additional lawsuits filed against Deutsche Bank shortly before the end of 2017, almost all of which are now pending with the Regional Court Cologne. Some of the new plaintiffs allege that the consideration offered by Deutsche Bank AG for the shares in Postbank in the 2010 voluntary takeover should be raised to € 64.25 per share.

The claims for payment against Deutsche Bank in relation to these matters total almost € 700 million (excluding interest).

The Group has established a contingent liability with respect to these matters but the Group has not disclosed the amount of this contingent liability because it has concluded that such disclosure can be expected to seriously prejudice the outcome of these matters.

Further Proceedings Relating to the Postbank Takeover

In September 2015, former shareholders of Postbank filed in the Regional Court Cologne shareholder actions against Postbank to set aside the squeeze-out resolution taken in the shareholders meeting of Postbank in August 2015 (actions for voidance). Among other things, the plaintiffs alleged that Deutsche Bank was subject to a suspension of voting rights with respect to its shares in Postbank based on the allegation that Deutsche Bank failed to make a mandatory takeover offer. The squeeze out is final and the proceeding itself has no reversal effect, but may result in damage payments. The claimants refer to legal arguments similar to those asserted in the Effecten-Spiegel proceeding described above. In a decision on 20 October 2017, the Regional Court Cologne declared the squeeze-out resolution to be void. The court, however, did not rely on a suspension of voting rights due to an alleged failure of Deutsche Bank to make a mandatory takeover offer, but argued that Postbank violated information rights of Postbank shareholders in Postbank's shareholders meeting in August 2015. Postbank has appealed this decision. On 15 May 2020 DB Privat- und Firmenkundenbank AG (legal successor of Postbank due to a merger in 2018) was merged into Deutsche Bank AG. On 3 July 2020 Deutsche Bank AG withdrew the appeal as regards the actions for voidance because efforts and costs to pursue this appeal became disproportionate to the minor remaining economic importance of the case considering that the 2015 squeeze-out cannot be reversed. As a consequence, the first instance judgment which found that Postbank violated the information rights of its shareholders in the shareholders' meeting became final.

The legal question of whether Deutsche Bank had been obliged to make a mandatory takeover offer for all Postbank shares prior to its 2010 voluntary takeover may also impact two pending appraisal proceedings (*Spruchverfahren*). These proceedings were initiated by former Postbank shareholders with the aim to increase the cash compensation offered in connection with the squeeze-out of Postbank shareholders in 2015 and the cash compensation offered and annual compensation paid in connection with the execution of a domination and profit and loss transfer agreement (*Beherrschungs- und Gewinnabführungsvertrag*) between DB Finanz-Holding AG (now DB Beteiligungs-Holding GmbH) and Postbank in 2012.

The applicants in the appraisal proceedings claim that a potential obligation of Deutsche Bank to make a mandatory takeover offer for Postbank at an offer price of € 57.25 should be decisive when determining the adequate cash compensation in the appraisal proceedings. The Regional Court Cologne had originally followed this legal view of the applicants in two resolutions. In a decision dated June 2019, the Regional Court Cologne expressly gave up this legal view in the appraisal proceedings in connection with execution of a domination and profit and loss transfer agreement. According to this decision, the question whether Deutsche Bank was obliged to make a mandatory offer for all Postbank shares prior to its voluntary takeover offer in 2010 shall not be relevant for determining the appropriate cash compensation. It is likely that the Regional Court Cologne will take the same legal position in the appraisal proceedings in connection with the squeeze-out. On 1 October 2020, the Regional Court Cologne handed down a decision in the appraisal proceeding concerning the domination and profit and loss transfer agreement (dated 5 December 2012) according to which the annual compensation pursuant to Sec. 304 of the German Stock Corporation Act (*jährliche Ausgleichszahlung*) shall be increased by € 0.12 to € 1.78 per Postbank share and the settlement amount pursuant to Sec. 305 of the German Stock Corporation Act (*Abfindungsbetrag*) shall be increased by € 4.56 to € 29.74 per Postbank share. The increase of the settlement amount is of relevance for approximately 492,000 former Postbank shares whereas the increase of the annual compensation is of relevance for approximately 7 million former Postbank shares. Deutsche Bank as well as the applicants have lodged an appeal against this decision.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this matter because it has concluded that such disclosure can be expected to seriously prejudice its outcome.

Precious Metals Investigations and Litigations

Deutsche Bank received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to investigations of precious metals trading and related conduct. Deutsche Bank has cooperated with these investigations. On 29 January 2018, Deutsche Bank entered into a U.S.$ 30 million settlement with the U.S. Commodity Futures Trading Commission ("**CFTC**") concerning spoofing, and manipulation and attempted manipulation in precious metals futures and of stop loss orders. On 8 January 2021, Deutsche Bank entered into a deferred prosecution agreement with the

U.S. Department of Justice concerning spoofing and the Foreign Corrupt Practices Act ("**FCPA**") conduct. As part of its obligations in the deferred prosecution agreement, Deutsche Bank agreed to pay approximately U.S.$ 8 million, of which approximately U.S.$ 6 million would be credited by virtue of the aforementioned CFTC resolution.

Deutsche Bank was a defendant in two consolidated class action lawsuits pending in the U.S. District Court for the Southern District of New York. The suits allege violations of U.S. antitrust law, the U.S. Commodity Exchange Act and related state law arising out of the alleged manipulation of gold and silver prices through participation in the Gold and Silver Fixes. Deutsche Bank previously settled the silver action and has reached an agreement to settle the gold action for U.S.$ 60 million, and the court granted final approval to the settlement on 4 May 2022.

Pre-Release ADRs

Deutsche Bank and certain affiliates have received inquiries from certain European regulatory, tax and law enforcement authorities, including requests for documents and information, with respect to American Depositary Receipts (ADRs), including ADRs that have been issued on a "pre-release" basis ("**pre-release ADRs**"). Deutsche Bank is cooperating with these inquiries.

Russia/UK Equities Trading Investigation

Deutsche Bank has investigated the circumstances around equity trades entered into by certain clients with Deutsche Bank in Moscow and London. The total volume of transactions reviewed is significant. Deutsche Bank's internal investigation of potential violations of law, regulation and policy and into the related internal control environment has concluded, and Deutsche Bank has assessed the findings identified during the investigation; to date it has identified certain violations of Deutsche Bank's policies and deficiencies in Deutsche Bank's control environment. Deutsche Bank has advised regulators and law enforcement authorities in several jurisdictions (including Germany, Russia, the UK and the United States) of this investigation. Deutsche Bank has taken disciplinary measures with regards to certain individuals in this matter.

On 30 January 2017, the DFS and the FCA announced settlements with the Bank related to their investigations into this matter. The settlements conclude the DFS's and the FCA's investigations into the Bank's AML control function in its investment banking division, including in relation to the equity trading described above. Under the terms of the settlement agreement the DFS issued a Consent Order pursuant to which Deutsche Bank agreed to pay a civil monetary penalty of U.S.$ 425 million and to engage an independent monitor for a term of up to two years. Under the terms of the settlement agreement with the FCA, Deutsche Bank agreed to pay a civil monetary penalty of approximately GBP 163 million.

On 30 May 2017, the Federal Reserve announced its settlement with the Bank resolving this matter as well as additional AML issues identified by the Federal Reserve. Deutsche Bank paid a penalty of U.S.$ 41 million. Deutsche Bank also agreed to retain independent third parties to assess its Bank Secrecy Act/AML program and review certain foreign correspondent banking activity of its subsidiary Deutsche Bank Trust Company Americas. The Bank was also required to submit written remediation plans is conducting ongoing remediation.

Deutsche Bank continues to cooperate with regulators and law enforcement authorities, including the DOJ which has its own investigation into these securities trades that is understood to be ongoing. The Group has recorded a provision with respect to the remaining investigation. The Group has not disclosed the amount of this provision because it has concluded that such disclosure can be expected to seriously prejudice the outcome of this matter.

Sovereign, Supranational and Agency Bonds (SSA) Investigations and Litigations

Deutsche Bank has received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to SSA bond trading. Deutsche Bank is cooperating with these investigations.

On 6 December 2022, the European Commission sent a Statement of Objections to Deutsche Bank regarding a potential breach of EU antitrust rules in relation to secondary market trading of Euro-denominated SSA bonds, Sovereign bonds, Covered bonds, and Government guaranteed bonds. Deutsche Bank proactively cooperated with the European Commission in this matter and as a result was granted immunity. The sending of a Statement of Objections is a step in the European Commission's investigation and does not prejudge the outcome of the investigation, which is ongoing.

Deutsche Bank is a defendant in a putative class action filed on 9 December 2022 in the U.S. District Court for the Southern District of New York by alleged direct market participants claiming a violation of antitrust law related to alleged manipulation of the secondary trading market for Euro-denominated Sovereign bonds. The complaint seeks treble damages and attorneys' fees. The case is in the early stages.

Deutsche Bank is also a defendant in putative class actions filed on 7 November 2017 and 5 December 2017 in the Ontario Superior Court of Justice and Federal Court of Canada, respectively, claiming violations of antitrust law and the common law relating to alleged manipulation of secondary trading of SSA bonds. The complaints seek compensatory and punitive damages. On 20 July 2022, Deutsche Bank entered into a national settlement agreement that would resolve the Federal SSA Claim against all Deutsche Bank defendants. The settlement agreement remains subject to approval by the Federal Court of Canada.

Deutsche Bank was named as a defendant in a consolidated putative class action filed in the U.S. District Court for the Southern District of New York alleging violations of U.S. antitrust law and a claim for unjust enrichment relating to Mexican government bond trading. In October 2019, the court granted defendants' motion to dismiss plaintiffs' consolidated amended complaint without prejudice. In December 2019, plaintiffs filed a Second Amended Complaint, which the court dismissed without prejudice on 30 November 2020. On 20 May 2021, plaintiffs filed a motion for reconsideration, which was denied on 30 March 2022. On 15 September 2022, plaintiffs-appellants noticed an appeal to the Second Circuit and filed their opening brief on 7 November 2022. Defendants-appellees' opposition was filed on 6 February 2023. On 22 January 2021, Deutsche Bank was notified that the Mexican competition authority, COFECE, reached a resolution that imposes fines against DB Mexico and two of its former traders, as well as six other financial institutions and nine other traders, for engaging in alleged monopolistic practices in the Mexican government bond secondary market. DB Mexico has appealed. The fine against DB Mexico was approximately U.S.$ 427,000.

Other than as noted above, the Group has not disclosed whether it has established provisions or contingent liabilities with respect to the matters referred to above because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

U.S. Treasury Securities Investigations

Deutsche Bank has received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to U.S. Treasuries auctions, trading, and related market activity. Deutsche Bank has cooperated with these investigations.

Deutsche Bank Securities Inc. ("**DBSI**") was a defendant in several putative class actions alleging violations of U.S. antitrust law, the U.S. Commodity Exchange Act and common law related to the alleged manipulation of the U.S. Treasury securities market. These cases have been consolidated in the Southern District of New York. On 16 November 2017, plaintiffs filed a consolidated amended complaint, which did not name DBSI as a defendant. On 11 December 2017, the court dismissed DBSI from the class action without prejudice. On 31 March 2021, the court granted the defendants' motion to dismiss. On 14 May 2021, the plaintiffs filed a second amended complaint, which also did not name DBSI as a defendant. Defendants filed a motion to dismiss this second amended complaint, which was granted on 31 March 2022. The plaintiffs filed a notice of appeal on 28 April 2022.

On 18 June 2020, the CFTC entered an order pursuant to settlement with DBSI for alleged spoofing by two Tokyo-based traders between January and December 2013. Without admitting or denying the findings or conclusions therein, Deutsche Bank consented to the entry of the order, including a civil monetary fine of U.S.$ 1.25 million.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

U.S. Treasury Spoofing Litigation

Following the Bank's settlement with the CFTC mentioned above, five separate putative class actions were filed in the Northern District of Illinois against Deutsche Bank AG and DBSI. The cases allege that Deutsche Bank and other unnamed entities participated in a scheme from January to December 2013 to spoof the market for Treasuries futures and options contracts and Eurodollar futures and options contracts. Plaintiffs filed a consolidated complaint on 13 November 2020. Deutsche Bank AG and DBSI filed a motion to dismiss on 15 January 2021; briefing on the motion to dismiss concluded on 16 April 2021. On 20 September 2021, the judge ordered supplemental briefing on the issues of standing and jurisdictional discovery. On 20 July 2022, the judge ordered limited jurisdictional discovery on the issue of standing. Jurisdictional discovery is ongoing, with the next status report due on or before 5 April 2023.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to seriously prejudice their outcome.

Statement of no Significant Change in Financial Position

There has been no significant change in the financial position of Deutsche Bank Group since 31 December 2022.

REGULATORY DISCLOSURES

The following table provides a summary of the information disclosed under Regulation (EU) No. 596/2014 over the last 12 months and which is relevant as at the date of the most recent supplement to this Registration Document:

Date of disclosure	Type of information	Topic
28 March 2022	Ad-hoc Release	Deutsche Bank to issue Additional Tier 1 capital instruments
7 November 2022	Ad-hoc Release	Deutsche Bank to issue Additional Tier 1 capital instruments

MATERIAL CONTRACTS

In the usual course of its business, Deutsche Bank Group enters into numerous contracts with various other entities. Deutsche Bank Group has not, however, entered into any material contracts outside the ordinary course of its business within the past two years.

DOCUMENTS AVAILABLE

As long as any prospectus constituted from this Registration Document is valid, the following documents will be available in the Investor Relations section of Deutsche Bank's website (https://www.db.com/ir/index_en.htm):

(a) the current Articles of Association (with an English translation where applicable) of the Issuer;

(b) the Annual Report of the Issuer as of 31 December 2021 (English language version);

(c) the Earnings Report of the Issuer as of 31 March 2022 (English language version);

(d) the Interim Report of the Issuer as of 30 June 2022 (English language version);

(e) the Earnings Report of the Issuer as of 30 September 2022 (English language version); and

(f) the Annual Report of the Issuer as of 31 December 2022 (English language version).

INFORMATION INCORPORATED BY REFERENCE

The following documents which have previously been published and have been filed with the CSSF shall be incorporated by reference in, and form part of, this Registration Document (the "**Documents Incorporated by Reference**") to the extent set out in the paragraph entitled "Cross-Reference List of Documents Incorporated by Reference" below:

- the English language version of the Annual Report of the Issuer as of 31 December 2021 (http://dl.bourse.lu/dlp/10151dd6f605e647d1a95c20ad2550a7e3);

- the English language version of the Earnings Report of the Issuer as of 31 March 2022 (http://dl.bourse.lu/dlp/10b28cad8d3e8a4d71b4351eb869b812fb);

- the English language version of the Interim Report of the Issuer as of 30 June 2022 (https://dl.bourse.lu/dlp/10c0558e1270854a3190687a8e8251008f);

- the English language version of the Earnings Report of the Issuer as of 30 September 2022 (https://dl.bourse.lu/dlp/10079adfe21b7947ebbb5c2568d4c78745); and

- the English language version of the Annual Report of the Issuer as of 31 December 2022 (https://dl.bourse.lu/dlp/109045a441991345219d192d15fa97fa17);

save that any statement contained herein or in a document which is incorporated by reference herein shall be deemed to be modified or superseded for the purpose of this Registration Document to the extent that a statement contained in any such subsequent document which is incorporated by reference herein modifies or supersedes such earlier statement (whether expressly, by implication or otherwise). Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Document. For the avoidance of doubt, the content of any website referred to in this Registration Document does not form part of this Registration Document. The documents listed above will remain publicly available in electronic form for at least ten years after their publication on the websites referred to above. Copies of all documents incorporated by reference in this Registration Document will also be available in electronic form on the Luxembourg Stock Exchange's website (www.luxse.com) and on the website of the Issuer (www.db.com under "Investor Relations").

Cross-Reference List of Documents Incorporated by Reference

In the subsection "Financial Information concerning Deutsche Bank's Assets and Liabilities, Financial Position and Profits and Losses – Financial Statements" reference is made to Deutsche Bank's consolidated financial statements for the financial year 2021 (as included in the Annual Report 2021 of the Issuer as of 31 December 2021), the unaudited consolidated interim financial information of the Issuer for the three months ended 31 March 2022 (as included in the Earnings Report of the Issuer as of 31 March 2022), the unaudited consolidated interim financial information of the Issuer for the six months ended 30 June 2022 (as included in the Interim Report of the Issuer as of 30 June 2022), the unaudited consolidated interim financial information of the Issuer for the nine months ended 30 September 2022 (as included in the Earnings Report of the Issuer as of 30 September 2022) and Deutsche Bank's consolidated financial statements for the financial year 2022 (as included in the Annual Report 2022 of the Issuer as of 31 December 2022).

(1) The following information is set forth in the Annual Report of the Issuer as of 31 December 2021:

(2) The following information is set forth in the Earnings Report of the Issuer as of 31 March 2022:

(3) The following information is set forth in the Interim Report of the Issuer as of 30 June 2022:

(4) The following information is set forth in the Earnings Report of the Issuer as of 30 September 2022:

(5) The following information is set forth in the Annual Report of the Issuer as of 31 December 2022:

Any other information referred to in the Documents Incorporated by Reference that is not included in the cross-reference list above is either not relevant for an investor or is covered elsewhere in this Registration Document and shall therefore not be deemed to be included in this Registration Document.

APPENDIX 1 – INFORMATION FOR THE PURPOSES OF ART. 26 (4) OF REGULATION (EU) 2017/1129

Key information on the Issuer
Who is the Issuer of the Securities?
Domicile and legal form, law under which the Issuer operates and country of incorporation Deutsche Bank Aktiengesellschaft (commercial name: Deutsche Bank) is a credit institution and a stock corporation incorporated in Germany and accordingly operates under the laws of Germany. The Legal Entity Identifier (LEI) of Deutsche Bank is 7LTWFZYICNSX8D621K86. The Bank has its registered office in Frankfurt am Main, Germany. It maintains its head office at Taunusanlage 12, 60325 Frankfurt am Main, Germany.
Issuer's principal activities The objects of Deutsche Bank, as laid down in its Articles of Association, include the transaction of all kinds of banking business, the provision of financial and other services and the promotion of international economic relations. The Bank may realise these objectives itself or through subsidiaries and affiliated companies. To the extent permitted by law, the Bank is entitled to transact all business and to take all steps which appear likely to promote the objectives of the Bank, in particular to acquire and dispose of real estate, to establish branches at home and abroad, to acquire, administer and dispose of participations in other enterprises, and to conclude enterprise agreements. Deutsche Bank is organized into the following segments: — Corporate Bank (CB); — Investment Bank (IB); — Private Bank (PB); — Asset Management (AM); and — Corporate & Other (C&O). In addition, Deutsche Bank has a country and regional organizational layer to facilitate a consistent implementation of global strategies. The Bank has operations or dealings with existing and potential customers in most countries in the world. These operations and dealings include working through: — subsidiaries and branches in many countries; — representative offices in many other countries; and — one or more representatives assigned to serve customers in a large number of additional countries.
Major shareholders, including whether it is directly or indirectly owned or controlled and by whom Deutsche Bank is neither directly nor indirectly majority-owned or controlled by any other corporation, by any government or by any other natural or legal person severally or jointly.

Pursuant to German law and Deutsche Bank's Articles of Association, to the extent that the Bank may have major shareholders at any time, it may not give them different voting rights from any of the other shareholders.

Deutsche Bank is not aware of arrangements which may at a subsequent date result in a change of control of the company.

The German Securities Trading Act (*Wertpapierhandelsgesetz*) requires investors in publicly-traded corporations whose investments reach certain thresholds to notify both the corporation and the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) of such change within four trading days. The minimum disclosure threshold is 3 per cent. of the corporation's issued voting share capital. To the Bank's knowledge, there are only four shareholders holding more than 3 per cent. of Deutsche Bank shares or to whom more than 3 per cent. of voting rights are attributed, and none of these shareholders holds more than 10 per cent. of Deutsche Bank shares or voting rights.

Key managing directors

The key managing directors of the issuer are members of the issuer's Executive Board. These are: Christian Sewing, James von Moltke, Karl von Rohr, Fabrizio Campelli, Bernd Leukert, Alexander von zur Mühlen, Christiana Riley, Rebecca Short, Prof. Dr. Stefan Simon and Olivier Vigneron.

Statutory auditors

With effect as of 1 January 2020, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft ("**EY**") has been appointed as independent auditor of Deutsche Bank. EY is a member of the chamber of public accountants (*Wirtschaftsprüferkammer*).

What is the key financial information regarding the Issuer?

The key financial information included in the tables below as of and for the financial years ended 31 December 2021 and 31 December 2022 has been extracted from the audited consolidated financial statements prepared in accordance with IFRS as issued by the International Accounting Standards Board (IASB) and endorsed by the European Union as of 31 December 2022.

Statement of income (in million Euro)	**Year ended 31 December 2022**	**Year ended 31 December 2021**
Net interest income	13,650	11,155
Commissions and fee income	9,838	10,934
Provision for credit losses	1,226	515
Net gains (losses) on financial assets/liabilities at fair value through profit or loss	2,999	3,045
Profit (loss) before income taxes	5,594	3,390
Profit (loss)	5,659	2,510

Balance sheet (amounts in million Euro)	**31 December 2022**	**31 December 2021**
Total assets	1,336,788	1,323,993
Senior debt	78,556	81,629
Subordinated debt	11,135	8,603
Loans at amortized cost	483,700	471,319
Deposits	621,456	603,750
Total equity	72,328	68,030
Common Equity Tier 1 capital ratio	13.4 %	13.2 %
Total capital ratio (reported / phase-in)	18.4 %	17.8 %
Leverage ratio (reported / phase-in)	4.6 %	4.9 %

What are the key risks that are specific to the Issuer?

The Issuer is subject to the following key risks:

Macroeconomic, Geopolitical and Market Environment: As a global corporate and investment bank with a large private client franchise, Deutsche Bank is materially affected by global macroeconomic and financial market conditions. Significant challenges may arise from persistent inflation and rising interest rates, the continuing war in Ukraine, supply chain disruptions, a deteriorating macroeconomic environment and elevated geopolitical risks, the ongoing headwinds posed by regulatory reforms and/or the effects on Deutsche Bank's legal and regulatory proceedings. Other risks exist with respect to China and from political and economic instability in key markets. These risks could negatively affect the business environment, leading to weaker economic activity and a broader correction in the financial markets. Materialization of these risks could negatively affect the results of operations in some of Deutsche Bank's businesses and its financial condition as well as its strategic plans. Deutsche Bank's ability to protect itself against these risks is limited.

Business and Strategy: Deutsche Bank's results of operation and financial condition have in the past been negatively impacted by the market environment, uncertain macroeconomic and geopolitical conditions, lower levels of client activity, increased competition and regulation, along with tightening labor market conditions. If Deutsche Bank is unable to sustain its improved profitability resulting from its transformation, it may be unable to meet its 2025 targets, and may have difficulty maintaining capital, liquidity and leverage at levels expected by market participants and its regulators.

Regulation and Supervision: Regulatory reforms enacted and proposed in response to weaknesses in the financial sector and, more recently, to the envisaged transition towards a sustainable economy, together with increased regulatory scrutiny more generally, have had and continue to have a significant impact on Deutsche Bank and may adversely affect its business and ability to execute its strategic plans. Competent regulators may prohibit Deutsche Bank from making dividend payments, share repurchases or payments on its regulatory capital instruments or take other actions if the Group fails to comply with regulatory requirements.

Internal Control Environment: A robust and effective internal control environment and adequate infrastructure (comprising people, policies and procedures, controls testing and IT systems) are necessary to ensure that Deutsche Bank conducts its business in compliance with the laws, regulations and associated supervisory expectations applicable to Deutsche Bank. Deutsche Bank has identified the need to strengthen its internal control environment and infrastructure and has embarked on initiatives to accomplish this. If these initiatives are not successful or proceed too slowly, Deutsche Bank's reputation, regulatory position and financial condition may be materially adversely affected, and its ability to achieve Deutsche Bank's strategic ambitions may be impaired.

Litigation, Regulatory Enforcement Matters, Investigations and Tax Examinations: Deutsche Bank operates in a highly and increasingly regulated and litigious environment, potentially exposing the bank to liability and other costs, the amounts of which may be substantial and difficult to estimate, as well as to legal and regulatory sanctions and reputational harm.

Environmental, Social and Governance (ESG)-Related Changes: The impacts of rising global temperatures, and the enhanced focus on climate change and the transition to a "net-zero" economy from society, the regulators and the banking sector, have led to new sources of financial and non-financial risks. These include the physical risks arising from extreme weather events which are growing in frequency and severity, as well as transition risks as carbon-intensive sectors are faced with higher taxation, reduced demand and potentially restricted access to financing, and risks relating to the portrayal of ESG aspects of activities. These risks can impact Deutsche Bank across a broad range of financial and non-financial risk types.