DEUTSCHE BÖRSE

Deutsche Börse Aktiengesellschaft

Combined Management Report and Annual Financial Statements 2023

Combined management report of Deutsche Börse AG for the financial year from 1 January to 31 December 2023

Deutsche Börse: Fundamental information about the Group

Deutsche Börse Group is one of the largest providers of market infrastructure in the world. We provide our clients with a broad spectrum of products and services along the value chain of financial market transactions. Securities, derivatives, commodities, currencies and digital assets are traded on our platforms.

About this report

This combined management report covers both Deutsche Börse Group and Deutsche Börse AG. The combined management report also includes the combined non-financial declaration. It meets the requirements of HGB (German Commercial Code) and Deutscher Rechnungslegungs Standard Nr. 20 (DRS 20, German Accounting Standard No. 20). The information about our net assets, financial position and result of operations is based on the requirements of International Financial Reporting Standards (IFRS), and if applicable, German commercial law (HGB) and German Financial Reporting Standards (DRS). The contents of the combined non-financial declaration are subject to PwC's audit.

Business operations and Group structure

Deutsche Börse AG was established in 1992 and is a global company based in Frankfurt/Main, Germany. It is the parent company of Deutsche Börse Group. Altogether we have over 14,000 employees from 131 nations working at 56 sites.

As one of the largest providers of capital market infrastructure worldwide, we offer our clients a broad range of products and services along the value chain of financial market transactions. Our offering ranges from portfolio management software, analytics solutions, the ESG business and index development, via services for trading, clearing and settling orders through to custody services for securities and funds, and liquidity and collateral management services. We also develop and operate the IT systems and platforms that support all these processes. In addition to securities, our platforms are also used to trade derivatives, commodities, foreign exchange and digital assets.

Our business takes place in four segments: Investment Management Solutions, Trading & Clearing, Fund Services and Securities Services. This structure is used for the internal Group controlling and forms the basis for our financial reporting. The new segment Investment Management Solutions was introduced in the fourth quarter 2023 to reflect the growing importance of the buy-side as a customer group for the Group. It includes the SimCorp business, as well as the activities of ISS, STOXX and Axioma that were previously pooled in the Data & Analytics segment.

For further details we refer to the segment reporting in the section "Results of operations".

Deutsche Börse Group's full group of consolidated entities is set out in note 34 to the consolidated financial statements. You can find a complete list of our trademark rights on our homepage.

Management

The governing bodies of Deutsche Börse AG, which is a German stock corporation, are the Annual General Meeting, the Supervisory Board and the Executive Board, each of which has its own areas of responsibility.

The Annual General Meeting rules on the appropriation of distributable profit, appoints the shareholder representatives on the Supervisory Board and discharges the Executive Board and the Supervisory Board of liability. In addition, it rules on equity issuance and other matters governed by the Aktiengesetz (AktG, German Stock Corporation Act).

The Supervisory Board appoints, supervises, and advises the members of the Executive Board, and is involved directly in decisions of fundamental importance to the Group. Additionally, it approves the annual financial statements as well as the consolidated financial statements prepared by the Executive Board. Members of the Supervisory Board are appointed for a period of three years, although the Annual General Meeting may determine a shorter term of office when electing members. The composition of the Supervisory Board is governed by the provisions of the German Co-determination Act (Mitbestimmungsgesetz). It is made up of eight shareholder representatives and eight employee representatives. Further details are provided in the "Corporate governance statement".

The Executive Board is responsible for the management of the company, whereby the Chief Executive Officer (CEO) coordinates the activities of the Executive Board members. In the 2023 financial year, the Executive Board of Deutsche Börse AG comprised six members. The remuneration system and the remuneration paid to individual members are explained in more detail in the "Remuneration report".

Organisational structure

Our organisation is divided into six Executive Board areas as follows:

Leadership structure

Executive Board

CEO
Dr T. Weimer

- Group Strategy/Mergers & Acquisitions/Chief of Staff
- Group Communications & Marketing
- Group Regulatory Strategy
- Group Audit
- Group Legal

CFO
G. Pottmeyer

- Financial Accounting & Controlling
- Investor Relations
- Treasury
- Chief Risk Officer
- Purchasing & Facility Management
- Group Tax

Trading & Clearing
Dr T. Book

- Derivatives Markets Trading
- Clearing
- Business Analytics & Strategy
- FX/360T
- European Energy Exchange (EEX)
- Market Data + Services
- Cash Market

Pre- & Post-Trading
Dr S. Leithner

- Clearstream Securities Services
- Clearstream Fund Services
- Investment Management Solutions
  - SimCorp Axioma
  - ISS STOXX

Governance, People & Culture
H. Eckert

- Chief Compliance Officer
- HR Global Business Partner
- People Strategy & Initiatives
- HR Global Services
- Governance & Organizational Services

CIO/COO
Dr C. Böhm

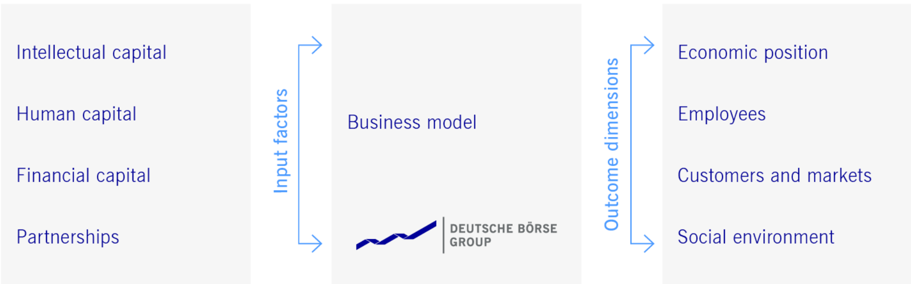
- Derivatives & Cash Trading IT
- Clearing and Risk IT
- Group Security
- Corporate IT
- Chief Technology Officer
- Post Trade IT
- IT Strategy/Chief of Staff
- IT Governance, Risk and Transformation

Corporate purpose and value creation process

Our purpose is “We at Deutsche Börse create trust in the markets of today and tomorrow”. Trust is essential for functioning markets and sustainable economies. We provide fair and transparent, reliable and stable infrastructures that ensure safe and efficient capital markets around the globe.

Our value creation process

External requirements (regulations, rating agencies, etc.)



According to the terminology used by the International Integrated Reporting Council (IIRC), we essentially need four capitals (input factors) to implement our business model. We deploy these capitals within a binding regulatory framework: intellectual capital, human capital, financial capital and partnerships. They enable us to create value with our business model. The impact that we have with our business model can be thought of in the following four outcome dimensions:

Economic situation: As a fast-growing company we create financial value, substance and returns on which our investors, employees, customers and society can build.

Employees: As an employer, we take wide-ranging measures to enable our employees to fully realize their development potential. We also work to boost the satisfaction of our employees and their loyalty to our Group. All this helps to build our employer brand, which is the main reason why talented people choose us.

Customers and markets: Our products and services contribute to increase transparency for market participants and to enable them to price in and integrate market developments, changes and transformations. In this way we enable our customers and market participants to make better-informed decisions.

Social environment: Our value creation also goes far beyond the areas of direct concern to us as a company. We thus focus on the environment and human rights aspects of our supply chain and are involved in initiatives to strengthen the local financial industry.

Strategy and steering parameters

Deutsche Börse Group has an excellent market position in Europe as an operator of market infrastructure. As a fully integrated end-to-end provider we offer our customers a broad value chain with innovative solutions.

The market environment in which we operate is very dynamic. This applies not only to the markets themselves, which we organise and operate via our platforms. Our competitive environment as a market infrastructure operator is also permanently in flux. The provider landscape has consolidated drastically in the past decades, which has strengthened the remaining operators of market infrastructure and enabled them to extend their business in various directions. New business activities and new customer groups beyond the core business have moved to the foreground. Today, market infrastructure providers not only service the sell-side, like banks and financial service providers, but rather have extended and diversified their customer target group.

We too have continued to expand our market leadership in the European Union as a fully integrated end-to-end provider in the financial markets. By this gradual expansion of our business model we are now also able to cater to the buy-side as a new customer group. Our broad value chain now includes solutions for investment management, trading and clearing through to securities services. We have achieved this by both organic growth and targeted acquisitions. We see ourselves as a hybrid of technology company and financial services provider, with a value chain that has a high degree of integration and diversification. As a result, our business model is characterised by great scalability, a low risk profile and low capital intensity, with a high affinity for technology at the same time. This is not only a unique sales proposition in international competition, but also forms the basis for attractive growth opportunities and also makes our business model more robust and resilient to market fluctuations or secular shifts.

All this has enabled us to exceed the financial targets we set ourselves as part of our Strategy Compass 2023. We achieved the original guidance for 2023 back in 2022. And we revised the 2023 targets upwards several times during the course of the year.

Target achievement Compass 2023

Key performance indicators	Target Compass 2023	Target achievement 2023
Net revenue	~€4.3 billion	€5,076.6 million
Earnings before interest, tax, depreciation and amortisation (EBITDA)	~€2.5 billion	€2,944.3 million

Building on our successful business performance in recent years, we developed a new strategy entitled Horizon 2026 which we published on 7 November 2023. It defines the strategic direction and financial targets for the years ahead through to 2026 and thus secures our outstanding market position and continued viability. The core of Horizon 2026 is the business strategy that we have mapped out comprehensively and in detail at a Group and segment level. The relevant strategic aspects of human resources, information technology, environment, social and governance, and particularly climate action, are integral parts of our business strategy. Further information on these topics can be found in the chapter "Non-financial declaration". The relevant financial strategy for our Group is reflected in the adjusted framework for capital allocation. It backs up our business strategy and forms the basis for our further corporate growth.

In our strategy we make a fundamental distinction between organic growth, generated from existing operations, and inorganic growth by means of focused acquisitions to expand or deepen our value chain. Organic growth consists mainly of secular initiatives such as product innovation, additional market share or new customer gains, as well as cyclical growth due to interest rate effects or higher trading volumes due to market fluctuations.

Our growth course as defined in Horizon 2026 is built on three strategic pillars.

- Strong **organic growth:** As in the past, organic growth forms the foundation for Horizon 2026. We benefit from long-term industry trends in attractive markets and strive for profitable organic growth of around 7 per cent per year on average. Secular growth is intended to account for by far the largest share of this.
- **Investment Management Solutions:** With the acquisition of SimCorp we complement our former activities in the area of data and analytics with a holistic offering for institutional investors by pooling end-to-end solutions for investment management and high-quality data in a new segment. In addition, we expect the acquisition of SimCorp completed in 2023 to deliver an average of around 3 per cent inorganic growth per year, and so increase the share of recurring revenue.
- **Digital leadership:** We intend to keep expanding our leading role in the digitalisation of assets. With D7 we already operate in the Securities Services segment one of the leading digital infrastructures globally in the post-trade area with more than 7,000 digital issuances. Cloud technologies and artificial intelligence also help us to increase our effectiveness and efficiency, and to open up new business areas at the same time.

Deutsche Börse is aiming for overall growth in net revenue of 10 per cent p.a. on average until 2026. The reference year for this is 2022. Earnings before interest, taxes, depreciation and amortisation (EBITDA) should increase to an average of 11 per cent p.a. Earnings per share before the effects of purchase price allocations (cash EPS) should increase over the same period by an average of 11 per cent a year.

Overwiew of targets „Horizon 2026“ targets

in €	Basis 2022	Targets of "Horizon 2026"
Net revenue	4.3 billion	~ 10 % CAGR
Earnings before interest, tax, depreciation and amortisation (EBITDA)	2.5 billion	~ 11 % CAGR
Cash EPS	8.61	~ 11 % CAGR

To achieve these targets, we are addressing the following market trends in our four operating segments.

- **Investment Management Solutions:** The increasing importance of the buy-side in financial markets and the outsourcing of investment operations to central service providers, as well as higher demand for index-driven investments, ESG services and reliable data
- **Trading & Clearing:** The shift from OTC to on-exchange trading, greater use of fixed income products in response to restrictive monetary policies, increasing demand for repo products and rising demand for digital assets
- **Fund Services:** The trend towards outsourcing of fund distribution operations to boost efficiency and the increasing demand for fund data services and analytics
- **Securities Services:** The strong increase in outstanding debt and rising demand for repo products and financing solutions via the capital markets as a result of the returning strong positive interest rates

Additional cyclical growth components may include higher market volatility in the Trading & Clearing segment, as well as higher long-term interest rates in Fund Services and Securities Services. In addition, targeted acquisitions may also contribute to future growth if they are strategically and financially attractive.

Growth drivers "Horizon 2026"

Segment	Growth drivers
Investment Management Solutions	Software Solutions (SimCorp & Axioma): • Rising demand for holistic Software as a Service (SaaS) and Business Process as a Service (BPaaS) investment management solutions, where customers can select the services they need along the investment management value chain and obtain them individually and efficiently • Increasing importance of the buy-side in the capital markets and general growth of this customer group • Customer desire for a neutral provider of integrated investment management software, including risk management and analytics solutions, which is also internationally competitive • Cost pressure from regulation and technological advances are leading to consolidation among providers of investment management software, and increasing demand from customers for an integrated offering ESG & Index (ISS/STOXX): • Increasing demand for an integrated offering of index and ESG products and services that is internationally competitive • Growing need for high-quality ESG data, research, ratings and benchmark indices due to the growing number of passively managed funds (ETFs) • Growing need for high-quality ESG data, ratings and research on the part of active asset managers and investors as a result of increasing competitive pressure to outperform lower-cost ETFs • Increasing regulation and reporting obligations for companies, investors and funds, such as CSRD and SFDR, which increase the need for market knowledge, ESG data, market analysis and research • Synergy effects from the merger with SimCorp & Axioma and ISS & STOXX by pooling competences and distribution activities across products, as well as greater business expansion in North America
Trading & Clearing	Financial derivatives: • Interest rate derivatives: Innovative products, such as derivatives based on European sovereign bonds, and additional market share in the segment of short-term interest rate derivatives (STIRs) • OTC clearing: Additional market share due to greater efficiency in offsetting OTC and exchange-traded business (cross-margining), and an improved risk model. The current obligation being discussed by the EU supervisory authorities to use an active cross-margining account within the EU could contribute to gaining additional market share • Repo: Higher demand for secured money market products as a result of central banks' withdrawal from the money market and higher financing costs • Equities and equity index derivatives: Innovative products, such as exchange-traded derivatives on products that were traded over the counter in the past (total return futures), ESG index derivatives • Digital assets: Rising demand for digital asset classes Commodities: • Electricity: Higher demand for electricity derivatives, driven by (1) higher price fluctuations due to the greater share of renewable energies in the energy mix, (2) uncertainty in global electricity supply chains and thus higher need for hedging by market participants, (3) increasing trading in electricity derivatives by quant/algo traders, who are now able to trade on electricity markets as a result of their greater liquidity FX: • New customer gains and additional market share compared with OTC trading
Fund Services	• New outsourcing customers and service extensions (e.g. distribution and data) • Expansion of the proposition for asset managers, with regulatory, data-based and digital services from a "one-stop shop" • Exploit cross-selling potential in the areas of execution, distribution, data and innovation

Growth drivers "Horizon 2026"

Segment	Growth drivers
Securities Services	• Expand global presence in fixed-income securities services • Net interest income • Expand scope and range of securities lending services (e.g. AI-enabled "marriage broking") • Scaling opportunities by expanding "platforms as a service" proposition • D7 as the first completely digital securities infrastructure – further momentum thanks to partnership with Google • Ongoing strong growth in secular fee income

We review our organic growth initiatives continuously. We capitalize particularly on the expansion in secular growth markets and asset classes. At the same time we always focus on the needs of our customers and technological advances. Key initiatives and growth drivers are also described in more detail in the "Report on opportunities" section.

The "Report on expected developments" section describes expected developments in the 2024 financial year.

Additionally, the remuneration system for the Executive Board and executive staff has also created a number of incentives for growth in the individual business divisions. The "Remuneration report" provides a detailed description of all targets.

Financial steering parameters

The most important key performance indicators to manage of our economic situation are net revenue and EBITDA, since these are vital for the successful execution of our growth strategy and set incentives for profitable growth. The basis is net revenue as reported in the consolidated financial statements. This consists of sales revenue, plus net treasury income from banking business and similar business, plus other operating income, less volume-related costs. One of the most important pillars of the corporate strategy, in addition to absolute growth, is the profitability of this growth. EBITDA stands for earnings before interest, tax, depreciation and amortisation and as such is a gauge of our operative earning power. It is a common indicator for measuring profitability. Another key financial control criterion is earnings per share before purchase price allocations (Cash EPS), since all profit and loss effects are reflected in this indicator, and it can therefore be used to measure the successful implementation of the growth strategy.

Economic situation

Deutsche Börse Group remains on a growth path. We increased our net revenue significantly again in 2023. We benefited from both organic growth and the acquisition of SimCorp.

In the following section we look at the macroeconomic and sector-specific environment, the course of business, our earnings, the development of profitability and other financial performance indicators.

Macroeconomic and sector-specific environment

Secular growth factors and M&A are a core element of our strategy. We can plan them, manage them and adjust them to external circumstances. Our business performance is also influenced by macroeconomic and sector-specific factors that are beyond our direct control, however.

In 2023 these included:

- Persistently high inflation, which did fall over the course of the year, but remained significantly above the central banks' target rates
- The resulting ongoing restrictive monetary policy of central banks in the USA and Europe, and their insistence that this policy will be pursued until inflation rates approach the desired level
- The insolvency of some US banks in mid-March and the consolidation on the Swiss banking market
- Russia's ongoing war of aggression against Ukraine and the related sanctions and effects on global supply chains and energy supply
- The Hamas attack on Israel in October 2023 and the resulting new escalation in the Israeli-Palestinian conflict in the Middle East since then

In its January 2024 estimate, the International Monetary Fund (IMF) predicted slower global economic growth of 3.1 per cent for 2023 (2022: +3.5 per cent). It expects the euro area to grow by 0.5 per cent (2022: +3.5 per cent) and for the economy in Germany to even contract by 0.3 per cent (2022: +1.8 per cent).

Business developments

The 2023 financial year was dominated by the activities of central banks to combat high inflation rates. Inflation declined over the course of the year in both the USA and Europe, but rates were still too high, making a looser monetary policy impossible.

The ECB raised its deposit rate in several stages, most recently to 4.00 per cent in September, while the Federal Reserve increased its target range for the federal funds rate to 5.25-5.50 per cent in July and has left it at this level since. Both central banks said that any change in their restrictive monetary policies depended on the future development of key economic indicators. Higher interest rates mean on the one hand that we profit from higher net interest income in the Securities Services and Fund Services segments. At the same time there were phases in which higher interest rates increased market participants' hedging requirements and led to greater trading activity in fixed income products in the Trading & Clearing business. Central banks' withdrawal from the money market also caused higher demand for repo products. In the commodities business, trading activity returned to the power markets, with new highs towards the end of the year. This was the result of lower and more stable power prices, which reduced the margin requirements.

Volatility on stock markets, as measured by the VSTOXX, was significantly lower than the previous year. Higher trading volumes were only seen briefly in March following the insolvency of several US banks and the consolidation on the Swiss banking market. The VSTOXX stood at an average of 18 points, which was 35 per cent lower than the average for the previous year. Trading activity in securities and equity index derivatives in the Trading & Clearing unit was correspondingly lower.

Results of operations

Against this backdrop, the results of operations in financial year 2023 were affected significantly by both secular and cyclical growth factors. The biggest driver of year-on-year net revenue growth in the Group was a sharp rise in interest rates on both sides of the Atlantic, combined with only a moderate decline in cash deposits from our customers in the Securities Services and Fund Services segments, resulting in very strong growth in net interest income. Higher interest rates and a downwards trend in the money supply had a positive impact on the use of interest rate derivatives and repo products in the financial derivatives business within the Trading & Clearing segment. In this context the rise in the outstanding notional volume of centrally cleared over-the-counter (OTC) traded and euro-denominated interest rate derivatives had a positive influence on net revenue. In addition, lower margin requirements as a result of reduced volatility on power and gas markets, and new customer gains, increased trading volumes for power derivatives in the commodities business in the Trading & Clearing segment, which was in turn reflected in higher net revenue. The Investment Management Solutions segment profited from both continuous product demand in Governance Solutions, Corporate Solutions and ESG, and from contract renewals with customers in the Analytics business. The acquisition of SimCorp, which was fully consolidated into the Group in the fourth quarter, also made a decisive contribution to M&A growth in this segment. In contrast to the previous year, which saw a positive one-off effect of €63 million in total in net revenue, there were no significant non-recurring effects on the revenue side in the reporting year.

Our net revenue therefore increased to €5,076.6 million in the financial year 2023 (2022: €4,337.6 million). The net revenue increase of 17 per cent consisted partly of 5 per cent secular growth, which came largely from new customer gains and gains in market share, the expansion of customer relationships and product innovations. Cyclical growth effects accounted for a further 7 per cent. The global increase in interest rates deserves particular mention. Another 5 per cent comes from M&A growth in connection with the acquisition of SimCorp.

Operating costs rose by 16 per cent to €–2,118.3 million in financial year 2023 (2022: €–1,822.2 million). Around 5 per cent resulted from organic cost growth, which also includes an increase in the headcount compared with the previous year, inflation effects and investments in secular growth measures. 10 per cent of the increase is due to the SimCorp acquisition effect, related transaction costs of €22 million and the costs of realising potential synergies in the new Investment Management Solutions segment of €56 million.

This boosted our earnings before interest, tax, depreciation and amortisation (EBITDA) by 17 per cent to €2,944.3 million (2022: €2,525.6 million). The result from financial investments, which is included in EBITDA, came to €–14.0 million (2022: €10.2 million). In the course of the purchase of minority interests in ISS and the bundling of expertise in our Investment Management Solutions segment, one-off adjustments to the valuation of a contingent purchase price component resulted in losses of €9 million. The decline was also due to valuation effects from minority interests.

Amortisation, depreciation and impairment losses came to €418.4 million (2022: €355.6 million). The change stems mainly from purchase price allocations for the acquisition of SimCorp in the Investment Management Solutions segment, as well as a €25 million write-down on intangible assets at Crypto Finance AG in the Trading & Clearing segment.

Our Group's financial result of €–74.1 million (2022: €–63.5 million) was mainly determined by the issue of new corporate bonds with medium and long maturities, and short-term debt instruments for a total volume of €4 billion to finance the acquisition of SimCorp. The Group's tax ratio of around 27 per cent was slightly higher than the previous year.

Overall, the net profit for financial year 2023 attributable to Deutsche Börse Group shareholders was €1,724.0 million (2022: €1,494.4 million), which represents a year-on-year increase of 15 per cent. Undiluted earnings per share were €9.35 (2022: €8.14) for an average of 185.1 million shares. Earnings per share before purchase price allocations (cash EPS) stood at €9.98 (2022: €8.61).

Net profit for the period attributable to non-controlling interests amounted to €72.8 million (2022: €68.8 million) and comprised mainly earnings attributable to non-controlling shareholders of EEX and ISS STOXX.

Comparison of results of operations with the forecast for 2023

For financial year 2023 we originally forecast an increase in net revenue to within a range of €4.5-4.7 billion. We increased this forecast several times over the course of the financial year, and at the time the results of the third quarter were published we were predicting net revenue, now including SimCorp, of around €5.0 billion. In line with our strategy we also anticipated an increase in secular net revenue growth of at least 5 per cent. Given the very good cyclical performance in financial year 2022, which was characterised by much higher market volatility and a global rise in interest rates, we assumed that the cyclical net revenue contribution in 2023 would be lower, or even negative. However, as inflation rates increased significantly in both the USA and Europe, the central banks moved to intervene quickly, resulting in another significant interest rate hike. Net interest income from the banking business rose accordingly in the Securities Services and Fund Services segments to a total of €702.4 million (2022: €260.0 million). In addition, the acquisition of SimCorp, which was not included in the original forecast for 2023, contributed another €198.0 million to the Group's net revenue. With net revenue of €5,076.6 million we therefore significantly exceeded our original forecast. Net revenue growth of 17 per cent includes 5 per cent secular growth. This means we also delivered on our forecast for secular net revenue growth.

Furthermore, at the start of the year we predicted an increase in earnings before interest, tax, depreciation and amortisation (EBITDA) to €2.6-2.8 billion. Over the course of the financial year this forecast was also raised, to around €2.9 billion. Our operating costs were mainly affected by the acquisition of SimCorp and went up by 16 per cent. They include both transaction expenses and the costs to achieve potential synergies in the new Investment Management Solutions segment totalling €79 million. Despite this, EBITDA rose by 17 per cent to €2,944.3 million and so was at the upper end of our forecast.

Comparison forecast 2023 with financial year 2023

	Forecast 2023 €bn	Actual 2023 €m
Net revenue	~5.0[1]	5,076.6
Earnings before interest, tax, depreciation and amortisation	~2.9[2]	2,944.3

1) Originally €4.5–4.7 billion (guidance raised over the course of the financial year)
2) Originally ~€2.6–2.8 billion (guidance raised over the course of the financial year)

Comparison of financial position with the forecast for 2023

As part of the ongoing development of our capital management we adjusted the relevant rating ratios in 2023 (see “Capital management” section). As expected, our ratio of net debt to EBITDA of 2.19 at year-end was just below the new maximum figure of 2.25 for rating purposes, due to the acquisition of SimCorp. The ratio of free funds from operations to net debt of 36 per cent was slightly below the now minimum target of 40 per cent, as expected, which was also due to temporarily higher borrowing for the SimCorp transaction. The cash flow from operating activities was again significantly positive. Based on a dividend proposal to the Annual General Meeting of €3.80 per share, the distribution quota of 40 per cent is within the range of 30 to 40 per cent communicated as part of our redeveloped capital management. The dividend of €3.60 proposed the previous year was paid as planned in May. The cash flow from operating activities was significantly positive. Investment in intangible assets and property, plant and equipment of €264.0 million was not completely in line with the budget of €300 million.

Development of profitability

Deutsche Börse Group’s return on shareholders’ equity expresses the ratio of net income after taxes to average equity available to the Group during the course of 2023. In the reporting year, it was at 19.5 per cent (2022: 18.8 per cent).

Investment Management Solutions segment

Key indicators Investment Management Solutions segment

in €m	2023	2022	Change
Net revenue	863.2	651.7	32 %
Software Solutions	296.9	75.4	294 %
On-premises	126.6	0	n.a.
SaaS (incl. Analytics)	124.2	75.4	65 %
Other	46.1	0	n.a.
ESG & Index	566.3	576.3	–2 %
ESG	242.1	238.6	1 %
Index	205.6	215.6	–5 %
Other	118.6	122.1	–3 %
Operating costs	– 581.1	– 383.2	52 %
EBITDA	276.0	261.5	6 %

Since the fourth quarter of 2023 the Investment Management Solutions segment has consisted of the previous Data & Analytics segment and the business operations of the newly acquired SimCorp. It is divided into the Software Solutions and the ESG & Index units.

In the Software Solutions unit we report on the activities of SimCorp, which now also includes the analytics business of Axioma. SimCorp is a renowned provider of investment management software and offers a market-leading front-to-back investment management platform. As a Software-as-a-Service-(SaaS) and Business-Process-as-a-Service-(BPaaS) player for global asset owners, asset managers and asset servicers, our open platform provides both flexibility and operating efficiency for our customers in all asset classes. In today's fast-moving markets the top priority is also a comprehensive and agile approach to portfolio and risk management. For this reason we have bundled the portfolio construction and risk management solutions from Axioma (Analytics) with our investment management platform. By combining our strengths we can make more effective use of our respective assets and resources and offer our customers even more added value. Net revenue in this unit is made up of licensing, update and service revenue for on-premise and SaaS solutions, as well as revenue from the analytics business. Revenue from professional services activities is recognised under Other.

In the ESG & Index unit we report on both the ESG and Index business generated by our ISS STOXX subsidiary. Under the umbrella of ISS STOXX are the STOXX Index business (also comprising STOXX® and DAX® indices) as well as the four existing business units of ISS: ISS Governance, ISS ESG, ISS Corporate Solutions and ISS Market Intelligence. The combination of robust and diverse ESG and governance datasets from ISS with the all-round expertise of STOXX in producing benchmarks and customer-specific indices, as well as in index production and settlement, enables ISS STOXX to operate effectively on a global basis. Net revenue in this business is made up of ETF, exchange and other licence revenue. While ETF licence revenue depends on the volume invested in exchange-traded index funds (ETFs) based on STOXX® and DAX®, exchange licence revenue are derived mainly from the volume traded in index derivatives on STOXX and DAX indices on Eurex. By licensing sustainable index solutions that mirror the entire index product portfolio, we contribute to the ESG trend. Net revenue at ISS is made up of ESG revenue, which comprises corporate and governance solutions, ESG data, research and ESG ratings. Market intelligence activities are presented under Other.

In the financial year the Software Solutions unit of the segment profited particularly from higher net revenue thanks to new customer gains and contract renewals by existing customers, which are mainly linked to the timing of transactions. This relates both to the performance in the existing analytics business and to that of SimCorp. Net revenue from SimCorp was consolidated for the first time in the fourth quarter of 2023 and was somewhat above our original expectations due to a higher number of new contracts for software solutions. As a result of the acquisition, the segment costs were driven largely by the related transaction costs of €22 million and the costs of €56 million for realising potential synergies (costs to achieve) in the new Investment Management Solutions segment.

The ESG & Index unit saw sustained a stable for ESG products, which institutional investors and banks use to develop sustainable investment strategies and for ESG reporting. The corporate solutions offered by ISS for companies also continued to experience interest. Compared with the previous year, the exchange rate effects of a weaker US dollar on average had a slightly negative impact on net revenue.

In the Index business, lower trading activity in equity index derivatives on our derivatives exchange Eurex had an impact on Index net revenue. It declined year on year by 10 per cent. By contrast, the trend towards exchange-traded index funds and correspondingly higher investment volumes support business with ETF licences. It increased by 5 per cent compared with the previous year. Net revenue in the Index unit was therefore slightly up on the previous year. However, Index net revenue the previous year included a one-off, volume-based licence fee reimbursement of €19 million from the Trading & Clearing segment.

Trading & Clearing segment

Key indicators Trading & Clearing segment

in €m	2023	2022	Change
Net revenue	2,262.8	2,187.1	3 %
Financial derivatives	1,264.3	1,234.4	2 %
Equities	471.0	509.0	– 7 %
Interest rates	397.1	367.9	8 %
Margin fees	91.0	117.6	– 23 %
Other	305.2	239.9	27 %
Commodities	565.0	475.5	19 %
Power	241.5	183.3	32 %
Gas	101.7	89.2	14 %
Other	221.8	203.0	9 %
Cash equities	293.9	344.4	– 15 %
Trading	126.5	176.2	– 28 %
Other	167.4	168.2	– 0 %
Foreign exchange	139.6	132.8	5 %
Operating costs	– 914.6	– 876.3	4 %
EBITDA	1,349.4	1,330.8	1 %

The Trading & Clearing segment comprises four asset classes: financial derivatives, commodities, cash equities and foreign exchange. In the financial derivatives asset class, we report on the performance in the financial derivatives trading and clearing business at Eurex exchange. Performance is driven mainly by the trading activities of institutional investors and other professional market participants and depends, to a large extent, on our clients' hedging needs and market volatility. Revenue is also generated from marketing data and managing collateral.

In the commodities asset class, we report on trading activities on the EEX Group's platforms in Europe, Asia and North America. The EEX Group operates marketplaces and clearing houses for energy and commodity products, connecting more than 800 participants around the world. The product portfolio comprises contracts on power, environmental, freight and agricultural products. The EEX Group's most important revenue drivers are the power spot and derivatives markets, and the gas markets. These include products such as green power derivatives, emissions trading and certificates of origin.

The cash equities asset class shows the development of our trading venues in the cash market (Xetra® and the Frankfurt Stock Exchange). Besides trading and clearing services income, revenue stems from the ongoing listing of companies' securities and exchange admissions, the marketing of trading data, infrastructure services and from services provided to partner exchanges.

The segment also includes the foreign exchange asset class, which reports on business performance on the trading platforms operated by our subsidiary 360T. Net revenue is generated mainly by the trading activities of institutional investors, banks and internationally active companies.

Uncertainty among market participants declined noticeably year on year in 2023, which was reflected in lower volatility on equities and commodities markets. Market volatility on stock markets, as measured by the VSTOXX, fell by 35 per cent. Hedging requirements fell as a result, and so trading activities in equity index derivatives were down by 9 per cent in the **Financial derivatives** unit. It was offset by an increase of 6 per cent in trading with interest rate derivatives due to higher interest rates. Changes in the interest rate environment also had a positive impact on the outstanding notional volume of over-the-counter (OTC) and euro-denominated interest rate derivatives in central clearing, which were up year on year by 19 per cent. Combined with the central banks' more restrictive monetary policy, repo transactions in the Financial derivatives, Other unit in particular saw strong demand from market participants and contributed €86 million to net revenue (2022: €51 million).

The Russian invasion of Ukraine and the resulting uncertainty concerning the security of European gas and broader energy supplies dominated the financial year 2022, but the gas and power markets were calmer in the reporting period. Prices of the respective reference products for power and gas in the **Commodities** unit therefore fell significantly from their record highs in 2022. This reduced the margin required for trading in derivatives substantially, which had a distinctly positive effect on the futures markets. The trading volume in power derivatives climbed year on year by 38 per cent and in gas derivatives by 18 per cent. The unit also profited from new customer gains, which stemmed partly from the fact that centrally cleared offerings are highly competitive compared with the OTC market. Commodities, Other, reported a higher net revenue contribution from collateral management fees resulting from the significant increase in interest rates in both Europe and the USA.

As with our European competitors, in addition to a decline in market volatility, the high interest rate environment also weighed on equity trading in **Cash equities**. It was only towards the end of the year that key indices like the DAX picked up sharply, reaching all-time highs in some cases. This was only partly able to offset a general decline in the order book volume of 31 per cent, however. Xetra's market share as the reference market for trading in DAX shares was again over 60 per cent, as in the previous year.

In **Foreign exchange** we increased the average daily trading volume on our platform by 6 per cent in the reporting year, despite lower volatility in the EUR/USD exchange rate. Net revenue in this unit performed correspondingly well.

Fund Services segment

Key indicators Fund Services segment

in €m	2023	2022	Change
Net revenue	439.9	375.9	17 %
Fund settlement	213.9	211.5	1 %
Fund distribution	85.3	89.7	– 5 %
Other	140.7	74.7	88 %
Operating costs	– 209.8	– 171.5	22 %
EBITDA	226.7	203.8	11 %

The Fund Services segment pools order routing and settlement activity and custody volumes of mutual, exchange-traded, and alternative funds processed by Clearstream in the fund processing unit. Clients can settle and manage their entire fund portfolio across all asset classes on the Vestima® fund processing platform. The fund distribution business consists of the distribution platform at Clearstream Fund Centre. Fund Services therefore offers one of the leading fund services platforms in the European market for distribution partners, banks, asset managers and fund providers. Net revenue in this segment is largely a function of the volume and value of assets under custody and the number of orders and settlements processed. In addition, Other net revenue in the Fund Services segment includes the net interest income from the fund settlement business and net revenue from fund data management, which largely stems from the acquisition of Kneip S.A.

The financial year 2023 was challenging for the European fund industry. On the one hand, fund prices profited from higher European equities indices than in the previous year. On the other hand, higher interest rates resulted in outflows from actively managed funds. On balance, the value of assets under custody was roughly the same as the previous year. The market environment also had a slightly negative impact on the number of securities settled. Net revenue from fund settlement was therefore only slightly up on the previous year.

The fund distribution business was also faced with the same market trends described above in the financial year. New customer wins and the transfer of new customer portfolios could not fully make up for a slight decline in average fund distribution assets. Net revenue in this unit fell slightly year on year as a result.

In April 2023 we announced that Clearstream Fund Centre S.A. had received its own banking licence in Luxembourg and so was independent in the market, but will remain closely linked with Clearstream's national and international central depositories (CSD, ICSD) in order to exploit synergies between the units for the benefit of our customers. Due to the increased independence of our fund services business from the securities business, the relevant portion of the net interest income from banking business of €57 million was reclassified from Securities Services to Fund Services (Other). At the same time, the separation resulted in a transfer of net revenue of €16 million from Fund Services to Securities Services (Custody, Settlement and Other).

Other net revenue also includes the fund data business of Kneip, which was consolidated in the second quarter 2022.

Securities Services segment

Key indicators Securities Services segment

in €m	2023	2022	Change
Net revenue	1,510.7	1,122.9	35 %
Custody	615.1	585.0	5 %
Settlement	114.4	104.8	9 %
Net interest income from banking business	645.5	260.0	148 %
Other	135.7	173.1[1]	– 22 %
Operating costs	– 412.8	– 391.2	6 %
EBITDA	1,092.2	729.5	50 %

1) The deconsolidation of REGIS-TR was completed on 31 March 2022 and includes a disposal gain of €50 million.

Our settlement and custody activities are reported under the Securities Services segment. In providing the post-trade infrastructure for Eurobonds and other securities markets, our subsidiary Clearstream is responsible for the issuance, settlement, management, and custody of securities from 60 domestic markets worldwide, plus the international market. Net revenue in this segment is driven mainly by the volume and value of assets under custody, which determine the custody fees. The settlement business depends primarily on the number of settlement transactions processed by Clearstream via stock exchanges as well as over-the-counter (OTC). The segment also includes net interest income from banking business, which represents a significant portion of the segment's net revenue due to the steep rise in global interest rates.

Net revenue in the Securities Services segment was affected most in 2023 by the monetary policy measures taken by central banks around the world in response to higher inflation. Net interest income from banking business, which in the Securities Services segment stems from cash deposits by our clients, profited significantly from higher base rates in both the USA and Europe. The volume of cash balances fell by 6 per cent, by contrast, which indicates more active liquidity management by our customers. Since the first quarter of 2023 around €90 million of the net interest income from banking business has been segregated as assets under sanctions held by us, of which €14 million relates to prior periods. This is therefore not shown in net revenue. When the fund business was spun out of Clearstream, the relevant portion of net interest income from banking business and other effects were reclassified from Securities Services to Fund Services (Other), as described in the Fund Services segment.

Ongoing high issuance by companies and the public sector, as well as the general increase in share prices as a result of buoyant markets, led to growth of 6 per cent in assets under custody in 2023. The principal contribution came from the year-on-year change in the volumes of debt instruments held by our national and international central securities depositories (CSD, ICSD). These also rose by 6 per cent on average. The custody unit also reports on collateral management and the securities lending business. A more restrictive monetary policy and higher interest rates caused a significant increase of 14 per cent in outstanding volume compared with the previous year. The securities settlement business also saw solid growth of 6 per cent in the financial year. The key driver in this area was an increase in the settlement of OTC securities.

Net revenue the previous year included a disposal gain of some €50 million from the sale of our stake in the European transaction register REGIS-TR. This was recognised in Other net revenue.

Financial position

Cash flow

Consolidated cash flow statement (condensed)

in €m	2023	2022
Cash flows from operating activities (excluding CCP positions)	2,482.5	2,141.6
Cash flows from operating activities	2,549.0	2,483.6
Cash flows from investing activities	– 3,997.2	– 1,406.5
Cash flows from financing activities	2,293.4	– 951.1
Cash and cash equivalents at 31 December	2,955.2	2,128.2
Other cash and bank balances as at 31 December	1,655.1	1,275.6

Cash and cash equivalents at Deutsche Börse Group, i.e. its liquidity, comprise cash and bank balances – to the extent that these do not result from reinvesting current liabilities from cash deposits by market participants – as well as receivables and liabilities from banking business with an original maturity of three months or less. Change in other cash and bank balances was affected by cash used for acquisitions, as well as cash outflows from operating activities.

Cash flow from operating activities was €2,482.5 million (2022: €2,141.6 million) before changes in CCP positions on the reporting date and was made up primarily of net income for the period of €1,796.8 million (2022: €1,563.2 million) and from changes in working capital.

Cash outflows for investing activities amounted to €3,997.2 million in 2023 (2022: €1,406.5 million) and were largely driven by the acquisition of SimCorp and fluctuations between short and long-term investments of customer funds. The acquisition of SimCorp led to a cash outflow of €3,887.3 million. Capital expenditure on intangible assets and property, plant and equipment of €264.0 million (2022: €323.5 million) was slightly below the planning framework of around €300 million and related primarily to IT and growth investments.

Cash inflow from financing activities was €2,206.9 million (2022: cash outflow of €951.1 million) and in addition to the dividend payment for the 2022 financial year of €661.5 million (2022: dividend for the 2021 financial year of €587.6 million), included three bonds with a nominal volume of €3,000.0 million to finance the SimCorp acquisition.

Cash flow for 2023, which is the sum of all inflows and outflows of cash from operating, investing and financing activities, came to €845.2 million (2022: €126.0 million) and was dominated by cash flow from operating activities.

The positive cash flow from operating activities, sufficient credit lines and our flexible management and planning system meant that we were again adequately supplied with liquidity in 2023.

For further details of cash flow, see the consolidated cash flow statement and note 21 to the consolidated financial statements.

Liquidity management

We mainly cover our operational liquidity needs by means of internal financing, i.e. by retaining earnings. Our aim is to hold sufficient liquidity to be able to meet all our payment obligations as they fall due. We have an intra-Group cash pool to aggregate our surplus cash as far as regulatory and legal provisions allow. Generally speaking, we invest cash on a short-term basis, in order to ensure rapid availability, and it is largely secured by liquid bonds from prime-rated issuers. Moreover, we have access to external sources of financing, such as bilateral and syndicated credit lines, as well as a commercial paper programme (see note 24 to the consolidated financial statements for details of financial risk management). In recent years, we have leveraged our access to the capital markets to issue corporate bonds in order to meet our structural financing needs.

Debt instruments issued by Deutsche Börse AG (outstanding as at 31 December 2023)

Type	Issue volume	ISIN	Term to	Maturity	Coupon (p.a.)	Listing
Fixed-rate bearer bond	€500 m	DE000A1684V3	10 years	October 2025	1.625%	Luxembourg/ Frankfurt
Fixed-rate bearer bond	€500 m	DE000A3H2457	5 years	February 2026	0.000%	Luxembourg/ Frankfurt
Fixed-rate bearer bond	€600 m	DE000A2LQJ75	10 years	March 2028	1.125%	Luxembourg/ Frankfurt
Fixed-rate bearer bond	€600 m	DE000A3MQXZ2	10 years	April 2032	1.500%	Luxembourg/ Frankfurt
Fixed-rate bearer bond	€500 m	DE000A3H2465	10 years	February 2031	0.125%	Luxembourg/ Frankfurt
Fixed-rate bearer bond (hybrid bond)	€600 m	DE000A289N78	Call date 7 years/ final maturity in 27 years	June 2027/ June 2047	1.250 % (until call date)	Luxembourg/ Frankfurt
Fixed-rate bearer bond (hybrid bond)	€500 m	DE000A3MQQV5	Call date 6.25 years/ final maturity in 26.25 years	June 2028/ June 2048	2.000 % (until call date)	Luxembourg/ Frankfurt
Fixed-rate bearer bond	€1,000 m	DE000A351ZR8	3 years	September 2026	3.875%	Luxemburg/Frankfurt
Fixed-rate bearer bond	€750 m	DE000A351ZS6	6 years	September 2029	3.750%	Luxemburg/Frankfurt
Fixed-rate bearer bond	€1,250 m	DE000A351ZT4	10 years	September 2033	3.875%	Luxemburg/Frankfurt

Capital management

We further developed our capital management strategy in 2023. We are aiming to maintain our strong rating at Group level, which was changed to AA- after the SimCorp takeover. Furthermore, we endeavour to maintain the strong AA credit ratings of our subsidiaries Clearstream Banking S.A. and Clearstream Banking AG, in order to ensure their long-term success in securities settlement and custody. The activities of our Eurex Clearing AG subsidiary also require strong credit quality.

To keep these good credit ratings we aim for the following relevant key performance indicators going forward:

- Net debt to EBITDA ratio: no more than 2.25
- Free funds from operations (FFO) to net debt: at least 40 per cent
- Interest cover ratio: at least 14
- Tangible equity (for Clearstream Banking S.A.): at least €1,100 m

We follow the methodology of S&P Global Ratings closely when calculating these ratios.

- To determine EBITDA for rating purposes, reported EBITDA is adjusted by the result from financial investments, as well as by unfunded pension obligations. EBITDA for rating purposes in 2023 was €2,970 million.
- FFO for rating purposes is calculated by deducting interest and tax payments from EBITDA for rating purposes. FFO for rating purposes in 2023 was €2,307 million.
- The Group's net debt for rating purposes is reconciled by first deducting 50 per cent of the hybrid bond, as well as the surplus cash as at the reporting date, from gross debt (i.e. from interest-bearing liabilities). Liabilities from operating leases and unfunded pension obligations are then added. Net debt for rating purposes in 2023 was €6,493 million.
- Interest expenses for rating purposes are calculated on the basis of interest expenses for financing, less interest expenses of Group entities which are also financial institutions. These include Clearstream Banking S.A., Clearstream Banking AG and Eurex Clearing AG. Interest expenses which are not related to our financing are not included in the calculation of interest expenses. Only 50 per cent of the hybrid bonds are counted towards interest expenses. Interest expenses for rating purposes in 2023 came to €86 million.

The following table "Relevant parameters" illustrates our calculation methodology and shows the values for the reporting year.

Relevant parameters

		Target figures	2023
Net debt / EBITDA		≤ 2.25	2.19
Free funds from operations (FFO) / net debt	%	≥ 40	36
Interest coverage ratio		≥ 14	35
Tangible equity of Clearstream Banking S.A. (as at the reporting date)	€m	≥ 1,100	1.648

As expected, the acquisition of SimCorp in September 2023 meant that the target for FFO in relation to net debt was undershot slightly. Since we generate significant cash flow from our operating business, we expect to reduce debt quickly and achieve the ratings targets in 2024.

We intend not to allow tangible equity (equity less intangible assets) of Clearstream Banking S.A. to fall below €1,100 million. Clearstream Banking S.A. achieved this during the year under review, with a figure of €1,648 million.

S&P Global Ratings bases the calculation of key performance indicators on the corresponding weighted average of the reported or expected results of the previous, the current and the following reporting period. To ensure the transparency of the key performance indicators, we report them based on the current reporting period.

Dividends and share buy-backs

We aim to distribute dividends equivalent to between 30 and 40 per cent of net profit for the period attributable to Deutsche Börse AG shareholders. Within this range, we manage the actual payout ratio mainly in relation to our business performance and based on continuity considerations. In addition, we plan to invest the remaining available funds primarily in our external development. Should the Group not be able to invest these funds, additional distributions, particularly in the form of share buy-backs, would be another possible use for them.

At the Annual General Meeting we will be proposing to pay a dividend of €3.80 per no-par value share for the financial year 2023 (2022: €3.60). This dividend is equivalent to a distribution ratio of 40 per cent of net profit for the period attributable our shareholders. Given 185.1 million no-par shares bearing dividend rights, this would result in a total dividend payment of €703.4 million (2022: €661.6 million). The number of shares with dividend rights is produced by deducting 4.9 million treasury shares from our ordinary share capital of 190.0 million shares.

In November 2023 we announced a share buy-back programme for 2024 on the basis of the authorisation granted by the Annual General Meeting on 8 May 2019. Company shares are to be bought back for a total cost of up to €300.0 million (without incidental expenses) in the period to 3 May 2024.

Credit ratings

Credit ratings

	Long-term	Short-term
Deutsche Börse AG		
S&P Global Ratings	AA–	A–1+
Clearstream Banking S.A.		
Fitch Ratings	AA	F1+
S&P Global Ratings	AA	A–1+
Clearstream Banking AG		
S&P Global Ratings	AA	A–1+

Our credit quality is reviewed regularly by S&P Global Ratings, while Clearstream Banking S.A. is rated by Fitch Ratings and S&P Global Ratings, and Clearstream Banking AG by S&P Global Ratings.

On 21 December 2023, Fitch Ratings affirmed the AA credit rating of Clearstream Banking S.A. with a stable outlook. The rating reflects Clearstream Banking's leading position in the post-trade business, its diligent liquidity management as well as its impeccable capitalisation.

As expected, S&P Global Ratings put its credit rating for Deutsche Börse AG on "Creditwatch Negative" on 28 April 2023 following the announcement of the SimCorp transaction. After the transaction and the related additional borrowing were completed on 20 September 2023 it then downgraded the credit rating from AA to AA-, also as expected. This did not affect the credit ratings for Clearstream Banking AG and Clearstream Banking S.A. S&P Global Ratings confirmed its AA- credit rating for Deutsche Börse AG and its AA credit rating for Clearstream Banking AG and Clearstream Banking S.A. on 29 January 2024. Deutsche Börse AG's rating reflects the assumption that the Group will continue its growth strategy. Clearstream Banking S.A.'s rating reflects its strong risk management, minimal debt levels and strong position on the international capital markets – especially through its international custody and transaction business.

Net assets

Significant changes to net assets are described below. The full consolidated statement of financial position can be found in the consolidated financial statements.

Consolidated balance sheet (extract)

in €m	31 Dec 2023	31 Dec 2022[1]
ASSETS	**237,726.9**	**268,903.5**
Non-current assets	23,416.7	20,758.4
thereof intangible assets	12,478.6	8,610.0
thereof goodwill	8,213.3	5,913.7
thereof other intangible assets	3,035.3	1,942.6
thereof financial assets	9,870.4	11,322.8
thereof financial assets measured at amortised cos	1,801.9	1,894.7
thereof financial assets measured at FVOCI	222.7	182.8
thereof financial instruments held by central counterparties	7,667.6	9,078.4
Current assets	214,310.2	248,145.2
thereof financial instruments held by central counterparties	137,904.9	129,932.8
thereof restricted bank balances	53,669.4	93,538.3
thereof other cash and bank balances	1,655.1	1,275.6
EQUITY AND LIABILITIES	**237,726.9**	**268,903.5**
Equity	10,100.2	9,060.9
Liabilities	227,626.7	259,842.6
thereof non-current liabilities	16,206.7	14,183.8
thereof financial instruments held by central counterparties	7,667.6	9,078.4
thereof financial liabilities measured at amortised cost	7,484.0	4,535.0
thereof deferred tax liabilities	789.2	388.2
thereof current liabilities	211,420.0	245,658.8
thereof financial instruments held by central counterparties	137,341.9	129,568.8
thereof financial liabilities measured at amortised cost	18,691.7	19,522.6
thereof cash deposits by market participants	53,401.3	93,283.1

1) Previous year adjusted, see note 3.

Deutsche Börse Group's total assets fell year-on-year by 12 per cent. The increase in non-current assets resulted mainly from the SimCorp acquisition, which is reflected in higher intangible assets, and from exchange rate-related fluctuations in goodwill. The decline in current assets was particularly due to the volatility of restricted bank balances and financial instruments of the central counterparties at the reporting date.

Group equity rose by 11 per cent compared with the previous year. This was due mainly to the net profit for the reporting year 2023, less the dividend payment for the previous financial year 2022.

Deutsche Börse Group invested a total of €264.0 million in the reporting year (2022: €323.5 million) in intangible assets and property plant and equipment (capital expenditure, CapEx), mainly in connection with IT and growth investments.

Working capital

Working capital comprises current assets less current liabilities, excluding technical closing-date items. Current assets, excluding technical closing-date items, amounted to €2,298.9 million (2022: €2,588.6 million). As Deutsche Börse Group collects fees for most of its services on a monthly basis, the trade receivables of €1,832.2 million included in current assets as at 31 December 2023 were relatively low compared with net revenue (31 December 2022: €2,289.2 million). The decline in trade receivables was particularly due to open items as at the reporting date from the market volatility of the sports markets within EEX Group, which were offset by a decline in trade payables at the same time. The current liabilities of the Group, excluding technical closing-date items, amounted to €2,312.6 million (2022: €2,763.3 million, excluding technical closing-date items). For this reason the Group had slightly negative working capital of €13.8 million at year-end (2022: negative working capital of €174.7 million).

Technical closing-date items

The "financial instruments of the central counterparties" item relates to the function performed by Eurex Clearing AG, European Commodity Clearing AG as well as Nodal Clear, LLC. Since they act as the central counterparties for Deutsche Börse Group's various markets, their financial instruments are carried in the balance sheet at their fair value. The financial instruments of the central counterparties are described in detail in the section "Risk report" of the combined management report and in notes 12 and 24 to the consolidated financial statements.

Market participants linked to the Group's clearing houses partly provide collateral in the form of cash deposits, which are subject to daily adjustments. The cash deposits are generally invested on a secured basis overnight by the central counterparties and reported in the balance sheet under "restricted bank balances". The total value of cash deposits at the reporting dates relevant for the reporting period (31 March, 30 June, 30 September and 31 December) varied between €46.8 billion and €58.9 billion (2022: €53.4 billion and €119.5 billion).

Overall assessment of the economic position by the Executive Board

The persistently high inflation rates in both the USA and Europe meant that there was a focus on intervention by central banks in the financial year 2023. The resulting rapid interest rate rises boosted market participants' need for hedging with interest rate derivatives, but also had a significantly positive effect on growth in net interest income from banking business in the Securities Services and Fund Services segments. Fears of recession and uncertainty concerning the future direction of interest rates subdued share trading and also led to outflows from fund assets under management. It was only as inflation rates began to recede sustainably and with the prospect of an end to further interest rate increases that equity indices picked up again strongly in the fourth quarter of 2023. Compared with the record highs in 2022, price volatility and the related volumes of capital committed to power and gas markets declined significantly. Trading activity rose accordingly, particularly in power derivatives. With net revenue of €5,076.6 million, we achieved year-on-year growth of 17 per cent for the Group, which was above our expectations. Of the total, 5 per cent is due to secular growth and 7 per cent to cyclical growth effects. The acquisition of SimCorp, which was consolidated in the Group for the first time in the fourth quarter of the financial year, contributed another 5 per cent from M&A growth. The increase in costs was also mostly related to the acquisition of SimCorp, and included extraordinary transaction expenses and the costs of realising potential synergies (costs to achieve) in the new Investment Management Solutions segment totalling €79 million. Earnings before interest, taxes, depreciation and amortisation (EBITDA) increased year on year by 17 per cent to €2,944.3 million, which was slightly higher than our expectations in view of the effects mentioned above. Additional borrowing to finance the acquisition also affected the financial result, which changed accordingly to €74.0 million.

On this basis we consider that Deutsche Börse Group's financial position remained very solid during the reporting period. As in prior years we reported strong cash flow from operating activities. The ratio of net debt to EBITDA, which is important for the credit rating, came to 2.19 and was thus below the now applicable limit of 2.25.

As in recent years, we are again offering shareholders a higher dividend for the 2023 financial year. The proposed dividend is €3.80 (2022: €3.60), representing a year-on-year increase of 6 per cent. We also decided in 2023 to carry out a share buyback programme with a volume of €300 million, which began on 2 January 2024 and should be completed by 3 May 2024 at the latest. The proposal on the appropriation of distributable profit reflects treasury shares held directly or indirectly by the company that do not carry dividend rights under section 71b Aktiengesetz (AktG, the German Stock Corporation Act). The number of shares carrying dividend rights can change until the Annual General Meeting through the repurchase or sale of further treasury shares. In this case, with a dividend of €3.80 per eligible share, an amended resolution for the appropriation of distributable profit will be proposed to the Annual General Meeting.

Deutsche Börse Group: five-year overview

		2019	2020	2021	2022	2023
Consolidated income statement						
Net revenue	€m	2,936.0	3,213.8	3,509.5	4,337.6	5,076.6
thereof treasury result from banking and similar business	€m	247.7	196.6	142.7	532.2	961.5
Operating costs (excluding depreciation, amortisation and impairment losses)	€m	– 1,264.5	– 1,368.7	– 1,551.6	– 1,822.2	– 2,118.3
Earnings before interest, tax, depreciation and amortisation (EBITDA)	€m	1,678.2	1,869.4	2,043.7	2,525.6	2,944.3
Depreciation, amortisation and impairment losses	€m	– 226.2	– 264.3	– 293.7	– 355.6	– 418.4
Net profit for the period attributable to Deutsche Börse AG shareholders	€m	1,003.9	1,079.9	1,209.7	1,494.4	1,724.0
Earnings per share (basic)	€	5.47	5.89	6.59	8.14	9.35
Consolidated cash flow statement						
Cash flows from operating activities	€m	926.1	1,412.0	908.9	2,483.6	2,549.
Consolidated balance sheet						
Non-current assets	€m	11,706.9	14,570.5	20,462.4	20,758.4	23,409.4
Equity	€m	6,110.6	6,556.1	7,742.4	9,060.9	10,100.2
Non-current interest-bearing liabilities[1]	€m	2,286.2	2,637.1	3,037.3	4,123.4	7,096.2
Performance indicators						
Dividend per share	€	2.90	3.00	3.20	3.60	3.80[2]
Dividend payout ratio[3]	%	53	51	49	44	40[4]
Employees (average annual FTEs)		5,835	6,528	8,855	10,143	11,656
Deutsche Börse shares						
Year-end closing price	€	140.15	139.25	147.1	161.40	186.50
Average market capitalisation	€bn	24.0	27.7	27	30.9	32.0
Rating key figures						
Net debt / EBITDA		1.0	1.0	2.0	1.2	2.2
Free Funds from Operations (FFO) / net debt	%	79	76	38	68	36

1) Bonds that will mature in the following year are reported under “other current liabilities”
2) Proposal to the Annual General Meeting 2024.
3) The ratios for the years 2019–2020 have been adjusted. The dividend payout ratio is determined using reported net profit.
4) Amount based on the proposal to the Annual General Meeting 2024.

Non-financial declaration

We refine the ESG activities for Deutsche Börse Group in a process of continuous dialogue with our stakeholders. We report on the core aspects of our value creation process on the basis of our comprehensive materiality analysis.

The combined non-financial declaration for Deutsche Börse Group and the parent Deutsche Börse AG meets the requirements of sections 289b–e and 315b–c HGB and Regulation (EU) 2020/852 of the European Parliament and the European Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (in the following EU Taxonomy). For the mandatory disclosure on our business model and the involvement of company management we refer to the chapters "Deutsche Börse: Fundamental information about the Group" and "Strategy and steering parameters".

In terms of the materiality analysis, description of management approaches and selected KPI the combined non-financial declaration follows the GRI (2021) standards. A detailed overview of all GRI indicators (GRI index) is available on our homepage. Further detailed information that is referenced in this report does not form part of the combined management report itself unless explicitly stated. To the extent that no explicit statements are made for the parent company, qualitative information within the meaning of the combined management report applies equally to Deutsche Börse Group and the parent company Deutsche Börse AG. In some cases, quantitative details concerning the parent entity and subsidiaries consolidated for the first time are disclosed separately.

In the course of our materiality analysis we continuously determine and evaluate the expectations and requirements of relevant internal and external stakeholders. In the year 2023 we surveyed several internal stakeholders in order to validate the results from 2021. This did not give rise to any changes.

ESG governance

Sustainability is of significant importance for the corporate strategy of Deutsche Börse Group. It is therefore an essential element of corporate governance at the level of both the Executive Board and the Supervisory Board. The Executive Board of Deutsche Börse AG takes all strategic decisions concerning sustainability matters at Deutsche Börse Group. It was supported in the reporting year by the interdisciplinary Group Sustainability Board, which is chaired by the CFO. The Group Sustainability Board is the central management board for sustainability topics in Deutsche Börse Group. It deals with company initiatives relating to environmental, social and governance topics (ESG). This includes advising on and monitoring the integration of sustainability into corporate planning and controlling. The Group Sustainability Board has been replaced by the Group Sustainability Committee as of 1 January 2024. The Group Sustainability Committee is the new central management unit for sustainability topics in Deutsche Börse Group. It is chaired by the Chief Sustainability Officer and supports and advises the Executive Board on all aspects of sustainability. The Group Sustainability Committee is intended to ensure the implementation of effective ESG practices in accordance with applicable policies and guidelines.

The Group ESG Strategy department, which reports to the CEO, primarily provides support by continuously monitoring the ESG profile and climate strategy of Deutsche Börse Group. Responsibility for ESG reporting was transferred from Group ESG Strategy to the section Sustainability Reporting, which is part of the CFO function, on 1 October 2023.

At the Supervisory Board level, the Strategy and Sustainability Committee has dealt, in particular, with sustainable corporate governance and activities in the field of ESG at Deutsche Börse Group since 2021. In addition to embedding ESG in the work of the Supervisory Board in this way, it is particularly important for the board as a whole and in the other Supervisory Board committees, especially the Audit Committee, the Risk Committee and the Nomination Committee. Current, relevant sustainability aspects also form part of the training programme for the Executive Board and Supervisory Board and are dealt with in workshops and seminars.

ESG targets

The following non-financial performance indicators have been identified as relevant for management and are divided according to the outcome dimensions of our value creation process, **employees, customers and markets and social environment** (see Corporate purpose and value creation process):

Non-financial key performance indicators

Key performance indicators	Targets	Actuals 2023
Employees		
Employee satisfaction[1]	>71.5%	73%
Share of women in leadership positions[2]	>23%	23%
Customer and markets		
System availability (customer-facing IT)	>99.5%	>99.9%
Social environment		
ESG ratings	>90th percentile	98th percentile

1) Result without SimCorp
2) Group target for senior management

Employees: We use two key performance indicators for measuring employee-related factors: The first indicator is used to measure employee satisfaction on an annual basis and to take action based on the results. The second indicator is used to calculate the percentage of women in leadership positions on an annual basis.

In terms of employee satisfaction, we have defined a result of more than 71.5 per cent approval in the annual People Survey as the target. With regard to the proportion of women in management positions, the Executive Board has set itself the target of achieving a proportion of over 23 per cent in upper management at global Group level by the end of 2023 as part of a voluntary commitment (see "Employees").

Customers and markets: As a provider of market infrastructure we maintain impartial, transparent and secure marketplaces. In this context we use our systems availability as a key performance indicator. A value of more than 99.5 per cent is the target for our systems availability (see section "System stability and availability").

Social environment: In terms of ESG ratings, our aim is to achieve a place in the 90th percentile in three leading independent ESG ratings (S&P, Sustainalytics, MSCI). (see section "ESG ratings").

Deutsche Börse Group updated its climate strategy and the relevant ESG targets in the financial year 2023 as part of the further development of its strategy "Horizon 2026" (see "Social environment"). For this reason, the non-financial performance indicators described the previous year, ESG net revenue growth and CO_2 emissions per workspace, are no longer considered by the Executive Board as relevant for management as of financial year 2023.

For other sustainability indicators that are not explicit ESG targets as defined in our Horizon 2026 growth strategy, such as our emissions of greenhouse gases and ESG products, we also refer to our GRI Index on our homepage.

The ESG risks are integrated into our Group-wide risk management approach. (see chapter "Risk report").

Employees

The commitment and skills of our employees are a vital cornerstone for Deutsche Börse Group. Together with our core corporate values of performance, reliability, integrity, openness and responsibility they define our corporate culture. At the same time they form the basis of our commercial success. For this reason we have an active People strategy, promote diversity, equity and inclusion, and systematically measure how attractive we are as an employer.

People strategy

Working in its four strategic dimensions (Attract, Develop, Engage, Lead), our People strategy aims to attract the best talents, to develop them, to enable them to engage effectively and to continue their personal and professional development. These four dimensions form the foundation for four multi-year initiatives. With these initiatives we want to create a flexible, sustainable working environment that offers our employees excellent working conditions.

We successfully put our hybrid working model into practice in the framework of Trust@Work. With this hybrid working model that spans teams and projects we create the conditions for effective cooperation and focus particularly on important moments at work, mental health and well-being. This process is backed up by DigitizeHR, an initiative to fully digitise our operating HR processes and provide actionable analytics. MissionGrow! is our initiative for improving development opportunities for our employees. We have revised our career model to increase transparency, offer equality of opportunity and create a culture of continuous feedback. Based on the results of our People Survey 2021 and 2022, the first improvements have been implemented and additional focus areas for the WorkFlows initiative defined, in order to make Group-wide corporate processes more efficient and user-friendly as well as to implement dedicated measures based on notable results. The initiatives were launched in 2020 for a period of three years. Most of the milestones have been reached, and the remaining topics were transferred to the line organisation as part of continuous improvement.

Employer attractiveness

We can only achieve lasting success if we attract and retain both new talents as well as specialized, experienced and engaged employees to Deutsche Börse Group and ensure they are enthusiastic about working for us as their employer of choice. In this spirit, we are continuously working on the implementation of our talent attraction strategy by considering the market situation and adjust it accordingly. Our strategy conveys the message that with us new talents become part of an international team that drives positive change and is characterised by curiosity and an open mind. We welcome people from all different origins, age groups and personal backgrounds, and want to give them the opportunity to grow with us. We achieve this via a number of employee development programmes. Internal training courses – on cloud technology, digital infrastructure and agile development methods, for example – are the logical continuation of these programmes and form the basis for structured retraining and further training. They are supplemented by mentoring programmes and personality-related training courses; on communication, taking responsibility or becoming a team player, for instance.

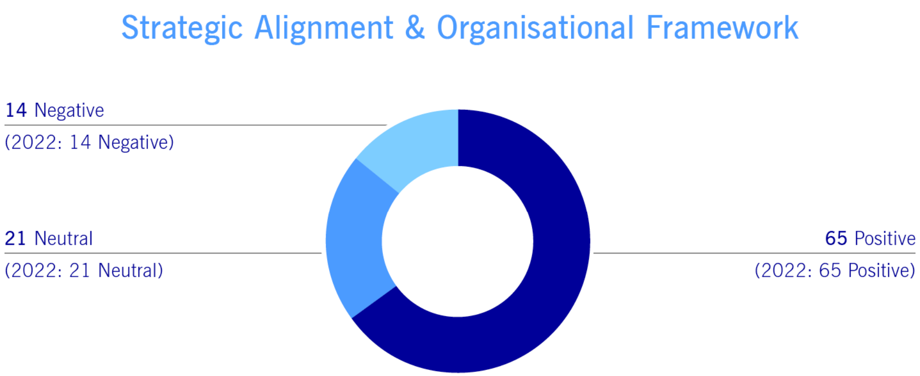
We expanded our existing range of development programmes in 2023. In particular we introduced activities for a structured programme intended to increase mobility between countries, locations and legal entities. In addition, we continued the LightUp! events for managers that were launched the previous year, which focus on refreshing competences and on expectations of modern managers. Taken as a whole, these formats strengthen our people development offering.

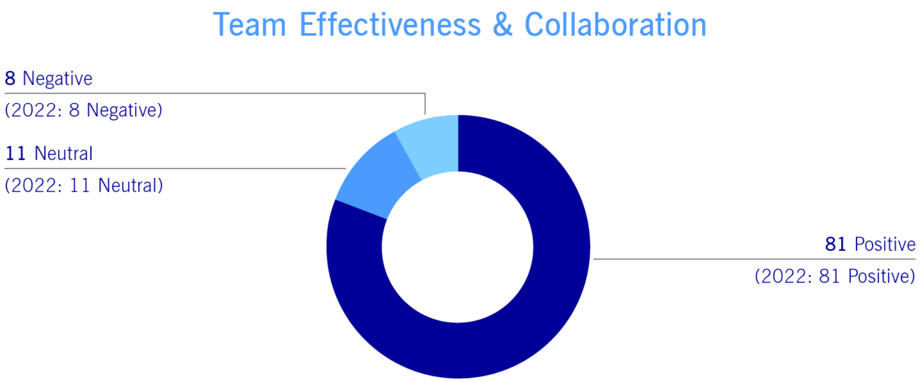
Further information about participation by employees and managers in training and development measures can be found in the table “Key data on Deutsche Börse Group’s workforce as of 31 December 2023”.

In our annual staff survey, the People Survey, which also deals with subjects such as pervading strategy and teamwork, we got very satisfying marks for our attractiveness as an employer (82 per cent approval). The largely positive feedback underlines how Deutsche Börse Group stands for a working environment which makes it easy for staff to reconcile their career and their private life, with flexible models for working hours, allowances for childcare, part-time degree courses and part-time work. We also measure the average value of the two topics Strategic Alignment & Organisational Framework and Team Effectiveness & Collaboration annually. Our goal is to achieve an average value of more than 71.5 per cent in both topics. In 2023 we achieved a value of 73.0 per cent (without SimCorp). The following graph “Results of our annual People Survey 2023” shows what employees think about the subjects of understanding strategy and teamwork.

Results of our annual "People Survey 2023"

in %





Promotion of diversity and inclusion

Deutsche Börse Group operates around the world. At our 56 locations around the world we have over 14,000 employees from the most diverse cultural backgrounds. Our diversity is not only apparent in the origins of our employees, however, but also in the breadth of professional expertise and the many other differences that make up each individual personality in our team.

We are convinced that this diversity is decisive for our global success. We see the wealth of individual characteristics and strengths as the key to fulfilling our corporate purpose. For this reason, we strive to create an inclusive working environment in which everyone feels welcome and where they feel comfortable about contributing their ideas.

We are a signatory of the "Diversity Charter" and "Women's Empowerment Principles (WEPs)" and acknowledge our corporate social responsibility as expressed in the Code of Conduct that applies throughout the Group. A public Diversity, Equity & Inclusion statement, in which we express our appreciation of all present and future employees and a Diversity, Equity & Inclusion policy constitute further elements of our diverse and inclusive working environment. We were also certified as a Fair Pay Analyst in 2023 for our successful endeavours to pay our staff regardless of their gender.

We do not tolerate any discrimination, whether on the grounds of age, gender, physical or health disability, sexual orientation and identity, ethnic origin or belief and irrespective of whether behaviour among employees or the placing of orders with third parties is concerned. We have therefore implemented processes designed to take equal treatment into consideration in the selection of staff and enable the Group to take prompt action whenever discrimination is suspected. Relevant cases were reported in 2023 either by our whistleblower system, to the respective Line Management or directly to the local Human Resources Department. All relevant cases requiring further remedial actions have been dealt in a fully compliant manner ensuring a high level of dignity, and closed.

Furthermore, we deliberately decided against the centralised management of our diversity, equity and inclusion programmes. The members of our Diversity, Equity & Inclusion council represent our global workforce and our different minorities; they inform and advise the Executive Board on initiatives and act as trusted third parties and personal contacts for the employees. The council strives to ensure that our everyday workspace continues to be a place where everyone feels appreciated and gets the opportunities they deserve. We also introduced the function of Chief Sustainability and Chief Diversity Officer in our Group in 2023, who is responsible for our diversity, equity and inclusion endeavours. The responsibilities of this dual role complement one another and underline the priority that we at Deutsche Börse Group give to all dimensions of environmental, social and governance policy. It remains a particular aspiration for us to increase the proportion of women at the management level. Our various programmes for promoting talent, and so also for qualifying women for management positions, contribute to the long-term advancement of women. In addition to our programmes, other measures include focused succession planning, as well as internal and external mentoring and training programmes. Exchanges among female colleagues are encouraged by an internal women's network. We provided special support for applicants and our employees directly and indirectly affected by the military conflict in Ukraine. We are also committed to providing better opportunities for underprivileged people through dedicated programmes. For details regarding targets for female quotas, please refer to the section entitled "Corporate governance statement – target figures for the proportion of female executives beneath the Executive Board" and the "Comparison with the forecast for 2023".

The results of our staff survey on diversity, equity and inclusion confirm that our employees feel that they are welcome here with us (90 per cent positive) and that they are treated fairly and respectfully by their managers (94 per cent positive), regardless of their ethnic origins, their gender or their cultural background. This positive feedback reaffirms our intention to keep expanding our programme for diversity, equity and inclusion, in the spirit of creating a fully inclusive working environment.

Staff developments

As at 31 December 2023, Deutsche Börse Group employed a total of 14,502 staff (women: 5,836; men: 8,643; other: 23; 31 December 2022: 11,078), drawn from 131 nationalities at 56 locations worldwide. The average number of employees in the reporting period was 12,187 (2022: 10,675). At Group level, this corresponds to an increase of around 14.2 per cent compared with the previous year.

Our fluctuation rate was 10.9 per cent (31 December 2022: 14.8 per cent). At the end of the year under review, the average length of service for the company was 6.7 years (2022: 6.8 years).

The number of Deutsche Börse AG's employees rose by 885 during the year under review to 2,657 as at 31 December 2023 (comprising 980 women and 1,677 men; 31 December 2022: 1,772). The average number of employees at Deutsche Börse AG in the 2023 financial year was 2,219 (2022: 1,752). On 31 December 2023, employees of Deutsche Börse AG worked at 8 locations.

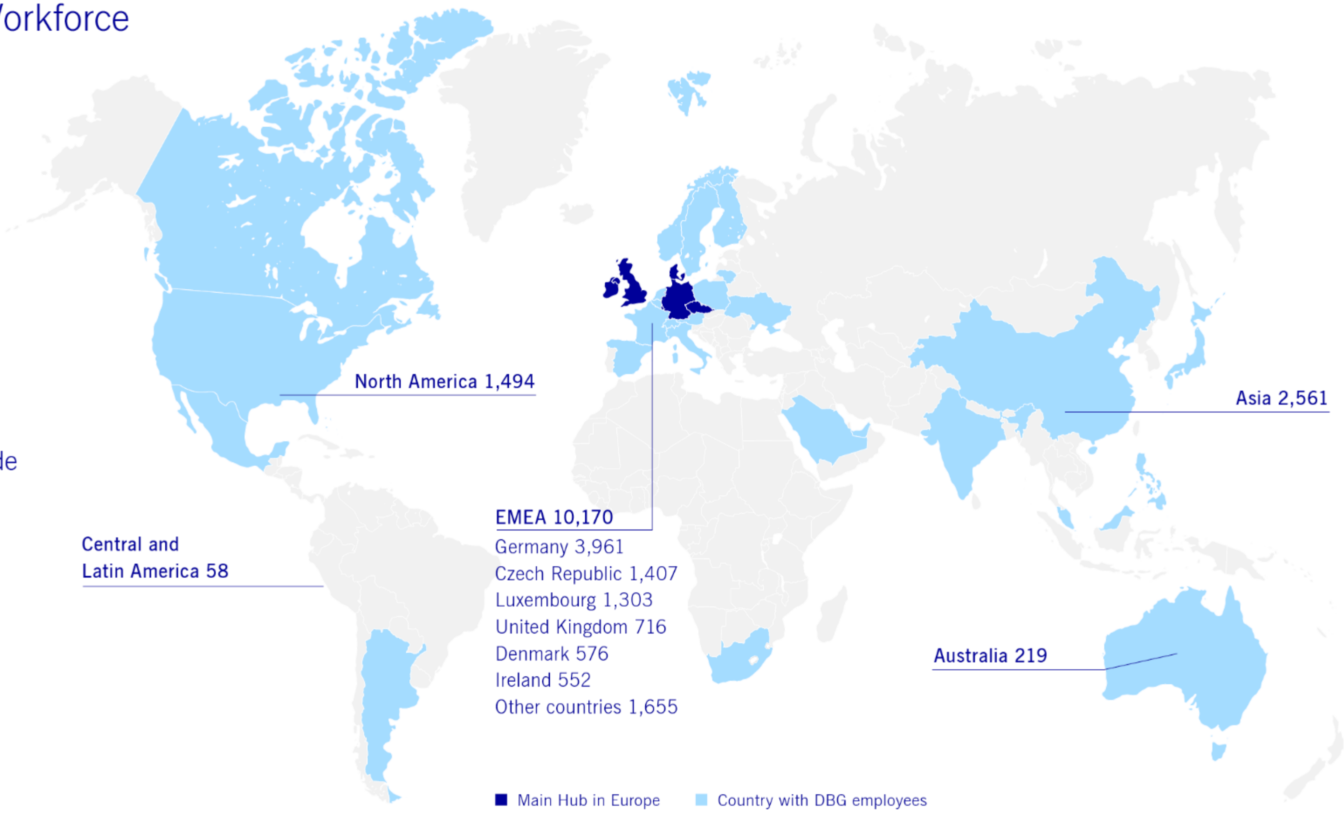
For more details, please refer to the table entitled "Key data on Deutsche Börse Group's workforce as at 31 December 2023".

Deutsche Börse Group: Our Workforce

14,502
Employees

56
Locations worldwide

131
Nationalities



Key data on Deutsche Börse Group's workforce as of 31 December 2023 (part 1)

	Deutsche Börse AG		Deutsche Börse Group					
	All locations		Germany		Czech Republic		Luxembourg	
	Male	Female	Male	Female	Male	Female	Male	Female
Employees (Headcount)[1]	**1,677**	**980**	**2,350**	**1,608**	**847**	**559**	**794**	**509**
50 years and older	454	171	696	330	55	18	285	133
40–49 years	471	223	628	401	281	140	232	148
30–39 years	554	410	779	645	354	241	190	159
Under 30 years	198	176	247	232	157	160	87	69
Average age	42	39	43	40	37	35	44	41
Employee classification								
Full-time employees	1,632	792	2,237	1,180	834	498	759	386
Part-time employees	45	188	113	428	13	61	35	123
Length of service								
Under 5 years (%)	45	49	42	46	53	58	38	39
5–15 years (%)	35	34	34	33	43	41	26	26
Over 15 years (%)	20	17	24	21	4	1	36	35
Staff turnover								
Joiners	199	137	274	219	210	155	81	70
Leavers	91	50	164	109	81	38	52	42
Training								
Training days per employee (FTEs)	6.2	6.5	4.8	5.5	5.4	5.9	5.7	4.4

1) Due to missing information (e.g. gender), headcounts of subcategories do not always add up to the total.

Key data on Deutsche Börse Group's workforce as of 31 December 2023 (part 2)

	Deutsche Börse Group								
	United Kingdom		Ireland		USA		Other locations		
	Male	Female	Male	Female	Male	Female	Male	Female	Total (part 1 and 2)
Employees (Headcount)[1]	**496**	**220**	**266**	**286**	**878**	**442**	**3,012**	**2,212**	**14,502**
50 years and older	140	27	24	18	207	118	360	164	2,580
40–49 years	149	62	75	107	231	100	669	374	3,599
30–39 years	140	88	79	98	260	114	1,061	772	4,989
Under 30 years	67	43	88	63	180	110	922	902	3,334
Average age	42	38	36	37	40	40	36	34	39
Employee classification									
Full-time employees	487	209	265	252	875	433	2,964	2,120	13,522
Part-time employees	9	11	1	34	3	9	48	92	980
Length of service									
Under 5 years (%)	55	53	61	42	54	56	69	71	55
5–15 years (%)	37	38	19	27	36	30	23	22	30
Over 15 years (%)	8	9	20	31	10	14	8	7	15
Staff turnover									
Joiners	72	38	42	47	119	53	473	371	2,225
Leavers	49	27	53	18	108	49	295	241	1,330
Training									
Training days per employee (FTEs)	1.4	1.4	3.0	4.3	0.7	1.0	1.5	1.2	3.3

1) Due to missing information (e.g. gender), headcounts of subcategories do not always add up to the total.

Customers and markets

Regarding the value creation for our customers and our market, we have identified, in addition to the measurable performance indicator of system availability (see section ”Strategy and steering parameters”), two other important qualitative parameters as part of our materiality analysis: information security and corporate responsibility. Our products and services contribute to increase transparency for market participants and to enable them to price in and integrate market developments, changes and transformations. In this way, we enable our customers and market participants to make better-informed decisions.

System stability and availability

The availability of our customer-facing trading systems is an important indicator of the overall quality that we achieve when developing and operating our systems. Deutsche Börse AG operates its trading systems for the cash and derivatives markets as redundant server installations, distributed across two geographically separated, secure data centres. Should a trading system fail, it would be operated from the second data centre. Together with clients, Deutsche Börse successfully simulated this scenario again in 2023 – as well as the impact of local disruptions – within the scope of the FIA Test (the annual disaster recovery exercise conducted by the Futures Industry Association). This kind of disaster recovery test was also carried out after every larger software release. Other disruptions, such as technology malfunctions at individual workstations or personnel failures, were also tested.

Our multiple testing of software, its verified roll-out and the seamless monitoring of servers, networks and applications has brought availability up to over 99.9 per cent in the reporting year. The plan is to introduce further technical measures to gain greater independence from providers of critical infrastructure technologies.

Information security

Security in all its facets has a high priority and is a strong focus of our Group. This does not just involve ensuring the availability of all services, but also the confidentiality of all information and the integrity of data. The range of threats increased again in 2023, not least due to geopolitical challenges and additional conflicts. Deutsche Börse Group is faced with the reality that cyber threats continuously adopt the latest technologies and so develop at high speed, and we adapt our systems and processes accordingly. Global regulation also continues to develop in order to meet the challenges. Deutsche Börse Group uses an extensive framework of policies and processes, supplemented by specific controls and technical abilities based on the international security standard ISO/IEC 27001.

Deutsche Börse Group invests continuously in new security solutions, processes and projects, in order to address effectively the growing number of threats with state-of-the-art security technologies. Security measures are implemented at several levels (defence-in-depth), to reduce the risk of security incidents from individual error sources. To strengthen abilities to defend and protect against cyber-attacks, regular improvements are made to cyber-analysis, cyber-security automation, identification and prevention of attacks, vulnerability management, penetration testing and professional “white hat” attacks on the Group’s own IT.

In addition, the overarching security governance processes are optimised continuously in order to identify risks to IT systems and applications at an early stage and mitigate them. A key building block is the networking and reconnaissance of attack vectors in order to counter them without delay. This takes place via both digital interfaces and intensive exchanges as a member of national associations (Cyber Security Sharing and Analytics, CSSA), trade associations (World Federation of Exchanges, GLEX) and international networks (Financial Services Information Sharing and Analysis Center, FS-ISAC and the Cyber Information and Intelligence Sharing Initiative, CIISI-EU) which contribute significantly towards a forward-looking stance vis-à-vis cyber threats, and the development of strategies to fend off such threats. Furthermore, we are a member of the ECB's Euro Cyber Resilience Board for pan-European financial infrastructures (ECRB) and are in close contact with the DAX40 CERT/CISO working group and the Federal Office for Information Security (BSI).

The information security function checks that the information security and information security risk management requirements are adhered to; it also monitors the systemic integration of, and compliance with, security policies in the context of product and application development. We operate a situation centre (Cyber Emergency Response Team, CERT) to detect and assess threats from cybercrime at an early stage, and coordinate risk mitigation measures in cooperation with the business units. The security of Deutsche Börse Group is also defined via its ecosystem of suppliers and outsourcing partners, which are integrated into the security concept. These partners are also benchmarked against Group requirements and integrated into the risk assessment.

The effectiveness of physical security is also permanently reviewed, with similar assessments and measures. A new security system was implemented in the offices at the individual locations around the world in 2023.

For a description of the risks in connection with information security we refer to the section in the chapter "Risk report".

ESG products

The Deutsche Börse Group can increase its information transparency for investors, founders, asset managers and market participants, but also for external observers, by including ESG aspects in its product portfolio – be it by integrating ESG ratings, data and/or analysis, or by reporting data on trading volumes for securities, derivatives, renewable energies and/or commodities. For an overview of our ESG products, we refer to the GRI index.

Compliance

Responsible business operations imply adherence to laws and regulations; they are also based on the principle of integrity and ethically irreproachable conduct at all times. We have implemented a compliance management system (CMS), which aims to prevent misconduct and avoid liability and reputational risks for the Deutsche Börse Group, its legal representatives, executives and staff. Beyond business-related and regulatory compliance requirements, the focus is on continuously strengthening compliance awareness throughout the Group.

Code of business conduct

Our Group's code of business conduct summarises the most important aspects with regard to corporate ethics and compliance as well as appropriate conduct. It is communicated to all employees in the Group and is available on the internet and intranet sites. Our code of business conduct summarises our core values and principles, which are intended to act as support for decision-making and enforce market integrity, transparency, efficiency and security. As a member of the AG Global Compact, Deutsche Börse AG is also committed to its principles, notably to support human and labour rights, to protect the environment and to work against corruption in all its forms, which includes extortion and bribery.

Objectivity and integrity are the guiding principles for employees of Deutsche Börse Group. Our management is fully aware of their function as role models and the importance of the "tone from the top", which makes it possible to draw the attention of every individual employee towards managing compliance risks, both within the Group and among market participants. In order to sustainably anchor these guiding principles, and to prevent the Group and its staff from legal sanctions and reputational damage, Group Compliance has implemented risk-based compliance and preventive measures.

Compliance management system

An effective compliance management system (CMS) constitutes an indispensable element of good corporate governance. The Group Compliance function manages the CMS as a second line of defence function and ensures compliance with legislation, regulations and internal rules, and promotes best practice within the Group. In addition, the Group Compliance function monitors, controls and implements risk-based measures to mitigate risks with negative impacts (e.g. direct or indirect financial losses, regulatory penalties or reputational damage). On this basis the CMS provides the foundation for sustainable risk transparency; specifically, it facilitates the reduction of compliance risks in the areas of money laundering/terrorism financing, criminal offences, data protection, corruption, market manipulation, conflicts of interest and insider trading, as well as monitoring of requirements concerning financial sanctions and embargoes.

The appropriateness and effectiveness of the CMS are evaluated at least once a year on the basis of the individual CMS elements. The results are then presented to the Audit Committee of the Supervisory Board of Deutsche Börse AG. The CMS elements particularly comprise:

- **Compliance risk analyses** – Identified and assessed risks provide the basis for determining the scope and focus of compliance activities and the management of the compliance risk profile.
- **Policies** – Compliance requirements that are regularly updated in accordance with applicable legislation, regulations and defined compliance targets.
- **Controls** – Regular and ad hoc controls are carried out to detect any compliance deficits.
- **Training** – Creation of a compliance mindset and appreciation by means of compliance training.
- **Reporting –** Regular and ad hoc reporting to the relevant stakeholders.
- **Internal & external audits** – Independent and objective review of the CMS in terms of its suitability and effectiveness, and identification of improvement potential.
- **Ongoing development of the CMS** – Projects and internal initiatives for the continuous development of the CMS.

To ensure that the CMS is suitable and effective, and to reflect increasing complexity and growing regulatory demands, the CMS is regularly enhanced and improved. When determining the focus and improvements of the CMS, we are guided by applicable prudential legislation and regulatory requirements, as well as by the recommendations of internationally accepted standards. Based on these standards, Group Compliance identifies fields of action and measures to continuously adapt the CMS to changing requirements.

Compliance organisational structure

The Group Chief Compliance Officer reports directly to the Executive Board of Deutsche Börse AG. Compliance reporting comprises the relevant compliance risks in the context of the compliance mandate, as well as other compliance-relevant information and activities.

The Group Compliance Committee is an interdisciplinary committee at management level that aims to support and advise the respective Executive Boards and Compliance functions within Deutsche Börse Group on compliance topics. Committee members are the senior managers of the business units, the Chief Compliance Officers and representatives of the relevant control functions for the Group as a whole.

In the context of the current geopolitical events and the resulting potential economic and political consequences, Deutsche Börse continues to analyse which risks could have an impact in the individual business areas and which measures need to be taken and implemented.

Data protection/protection of personal data

Data protection serves to protect the personal data of individuals. It aims to protect the privacy of employees and customers, but also of third parties, such as service providers. To guarantee data protection, personal data may only be processed on the basis of a corresponding justification and in compliance with the principles of data protection.

We again took steps to comply with data protection legislation in 2023, particularly in terms of appropriate and transparent processing of personal data, and continuously developed our processes. The Executive Board appointed a data protection officer years ago and established the Group data protection function, which helps to ensure compliance with the data protection framework, itself based on the EU General Data Protection Regulation. It also drives the sustained development of a data protection culture in Deutsche Börse Group, which takes current commercial requirements and legislative changes into account by means of training courses and awareness activities.

The Group data protection function assumes the role of data protection officer for Group companies, insofar as this is required by law and it has been given the mandate as a central function. In this regard, the data protection function in-forms and advises the individual legal entities on data protection requirements. The data protection function also serves as a contact for data protection authorities, and supports the business units in their assessments of the data protection risks.

The data protection function's framework, as a second line of defence, is incorporated into the structure of our compliance safeguards. The data protection officers inform the respective Executive Boards annually and in an event-related manner on the status of data protection within the company and the measures to expand the data protection framework.

Key figures: corruption and data protection

		2023	2022
Corruption			
Prosecuted corruption cases		0	0
Percentage of business units for which measures have been taken to address corruption risks	%	100	100
Number of employees who were trained in ABC measures (anti-bribery and corruption)[1,2]		8,181	1,563
Data protection			
Number of justified customer complaints relating to data protection		0	0

1) Employees of Deutsche Börse Group must repeat the web-based ABC training every two years. The training was revised in 2023, which is why the number of participants is significantly higher than in 2022.
2) The information is based on the employees that are connected to the central HR system. Group companies that are not connected to the HR system carry out compliance training on their own responsibility and not via the Group function.

Social environment

Our value creation also goes far beyond the areas of direct concern to us as a company. Accordingly, for example, the environment, human rights issues in the supply chain or participation in financial centre initiatives fall within our focus.

Environment

We endeavour to contribute to the Paris Climate Agreement with our business activities. In 2023, we have adapted our climate targets in line with current market standards towards a long-term climate strategy. This comprises near-term targets by 2030 and a net-zero target by 2045:

Near-term targets:

- Scope 1 & 2: Deutsche Börse aims to reduce absolute scope 1 and 2 emissions by 42% by 2030 from a 2022 base year
- Scope 3: Deutsche Börse targets to reduce absolute scope 3 emissions from fuel and energy-related activities, business travel and employee commuting by 42% by 2030 from a 2022 base year
- Scope 3 Supplier Engagement: Deutsche Börse aims that 87% of its suppliers, as measured by its emissions of purchased goods and services and capital goods, will have science-based targets by 2028

Net-zero target:

- Scope 1, 2 & 3: Deutsche Börse strives to reduce its absolute Scope 1, 2 and 3 emissions by 90% by 2045, from a 2022 base year

These targets are to be validated by the Science-Based Targets Initiative in the first quarter of 2024. To achieve our targets, we will develop a transition plan in 2024, which will contain dedicated emission reduction measures.

We provide our stakeholders with transparent information about our environmental performance in our annual GRI Index. Last year we also published a progress report on the basis of the TCFD recommendations. This report summarises the information about how we deal with climate risks and opportunities and our science-based targets. Further information can be found on our homepage.

Stakeholder engagement

We continuously review the regulatory requirements and the demands made of us by rating agencies and (voluntary) market standards and initiatives. At the same time, we permanently and systematically seek dialogue with our internal and external stakeholders and thus determine the focus topics of our work. To do so we use investor days, employee and customer surveys, discussions with rating agencies and society at large, involvement in various initiatives and our regular materiality analysis, in which we ask our stakeholders about our company and our impact on society and the economy. Regarding the initiatives that we support, we refer to our homepage.

ESG ratings

We use this external validation of our own ESG efforts through ESG ratings to continuously improve and sharpen our ESG profile. Insights from the ESG rating processes were also factored into our materiality analysis. The following rating agencies measure the sustainability performance of Deutsche Börse AG every year and play a particularly important role for us:

ESG Ratings

	Rating	
Rating agency	2023	2022
S&P	70	79
Sustainalytics	83	82
MSCI	AAA	AAA

Human rights

Our management approach for a Group-wide commitment to sustainability includes respect for human rights both in the supply chain and within the company. We have therefore published a Deutsche Börse Group Statement on Human Rights. It relates to Deutsche Börse AG and its subsidiaries and covers our relationships with employees, suppliers and customers. For this purpose, Deutsche Börse AG and centrally-serviced Group companies require their suppliers to comply with ethical standards of conduct in their dealings with employees, suppliers, customer and other third parties. This takes place in accordance with our Code of conduct for suppliers, the Code of business conduct and the policy statement on the human rights strategy of Deutsche Börse AG in accordance with section 6 (2) Supply Chain Due Diligence Act (LkSG).

EU Taxonomy

The EU Taxonomy is a key EU measure to implement the European Green Deal and the Sustainable Finance action plan which are intended to achieve climate-neutrality by 2050. The EU Taxonomy is a classification system that categorises economic activities as environmentally sustainable in terms of the following six environmental objectives:

- Climate change mitigation
- Climate change adaptation
- Sustainable use and protection of water and marine resources
- Transition to a circular economy
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems

Article 8 of the EU Taxonomy defines the disclosure requirements for the proportion of turnover, capital and operating expenditure derived from and related to environmentally sustainable economic activities as well as energy production from nuclear energy and fossil gas.

Principles for determining the proportion of Taxonomy-eligible environmentally sustainable economic activities

Turnover

The Taxonomy-eligible turnover is divided by the Group's total turnover to determine the proportion of Taxonomy-eligible turnover. The denominator is based on sales in accordance with IAS 1.82(a) as presented in the consolidated statement of comprehensive income. For further details, please refer to note 4, table "Composition of our net revenues" (Part 1-2)"), column "Net revenues 2023").

For financial year 2023 we have not identified any Taxonomy-eligible turnover within the scope of application of the delegated acts.

Capital and operating expenditure

The proportion of Taxonomy-eligible capital expenditure (CapEx) is determined by dividing the Taxonomy-eligible capital expenditure by total additions to intangible and tangible assets. For further details, see note 10, table "Intangible assets" and note 11, table "Property, plant and equipment (incl. right-of-use assets)", lines "Additions".

Likewise, to determine the proportion of Taxonomy-eligible operating expenditure (OpEx), the Taxonomy-eligible operating expenditure is divided by the Group's total operating expenditure. For further details, see note 6, table "Composition of other operating expenses".

For financial year 2023 we have not identified any Taxonomy-eligible capital or operating expenditure within the scope of application of the delegated acts.

Energy production from nuclear energy and fossil gas

For financial year 2023 we have not identified any economic activities at Deutsche Börse Group involving energy production from nuclear energy and fossil gas.

The following tables provide an overview of the proportion of Taxonomy-eligible environmentally sustainable economic activities for the 2023 financial year:

Turnover

				Substantial contribution criteria						DNSH criteria ("Does Not Significantly Harm")									
Economic Activities	Code	Turnover	Proportion of Turnover, year 2023	Climate Change Mitigation	Climate Change Adaptation	Water	Pollution	Circular Economy	Biodiversity	Climate Change Mitigation	Climate Change Adaptation	Water	Pollution	Circular Economy	Biodiversity	Minimum Safeguards	Proportion of Taxonomy aligned (A.1.) or -eligible (A.2.) turnover, year 2022	Category enabling activity	Category transitional activity
		in €m	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)			0%	0%	0%	0%	0%	0%	0%								0%		
Of which enabling			0%	0%	0%	0%	0%	0%	0%								0%		
Of which transitional			0%	0%													0%		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)			0%	0%	0%	0%	0%	0%	0%								0%		
A. Turnover of Taxonomy-eligible activities (A.1+A.2)			0%	0%	0%	0%	0%	0%	0%								0%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities		5,133.2	100%																
TOTAL		5,133.2	100%																

Capital expenditures (CapEx)

Economic Activities	Code	CapEx	Proportion of CapEx, year 2023	Substantial contribution criteria: Climate Change Mitigation	Climate Change Adaptation	Water	Pollution	Circular Economy	Biodiversity	DNSH criteria ("Does Not Significantly Harm"): Climate Change Mitigation	Climate Change Adaptation	Water	Pollution	Circular Economy	Biodiversity	Minimum Safeguards	Proportion of Taxonomy aligned (A.1.) or -eligible (A.2.) CapEx, year 2022	Category enabling activity	Category transitional activity
		in €m	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)			0%	0%	0%	0%	0%	0%	0%								0%		
Of which enabling			0%	0%	0%	0%	0%	0%	0%								0%		
Of which transitional			0%	0%													0%		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)			0%	0%	0%	0%	0%	0%	0%								0%		
A. CapEx of Taxonomy-eligible activities (A.1+A.2)			0%	0%	0%	0%	0%	0%	0%								0%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities		301.2	100%																
TOTAL		301.2	100%																

Operating expenditures (OpEx)

Economic Activities	Code	OpEx	Proportion of OpEx, year 2023	Substantial contribution criteria: Climate Change Mitigation	Climate Change Adaptation	Water	Pollution	Circular Economy	Biodiversity	DNSH criteria ("Does Not Significantly Harm"): Climate Change Mitigation	Climate Change Adaptation	Water	Pollution	Circular Economy	Biodiversity	Minimum Safeguards	Proportion of Taxonomy aligned (A.1.) or -eligible (A.2.) OpEx, year 2022	Category enabling activity	Category transitional activity
		in €m	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)			0%	0%	0%	0%	0%	0%	0%								0%		
Of which enabling			0%	0%	0%	0%	0%	0%	0%								0%		
Of which transitional			0%	0%													0%		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)			0%	0%	0%	0%	0%	0%	0%								0%		
A. OpEx of Taxonomy-eligible activities (A.1+A.2)			0%	0%	0%	0%	0%	0%	0%								0%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities		695.8	100%																
TOTAL		695.8	100%																

Nuclear and fossil gas related activities

Row	Nuclear energy-related activities	
1.	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	No
2.	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	No
3.	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	No
	Fossil-gas-related activities	
4.	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	No
5.	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	No
6.	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	No

Risk report

We provide the infrastructure for dependable and secure capital markets and contribute constructively to its regulation. A responsible approach to risk management forms an integral part of our business model and our corporate strategy.

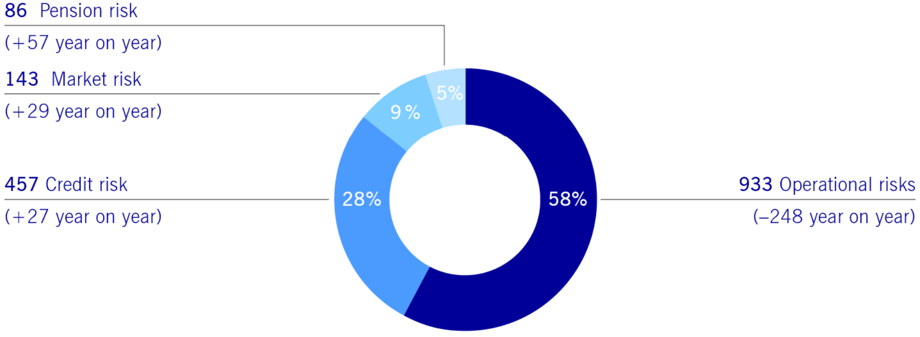
Risk profile Deutsche Börse Group

Overview of the risk profile and material changes compared with the previous year

DBAG is the Group parent company and thus the parent of all the companies that form part of Deutsche Börse Group. In key aspects its risk profile therefore represents risks at the level of its subsidiaries, which include providers of strictly regulated financial market infrastructure. Risk at Deutsche Börse Group is expressed in terms of required economic capital (REC), which is calculated on the basis of assumptions. Required economic capital as at 31 December 2023 amounted to €1,619 million (2022: €1,754 million). It is covered by a risk-bearing capacity, derived from shareholders' equity, of €8,898 million (2022: €7,742 million). The risks of Deutsche Börse Group are therefore covered by its risk-bearing capacity. Looking at the Group companies it can be said that DBG has a conservative risk profile and that it monitors and limits risks closely.

The required economic capital is made up of operational risks, financial risks (including credit and market risks), business risks and pension risks. The following chart shows the specific breakdown of risks as at 31 December 2023:

Deutsche Börse Group's risk profile
based on required economic capital in €m



There have been no material changes in the DBG risk profile compared to the previous year. The reduction of the required economic capital is partly due to a revision of scenarios at Clearstream Securities Services (€-81 million) and for non-banks. Including Crypto Finance in full caused credit risk to increase by €27 million and market price risk by €10 million. Methodological changes resulted in an increase of €57 million in the pension risk.

In addition to the economic capital, which is measured by means of internal risk models, the normative perspective (regulatory capital requirements) is determined for the regulated companies.

Regulatory classification

Within Deutsche Börse Group it is mainly the subsidiaries of Deutsche Börse AG (DBAG) that are subject to strict regulatory requirements. DBAG itself is not a bank and has not been classified as a financial holding company by the Bundesanstalt für Finanzdienstleistungsaufsicht, so it is not itself subject to supervision as a bank. DBAG aligns its risk management with the standards for companies, and parts of the standards for banks are applied if they are appropriate. In view of their economic importance we particularly discuss the banks in our Group, namely Clearstream Banking S.A., Clearstream Banking AG, Clearstream Fund Centre S.A. and Eurex Clearing AG. Further details are also provided for European Commodity Clearing AG as a central counterparty (CCP) according to the European Market Infrastructure Regulation (EMIR).

Material developments compared with the previous year

Clearstream Fund Centre S.A., a separate legal entity, was established at the beginning of 2023 for the fund business of Clearstream Banking S.A. and Clearstream Banking AG. This is a subsidiary of DBAG. Business activities in the fund business are reported in the Fund Services segment. Clearstream Fund Centre S.A. is a bank and must meet CRR requirements in this respect. It is also regulated under MiFID, and one of its main purposes is to support customers to meet their regulatory fund requirements in accordance with MiFID.

DBAG acquired 100 per cent of the shares in SimCorp A/S in late October after a public takeover offer. The risks related to the acquisition of SimCorp have been examined and as at 31 December 2023 it was found that it does not materially change the overall risk profile of Deutsche Börse Group. The current integration of Axioma with SimCorp entails an increased operational risk in connection with the successful completion of the integration project.

Clearstream Banking AG and Clearstream Banking S.A. have to meet combined capital requirements (Complementary Approach Ratio) as from April 2023. These result from the capital requirements of the Central Securities Depositories Regulation (CSDR) and the Capital Requirements Regulation (CRR, for details see “Regulatory capital requirements and regulatory capital ratios”).

Clearstream Banking S.A. remained affected in 2023 by Russia’s large-scale invasion of Ukraine, which required a considerable amount of management attention. Developments continue to be monitored closely in order to analyse the various impacts of the Russia-Ukraine war. The main focus was on adapting processes and controls to the countermeasures that Russia has taken in response to western sanctions. Clearstream Banking S.A. started to reduce its customer relations to Russian state actors massively following the first invasion of Ukraine in 2014.

In terms of the Middle East conflict that broke out in October 2023, an analysis carried out across the Group did not determine any material impact on the overall risk profile.

Notes on material changes in substantial litigations as well as tax risks are described in more detail in note 25 “Financial liabilities and other risks” in the consolidated financial statements and are an integral part of this combined management report.

Relevant regulations

Our banks follow international standards and comply with the minimum capital requirements set by the CRR. In addition, they rely on the banking processes to ensure the adequacy of capital and liquidity (Internal Capital Adequacy Assessment Process, ICAAP, and Internal Liquidity Adequacy Assessment Process, ILAAP), which comprise internal stress tests and constitute a core component of the risk management approach.

Our banks Clearstream Banking AG, Clearstream Banking S.A., Clearstream Fund Centre S.A. and Eurex Clearing AG calculate their regulatory capital requirements in line with the applicable CRR, which conforms to the first pillar of the Basel Standard for Bank Supervision. Eurex Clearing AG and European Commodity Clearing AG meet the CRR requirements and also the capital requirements of European Market Infrastructure Regulation (EMIR). Clearstream companies must also comply with the Minimum Requirements for Own Funds and Eligible Liabilities (MREL). The central securities depositories Clearstream Banking AG and Clearstream Banking S.A. are also subject to the Central Securities Depository Regulation (CSDR). For details see the section “Regulatory capital requirements and regulatory capital ratios”.

Eurex Clearing AG and European Commodity Clearing AG are authorised as central coun-terparties (CCPs) and are subject to the requirements of EMIR and the Recovery and Resolution of Central Counterparties (CCP RR) regime. By contrast, recovery and resolution plans for the Clearstream companies and Clearstream Fund Centre S.A. are ensured by their compliance with the EU Banking Recovery and Resolution Directive (BRRD).

In addition to the European requirements, there are national requirements of the Minimum Requirements for Risk Management (MaRisk) issued by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin), requirements of the German Banking Act as well as the circular 12/552 issued by the Financial Supervisory Authority of Luxembourg (Commission de Surveillance du Secteur Financier, CSSF) to be mentioned.

Other subsidiaries have different licences to provide services in the financial industry, which means they too are governed by extensive statutory requirements, including for risk management. Clearstream Banking AG maintains a central register within the meaning of the Electronic Securities Act (eWPG), for example. Eurex Repo GmbH and 360 Treasury Systems AG are also subject to specific provisions applicable to investment firms. Nodal Clear, LLC is a Derivatives Clearing Organisation (DCO) subject to regulation by the US Commodity Futures Trading Commission (CFTC). Crypto Finance AG is authorised to operate a securities business under Article 41 of the Swiss Financial Institution Act (FINIG), whereas Crypto Finance (Asset Management) AG is authorised as an asset manager for collective investment schemes under the Swiss Collective Investment Scheme Act (KAG). Both are subject to supervision by the Swiss Financial Market Supervisory Authority (FINMA). Our recently acquired subsidiary SimCorp is basically a non-regulated company. It was subject to the Danish Financial Supervisory Authority (DFSA) only because it was listed on the stock exchange. It was delisted from Nasdaq Copenhagen on 30 October 2023 following the takeover by Deutsche Börse AG. With the delisting SimCorp is no longer subject to the Danish Financial Supervisory Authority

(DFSA) and Nasdaq Copenhagen. For further details, see the section "Regulatory capital requirements and regulatory capital ratios".

The Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and Bundesbank supervise our banks, Clearstream Banking AG, Eurex Clearing AG and Clearstream Holding AG. The CSSF and Banque Centrale du Luxembourg (BCL) supervise Clearstream Banking S.A. and Clearstream Fund Centre S.A. The public exchanges are the Frankfurter Wertpapierbörse (FWB) and Eurex Deutschland (futures exchange) (ED). Deutsche Börse AG is responsible for the operation of the Frankfurter Wertpapierbörse (Frankfurt Stock Exchange). Eurex Deutschland is operated by Eurex Frankfurt AG. The exchanges are supervised by the Hesse Exchange Supervisory Authority. The Hesse Exchange Supervisory Authority is responsible for operating and legal supervision. It is part of the Hesse Ministry for the Economy, Energy, Transport and Housing.

Goals and principles of risk management

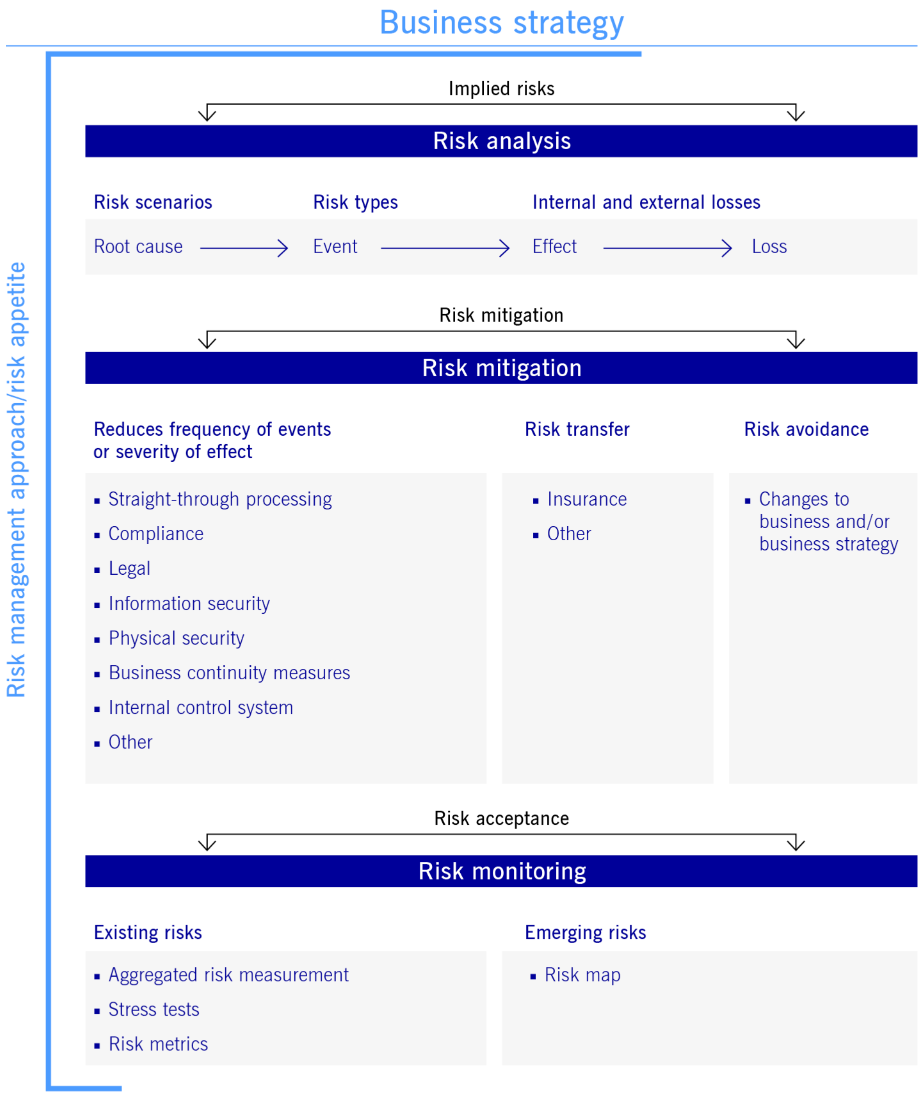
Deutsche Börse Group strives for a leading role in all our business areas. We provide the infrastructure for dependable and secure capital markets and are involved constructively in its regulation. We align our risk management approach with our business model and our corporate strategy.

Our risk management approach is based on the following principles: risk limitation, implementation of the business strategy in line with the risk appetite, and a reasonable relationship between risk and return.

In the course of growth by the business segments (e.g. organic growth, M&A activities, extension of the leading position in digital platforms for existing and new asset classes), risk management supports implementation of the strategy in line with the risk appetite by identifying risks, communicating clearly, limiting risks and monitoring. The aim is make well-founded strategic decisions within the boundaries of the defined risk appetite. Embedded cross-cutting risks such as ESG risks are also considered.

We aim to achieve an appropriate balance between risk and return. Internal risk management is based on the Group-wide detection and management of risk, see the chart "Interlocking business strategy and risk management strategy".

Interlocking business strategy and risk management approach



Risk management approach

Risk analysis

We primarily adopt an economic perspective to quantify and aggregate risks. For the banks that are the focus of the following comments – particularly including Clearstream Holding AG, Clearstream Banking S.A. Clearstream Banking AG, Clearstream Fund Centre S.A. and Eurex Clearing AG – and the securities firms - in the Group, this is supplemented by the normative perspective, which is discussed in more detail in the section “Regulatory capital requirements and regulatory capital ratios (normative perspective)”. The value at risk (VaR) model is the main tool for quantifying risks. The purpose of the VaR model is to determine the amount of economic capital – given a confidence interval of 99.9 per cent defined ex ante – required to cover very unlikely but possible losses incurred within twelve months. Moreover, we carry out stress tests in order to simulate extreme, yet plausible, events and their impact upon the Group’s risk-bearing capacity. Complementary risk metrics have been established as an additional approach to risk monitoring, which serve as an early warning system for in-house risks. These risk metrics are based on operational risks (including IT and security risks, potential losses), credit, liquidity and business risks, as well as the indicators defined for recovery plans.

Stress tests are carried out in order to simulate separately and in aggregate extreme but plausible events for all material types of risk. They simulate the occurrence of extreme losses or the accumulation of large losses within a single year. Both hypothetical and historical scenarios are used and calculated for the banks and securities firms in the Group. Reverse stress tests are also carried out. They calculate which loss scenarios or liquidity squeezes would have to materialise for the risk-bearing capacity to be exceeded from a capital or liquidity perspective. Additional adverse scenarios are simulated for the relevant supervisory perspective (normative perspective) by the banks and securities firms. The recovery plans for the banks include additional recovery stress tests.

Risk mitigation

The steps to mitigate material risks are described in detail in the sections "Operational risks", "Credit risk" and "Structure of the internal control system".

Risk monitoring

We use quantitative and qualitative approaches and methods for risk monitoring, with the objective of providing as complete a picture as possible of our risk situation. To this end, the Group continuously reviews internal events with regard to their risk properties, whilst also considering regional as well as global developments. We are thus able to recognise and analyse existing risks; at the same time, it is able to swiftly and adequately respond to emerging risks, as well as to changes in the market or in the business environment.

Risk metrics are used to quantify the most important internal risks against set limits. These supplement the risk quantification from the economic perspective and serve to monitor management indicators other than the capital requirement, and non-quantifiable risks. Any under- or overshoot of the defined limits serves as an early warning signal, which is reported to the Executive Board on a monthly basis. Furthermore, any such breach immediately triggers the necessary analysis and risk mitigation processes.

Our risk management approach also includes a sustainable, long-term component. In addition to the current existing risks, additional risks are also considered over a horizon of twelve months. For this purpose, we have developed so-called risk maps tailored specifically for expected or upcoming regulatory requirements and IT and information security risks. In addition, other operational, business and financial risks are also assessed beyond a twelve-month period. The risk maps categorise risks according to their probability of occurrence, and their potential financial impact, and show how the results relate to environmental, social and governance (ESG) aspects.

Economic and normative perspective

The economic perspective assesses risk positions arising from business operations. The normative perspective includes inputs from regulatory models. The economic perspective is used to derive the minimum required economic capital (REC), so that our risk-bearing capacity based on the statistical model applied is not exhausted more than once in 1,000 years.

From a normative perspective, regulatory capital requirements are the relevant management metrics. This means that risk management aims to meet the regulatory capital requirements for the banks and regulated securities companies in the Group. The economic and normative perspectives are used for risk management. The aim is therefore not only to meet the regulatory capital requirements, but also to ensure financial stability by means of the additional economic approach.

Risk-bearing capacity from an economic perspective

At Group level we determine our risk-bearing capacity on the basis of reported equity in accordance with International Financial Reporting Standards (IFRSs). By contrast, Clearstream Holding AG, Clearstream Banking S.A., Clearstream Banking AG, Clearstream Fund Centre S.A., Eurex Clearing AG and European Commodity Clearing AG determine their economic risk-bearing capacity on the basis of their regulatory capital (for details, see the section "Regulatory capital requirements and regulatory capital ratios").

The risk management function measures the amount of economic capital regularly and compares this with the risk-bearing capacity to produce a management indicator. The regulated entities also use the normative perspective. The economic capital for the banks includes Clearstream Banking S.A., Clearstream Banking AG, Clearstream Fund Centre S.A. and Eurex Clearing AG. The following entities in particular are not banks: Deutsche Börse AG, Eurex Frankfurt AG (including Eurex Repo GmbH), European Energy Exchange AG (including ECC and Nodal), 360T Group, the entities in the Investment Management segment (Qontigo, Institutional Shareholder Services (ISS), Axioma) and Crypto Finance AG. The intention is to include SimCorp completely in 2024.

Composition of required economic capital

	Deutsche Börse Group		Credit institutions		Non-credit institutions	
€m	31 Dec 2023	31 Dec 2022	31 Dec 2023	31 Dec 2022	31 Dec 2023	31 Dec 2022
Operational risks	933	1,181	529	551	404	630
Credit risk[1]	457	430	326	369	100	50
Market risk	143	114	99	109	44	5
Pension risk	86	29	17	29	69	0
Business risk	0	0	0	0	0	0
Economic capital	1,619	1,754	971	1,058	617	685
Risk-bearing capacity	8,898	7,742	2,463	2,502	6,426	5,224

1) Consolidation effect at Group level due to intercompany exposures versus DBAG.

The ratio of required risk capital to risk-bearing capacity remained below the defined maximum throughout the reporting period.

Operational risks

Most of the risks in the Deutsche Börse Group are operational in nature. Operational risks comprise the unavailability of systems, service deficiency, damage to physical assets as well as legal offences and business practices (see the chart below: "Operational risk at Deutsche Börse Group"). Operational risks are measured using scenarios.

Operational risk at Deutsche Börse Group

Operational risk

Events

Unavailability of systems	Service deficiency	Damage to physical assets	Legal disputes and business practice
▪ Trading ▪ Clearing ▪ Settlement	▪ Deficiency of trading-related services ▪ Loss of customer cash	▪ Damages to or destruction of buildings ▪ Damages to or destruction of data centres	▪ Losses from ongoing legal conflicts ▪ Tax risks ▪ Theft of customer cash ▪ Employment practices ▪ Contract risks ▪ Breach of sanctions provisionsn

Possible root causes

▪ Software flaws ▪ IT hardware flaws ▪ Inadequate information security ▪ Cyber crime	▪ Human errors ▪ Flawed internal processes ▪ Flawed data supply	▪ Force majeure ▪ Weather catastrophes ▪ Terror	▪ Legal violations ▪ Internal fraud ▪ External fraud

In the context of implementing ESG rules into non-financial risk management, the relevant scenarios required to show the operational risk of subsidiaries are marked ESG. Existing risks have been classified. ESG risks have been analysed and quantified in this context as far as possible. In the course of this analysis the effects of ES-G risks were classified as immaterial and no new risks were identified.

We measure the availability of the systems as an important risk indicator. As an international exchange operator and innovative provider of market infrastructure, state-of-the-art IT is of the utmost importance for the Group to ensure that it can deliver its services smoothly and continuously. Special IT risk indicators for system availability have been defined in accordance with a defined risk appetite, to monitor the uptime and performance of the main IT systems in all units and business segments and to ensure that they remain within the defined parameters. Yellow and red limits are defined for this purpose, to enable the timely and transparent escalation and reporting of breaches to senior management. Since availability risk is the biggest operational risk for the Group, it is the subject of regular testing. This simulates the impact of a failure of our own systems or those of suppliers.

Risks can also arise if a service provided to a customer is inadequate and leads to complaints or legal disputes. For example, errors in the settlement of securities transactions due to product or process deficiencies or faulty manual input. The related processes are tested at least annually. Other sources of errors may lie with suppliers or defective products. We register complaints and formal objections as a key indicator of deficient processing risk.

Natural disasters, accidents, terrorism or sabotage are other operational risks that could, for example, cause damage or destruction of a data centre. Business continuity processes are intended to avert significant financial losses.

Losses can also result from ongoing legal proceedings. These can occur if Deutsche Börse Group breaches laws or other stipulations, enters into inadequate contractual agreements or fails to monitor and observe the case law to a sufficient degree. Legal risks also include losses due to fraud and labour law issues.

Furthermore, losses resulting from insufficient anti-money-laundering controls, violations of competition law or of banking secrecy are included. Such risks can also arise if government sanctions are not observed, e.g. in case of conflicting requirements of different states, or in the event of breaches of other national or international regulations.

We take specific organisational measures to mitigate operational risks. Among them are emergency plans, measures to ensure information security and the physical safety of employees and buildings, insurance coverage, as well as compliance regulations and procedures. Comments on compliance requirements can be found in the section “Compliance”.

Contingency plans

It is vital for our Group to be able to provide our products and services with the greatest possible reliability, in order to retain the trust of customers and markets, and to meet our contractual obligations. We have to maintain our business operations and take precautions against failures. If our core processes and resources are not available, this represents not only a substantial risk for the entire Group but also even a potential systemic risk for the financial markets in general. A system of contingency plans has therefore been established throughout the Group (Business Continuity Management System, BCMS). This covers all processes designed to ensure continuity of operations in the event of an emergency and reduces unavailability risk. Measures include precautions relating to all material resources (staff, systems, workspace, suppliers), including the redundant design of essential IT systems and the technical infrastructure, as well as emergency measures designed to mitigate the unavailability of staff or workspaces in core functions.

Our Group has introduced and tested a management process for emergencies that enables us to respond quickly and in a coordinated manner. This is intended to minimise the effects on business processes and on the market and to enable a quick return to regular operations. All business units have appointed emergency managers to act as central contacts and take responsibility during emergencies. The emergency managers inform the Executive Board or raise the alarm with them in the case of severe incidents. If the incident escalates, the Executive Board member responsible acts as the crisis manager or delegates this role. Our emergency plans are tested regularly by rehearsing critical situations as realistically as possible. Such tests are generally carried out unannounced.

Information security

As digitalisation advances, the financial sector as a whole continues its technological development, which increases the risks of cyber-attacks. Attacks on company IT systems and on financial infrastructure are increasing worldwide and the Federal Office for IT Security (BSI) estimates the threat is greater than ever. Attacks with malware or distributed denial of service (DDoS) attacks represent major dangers, for instance.

Information security has a very high priority for Deutsche Börse Group. As already described in the section on information security in the chapter "Customers and markets", an extensive framework of policies and processes is used, in line with the international security standard ISO/IEC 27001, and is supplemented by specific inspections and technical abilities. Security solutions are continuously refined and monitored by an independent control function with a link to operational risk management.

Physical security

Physical security is a high priority for us due to continuously changing global security risks and threats. Deutsche Börse AG has developed an integral risk management process to protect the company, its employees and values from internal and external attacks and threats – in a proactive as well as reactive manner. Analysts continuously assess the security situation at our locations and on business trips, and are in close contact with national and international authorities (Federal Criminal Police Office – BKA, Federal Office for the Protection of the Constitution – BfV, etc.), security service providers, and security departments of other companies. Multi-level security processes and controls ensure physical security at our locations. Physical access to buildings and values is monitored permanently; it is based on the access principle of "least privilege" (need-to-have basis).

Insurance contracts

Operational risks that we do not wish to bear ourselves are transferred to insurance companies, if this is possible at a reasonable price. All insurance contracts are reviewed individually and regularly to identify potential for optimisation.

Financial risk

We divide financial risk into credit, market price and liquidity risks.

Financial risk at Deutsche Börse Group

Financial risk

Credit risk

- For collateralised and uncollateralised customer credits
- For collateralised and uncollateralised cash investments
- In securities lending
- Participation in default fund
- Outstanding liabilities

Market risk

- For securities
- For pension provisions
- In case of balance-sheet currency mismatches

Liquidity risk

- For collateralised and uncollatoralised customer credits
- For collateralised and uncollatoralised cash investments
- For exposures towards other market infrastructures
- In securities lending
- For repayments of customer deposits

Credit risk

Credit risk and counterparty default risk describe the danger that one of our counterparties might not settle its liabilities, or not settle them in full. The Group's credit risks result from the specific business models of our subsidiaries and DBAG's treasury investments.

Various risk metrics are used to measure and manage the credit risk of our subsidiaries. To derive the credit risk, the required economic risk capital is measured using Monte Carlo simulations and regulatory capital requirements as well as stress tests are used. Among other things the indicators include the extent to which individual clients make use of their credit facility and the concentration of credit. The measurement criteria also include the credit rating of the counterparties and the collateral provided. Reverse stress tests for banks show how many clients would have to default for the losses to exceed the risk-bearing capacity.

Both Clearstream Banking S.A. and Clearstream Banking AG extend credit to their customers to make securities settlement more efficient. This lending business may give rise to short-term receivables from counterparties of several billion euros, but differs fundamentally from the traditional bank lending business and the associated risk profile. Credit risk can also arise from cash investments, which are the responsibility of the Treasury function. Treasury invests both the company's own funds and those that our customers deposit with Clearstream Banking S.A. and Clearstream Banking AG; the funds are mostly invested on a secured basis.

Finally, there may be short-term unsecured credit balances at correspondence banks in the course of securities settlement. To manage and monitor the counterparty risk in the Group, the credit score of potential customers and counterparties to an investment is assessed before our subsidiaries enter into business relations.

Our subsidiaries define safety margins for the collateral depending on the risk involved and review them continuously. We reduce our risk when investing funds belonging to Group companies and client deposits by distributing investments across multiple counterparties, all with a high credit quality, and by investing funds primarily in the short term and in secured form if possible. Investment limits are established for each counterparty on the basis of at least annual credit checks and using ad hoc analyses, as necessary.

In accordance with their terms and conditions, Eurex Clearing AG and European Commodity Clearing AG only enter into transactions with their clearing members. Clearing mainly relates to defined securities, rights and derivatives that are traded on specific stock exchanges. Eurex Clearing AG also offers this service for over-the-counter (OTC) products such as interest rate swaps and forward rate agreements. It acts as a central counterparty between the business parties. It reduces the resulting credit risk by offsetting receivables and by requiring clearing members to post collateral. These processes are part of an EMIR-compliant security system, which the central counterparties in the Group have implemented.

This backup system consists of different levels that prevent one or even several customer defaults from affecting the functioning of the central counterparties. As a first step, each clearing member must demonstrate a minimum amount of liable capital or, in the case of funds, assets under management. The second stage requires the daily provision of collateral in the form of money or creditworthy and liquid securities (margins), which, at the request of the central counterparties, must be supplemented or even replaced by customers during the day if securities no longer meet the high quality requirements. It should be noted that the underlying risk measurement already factors in changes in prices and positions over the course of the day. In the third stage, all clearing participants are obliged to pay additional collateral into a default fund on a pro rata basis according to their individual risk profile.

In addition to its own funds, Eurex Clearing AG has the option of drawing on a letter of comfort issued by Deutsche Börse AG. A maximum of €600 million is available, from which own equity payments can already be used on a pro rata basis in the security scheme described above. Third parties have no rights under this comfort letter. The contribution from Eurex Clearing AG to the overall payment waterfall in the event of a liquidation is €200 million. Before the collateral in the default fund is used, European Commodity Clearing AG provides prefinanced allocated own funds of €35 million. If all these funds are not sufficient, European Community Clearing AG can call up additional contributions to the default fund from non-defaulting clearing participants up to three times within 90 days. Before doing so, European Commodity Clearing AG must provide additional prefinanced allocated own funds of €15 million.

In addition, Eurex Clearing AG and European Commodity Clearing AG can use the facilities of the Deutsche Bundesbank and so hold most of the customer funds without any default risk. Investment losses on currencies for which Eurex Clearing AG or European Commodity Clearing AG have no access to the respective central banks, and therefore invest with commercial banks, will be borne, on a pro rata basis, by Eurex Clearing AG and European Commodity Clearing AG and by those clearing members active in the currency where losses were incurred. The maximum amount payable by Eurex Clearing AG and European Commodity Clearing AG is capped at €50 million for Eurex Clearing AG and €15 million for European Commodity Clearing AG.

As with Clearstream Banking S.A. and Clearstream Banking AG, Treasury also invests its own funds and client deposits for Eurex Clearing AG; here too, most of the investments are secured. To date, no default by one of our customers with a secured credit line has resulted in a financial loss for us.

Market risk

Market risk include risks of an adverse development of interest rates, exchange rates or other market prices, which may occur when investing own or customer funds, on open risk positions in foreign currencies or on pension liabilities. We measure these risks using Monte Carlo simulations based on historical price data, as well as corresponding stress tests. Clearstream Fund Centre S.A. measures market risks based on historical developments in interest rates, exchange rates and other market prices, and with additional stress tests. To minimise foreign currency risks, we avoid open currency positions whenever possible. Market risk exposure only results from relatively small open foreign currency positions.

Derivative financial instruments are used across the Group solely for hedging purposes. This relates to interest rate or currency swaps, for instance, which are used as part of a conservative investment policy for Clearstream Banking S.A., Clearstream Banking AG and Eurex Clearing AG, or futures to reduce the market risk of existing positions at Crypto Finance AG.

Furthermore, market risk could result from ring-fenced pension plan assets for our employees (Contractual Trust Arrangement (CTA), Clearstream's pension fund in Luxembourg). They are actively managed in line with a defined investment policy and so have a limited exposure to market risk. We also reduced the risk of extreme losses by deciding to invest the bulk of the CTA on the basis of a value preservation mechanism.

We did not sustain any significant losses from market price risks in 2023.

Liquidity risk

Liquidity risk arises if a Group company is unable to meet its upcoming payment obligations in time and in full or if it can only do so at a higher refinancing cost.

Liquidity risks arise primarily at our subsidiaries Eurex Clearing AG, Clearstream Banking S.A., Clearstream Banking AG and Clearstream Fund Centre S.A., since these are credit institutions. Furthermore, liquidity risks arise at European Commodity Clearing AG as it is classified as a credit institution under the German Banking Act.

Short-term operating liquidity is mainly covered internally, by retaining earnings. The aim is to hold sufficient liquidity to be able to meet all our obligations as they fall due. An intra-group cash pool is used to pool surplus cash from our subsidiaries with Deutsche Börse AG, as far as regulatory and legal provisions allow. Liquid funds are invested on a short-term basis to ensure that they are available. Short-term investments are also largely secured by liquid bonds from first-class issuers. In addition, we have access to short-term external sources of financing, such as agreed credit lines with individual commercial banks or consortia, and a commercial paper programme.

In recent years, we have used our access to the capital markets to issue corporate bonds in order to meet our structural financing needs.

Deutsche Börse Group’s liquidity risk management objective is two-fold: we aim to cover short-term liquidity needs while safeguarding the long-term financing of our Group and thereby reducing liquidity risks.

For the early identification of risk, Clearstream Banking S.A., Clearstream Banking AG, Clearstream Fund Centre S.A., Eurex Clearing AG and European Commodity Clearing AG calculate daily the liquidity requirement using various stress tests that would occur in the event of client defaults. The companies hold sufficient liquidity to cover the requirement as determined by these calculations. Furthermore, potential risks that are identified in the course of stress tests are analysed, and corresponding risk-reduction measures initiated.

Aggregated across all currencies, the companies always had sufficient liquidity to cover their actual liquidity needs in 2023.

Liquidity risks are not quantified in the REC (see note 24 to the consolidated financial statements).

Pension risk

Pensions for past and present employees are managed in a variety of pension funds. Pension risk is the risk of rising costs from the current measurement of pension provisions due to higher life expectancies, salary increases and higher inflation rates. It is calculated with the support of actuaries during the first quarter of the financial year. The methods used to measure pension risk were modified in 2023 which led to an increase of €57 million in the pension risk.

Business risk

Business risk is the unexpected residual loss which arises when the Earnings at Risk exceed the anticipated net income after tax, which can be due to the competitive environment (e.g. customer behaviour, investment failure, industry trend), macro-economic and geopolitical developments or erroneous strategic management decisions. Factors influencing this residual loss could be lower revenues or higher costs than planned. Business risk is reported when the calculated value at risk is higher than the budgeted net income for the next four quarters. This approach is based on the use of historic actuals as well as anticipated data and the expenses and income actually reported. Since historic actuals are not yet available for Clearstream Fund Centre S.A., an approach based on business risk scenarios is used there. Business risks are continuously monitored by the business units. There was no disclosable business risk for the Group on the basis of the simulation model as at 31 December 2023.

The Federal Financial Supervisory Authority (BaFin) regularly considers whether to classify Deutsche Börse AG as a financial holding company. It has currently come to the conclusion that Deutsche Börse AG is not a financial holding company. Classification as a financial holding company could have an impact on our capital requirements.

Regulatory capital requirements and regulatory capital ratios (normative perspective)

Operational risk, credit risk and market risk are used to determine the capital requirements from a normative perspective. Regulatory capital requirements are not determined for Deutsche Börse Group, but separately for each regulated entity. However, the risk profile from a normative perspective is comparable to the risk profile derived from economic capital. Clearstream Banking S.A. and Clearstream Banking AG, Clearstream Fund Centre S.A., Eurex Clearing AG and European Commodity Clearing AG used the standard approach for analysing and evaluating credit and market risk. The institutions have adopted different approaches regarding operational risk: Clearstream uses the considerably more complex Advanced Measurement Approach (AMA) in all business units, which has been approved and is regularly audited by BaFin. In contrast, Eurex Clearing AG, European Commodity Clearing AG and Clearstream Fund Centre S.A. employ the basic indicator approach in order to calculate regulatory capital requirements.

Overview of regulatory capital ratios

Regulatory capital ratios according to CRR

in €m	Own funds requirements		Own funds		Total capital ratio %	
	31 Dec 2023	31 Dec 2022	31 Dec 2023	31 Dec 2022	31 Dec 2023	31 Dec 2022
Clearstream Holding Group[1]	340.9	444.2	1,477.4	1,777.3	34.7	32.0
Clearstream Banking S.A.	199.6	279.9	1,011.7	1,008.3	40.6	28.8
Clearstream Banking AG[1]	119.1	138.5	528.3	421.6	35.5	24.4
Clearstream Fund Centre S.A.	44.7	46.2	178.8	189.8	32.0	32.9
Eurex Clearing AG[2]	122.7	143.4	799.6	724.8	52.1	40.5

1) Because the separate and consolidated financial statements of Deutsche Börse AG were prepared earlier in 2023, there were slight changes in the figures compared with those in the annual report for 2022.
2) As at 31 December 2022, the profit and loss transfer agreement between Eurex Clearing AG and Eurex Frankfurt AG did not comply with the discretion under Art. 28 (3) (d) CRR. For this reason, the regulatory capital equivalent to the subscribed capital of €25.0 million was not taken into account for regulatory purposes as at 31 December 2022. Eurex Frankfurt AG also contributed capital of €50 million to Eurex Clearing AG as at 25 September 2023.

In February and March 2023, Clearstream Banking AG carried out two capital increases for a total of €110.0 million. The reason for strengthening its capital base was primarily a change in the interpretation of the CRR and CSDR capital requirements by the supervisory authority, resulting in both requirements being applied cumulatively. The reduction in equity at Clearstream Holding AG is due to the new legal entity Clearstream Fund Centre S.A. Own funds decreased mainly due to the carve-out of Clear-stream Fund Centre Holding and its subgroup.

Clearstream Holding AG, Clearstream Banking S.A., Clearstream Banking AG and Clearstream Fund Centre S.A. have Minimum Requirements for Own Funds and Eligible Liabilities, MREL, which were met at all times. The Minimum Requirements for Own Funds and Eligible Liabilities (MREL) result from the recovery and resolution planning for the Clearstream entities as well as Clearstream Fund Centre S.A. on compliance with the Banking Recovery and Resolution Directive (BRRD). Clearstream Banking S.A. and Clearstream Banking AG as central depositories are subject to the capital requirements of CSDR, whereas Eurex Clearing AG and European Commodity Clearing AG as central counterparties are subject to the specific capital requirements of EMIR, which were met at all times in the reporting year. As of April 2023, Clearstream Banking AG and Clearstream Banking S.A. must meet the combined capital requirements (complementary approach ratio) defined in CRR and CSDR. They have satisfied the complementary approach ratio since it came into effect.

Organisational structure and reporting lines for risk management

Organisational structure and reporting lines

Our risk management approach applies to the entire Deutsche Börse Group. Risk management functions, processes and responsibilities are binding for all our employees and organisational units. To ensure that all employees are risk-aware, risk management is firmly anchored in the Group's organisational structure and workflows, see chart, “Risk management - organisational structure and reporting lines”. In addition, regular training sessions are held that were developed to strengthen the risk culture of all employees. The Executive Board is responsible for overall risk management, whereas within the subsidiaries it is the responsibility of the management. The boards and committees listed below receive regular information on the risk situation.

The Supervisory Board of Deutsche Börse AG assesses and monitors the effectiveness of the risk management system and its continuous development. The Supervisory Board has delegated the evaluation to its Audit Committee. Additionally, the Risk Committee is notified annually of the risk appetite framework.

Deutsche Börse AG's Executive Board determines the Group-wide risk management approach as well as the risk appetite and allocates the latter to the company's individual business segments and business units, respectively. It ensures that the Group's risk appetite is and remains compatible with its short and long-term strategy, business and capital planning, risk-bearing capacity and remuneration systems.

Risk management – organisational structure and reporting lines

Group-wide

Supervisory Board of Deutsche Börse AG

- Monitors the effectiveness of the risk management system
- Evaluates the risk management approach and system

Audit Committee of the Supervisory Board

- Evaluates the effectiveness of the risk management system

Risk Committee of the Supervisory Board

- Monitors the risk management system and its continuing improvement in light of the risk management approach

Executive Board of Deutsche Börse AG

- Decides on risk management approach and appetite

Chief Risk Officer/ Group Risk Management

- Continuously monitors and assesses the overall risk profile
- Reports to Executive Board and Supervisory Board

Business segments non-financial institutions

- Identify, notify and control

Financial institutions

e.g. Clearstream, Clearstream Fund Centre S.A. and Eurex Clearing AG

Supervisory boards

- Monitor the effectiveness of the risk management systems and evaluate the risk management approach

Executive boards

- Responsible for the risk management of their institution

Chief Risk Officers/ Risk management functions

- Manage risks in day-to-day operations and report to their own committees and the Group

Business segments

- Identify, notify and control

The Executive Board of Deutsche Börse AG also determines which parameters are used to assess risks and how risk capital is allocated. It ensures that the requirements for the risk management approach and risk appetite are met.

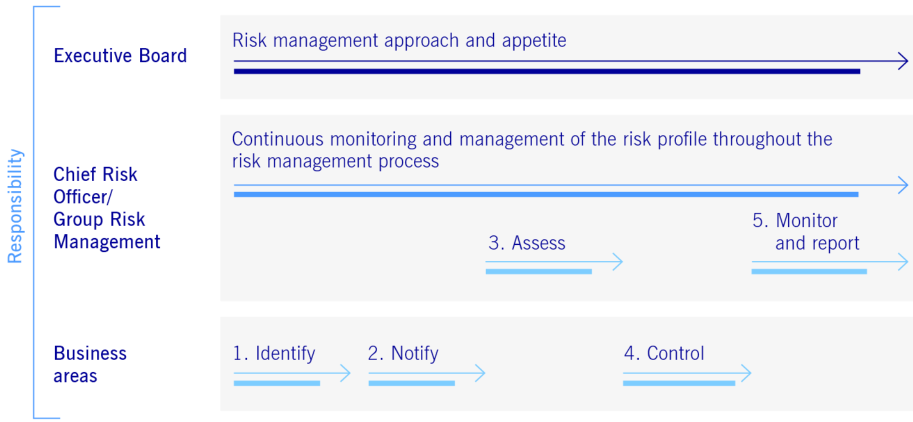
The Chief Risk Officer leads the development of proposals for the risk management framework, risk appetite, approaches and methods for risk monitoring and control, capital allocation and the necessary processes. Risks are continuously analysed, evaluated and reported: once a month or as needed to the Executive Board, four times a year to the Risk Committee of the Supervisory Board and once a year to the Supervisory Board. Likewise, the CRO reports to the Audit Committee on the effectiveness of the risk management system on an annual basis. This system ensures that the responsible bodies can check whether the defined risk limits are complied with.

Our subsidiaries act in the same way, always ensuring that they meet the requirements of the Group. In particular, they adhere to the risk appetite framework allocated to them by Deutsche Börse Group. The banks and European Commodity Clearing AG have independent executive boards and supervisory boards. The relevant supervisory boards and their committees are involved in the process. The same applies to the executive boards and the corresponding risk management functions. Clearstream Holding AG, Clearstream Banking S.A., Clearstream Banking AG, Clearstream Fund Centre S.A., European Commodity Clearing AG and Eurex Clearing AG implement the risk management approach with specific features derived for their own businesses. They equally use metrics and reporting formats adjusted to the overarching Group structure. As a rule, the management of the respective subsidiary is responsible for structuring the risk management approach and for compliance with the relevant legal requirements.

Centrally coordinated risk management process

Our risk management is implemented in a five-stage, centrally coordinated process. All potential losses should be identified in a timely manner, centrally recorded and, whenever possible quantitatively measured. Measures for managing them are to be recommended as necessary and their implementation ensured (see chart "Five-stage risk management process"). A further component of our risk management approach is the three lines of defence (3LoD) model, which is established at Deutsche Börse AG and at the banks and securities companies in our Group. This model defines a clear segregation of functions and responsibilities between the operating business units (first line of defence), risk management (second line of defence) and internal audit (third line of defence).

The five-stage risk management system



The **first stage** identifies the risks and the possible causes of losses or operational malfunctions. In the **second stage**, the business areas (first line of defence) regularly – or immediately, in urgent cases – report the risks that they have identified and quantified. The report goes to the risk management function (part of the second line of defence), which evaluates the potential threat in a **third stage**. In **the fourth stage** the business units manage the risks by avoiding, mitigating or transferring them, or by actively accepting them. The fifth and final **stage** involves monitoring different risk metrics and, where necessary, informing the responsible Executive Board members and committees of significant risks, their assessment and possible emergency measures. In addition to its regular reports, the CRO division compiles ad hoc reports for the Executive and Supervisory Boards. The risk management functions at Clearstream Holding AG, Clearstream Banking S.A., Clearstream Banking AG, Clearstream Funds Centre S.A., Eurex Clearing AG and European Commodity Clearing AG submit reports to the respective executive boards and supervisory boards. The internal audit function (third line of defence) is an independent function and monitors both the business units and the risk management functions.

Structure of the internal control system

Deutsche Börse has a Group-wide internal control system (ICS) that defines a framework with minimum requirements for all entities in the Group. The framework provides the basis for the risk-based implementation of the ICS. It supports the effective and efficient implementation and operation of the ICS regardless of the degree of regulation, or the size of the entity, for example.

The ICS helps to manage risks and particularly covers risks at the process level. This entails defining rules for the uniform recording and assessment of process risks, in aggregate and at the individual risk level. It should be emphasised that both financial and non-financial effects are taken into account when assessing the materiality of risks. A control cycle carried out at least once a year defines minimum requirements for continuous improvements and ICS reporting. This also includes an assessment of the appropriateness and effectiveness of the measures taken by the business units as the first line of defence.

A particular emphasis in the ICS implementation is on steps to manage material risks in connection with financial and non-financial reporting.

The central unit Financial Accounting and Controlling (FA&C), which reports directly to the CFO, and decentralised units working to standards defined by FA&C are responsible for preparing the financial statements in accordance with the statutory requirements. Group Tax is responsible for determining tax items. The relevant department heads are responsible for the related processes, including effective security and control measures. The aim is to ensure that risks relating to the accounting process are identified early on, so that remedial action can be taken in good time.

FA&C provides the subsidiaries included in the consolidated financial statements with accounting guidelines that are intended to support consistent and correct accounting across the Group. Moreover, we continuously monitor and analyse changes in the accounting environment and adjust our processes accordingly.

Another essential component of our ICS is the principle of functional segregation: tasks and competences are clearly assigned and separated from each other in organisational terms. Incompatible tasks – such as modifying master data on the one hand and issuing payment instructions on the other – are strictly segregated at a functional level. An independent control unit grants individual employees access rights to the accounting system and continuously monitors these permissions using a so-called incompatibility matrix.

Subsidiaries of Deutsche Börse Group maintain and consolidate their general ledgers in the same system. Accounting data from other companies is uploaded for inclusion in the consolidated financial statements.

The processes, systems and controls described above aim to provide reasonable assurance that our accounting system complies with the applicable principles and laws. In addition, Compliance and Internal Audit act as a further line of defence, performing risk-based, process-independent controls on whether the ICS is appropriate and effective.

The accounting-based internal control system (ICS) was strengthened and expanded in 2023. A Control Over Financial Reporting (COFR) policy was introduced and adopted by all the subsidiaries included in the consolidated financial statements. The COFR policy is intended to manage the risks associated with financial reporting across the Group, deliver end-to-end transparency in the financial processes and ensure the reliability of financial reporting. FA&C has provided a standardised process catalogue for accounting processes, including standardised risk-control matrices and documentation requirements. Compliance is regularly monitored by FA&C. These measures are to be strengthened and expanded again in 2024.

The Executive Board and the Audit Committee established by the Supervisory Board receive regular reports on the effectiveness of the ICS with respect to the financial reporting process.

Overall assessment of the risk situation by the Executive Board

Summary

The risk profile of Deutsche Börse Group did not change significantly in the 2023 financial year. All known impacts of the geopolitical and macroeconomic developments were actively managed within the Group and potential new risks were analysed on an ongoing basis. The aggregate total risk of Deutsche Börse Group comprising all risk types (operational, financial, pension and business risk) was always matched by sufficient covered funds. Group risk management and the internal control system (ICS) were further strengthened and expanded in 2023, as described above. No significant change in the risk situation of the Group has been identified by the Executive Board at the present time.

Outlook

Deutsche Börse Group continually assesses its risk situation. From stress tests, the economic capital requirements as calculated and based on the risk management system, Deutsche Börse AG’s Executive Board concludes that the available risk coverage amount and liquidity are sufficient. There is currently no indication that the risk coverage amount has to be adjusted for 2024. Furthermore, it cannot identify any risk that would endanger the Group’s existence as a going concern. Group risk management and the internal control system (ICS) are to be strengthened and expanded further in 2024. SimCorp will also be fully included in the measurement of economic capital. In addition, the implementation of the Corporate Sustainability Reporting Directive (CSRD) across the Group for aspects relevant to risk management will be driven forward.

Report on opportunities

With its broad product and services portfolio, Deutsche Börse Group has an excellent market position from which to profit from a wide range of opportunities. We pursue both organic growth and focused M&A activities.

Organisation of opportunities management

We evaluate the organic and inorganic growth opportunities in the individual business areas continuously, i.e. over the course of the year. With our opportunity management, we can identify, evaluate and seize opportunities for the Group as early as possible – and turn them into business successes. At Group level these opportunities are systematically assessed as part of the annual budgeting process and strategic reviews. The process begins with a careful analysis of the market environment, which considers both what the customer wants, as well as market developments, competitors and regulatory changes. Ideas for growth initiatives are developed further using uniform, Group-wide templates and subjected to a profitability analysis. On this basis, our Executive Board decides which initiatives are to be implemented.

In the course of preparing our Horizon 2026 strategy we validated our opportunities again and adjusted them accordingly.

Organic growth opportunities

We have a very broad portfolio of products and services with which we cover all areas of a market infrastructure provider's value chain. In order to maintain and expand this position we are pursuing a growth strategy called Horizon 2026 (see section "Strategy and steering parameters"). We are focusing primarily on organic growth opportunities. These consist largely of secular opportunities that we can influence ourselves. Secular opportunities arise for example as a result of regulatory changes, new client requirements such as the growing demand for exchange-traded solutions to previously over-the-counter (OTC) transactions or from the trend to allocate an increasing portion of assets to passive investment strategies (e.g. ETFs). There are also cyclical opportunities that are beyond our direct control and result from changes in the macroeconomic environment. Apart from that, we see long-term growth opportunities resulting from the technological transformation. With the help of distributed ledger technology, public cloud solutions for operating IT infrastructure and artificial intelligence, we not only want to become efficient in our existing business, but also see opportunities for new products and services related to digital assets, for example.

These are the main growth opportunities in our four segments:

Investment Management Solutions

Software as a Service for institutional investors (combination of SimCorp and Axioma): We expect increasing demand from institutional investors for investment management software solutions in the years ahead. With the merger of SimCorp and Axioma we have created an end-to-end offering along the entire process chain for institutional investors. This also enables us to realise revenue and cost synergies. It opens up significant, sustainable and long-term growth opportunities and enables us to diversify our business and further increase the proportion of our recurring revenue.

One-stop shop for global indices and data (combination of ISS and STOXX): Our objective in the index business is to give the already established European index provider STOXX an even more global profile, in order to develop and market other indices worldwide. By combining our index provider STOXX with the ESG and data business of ISS we have created the foundation for offering our customers an integrated range of indices and ESG data. This gives us an advantage over our global competitors and helps us to give new and existing customers the best possible service. In addition, Deutsche Börse's index business will continue to take advantage of the structural trend towards passive investment products (ETFs). An increasing number of private clients and asset managers now follow this trend; not only are the costs lower, but many active investment strategies have been returning under-average performance. We are also realising revenue and cost synergies by merging ISS and STOXX under joint management.

Trading & Clearing

New interest rate derivatives: Higher interest rates and wider fluctuations in expectations on future rates increase demand for interest rate products as investments and speculative opportunities, and to hedge interest rate risks. To support this, we use our leading position in long-term interest rate derivatives in order to win short-term business in interest rate derivatives for our platforms too. Customers profit from efficiencies in margin requirements if they pool their short-term interest rate business as well as their long-term interest rate business on our platforms. We offer an additional incentive by expanding our partnership programme, which enables market participants to share in our economic success.

Clearing of OTC derivatives: We have used political and regulatory developments, along with our expertise in building liquid markets, and expanded our market share in the clearing of OTC derivatives to around 20 per cent in recent years. In the years ahead we want to profit from overall market growth and increase our market share at the same time. To achieve these goals we use our improved risk model and efficiencies in cross-margining, i.e. offsetting margins for OTC trades with those for exchange-traded business. The current obligation being discussed by the EU supervisory authorities to use an active cross-margining account within the EU could also contribute to gaining additional market share.

Rising demand for repo products: The retreat by central banks from the money market and higher interest rates have caused demand for secured money market products to rise. We anticipate that we will profit from overall market growth and win new customers for our products at the same time.

New equities and equity index derivatives: In addition to a broad range of established international benchmark products, we have introduced a large number of new products in recent years, such as MSCI, total return, dividend and ESG derivatives. These new products reflect changes in customer preferences and regulatory requirements, and we therefore expect to see further significant growth here in the years ahead.

Rising demand for power derivatives: The increasing share of renewable energies in the energy mix causes wider price fluctuations on European power markets. At the same time, industries with high energy requirements are obliged to include future energy costs in their calculations well in advance when pricing their final products. Their hedging requirement and demand for power derivatives is correspondingly high. Liquidity in the European power markets operated by us is now high, which has attracted new market participants, such as algorithmic and quant traders. They have no physical need, but use power as an asset class for trading. We want to use this momentum to increase liquidity on our platforms even further and open up new customer groups.

Tokenisation: We are at the beginning of a new technology and digital assets will increase the range of investable and tradable instruments significantly. With the Digital Asset Business Platform we want to make tokenised assets fungible for institutional customers and profit from this trend over the long term.

Fund Services

Cross-border settlement and distribution of investment funds:
Our clients can use Clearstream's settlement, custody and distribution services for their entire fund portfolio – covering traditional investment funds, exchange-traded funds (ETFs) as well as hedge funds. Given that supervisory authorities are also calling for more efficient settlement and custody solutions in order to guarantee maximum security for client assets under custody, we expect to acquire additional client portfolios in the future by means of outsourcing agreements. We are also continuously expanding our range of products and services. So, for example, we have significantly expanded our range of fund services to include the management of distribution agreements, as well as data compilation through acquisitions.

Securities Services

Expand fixed-income securities services: With new offerings for our customers in the Securities Services segment we intend to use our presence and range in fixed-income securities services in a more normal interest rate environment. This includes expanding the repo and securities lending business. Both products are currently seeing stronger demand due to central banks' withdrawal from the money market and increased demand for high-quality collateral.

Digital value chain in custody: Clearstream customers can already issue assets the same-day in a digital value chain via our D7 platform. We want to build on this success and enable our customers to manage and settle positions and accounts digitally in future – and to do so for all their asset classes. In addition to economies of scale and cost savings, we anticipate further long-term growth from a larger number of transactions.

Cyclical opportunities

In addition to secular growth opportunities, we have cyclical opportunities, for instance as a result of macroeconomic developments or unexpected market events. We do not have any direct control over these cyclical opportunities, but they do have the potential to increase our net revenue significantly. They include high trading volumes on our markets, on the one hand, which could be caused by a change in interest rate expectations or global events. On the other we benefit from rising interest rates, because they increase the net interest income we receive on cash balances.

Technological opportunities

In addition to secular and cyclical growth opportunities, there are new technologies fundamentally driving change in the financial industry. They include cloud services, artificial intelligence (AI) and distributed ledger technology (DLT). These technologies can help to harmonise markets, open up new business potential, boost efficiency and reduce risks. We continuously and systematically observe and evaluate new technological developments and trends in terms of their impact and importance for our business model and our processes. Together with external partners we deliberately build and extend our expertise in selected technological areas.

Cloud

We work continuously to migrate our services and processes to the cloud and to optimise them. In addition to the flexible use of computing capacities, this has other advantages for us. For instance, the introduction of new functionalities and updating of existing software might be tested faster and better by clients in the cloud. This makes our processes significantly more agile, as new releases can be introduced at more frequent intervals, allowing us to respond better to clients' requirements.

We have been following a hybrid multi-cloud strategy with great success for years. Via agreements with leading international cloud providers we have already positioned ourselves at the summit of cloud use in the European financial services sector. In addition, on 9 February 2023, we announced a new strategic partnership with Google Cloud. It is intended to cover 10 years and allows us to profit from the technical performance and robust security mechanisms of a respected cloud provider.

As part of our partnership with Google Cloud we are concentrating on four areas:

1. Increase cloud use: we are planning to move up to 70 per cent of the processes within our Group to the cloud. The migration is planned for completion by late 2026 and will comprise both cloud-to-cloud migrations and on-premise-to-cloud migrations. We are also working with other cloud providers in addition to Google.

2. Data mesh: We are developing a data mesh that enables the shared use of data across different data storage devices and companies within the Group. Building on this, the aim is to create a market place where we can make data and analytics products and services available to external customers.

3. Digital Assets Business Platform: We are planning to build an ecosystem for digital assets that is operated on the basis of an institutional value chain, using native digital infrastructure components in the cloud. The platform would conform to recognised standards in the finance industry and service a variety of asset classes and use cases on and off the blockchain.

4. Digital Securities Platform D7: D7 is our contribution to a European ecosystem for digital assets. With D7 we want to enable market participants the settlement of their digital assets on an institutionalised platform. This will drive digitisation and efficiency in post-trading and create a next-generation digital securities platform. The aim is to digitise the entire value chain from issuance to administration, repayment and archival. It will make it possible to create, record, settle and manage digital securities and digital assets in centralised and decentralised ledgers.

Distributed ledger technology (DLT)

The use of distributed ledger technology (DLT) represents another technological opportunity. It is sometimes considered a disruptive technology, and at present, the financial services sector is increasingly exploring its opportunities. Thanks to its decentralised nature, it facilitates direct interaction between participants, thus offering the potential for simplifying complex processes. The challenge in the financial industry is to make use of distributed ledger technology while meeting high security standards and taking risk limitation and cost efficiency aspects into account.

As an established provider of market infrastructure with an integrated value chain, we are in a good position to exploit the potential of distributed ledger technology. Our experience of applicable industry standards and legal and regulatory requirements is a decisive advantage here.

Artificial intelligence (AI)

Well-known use cases have increasingly brought artificial intelligence into the public eye. As a provider of market infrastructure in the financial industry we are particularly evaluating artificial intelligence from the perspective of efficiency gains and scalability across the Group. Artificial intelligence is already being used in initial applications – for our customers (OSCAR collateral management, settlement prediction tool) and for our employees (chatbots). We always keep an eye on technological and regulatory developments, in order to evaluate and implement the best new use cases for artificial intelligence. To do so we make use of both internal and external know-how, in the context of strategic partnerships for instance.

Report on expected developments

With our diversified business model and our new Horizon 2026 strategy we are in an excellent starting position to achieve further sustainable and profitable growth. In the long term we intend to continue consistently on our growth path, in order to make Deutsche Börse Group the preferred global market infrastructure provider.

The forecast describes Deutsche Börse Group's expected performance for the 2024 financial year. It contains statements and information on events in the future and is based on the company's expectations and assumptions at the time of publication of this corporate report. In turn, these are subject to known and unknown opportunities, risks and uncertainties. Numerous factors, many of which are outside the company's control, influence the Group's success, its business strategy and its financial results. Should opportunities, risks or uncertainties materialise, or should one of the assumptions made turn out to be incorrect, the Group's actual performance could deviate either positively or negatively from the expectations and assumptions contained in the forward-looking statements and information contained in this forecast.

Developments in the operating environment

Macroeconomic environment

Global economic growth slowed again over the course of 2023, as a result of much more restrictive monetary policies by central banks. The escalation of the conflict between Israel and Palestine in the Middle East in the second half-year also caused uncertainty among market participants. We expect the economic situation to remain tense in 2024 due to high interest rates. Interest rate cuts by central banks following further falls in inflation could have a positive impact on the economic environment, on the one hand. On the other, a sharper decline in economic growth than expected or a recession could lead to uncertainty among market participants.

Future development of results of operations

For the year 2024 we are expect revenue to increase again to more than €5.6 billion. In addition to organic growth on the basis of our secular growth opportunities, the consolidation of SimCorp will make a significant contribution. We are also currently anticipating slight secular headwinds if central banks should reduce their base rates. If market volatility goes up or interest rates stay at least at their current level, this would have a positive effect. In terms of operating costs we are planning an increase for investment in our organic growth opportunities, and the additional contribution from SimCorp. On this basis we anticipate earnings before interest, taxes, depreciation and amortisation (EBITDA) of more than €3.2 billion in 2024.

Forecast for results of operations 2024

	Basis 2023 €m	Forecast 2024 €bn
Net revenue	5,076.6	>5.6
Earnings before interest, tax, depreciation and amortisation (EBITDA)	2,944.3	>3.2

Development of non-financial performance indicators

Initiatives to promote the transparency and security of the markets will continue to be a key focus during the forecast period, ensuring that we add value for society. As far as the forecast development of non-financial performance indicators for 2024 is concerned, system availability was brought back into line with the high targets by means of additional back-up measures, which became part of everyday operations. We therefore expect that the system availability of customer facing IT will remain high in the forecast period.

Being an attractive employer is important for our sustained success. We want to attract top talents and retain them for the long term. The measures described in the chapter "Employees" have put us in a good position and we are confident that we can maintain or improve on our employee satisfaction of more than 71.5 per cent.

Deutsche Börse AG's Executive Board has defined target quotas for women on the two management levels beneath the Executive Board, in accordance with section 76 (4) of the AktG, in each case referring to Deutsche Börse AG. By 31 December 2024, the proportion of women holding positions in the first and second management levels beneath the Executive Board is planned to reach 15 per cent and 27 per cent, respectively. Moreover, on a global Group level the Executive Board has adopted a voluntary commitment to increase the share of women holding upper management positions to 24 per cent by the end of 2024, and of women holding lower management positions to 33 per cent during the same period. We have extended the scope of our voluntary commitment over and above the legal requirements.

The assessment of independent ESG rating agencies is an important benchmark for our ESG efforts. We continuously analyse our performance and take action accordingly. Over the forecast period we expect that we will be able to maintain our good position above the 90th percentile of the ESG ratings.

Targets of non-financial KPI for 2024

	Based on 2023	Target for 2024
System availability of customer-facing IT	>99.9 %	>99.5 %
Employee satisfaction	73 %	>71.5 %
Share of women in leadership positions[1]	23 %	>24 %
ESG ratings	98th percentile	>90th percentile

1) Group target for senior management.

Future development of the Group's financial position

We expect that cash flow from operating activities, which is our primary source of financing, will remain significantly positive in future. We expect that three significant factors will influence changes in liquidity in the forecast period: firstly, we plan to invest around €350 million in intangible assets and property, plant and equipment at Group level. These investments will serve primarily to develop new products and services in our growth areas and to enhance existing ones. We also launched a share buy-back programme with a volume of €300 million in January 2024. In May 2024 we will propose a dividend of €3.80 per share to the Annual General Meeting. This would represent a cash outflow of about €703.4 million. Apart from the above, we did not expect any other material factors to impact the Group's liquidity at the time the combined management report was prepared. As in previous years, we assume that we will have a sound liquidity base in the forecast period due to positive cash flow from operating activities, adequate credit lines (for details see note 24 to the consolidated financial statements), and our flexible management and planning systems.

Based on the successful implementation of our previous strategy and in expectation of further growth, we have refined our capital management. In future we will aim to distribute dividends equivalent to 30-40 per cent of the net profit for the period attributable to the shareholders of Deutsche Börse AG. The dividend per share is planned to increase going forward. In addition, available liquidity can be invested in the Group's further inorganic development, as in the past. In the event of any surplus liquidity, the company intends to supplement the dividend with share buy-backs.

To maintain its strong credit ratings at Group level, we aim for a ratio of net debt to EBITDA of no more than 2.25, and a ratio of free funds from operations to net debt of at least 40 per cent. Financing the takeover of SimCorp temporarily caused the ratio of free funds from operations to net debt to not fulfil the target at year-end 2023. We expect to be within the limit for this indicator again in 2024 thanks to positive cash flow from operating activities.

Overall assessment by the Executive Board

We believe the Group remains very well positioned in terms of international competition, thanks to its broadly diversified offering along the securities trading value chain and its innovative strength. This being the case, we expect to see a positive trend in the results of operations over the long term. Our new corporate strategy and the resulting measures should further accelerate this growth. In this context the Group aims to become more agile and effective and sharpen its client focus, in order to become the global market infrastructure provider of choice, with a top ranking in all its business areas. Taking the conditions for organic growth into account, the Executive Board is planning an increase in net revenue to more than €5.6 billion in the forecast period. The Executive Board expects EBITDA to go up to more than €3.2 billion in the forecast period. Overall, on this basis the Executive Board assumes that cash flow from operating activities will be clearly positive and that, as in previous years, the liquidity base will be sound. The overall assessment by the Executive Board is valid as at the publication date for this combined management report.

Report on post-balance sheet date events

There were no significant events after the end of the reporting period.

Corporate governance statement

Deutsche Börse Group attaches great importance to the principles of good corporate governance and control. In this statement, we report on corporate governance at Deutsche Börse AG in accordance with principle 23 of the Deutscher Corporate Governance Kodex (German Corporate Governance Code). The statement contains the corporate governance statement pursuant to section 315d in conjunction with section 289f Handelsgesetzbuch (HGB, German Commercial Code).

Declaration of Conformity pursuant to section 161 Aktiengesetz (AktG, German Stock Corporation Act)

On 7 December 2023, the Executive Board and Supervisory Board of Deutsche Börse AG issued the following Declaration of Conformity:

"Declaration of the Executive Board and the Supervisory Board of Deutsche Börse AG pursuant to section 161 Aktiengesetz (AktG - German Stock Corporation Act)

All recommendations of the German Corporate Governance Code (GCGC) in the current version dated 28 April 2022, which was published in the Federal Gazette on 27 June 2022 are currently complied with and will continue to be complied with in the future.

Further, since the last declaration of conformity was issued on 7 December 2022, all recommendations of the GCGC have also been complied with."

The annual declaration of conformity pursuant to section 161 Aktiengesetz (AktG, German Stock Corporation Act) can also be found online at www.deutsche-boerse.com > Investor Relations > Corporate Governance > Declaration of Conformity. The declarations of conformity for the past five years are also available there.

Disclosures on overriding statutory provisions

The Executive Board and Supervisory Board of Deutsche Börse AG declare, in accordance with recommendation F.4 GCGC, that recommendation D.4 GCGC was not applicable to the company in 2023 because of the overriding statutory requirement of section 4 b of the German Stock Exchange Act (Börsengesetz, BörsG). Recommendation D.4 GCGC states that the Supervisory Board shall form a Nomination Committee composed exclusively of shareholder representatives. In accordance with section 4 b of the German Stock Exchange Act, however, the Nomination Committee also assists the Supervisory Board of Deutsche Börse AG in selecting candidates for the Executive Board. As this task shall not be performed exclusively by shareholder representatives of the Supervisory Board, and in line with the practice to date, the Nomination Committee also includes employee representatives.

Disclosures on suggestions of the GCGC

The GCGC consists of both recommendations (denoted in the text by the use of the word "shall"), which are reported in the Declaration of Conformity in accordance with section 161 AktG, and suggestions (denoted in the text by the use of the word "should"). Deutsche Börse AG fully complies with them.

Publicly available information in accordance with section 289f (2) no. 1a HGB

The current remuneration report and the auditors' statement pursuant to section 162 AktG, the current remuneration system pursuant to section 87a (1) and (2) sentence 1 AktG and the latest resolution on remuneration pursuant to section 113 (3) AktG are available at www.deutsche-boerse.com > Investor Relations > Corporate Governance > Remuneration.

Information on corporate governance practices

Conduct policies

Deutsche Börse Group's global orientation means that binding policies and standards of conduct must apply at all of the Group's locations around the world. Specifically, the main objectives of these principles for collaboration are to ensure responsibility, respect and mutual esteem. The Group also adheres to these principles when implementing its business model. Communications with clients, investors, employees and the general public are based on timely information and transparency. In addition to focusing on generating profit, Deutsche Börse Group's business is managed sustainably in accordance with recognised legal, social and ethical standards.

Code of business conduct

Acting responsibly means having values that are shared by all employees throughout the Group. Deutsche Börse AG therefore has a code of business conduct that is reviewed every year. This document, which is adopted by the Executive Board and applies throughout the Group, defines the foundations of key ethical and legal standards, including – but not limited to – the following topics:

- Compliance with legislation and regulations; whistleblower system
- Confidentiality and the handling of sensitive information
- Conflicts of interest
- Prevention of insider trading and market manipulation; personal account dealings
- Prevention of corruption
- Risk management
- Environmental awareness
- Equal opportunities and protection against undesirable behaviour
- Corporate responsibility; human rights; ethical conduct

The code of business conduct applies to members of the Executive Board, all other executives and all employees of Deutsche Börse Group. In addition to specifying concrete rules, the code of business conduct provides general guidance as to how employees can contribute to implementing the defined values in their everyday working life. The goals of the code of business conduct are to provide guidance on working together in the company on a day-to-day basis, to help resolve any conflicts and to resolve ethical and legal challenges. All newly hired employees receive the code of business conduct as part of their employment contract documentation. The code of business conduct is an integral part of the relationship between employer and employees at Deutsche Börse Group. Breaches may lead to disciplinary action. The document is available at www.deutsche-boerse.com > Responsibility > Sustainability > Our policies and guidelines.

Code of conduct for suppliers

Deutsche Börse Group not only requires its management and staff to adhere to high standards – it demands the same from its suppliers and service providers. The code of conduct for suppliers as applicable to Deutsche Börse AG and the central purchasing department requires suppliers, among other things, to respect human rights and environmental regulations and to comply with minimum standards in these areas. The minimum standards also incorporate the requirements of the German Lieferkettensorgfaltspflichtengesetz (Supply Chain Due Diligence Act) and the UK Modern Slavery Act. Service providers and suppliers must sign this code of conduct or enter into an equivalent voluntary commitment before they can do business with Deutsche Börse AG and the Group companies represented by the central purchasing department. The code of conduct for suppliers is reviewed regularly in the light of current developments and amended if necessary. It can be found online at www.deutsche-boerse.com > Responsibility > Sustainability > Our policies and guidelines.

Sustainability and values

Deutsche Börse Group's business activities are based on the legal frameworks and ethical standards of the different countries in which the Group operates. A key way in which we underscore the values we consider important for the Deutsche Börse Group is by joining initiatives and organisations that advocate generally accepted ethical standards. Relevant memberships are as follows:

UN Global Compact www.unglobalcompact.org: this voluntary business initiative established by the United Nations aims to achieve a more sustainable and more equitable global economy. At the heart of the compact are ten principles covering the areas of human rights, labour, environment protection and anti-corruption. Deutsche Börse Group has submitted annual communications on progress (COPs) on its implementation of the UN Global Compact since 2009.

Charta der Vielfalt www.charta-der-vielfalt.de: as a signatory to the Diversity Charter, the company has committed to acknowledging, respecting and promoting the diversity of its workforce, customers and business associates – irrespective of their age, gender, disability, race, religion, nationality, ethnic background, sexual orientation or identity.

International Labour Organization www.ilo.org: this UN agency is the international organisation responsible for drawing up and overseeing international labour standards. It brings together representatives of governments, employees and employers to promote the joint development of policies and programmes. Deutsche Börse Group has signed up to the ILO's labour standards and hence has agreed to abide by them.

Sustainability in corporate governance

Sustainability is of significant importance for the corporate strategy of Deutsche Börse Group. It is therefore an essential element of corporate governance at the level of both the Executive Board and the Supervisory Board. The Executive Board of Deutsche Börse AG takes all strategic decisions concerning sustainability matters at Deutsche Börse Group. It was supported in the reporting year by the interdisciplinary Group Sustainability Board, which is chaired by the CFO. The Group Sustainability Board is the central management board for sustainability topics in Deutsche Börse Group. It deals with company initiatives relating to environmental, social and governance topics (ESG). This includes advising on and monitoring the integration of sustainability into corporate planning and controlling. The Group Sustainability Board has been replaced by the Group Sustainability Committee as of 1 January 2024. The Group Sustainability Committee is the new central management unit for sustainability topics in Deutsche Börse Group. It is chaired by the Chief Sustainability Officer and supports and advises the Executive Board on all aspects of sustainability. The Group Sustainability Committee is intended to ensure the implementation of effective ESG practices in accordance with applicable policies and guidelines.

The Group ESG Strategy department, which reports to the CEO, primarily provides support by continuously monitoring the ESG profile and climate strategy of Deutsche Börse Group. Responsibility for ESG reporting was transferred from Group ESG Strategy to the section Sustainability Reporting, which is part of the CFO function, on 1 October 2023.

At the Supervisory Board level, the Strategy and Sustainability Committee has dealt, in particular, with sustainable corporate governance and activities in the field of ESG at Deutsche Börse Group since 2021. In addition to embedding ESG in the work of the Supervisory Board in this way, it is particularly important for the board as a whole and in the other Supervisory Board committees, especially the Audit Committee, the Risk Committee and the Nomination Committee. Current, relevant sustainability aspects also form part of the training programme for the Executive Board and Supervisory Board and are dealt with in workshops and seminars.

To promote the sustainable development of the Deutsche Börse Group, ESG targets are an integral part of the remuneration system for the Executive Board. Details of the Executive Board remuneration system can be found in the "Remuneration report".

Further information on this subject can be found online at www.deutsche-boerse.com > Responsibility > Sustainability. More information about the Supervisory Board committee, Strategy and Sustainability, can be found in the chapter Supervisory Board committees. Details of the work carried out by the Strategy and Sustainability Committee are included in the "Supervisory Board Report".

Control and risk management systems

Deutsche Börse Group's pivotal role in the financial sector requires that it handles information and risks responsibly. The Group has a number of rules and processes for this purpose. They comprise both statutory and internal rules that can be adapted specifically to individual industry segments. They include policies on whistleblowing, risk management and the internal control system.

Whistleblower system

Deutsche Börse Group plays an active role in the fight against breaches of rules and regulations. One example is Deutsche Börse Group's whistleblowing system, which provides a channel to report non-compliant behaviour. Deutsche Börse Group uses the Business Keeper Monitoring System (BKMS®), an online application that enables employees, clients and third parties to report matters that could be criminal offences and incidents of non-compliance by employees or third parties concerning the business of Deutsche Börse Group. Reports can be made in their own name or anonymously and can be made around the clock.

Further information regarding the whistleblower system can be found at www.deutsche-boerse.com > Our Company > Contact > Whistleblower system.

Policies and guidelines on control and risk management system

Functioning control systems are important parts of stable and sustainable business processes. Deutsche Börse Group's enterprise-wide control systems are embedded in an overarching framework. This comprises, among other things, the legal requirements, the recommendations of the German Corporate Governance Code, international regulations and recommendations and other company-specific policies. The executives responsible for the different elements of the control system are in close contact with each other and with the Executive Board. Key aspects of its design and implementation are also reported regularly to the Supervisory Board or its committees. Equally, the Group has an enterprise-wide risk management system that covers and provides mandatory rules for functions, processes and responsibilities. The internal control system and risk management system also cover sustainability-related targets. Details of the internal control system and risk management at Deutsche Börse Group can be found in the "Risk report" section.

From its examination of the internal control and risk management system and the reports of the Internal Audit function regarding its risk-oriented and process-independent controls conducted, the Executive Board does not have any indications which would result in reservations regarding the appropriateness and efficacy of the systems.

Working practices of the Executive Board and the Supervisory Board

An important fundamental principle of the German Stock Corporation Act is the dual board system – which assigns separate, independent responsibilities to the Executive Board and the Supervisory Board. These responsibilities and their implementation at Deutsche Börse AG are set out in detail in the following paragraphs.

Both boards perform their duties in the interests of the company and with the aim of achieving a sustainable, long-term increase in value. Their actions are based on the principle of responsible corporate governance. The Executive Board and Supervisory Board of Deutsche Börse AG therefore work closely together in a spirit of mutual trust. The Executive Board provides the Supervisory Board with comprehensive information on the company's and the Group's position and the course of business in a regular and timely manner. In addition, the Executive Board informs the Supervisory Board regularly concerning issues relating to corporate planning, the risk situation and risk management, compliance and the company's control systems. The strategic orientation of the company is examined in detail and agreed upon with the Supervisory Board. Implementation of the relevant measures is discussed at regular intervals. The Chief Executive Officer reports to the Supervisory Board without undue delay, orally or in writing, on matters that are of special importance to the company.

In addition, the CEO keeps the Chair of the Supervisory Board continuously and regularly informed of the current developments affecting the company's business, significant transactions, upcoming decisions and the long-term outlook and discusses these issues with him or her. The Supervisory Board may also request reports from the Executive Board at any time, especially on matters and business transactions at Deutsche Börse AG and subsidiaries that have a significant impact on Deutsche Börse AG's position. The Rules of Procedures for the Executive Board and Supervisory Board contain provisions on the corresponding information rights and obligations of the Executive Board and Supervisory Board exceeding statutory regulations.

Deutsche Börse AG's Executive Board

The Executive Board manages Deutsche Börse AG and the Deutsche Börse Group. The Executive Board had six members in the reporting year. The main duties of the Executive Board include defining the Group's corporate goals and sustainable strategic orientation, managing and monitoring the operating units, as well as establishing and monitoring an efficient risk management system. The Executive Board is responsible for preparing the annual and consolidated financial statements of Deutsche Börse AG, as well as for producing financial information during the course of the year. In addition, it must ensure the company's compliance with legal requirements and official regulations.

The members of the Executive Board are jointly responsible for all aspects of management. Irrespective of this collective responsibility, the individual members manage the company's business areas assigned to them in the Executive Board's schedule of responsibilities independently and are personally responsible for them. In addition to the business areas, the functional areas of responsibility are that of the Chief Executive Officer (CEO), the Chief Financial Officer (CFO), the Chief Information Officer/Chief Operating Officer (CIO/COO) and Governance, People & Culture. The business areas cover the operating business units, such as the company's cash market activities, the derivatives business, the market data business, securities settlement and custody, collateral and liquidity management, fund distribution services as well as the Investment Management Solutions segment with offerings in the areas of indices, analytics, sustainability information (ESG) and software. For details, see "Deutsche Börse: Fundamental information about the Group" section and www.deutsche-boerse.com > Company > Deutsche Börse Group > Business areas.

Further details of the Executive Board's work are set out in the bylaws that the Supervisory Board has adopted for the Executive Board. Among other things, these list issues that are reserved for the entire Executive Board, special measures requiring the approval of the Supervisory Board, other procedural details and the arrangements for passing resolutions. The Executive Board holds regular meetings. They are convened by the CEO, who coordinates the work of the Executive Board. Any Executive Board member can require a meeting to be convened. In accordance with its bylaws, the entire Executive Board normally takes decisions on the basis of resolutions passed by a simple majority of the members voting on them in each case. If a vote is tied, the CEO has the casting vote.

More information on the Executive Board, its composition, members' individual appointments and biographies can be found at www.deutsche-boerse.com > Investor Relations> Corporate Governance > Executive Board.

Deutsche Börse AG's Supervisory Board

The Supervisory Board supervises and advises the Executive Board in its management of the company. This also covers sustainability matters. The Supervisory Board supports the Executive Board in significant business decisions and provides advice on strategically important issues. In the Rules of Procedures for the Executive Board, the Supervisory Board has defined transactions of fundamental importance which require its approval. In addition, the Supervisory Board is responsible for appointing the members of the Executive Board, deciding on their total remuneration and examining Deutsche Börse AG's annual and consolidated financial statements and the combined management report. Details of the Supervisory Board's work during the 2023 financial year can be found in the "Report of the Supervisory Board".

The Supervisory Board consists of 16 members, made up of an equal number of shareholder representatives and employee representatives in line with the German Mitbestimmungsgesetz (MitbestG, German Co-determination Act). The term of office of the current members ends at the Annual General Meeting in 2024.

The Supervisory Board holds at least six regular meetings every year. In addition, extraordinary meetings are held as required. Executive Board members attend the meetings unless the Supervisory Board decides otherwise in any particular case. The Supervisory Board also meets regularly without the Executive Board. Exchanges also take place as necessary with the annual auditors. The committees also hold regular meetings. Unless mandatory statutory provisions or the articles of incorporation call for a different procedure, the Supervisory Board passes its resolutions by a simple majority. If a vote is tied, the Chair has the casting vote. Further details of how the Supervisory Board and its committees work are defined in particular in the Rules of Procedure for the Supervisory Board, which can be downloaded at www.deutsche-boerse.com > Investor Relations > Corporate Governance > Supervisory Board > Rules of procedure.

The Supervisory Board reviews both the knowledge, skill and experience of the Executive Board and Supervisory Board as a whole and of their members regularly, at least once a year, and examines the structure, size, composition and performance of the Executive Board and Supervisory Board. Its review is based on a catalogue of specific targets, including qualification requirements, which, in turn, are reviewed regularly by the Supervisory Board. As a result of this review the qualification matrix was amended in the reporting year to show the competences "Strategy" and "Sustainability" separately. In this way, the Supervisory Board has made the qualification matrix even more transparent. The Supervisory Board also regularly, at least once a year, reviews the effectiveness of its work, discusses opportunities for improvement and decides on suitable measures if necessary. The concrete targets are described in the chapter Targets for composition and qualification requirements of the Supervisory Board and the annual effectiveness review is described in the chapter Examination of the effectiveness of Supervisory Board work.

The Chair of the Supervisory Board consults, on a regular basis, with the shareholder and employee representatives on the Supervisory Board, also outside the meetings, and arranges talks to prepare for the Supervisory Board meetings as necessary. Separate pre-meetings of shareholder and employee representatives also take place regularly before the ordinary meetings of the full Supervisory Board.

Supervisory Board committees

The Supervisory Board's goal in establishing committees is to improve the efficiency of its work by examining complex matters in smaller groups that prepare them for the plenary meeting of the Supervisory Board. Additionally, the Supervisory Board has delegated individual decision-making powers to the committees, to the extent that this is legally permissible. The Supervisory Board had seven committees in the reporting period. For details of the committees, please refer to the tables Supervisory Board committees in the reporting year: composition and responsibilities. Their individual responsibilities are governed by the Supervisory Board's bylaws. The committees' rules of procedure correspond to those for the plenary meeting of the Supervisory Board. Details of the current duties and members of the individual committees can be found online at www.deutsche-boerse.com > Corporate Governance > Investor Relations> Supervisory Board > Committees.

The chairs of the individual committees report to the plenary meeting about the subjects addressed and resolutions passed in the committee meetings. Outside the meetings the Chair of the Audit Committee also reports regularly to the Audit Committee and the full Supervisory Board on her regular exchanges with the annual auditor. Information on the Supervisory Board's concrete work and meetings during the reporting period can be found in the Report of the Supervisory Board.

More information on the Supervisory Board and its committees, the individual members and their appointments and biographies, can be found at: www.deutsche-boerse.com > Corporate Governance> Investor Relations > Supervisory Board.

Supervisory Board committees in the reporting year: composition and responsibilities

Audit Committee

Members

- Barbara Lambert (Chair)
- Andreas Gottschling
- Oliver Greie[1]
- Susann Just-Marx[1]
- Achim Karle[1]
- Michael Rüdiger

Provisions for the composition

- At least four members who are elected by the Supervisory Board
- At least one member with financial reporting expertise and one other member with auditing expertise[2]
- All members familiar with the financial sector
- Prerequisites for the chair of the committee: the person concerned must be independent, and must have specialist knowledge and experience either (i) in the application of accounting principles and internal control and risk management systems or (ii) in auditing, whereby accounting and auditing also include sustainability reporting and its auditing
- Persons who cannot chair the committee: the Chair of the Supervisory Board; former members of the company's Executive Board whose appointment ended less than two years ago

Responsibilities

- Deals with issues relating to the preparation of the annual budget and financial topics, particularly capital management
- Deals with issues relating to the adequacy and effectiveness of the company's control systems – in particular, to risk management, compliance and internal audit
- Deals with audit reports and financial reporting issues, including oversight of the financial reporting process
- Half-yearly financial reports, plus any quarterly financial reports, discusses the results of the reviews with the auditors
- Examines the annual financial statements and the management report, the consolidated financial statements and the Group management report, discusses the audit report with the external auditors and prepares the Supervisory Board's resolutions adopting the annual financial statements and approving the consolidated financial statements, as well as the resolution on the Executive Board's proposal on the appropriation of profit
- Prepares the Supervisory Board's recommendation to the Annual General Meeting on the election of the external auditors of the annual financial statements, the consolidated financial statements and the half-yearly financial report (to the extent that the latter is audited or reviewed by external auditors) and makes corresponding recommendations to the Supervisory Board
- Reviews the non-financial reporting (sections 289b, 315b HGB)
- Monitors the audit, particularly the selection and the independence of the external auditors, the quality of the audit and the additional services provided by the auditors
- Issues the engagement letter to the external auditor of the annual financial statements and the consolidated financial statements – including, in particular, the decision on and the commissioning of assigning the auditor (i) to review or audit the half-yearly financial reports, (ii) to review the non-financial reporting and (iii) to audit the remuneration report, as well as determining focal areas of the audit and the audit fee
- Prepares the Supervisory Board's resolution approving the statement on the German Corporate Governance Code pursuant to section 161 of the AktG and the corporate governance statement in accordance with section 289f of the HGB
- Control procedures on related-party transactions pursuant to section 111a (2) sentence 2 AktG
- Every member of the Audit Committee has the right to obtain information via the Chair of the Audit Committee from the heads of the company's main central departments; the Chair of the Audit Committee notifies all the committee members of the information obtained

1) Employee representatives.
2) Barbara Lambert has the expertise in auditing and Michael Rüdiger has the expertise in financial reporting required by section 100 (5) AktG. For details see the chapter Targets for composition and qualification requirements of the Supervisory Board.

Nomination Committee

Members	Provisions for the composition
▪ Martin Jetter (Chair) ▪ Markus Beck[1] ▪ Nadine Brandl[1] ▪ Anja Greenwood[1] ▪ Michael Rüdiger ▪ Clara-Christina Streit	▪ Chaired by the Chair of the Supervisory Board ▪ At least five other members who are elected by the Supervisory Board **Responsibilities** ▪ Develops a diversity concept for the Supervisory Board ▪ Deals with the regular, at least annual assessment of the structure, size, composition and performance of the Executive Board and Supervisory Board, as well as possible improvements ▪ Deals with the regular, at least annual assessment of the qualification requirements of individual members of the Executive Board and Supervisory Board, and the Executive Board and Supervisory Board as a whole ▪ Presentation of competencies in the qualification matrix and preparation of the resolution by the Supervisory Board ▪ Proposes suitable candidates to the Supervisory Board for inclusion in the Supervisory Board's election proposal to the Annual General Meeting (the proposal is submitted by shareholder representatives), including the regular review of the concrete targets and qualification requirements on which proposals are based ▪ Reviews the principles for the selection and appointment of Executive Board members and making recommendations to the Supervisory Board in this regard ▪ Addresses succession planning for the Executive Board, identifies suitable candidates to fill a position on the Executive Board and preparing the resolution to be passed by the Supervisory Board ▪ Enters into, amends or terminates service agreements within the framework defined by the Supervisory Board ▪ Prepares resolutions of the Supervisory Board on the remuneration system for Executive Board ▪ Prepares resolutions of the Supervisory Board on aggregate remuneration and retirement benefits of individual Executive Board members and determines payments to surviving dependants and any other similar payments; regularly reviews the reasonableness of Executive Board remuneration and develops proposals for any adjustments where required ▪ Prepares the reporting on the remuneration of the Executive Board and Supervisory Board ▪ Approves appointments of members of Deutsche Börse AG's Executive Board to other executive boards, supervisory boards, advisory boards and similar boards, as well as other part-time work and honorary appointments, including any exemptions from the approval requirement ▪ Approves the granting or revocation of general powers of attorney ▪ Approves cases in which the Executive Board grants employee's retirement pensions or other individually negotiated retirement benefits, or proposes to enter into employer/works council agreements establishing pension plans ▪ Decides on deferring publication of insider information and on drafting ad hoc notifications on information for which the Supervisory Board is responsible ▪ Other tasks and duties set forth in section 4b (5) of the BörsG

1) Employee representatives

Risk Committee

Members	Provisions for the composition
■ Andreas Gottschling (Chair) ■ Susann Just-Marx[1] ■ Barbara Lambert ■ Daniel Vollstedt[1]	■ At least four members who are elected by the Supervisory Board **Responsibilities** ■ Reviews the risk management framework, including the risk appetite and the risk management roadmap ■ Takes note of and reviews the periodic risk management and compliance reports ■ Oversees monitoring of the Group's operational, financial and business risks ■ Takes note of and discusses the annual reports on significant risks and the risk management systems at regulated Group entities, to the extent legally permissible

Strategy and Sustainability Committee

Members	Provisions for the composition
■ Martin Jetter (Chair) ■ Anja Greenwood[1] ■ Achim Karle[1] ■ Peter Sack[1] ■ Charles Stonehill ■ Chong Lee Tan	■ Chaired by the Chair of the Supervisory Board ■ At least five other members who are elected by the Supervisory Board **Responsibilities** ■ Advises the Executive Board on matters of strategic importance to the company and its affiliates ■ Addresses fundamental strategic and business issues and deals with the group's purpose ■ Deals with sustainable corporate governance and business activities of Deutsche Börse Group in the areas environmental, social and governance (ESG) criteria (unless another committee is responsible) ■ Deals with significant projects for Deutsche Börse Group

1) Employee representatives

Technology Committee

Members	Provisions for the composition
▪ Shannon A. Johnston (Chair) ▪ Markus Beck[1] ▪ Andreas Gottschling ▪ Peter Sack[1] ▪ Charles Stonehill ▪ Daniel Vollstedt[1]	▪ At least four members who are elected by the Supervisory Board **Responsibilities** ▪ Supports the Supervisory Board in meeting its supervisory duties with respect to the information technology used to execute the Group's business strategy and with respect to information security ▪ Advises on IT strategy and architecture ▪ Oversees monitoring of technological innovations, the provision of IT services, the technical performance and stability of IT systems, operational IT risks, and information security services and risks

Chairman's Committee

Members	Provisions for the composition
▪ Martin Jetter (Chair) ▪ Markus Beck[1] ▪ Nadine Brandl[1] ▪ Clara-Christina Streit	▪ Chaired by the Chair of the Supervisory Board ▪ Deputy Chair of the Supervisory Board as well as one shareholder representative and one employee representative who are elected by the Supervisory Board **Responsibilities** ▪ Time-sensitive affairs

Mediation Committee

Members	Provisions for the composition
▪ Martin Jetter (Chair) ▪ Markus Beck[1] ▪ Oliver Greie[1] ▪ Barbara Lambert	▪ Chaired by the Chair of the Supervisory Board ▪ Deputy Chairperson of the Supervisory Board as well as one shareholder representative and one employee representative each **Responsibilities** ▪ Tasks and duties pursuant to section 31 (3) MitbestG

1) Employee representatives

Targets for composition and qualification requirements of the Supervisory Board

In accordance with recommendation C.1 GCGC, the Supervisory Board has adopted a catalogue of specific targets concerning its composition that should serve, above all, as a basis for the nomination of future members. The targets include qualification requirements as well as diversity targets. Furthermore, members shall have sufficient time, as well as the personal integrity and suitability of character, to exercise their office. In addition, more than half the shareholder representatives on the Supervisory Board shall be independent. The targets, including the qualification requirements, are reviewed by the Supervisory Board regularly, at least annually, and modified as necessary. The status of implementation can be seen in the qualification matrix at the end of this statement.

In the reporting year, the Supervisory Board reviewed the specific targets at the recommendation of the Nomination Committee and refined them, so that the competences “Strategy” and “Sustainability” are shown separately in the qualification matrix from this reporting year onwards. In this way, the Supervisory Board has made the qualification matrix even more transparent, and in particular it also shows in which ESG areas the respective Supervisory Board members have sustainability experience. The Supervisory Board, supported by the Nomination Committee, also examined the targets for the overall board and for the individual members and confirmed that they had been met.

Qualification requirements

Given their knowledge, skills and professional experience, members of the Supervisory Board shall have the ability to perform the duties of a supervisory board member in a company with international business activities. The Supervisory Board has determined necessary basic competencies and particular competencies. The particular competences are derived from the business model, the corporate targets, as well as from specific regulations applicable to Deutsche Börse Group.

Basic competencies

Ideally, each Supervisory Board member has the following basic competencies:

- Understanding of business issues
- Analytical and strategic skills
- Understanding of the corporate governance system
- Knowledge of the financial sector
- Understanding of Deutsche Börse AG’s activities
- Understanding of Deutsche Börse Group’s structure
- Understanding of sustainability matters as relevant to Deutsche Börse AG
- Understanding of the member’s own position and responsibilities

Particular competencies

The requirements for particular competences refer to the Supervisory Board in its entirety. At least two of its members should have sound knowledge, especially concerning the following topics:

- Capital markets, business models of stock exchanges and data business
- Clearing, settlement and custody business
- Information technology and security, digitalisation
- Strategy
- Sustainability
- Accounting, finance and audit
- Risk management and compliance
- Regulatory requirements, law

The current composition of the Supervisory Board fulfils these criteria concerning the qualification of its members. The requirements of the German Stock Corporation Act and the GCGC for professional knowledge of accounting and auditing in the Audit Committee are also met. Barbara Lambert, the Chair of the Audit Committee, has the necessary professional knowledge of both auditing and accounting. The same applies to Michael Rüdiger, a member of the Audit Committee, who also has the necessary specialist knowledge of both auditing and accounting.

Barbara Lambert studied economics in Switzerland, where she also obtained her diploma as an auditor. As an active auditor of financial statements and banks over many years, she can draw on extensive experience of conducting and managing audit activities, particularly in the financial sector. She continues to update her auditing knowledge on a regular basis to this day. In addition to chairing the Audit Committee of Deutsche Börse AG, Barbara Lambert is a member or chair of the following audit and risk committees of boards of directors and supervisory boards: Implenia AG (since 2019), Synlab AG (since 2021, mandate will be resigned as of 31 March 2024), Merck KGaA (since 2023) and of the two companies UBS Switzerland AG (since 2022) and Credit Suisse (Switzerland) AG (since 2023), which belong to the same group of companies. In these functions, she regularly attends the training sessions offered by the respective companies. Alongside her work on boards of directors and supervisory boards, Barbara Lambert is a member of many relevant professional associations and networks, such as the Swiss expert association for auditing, tax and trusts (EXPERTsuisse), where in 2007 she was also a member of the expert group for bank auditing, and the German Audit Committee Chair Network of the Audit Committee Institute e.V. Her membership of these associations and networks serves not only the professional exchange but also her further professional training. Her full curriculum vitae is available at www.deutsche-boerse.com > Investor Relations > Corporate Governance > Supervisory Board > Barbara Lambert.

Michael Rüdiger has a degree in business studies and specialised in finance and controlling. He has many years of experience in the finance industry and until 2019 was CEO of DekaBank Deutsche Girozentrale. In addition to his work on the Supervisory Board of Deutsche Börse AG, where he has also been a member of the Audit Committee since 2020, Michael Rüdiger chairs the Audit Committee at Evonik Industries AG and chairs the Supervisory Board of BlackRock Asset Management Deutschland AG (2023) and the Board of Directors of BlackRock Asset Management Schweiz AG (since 2023). In these functions he regularly attends the training sessions offered by the respective companies. Michael Rüdiger is a member of relevant networks, such as the German Audit Committee Chair Network of the Audit Committee Institute e.V., where he discusses professional issues and receives ongoing training. He also regularly attends individual training courses on aspects of auditing and accounting, where he makes use of the expertise offered by large auditing firms. His full curriculum vitae is available at www.deutsche-boerse.com > Investor Relations > Corporate Governance > Supervisory Board > Michael Rüdiger.

Independence of Supervisory Board members

In accordance with recommendation C.6 GCGC, the Supervisory Board shall be comprised of what it considers to be an appropriate number of independent shareholder representatives. The shareholder representatives on the Supervisory Board therefore decided that at least half the shareholder representatives on the Supervisory Board shall be independent. Supervisory Board members are considered to be independent within the meaning of C.6 GCGC if they are independent of the company and its Executive Board and independent of any controlling shareholder. In particular, Supervisory Board members are no longer to be considered independent if they have a personal or business relationship with the company or its Executive Board that may cause a substantial (and not merely temporary) conflict of interest. According to recommendation C.7 GCGC, more than half the shareholder representatives shall be independent of the company and the Executive Board.

In the opinion of the shareholder representatives on the Supervisory Board, all of them are independent.

Diversity concept for the Executive Board and the Supervisory Board

The diversity concept for the Executive Board and the Supervisory Board, as adopted by the Supervisory Board in accordance with section 289f (2) no. 6 HGB, has the objective of ensuring a wide range of perspectives and experience through the composition of both bodies. The concept is implemented within the scope of selecting and appointing new Executive Board members or regarding proposals for election of new Supervisory Board members.

Flexible age limit and term of office

The Supervisory Board considers the flexible age limit stipulated in its bylaws (generally 70 years) when nominating candidates for election by the Annual General Meeting. Furthermore, the Supervisory Board's bylaws provide for a general limitation to members' maximum term of office to twelve years, which the Supervisory Board shall also consider in its nominations of candidates to the Annual General Meeting.

The flexible age limit for members of the Executive Board provides for the term of office to expire at the end of the month during which a member reaches the age of 60 years. An Executive Board member may be reappointed for one year at a time from the month in which they reach the age of 60. The last period of office should, nevertheless, end at the close of the month in which the Executive Board member turns 65. When appointing members of the Executive Board, the Supervisory Board pursues the objective of achieving an optimal composition of the Executive Board from the company's perspective. In this context, experience and industry knowledge, as well as professional and personal qualifications, play a major role. Depending on the Executive Board position to be filled, it is not just the scope and depth of skills that is decisive, but also whether the specific skills are up to date. The flexible age limit has been deliberately worded to preserve the Supervisory Board's flexibility in taking decisions on appointments.

At present, no Executive Board member has passed the age limit of 65 years.

Theodor Weimer's term of office as Chairman of Deutsche Börse AG's Executive Board runs until 31 December 2024. Theodor Weimer will reach the age of 65 in 2024. Gregor Pottmeyer's term of office as CFO of Deutsche Börse AG runs until 30 September 2025. Gregor Pottmeyer will reach the age of 63 in 2025. While maintaining the general rule on a flexible age limit, the Supervisory Board decided, in view of their long-standing experience and knowledge of the sector and professional and personal qualifications, not to renew

Theodor Weimer's and Gregor Pottmeyer's term of office solely on an annual basis once they reached the age of 60.

Share of women holding management positions

Deutsche Börse Group is an international company. Working at our company means collaborating with colleagues across over 56 locations from 131 nations. We are proud of the diverse cultural, professional and personal backgrounds of our colleagues around the globe. We are committed to maintaining, supporting and fostering the diverse and inclusive culture of Deutsche Börse AG across all diversity dimensions.

Regulations require us to consider one aspect of this diversity in particular detail in this report: the share of women holding management positions.

Deutsche Börse AG meets the statutory requirements for the proportion of women on the Executive Board and the Supervisory Board. This applies particularly to the diversity requirements for the Executive Board that have been in force since 2021.

Some 37.5 per cent of the shareholder representatives of the Supervisory Board are women and the Supervisory Board is determined to further increase this share.

The Supervisory Board is also determined to increase the proportion of women on the Executive Board, taking the current appointments into consideration. Currently, there is one female member on the board. Future personnel decisions will take this into account.

In detail: with regard to the Supervisory Board, the legally binding gender quota of 30 per cent in accordance with section 96 (2) AktG applies. In order to prevent any discrimination of either shareholder representatives or employee representatives, and in order to increase the planning security in the relevant election procedures, the shareholder representatives on the Supervisory Board have opposed the overall fulfilment of the quota in accordance with section 96 (2) sentence 2 AktG. Thus, the minimum quota of 30 per cent is to be complied with for each gender both with regard to the shareholder representatives and to the employee representatives. Based on the statutory calculation method, this means that at least two women and two men from both the shareholder representatives and the employee representatives must be on the Supervisory Board. There are currently six women on the Supervisory Board: three women among the shareholder representatives and three women among the employee representatives. The statutory gender quota is therefore fulfilled.

A statutory minimum quota for the Executive Board was introduced in the Act to Extend and Amend the Act on Equal Participation of Women and Men in Management Positions in the Private and Public Sectors (FüPoG II) of 10 June 2021. Executive Boards of listed companies with more than three members must include at least one woman and one man (section 76 (3a) AktG). This statutory minimum participation requirement replaces the obligation of companies to set a legally non-binding target quota. Deutsche Börse AG meets these statutory requirements and reports on them in accordance with section 289f (2) No. 5a HGB.

International profile

The composition of the Executive Board and the Supervisory Board shall reflect the company's international activities. With Dr Andreas Gottschling, Shannon A. Johnston, Barbara Lambert, Charles Stonehill, Clara-Christina Streit and Chong Lee Tan, there are six shareholder representatives on the Supervisory Board who are not, or not exclusively, German citizens. In addition, many of the members of the Supervisory Board have long-term professional experience in the international field or are working abroad on a permanent basis. The Supervisory Board will therefore continue to meet the objectives concerning its international composition.

The same applies to the Executive Board, where Stephan Leithner holds non-German citizenship, and whose members have gained long-standing international working experience as well.

Educational and professional background

The Supervisory Board has set itself the objective of considering an appropriate range of educational and professional backgrounds regarding its own composition, as well as regarding the composition of the Executive Board. In addition to possessing professional experience in the financial services industry, members of the Executive Board and the Supervisory Board also have a professional background in consultancy, the IT sector, auditing, administration and regulation. In terms of professional education, most members have business, economics or legal degrees, in addition to backgrounds in IT, engineering and other areas. Education and professional experience thus also contribute to fulfilling the previously mentioned qualification requirements for Supervisory Board members.

The composition of both Deutsche Börse AG's Supervisory Board and Executive Board is in line with the objectives stated above.

The following qualification matrix provides an overview of how the main targets for the composition of the Supervisory Board are met, and of the extent to which the particular competencies defined in the qualification requirements are present.

Qualification matrix: Profile and particular competencies of Supervisory Board members

	Martin Jetter (Chair)	Markus Beck	Nadine Brandl	Andreas Gottschling	Anja Greenwood	Oliver Greie	Shannon A. Johnston	Susann Just-Marx
Member since	2018	2018	2018	2020	2021	2022	2022	2018
Independence	Independent	Employee representative	Employee representative	Independent	Employee representative	Employee representative	Independent	Employee representative
Gender	Male	Male	Female	Male	Female	Male	Female	Female
Year of birth	1959	1964	1975	1967	1974	1976	1971	1988
Nationality	German	German	German	German, Swiss	German	German	USA	German
International experience	Yes	No	No	Yes	Yes	No	Yes	Yes
Educational and professional background [1]	Engineering	Law	Law	Economics and mathematics	Law	Nursing	General studies	Administration, economics
Particular competencies								
Capital markets, business models of stock exchanges and data business	✓	✓						
Clearing, settlement and custody business					✓			✓
Information technology and security, digitalisation	✓			✓			✓	
Strategy	✓	✓			✓			
Sustainability[2]	✓	✓	✓					
Accounting, finance and audit		✓	✓	✓		✓		✓
Risk management and compliance	✓		✓	✓		✓		✓
Regulatory requirements, law	✓	✓	✓	✓	✓		✓	

1) The curricula vitae of the Supervisory Board members can be found at www.deutsche-boerse.com > Investor Relations > Corporate Governance > Supervisory Board
2) Sustainability expertise is described in more detail below

Qualification matrix: Profile and particular competencies of Supervisory Board members

	Achim Karle	Barbara Lambert	Michael Rüdiger	Peter Sack	Charles Stonehill	Clara-C. Streit	Chong Lee Tan	Daniel Vollstedt
Member since	2018	2018	2020	2021	2019	2019	2021	2021
Independence	Employee representative	Independent	Independent	Employee representative	Independent	Independent	Independent	Employee representative
Gender	Male	Female	Male	Male	Male	Female	Male	Male
Year of birth	1973	1962	1964	1962	1958	1968	1962	1976
Nationality	German	German, Swiss	German	German	British, USA	German, USA	Singapore	German
International experience	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Educational and professional background [1]	Finance	Banking, economics, auditor	Banking, business studies	Economist, politics	History	Business studies	Economics and administration	IT and business studies
Particular competencies								
Capital markets, business models of stock exchanges and data business	✓		✓	✓	✓	✓	✓	
Clearing, settlement and custody business			✓	✓	✓	✓		
Information technology and security, digitalisation		✓			✓			✓
Strategy			✓		✓	✓	✓	
Sustainability[2]	✓	✓	✓		✓	✓		
Accounting, finance and audit		✓	✓			✓	✓	
Risk management and compliance		✓	✓		✓			✓
Regulatory requirements, law		✓	✓		✓	✓		

1) The curricula vitae of the Supervisory Board members can be found at www.deutsche-boerse.com > Investor Relations > Corporate Governance > Supervisory Board
2) Sustainability expertise is described in more detail below

Please refer to www.deutsche-boerse.com > Investor Relations > Corporate Governance > Supervisory Board for further information concerning the members of the Supervisory Board and its committees. For further information concerning the members of the Executive Board, please see www.deutsche-boerse.com > Investor Relations > Corporate Governance > Executive Board.

In addition to the basic knowledge of sustainability topics acquired partly from training sessions for the whole Supervisory Board, 8 of the 16 Supervisory Board members have more in-depth experience and knowledge of sustainability-related topics.

Martin Jetter	Markus Beck	Nadine Brandl	Achim Karle	Barbara Lambert	Michael Rüdiger	Charles Stonehill	Clara-C. Streit
E/S/G	S/G	S/G	E/S/G	E/S/G	E/S/G	E/S/G	S/G
Sustainable corporate governance focusing on environment, diversity, equity and inclusion; winner of the IBM Chairman's Environmental Award (2018)	Long-standing legal adviser on corporate governance and sustainability-related regulation	Expert in social sustainability topics and regulation from prior professional activities (academia and research, trade union and legal work)	Expert for ESG indices; member of the works council's Sustainability working group	Expert in sustainability reporting and auditing and the underlying standards	Expert in sustainability reporting and auditing and the underlying standards; expert on sustainability standards in asset management	Independent adviser to companies with a sustainable purpose	Chair of the Government Commission Corporate Governance (GCCG); long-standing involvement with leadership and staff development

Preparing the election of shareholder representatives to the Supervisory Board

The term of office of all the Supervisory Board members ends at the close of the Annual General Meeting 2024. The Supervisory Board's Nomination Committee, whose responsibility it is to put forward suitable candidates to the Supervisory Board for its proposals for election to the Annual General Meeting, has therefore dealt in detail with the election by the Annual General Meeting of the shareholder representatives to the Supervisory Board in 2024. Michael Rüdiger has decided not to stand again for election to the Supervisory Board. In a resolution dated 6 February 2024, the shareholder representatives on the Nomination Committee proposed eight candidates for election as shareholder representatives by the Annual General Meeting. Seven of the eight proposed candidates are currently Supervisory Board members; one candidate has not been a member to date. The targets for the composition of the Supervisory Board and the qualification requirements were taken into account when selecting this candidate. To this end, the shareholder representatives on the Nomination Committee began by drawing up a long list of suitable individuals. After interviewing the candidates on the long list, the shareholder representatives on the Nomination Committee agreed on a new candidate for the Supervisory Board elections in 2024. Information about all the candidates, including their CVs, will be sent with the invitation to the Annual General Meeting of Deutsche Börse AG to be held on 14 May 2024, and can also be viewed before the Annual General Meeting at www.deutsche-boerse.com/agm.

Training and professional development measures for members of the Supervisory Board

As a matter of principle, Supervisory Board members are responsible for their continuing professional development. Deutsche Börse AG follows recommendation D.11 GCGC and the guidelines of the European Securities and Markets Authority (ESMA) on management bodies of market operators and data reporting services providers, and supports Supervisory Board members in this endeavour. For example, it organises targeted introductory events for new Supervisory Board members and workshops on selected strategy, sustainability and current issues or on topics of fundamental importance. In addition to a specific workshop on the Horizon 2026 strategy process, two technology workshops on artificial intelligence and cybersecurity were held in the reporting year. Another two workshops were held on sustainability topics, which dealt with sustainability regulation and the future world of work in sectors relevant to Deutsche Börse AG. One workshop took place on the role of Deutsche Börse Group in the capital markets. Deutsche Börse AG covers the costs of workshops and basic training organised by itself for new Supervisory Board members. They also comprise training events from the Qualified Supervisory Board educational programme that the company designed itself. Deutsche Börse AG also covers the costs of third-party training activities in individual cases. Further information about the Supervisory Board workshops can be found in the Report of the Supervisory Board.

Examination of the effectiveness of Supervisory Board work

Deutsche Börse AG regards regular reviews of the effectiveness of Supervisory Board work – in accordance with recommendation D.12 GCGC – as a key component of good corporate governance. The annual effectiveness review is supported by an external service provider every third year, most recently in 2022. The effectiveness review in 2023 took place internally in the third quarter by means of a structured questionnaire and covered the tasks and composition of the Supervisory Board, collaboration within the Supervisory Board and with the Executive Board, as well as Supervisory Board and committee meetings. In addition, topics relating to the discussion and working culture and how current matters are dealt with by the Supervisory Board were addressed. The review yielded positive results, both in terms of overall effectiveness as well as regarding the audited subject areas. The Supervisory Board discussed the suggestions for improvement that were made, such as giving greater weight to the perspectives of external stakeholders of Deutsche Börse Group and developing the opportunities for exchange within the Supervisory Board, and initiated steps to implement them.

Long-term succession planning for the Executive Board

Together with the Executive Board, the Supervisory Board ensures that long-term succession planning takes place. For this purpose the Supervisory Board, or its Nomination Committee, regularly – at least once a year – concerns itself with potential candidates for the Executive Board. The Chair of the Executive Board is involved in these considerations, provided that the discussions do not refer to their own succession. The Supervisory Board prepares an applicant profile for vacant Executive Board positions. It takes care to ensure that the knowledge, expertise and experience of all Executive Board members is diverse and well balanced and adheres to the adopted diversity concept. Moreover, the Supervisory Board ensures it is informed regularly about the succession planning at the first level beneath the Executive Board, and provides advice to the Executive Board in this regard.

Target figures for the proportion of female executives beneath the Executive Board

Deutsche Börse AG's Executive Board has defined target quotas for women on the two management levels beneath the Executive Board, in accordance with section 76 (4) AktG, in each case referring to Deutsche Börse AG. By 31 December 2023, the proportion of women holding positions in the first and second management levels beneath the Executive Board was planned to reach 15 per cent and 27 per cent, respectively. As of 31 December 2023, the share of women holding positions on the first and second management levels beneath the Executive Board at Deutsche Börse AG in Germany was 15 per cent and 24 per cent, respectively.

Changes at the second management level had an impact on the number of female executives and the achievement of the target percentage at this level.

The Deutsche Börse Group is highly international, which means that for the development of female managers and appointments to management positions the consideration of a cross-company and cross-country perspective plays an important role. In this context, the Executive Board had set a Group-wide target share of women holding upper management positions (first three management levels below the Executive Board) of 23 per cent by 31 December 2023, and of women holding lower management positions of 30 per cent during the same period. In fact, this voluntary commitment went further than the statutory obligation. Firstly, the target figures determined in this context relate to Deutsche Börse Group worldwide. Secondly, the definition of management levels/positions was expanded to include heads of teams, for example. On a global level, as at 31 December 2023, these quotas stood at 23 per cent for upper management levels and 33 per cent for lower management positions.

Shareholder representation, transparent reporting and communication

Shareholders exercise their rights at the Annual General Meeting (AGM). Among other things, the AGM elects the shareholder representatives to the Supervisory Board and decides on formal approval for the actions of the Executive Board and the Supervisory Board. It also passes resolutions on the appropriation of the unappropriated surplus, capital measures, approval of intercompany agreements, amendments to the company's articles of incorporation, Supervisory Board remuneration, approval of the remuneration system for the Executive Board and the remuneration report, and the appointment of the auditors for the financial statements. Ordinary AGMs – at which the Executive Board and the Supervisory Board give an account for the past financial year – take place once a year.

In the spirit of good corporate governance, Deutsche Börse AG aims to make it as easy as possible for shareholders to exercise their shareholder rights and exchange views directly with one another.

For instance, Deutsche Börse AG shareholders may follow the AGM live over the internet and can be represented at the AGM by proxies nominated by Deutsche Börse AG, also by means of electronic communication. The proxies exercise voting rights solely in accordance with shareholders' instructions and can also be reached during the AGM. There is also a postal voting option, which includes electronic communication. When casting their vote, the shareholders have the choice of approving individual agenda items, rejecting them or abstaining.

The Supervisory Board discusses the results of voting at the AGM on a regular basis. A more in-depth discussion takes place particularly if the results are not within the range expected by the Supervisory Board, so for example if the voting differs significantly from that of comparable companies on fundamentally comparable topics. This was not the case in the reporting year for the resolutions taken at the AGM, including the temporary authorisation to hold virtual AGMs.

Section 118a (1) AktG establishes that a company's articles of incorporations may stipulate that the Annual General Meeting is to be held online, without the physical presence of shareholders or their proxies, or may authorise the Executive Board to adopt the corresponding resolutions.

In the reporting year the Executive Board decided, with the approval of the Supervisory Board, on the basis of the transitional provisions of section 26n (1) of the Introductory Act to AktG that the AGM should take place online, without the physical presence of shareholders or their proxies. Shareholders were able to follow the entire Annual General Meeting live online and exercise their voting rights, also via electronic communications, by means of postal voting or appointing the company proxies. They also had the opportunity to exercise their rights to speak and obtain information during the AGM by means of a video link, and to submit comments beforehand. Additionally, the company voluntarily published the speeches by the Chairs of the Executive Board and Supervisory Board ahead of the Annual General Meeting.

In the reporting year, the AGM of Deutsche Börse AG also decided to amend the company's articles of incorporation and authorise the Executive Board for a limited period of two years to hold the AGM virtually, without the physical presence of shareholders or their proxies. For future AGMs, a decision will be taken individually, and taking the particular circumstances as well as the interests of the company and its shareholders into account, as to whether the AGM should be held virtually, and use made of the authorisation. Past experience, as well as the time and expense involved, may also be taken into consideration. The Executive Board decided on this basis to hold the AGM virtually again in 2024.

The company currently intends to structure future virtual AGMs in a similar way to the ordinary Annual General Meeting in the reporting year. In particular, it intends to refrain from accepting and answering questions ahead of the AGM. Furthermore, the Supervisory Board members will attend the venue in person for the virtual AGM 2024.

To maximise transparency and ensure equal access to information, Deutsche Börse AG's corporate communications generally follow the rule that all target groups should receive all relevant information simultaneously. Deutsche Börse AG's financial calendar informs shareholders, analysts, shareholders' associations, the media and interested members of the public of key events such as the date of the AGM, or publication dates for financial performance indicators.

Ad hoc disclosures, information on directors' dealings and voting rights notifications, corporate reports and interim reports, and company news can all be found on Deutsche Börse's website www.deutsche-boerse.com. Deutsche Börse AG provides information about its annual and consolidated financial statements as well as interim reports in conference calls for analysts and investors. Furthermore, a regular investor day is held and Deutsche Börse continuously outlines its strategy and business developments to everyone who is interested, abiding by the principle that all target groups worldwide must be informed at the same time.

Accounting and auditing

Deutsche Börse AG's annual report provides shareholders and interested members of the public with detailed information on Deutsche Börse Group's business performance during the reporting period. Additional information is published in its half-yearly financial report and two quarterly statements. The annual financial statement documents and the annual report are published within 90 days of the end of the financial year (31 December); intra-year financial information (half-yearly financial report and quarterly statements) is made available within 45 days of the end of the relevant quarter or six-month period. Following preparations by the Audit Committee, the annual and consolidated financial statements are discussed by the entire Supervisory Board and with the external auditors, examined and then approved. The Executive Board discusses the half-yearly report and the quarterly statements for the first and third quarters with the Supervisory Board's Audit Committee prior to their publication. The half-yearly financial report is reviewed by the external auditors.

Following the recommendation by the Supervisory Board, the Annual General Meeting 2023 again elected PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, (PwC) as the auditors for the annual and consolidated financial statements 2023 and for the auditor's review of the half-yearly financial report in the reporting year. PwC was also engaged to perform a review of the form and contents of the remuneration report during the 2023 financial year. The auditors responsible are Marc Billeb and Michael Rönnberg. They have both been responsible for the audit since 2021. The Supervisory Board's proposal was based on a corresponding recommendation by the Audit Committee, which had obtained the necessary statement of independence from PwC before the election. This states that there are no personal, business, financial or other relationships between the auditor, its governing bodies and audit managers, on the one hand, and the company and the members of its Executive and Supervisory Boards, on the other, that could give cause to doubt the auditor's independence. The Audit Committee checked that this continued to be the case during the reporting period. It also oversaw the financial reporting process in 2023. The Supervisory Board was informed in a timely manner of the committee's work and the insights gained; there were no material findings. Information on audit services and fees is provided in note 6 to the consolidated financial statements.

Deutsche Börse AG (notes based on HGB)

The annual financial statements of Deutsche Börse AG are prepared in accordance with the provisions of the German Commercial Code (Handelsgesetzbuch, HGB) and the supplementary provisions of the German Stock Corporation Act (Aktiengesetz, AktG). They are the underlying basis for the notes that follow.

Business and operating environment

Business model and general position of the company

Deutsche Börse AG is the parent company of Deutsche Börse Group. The parent company's business activities include, first and foremost, the cash and derivatives markets, which are reflected in the Trading & Clearing segment. Deutsche Börse AG also operates essential parts of the Group's information technology. The performance of the Securities Services segment (formerly Clearstream) is primarily reflected in Deutsche Börse AG's business performance via the profit and loss transfer agreement with Clearstream Holding AG. The business and the operating environment of Deutsche Börse AG are largely the same as for the Group. They are described in the section "Macroeconomic and sector-specific environment".

Deutsche Börse AG's course of business in the reporting period

Deutsche Börse AG's sales revenue increased by 3.0 per cent in the 2023 financial year, which was in line with the company's expectations. By contrast, total costs (staff costs, amortisation of intangible assets and depreciation of property, plant and equipment and other operating expenses) rose by 6.7 per cent. EBITDA was €2.7 billion in the 2023 financial year and so was significantly above the forecast for the 2023 financial year of €1.4 billion. Net profit was up by 142.1 per cent compared with the previous year. The financial year was mainly defined by the ongoing geopolitical situation and the resulting market risks, rising inflation and interest rate increases by the central banks. Volatility on stock markets was lower overall than in the previous year, however. The increase in net income is primarily due to non-recurring effects within the result from equity investments. This stems partly from the fact that for the first time profits were recognised at Clearstream Holding AG in the period in which they originated, and partly from reorganisation of Deutsche Börse AG's shareholdings. On the basis of these developments, the Executive Board of Deutsche Börse AG considers its performance in 2023 to be positive in context.

Performance figures for Deutsche Börse AG

in € m	2023	2022	Change
Sales revenue	1,697.4	1,647.9	3.0 %
Total costs	1,280.7	1,199.8	6.7 %
Net income from equity investments	1,764.0	524.2	236.5 %
EBITDA	2,698.8	1,215.1	122.1 %
Net profit for the period	2,118.4	875.1	142.1 %
Earnings per share (€)[1]	11.44	4.76	140.3 %

1) Calculation based on weighted average of shares outstanding

Results of operations of Deutsche Börse AG

Deutsche Börse AG's sales revenue rose by 3.0 per cent in 2023. This is largely due to an increase in sales revenue of €22.9 million in the Trading & Clearing Segment. For more information on the development of the Trading & Clearing segment, please refer to the "Trading & Clearing segment" section. The other segments mainly relate to the provision of central functions. By contrast, these segments have a material impact on the company's investment income. The breakdown of income by the company's individual segments is shown in the table "Sales revenue by segment".

The company's total costs were up 6.7 per cent year on year. For a breakdown, please refer to the table "Overview of total costs". Staff costs rose by 16.2 per cent year on year during the year under review, to €341.4 million. The increase in staff costs is mainly due to the larger number of employees following the opening of new offices in Czech Republic and Ireland. Amortisation of intangible assets and depreciation of property, plant and equipment increased by 0.4 per cent in the year under review. Other operating expenses were up 4.0 per cent year on year. This stems from the opening of new offices and general price increases.

The result of equity investments at Deutsche Börse AG rose year on year by 236.5 per cent in 2023. It consisted partly of dividend income of €261.7 million (2022: €161.6 million) and income from the transfer of profits of €1,474.1 million (2022: €412.2 million). The higher income from profit transfers is due to the fact that for the first time profits were recognised in the year in which they originated at the level of Clearstream Holding AG and its net income for the year increased as a result. An internal reorganisation within Deutsche Börse Group, which included the contribution and the sale of the investment in ISS HoldCo Inc. to ISS STOXX GmbH and the transfer of the investment in Axioma Inc. to SimCorp A/S as a capital contribution, resulted in an overall positive effect of €26.8 million in financial year 2023. Impairment losses of €35.9 million were recognised on financial assets, along with write-ups of €37.3 million.

Earnings before interest, taxes, depreciation and amortisation (EBITDA) went up by 122.1 per cent due to the effects mentioned above. Net income for the period amounted to €2,118.4 million, an increase of 142.1 per cent.

Sales revenue by segment

in €m	2023	2022	Change
Trading & Clearing	1,523.9	1,501.0	1.5 %
Securities Services	107.8	116.3	– 7.3 %
Fund Services	54.6	25.9	110.8 %
Investment Management Solutions	11.1	4,7	136.2 %
Total	**1,697.4**	**1,647.9**	**3.0 %**

Overview of total costs

in €m	2023	2022	Change
Staff costs	341.4	293.9	16.2 %
Depreciation and amortisation	73.9	73.6	0.4 %
Other operating expenses	865.4	832.3	4.0 %
Total	**1,280.7**	**1,199.8**	**6.7 %**

Development of profitability

Deutsche Börse AG's return on equity expresses the ratio of net income after taxes to average equity available to the company during the course of 2023. Return on equity rose from 21.9 per cent in 2022 to 49.1 per cent in the year under review. The increase is particularly due to the one-off effect of recognising profits in the year in which they originated at the level of Clearstream Holding AG for the first time.

Financial position of Deutsche Börse AG

As at 31 December 2023, cash and cash equivalents amounted to €150.4 million (2022: €442.0 million). This includes balances on current accounts, fixed-term deposits and other short-term investments, whereby the majority is held in cash.

Deutsche Börse AG has external credit lines available of €600.0 million (2022: €600.0 million), which were unused as at 31 December 2023. Moreover, the company has a commercial paper programme in place, which allows for flexible and short-term financings of up to €2.5 billion, in various currencies. Commercial paper with a nominal value of €590.0 million (2022: €60.0 million) was in circulation at year-end.

Through a Group-wide cash-pooling system, Deutsche Börse AG ensures an optimum allocation of liquidity throughout Deutsche Börse Group; in this way, the parent entity makes sure that all subsidiaries are in a position to honour their payment obligations at all times.

Deutsche Börse AG has issued ten corporate loans with a total nominal volume of €6.8 billion. For more details concerning these bonds, please refer to the "Financial position" section.

In the 2023 financial year, Deutsche Börse AG generated cash flow from operating activities of €832.1 million (2022: €1,209.4 million).

Cash flow from investing activities amounted to €–3,819.5 million (2022: €–392.5 million). The change is primarily due to the acquisition costs of €3.9 billion for SimCorp A/S.

Cash flow from financing activities amounted to €3,097.0 million in the year under review (2022: €–812.2 million). A dividend of €661.5 million was paid for the 2022 financial year. Bonds were issued for a total of €3 billion to finance the acquisition of SimCorp A/S. Commercial papers were also issued in the reporting year with a nominal value of €530.0 million. Cash and cash equivalents amounted to €–866.1 million as at the reporting date 31 December 2023 (2022: €–756.5 million). It is made up of liquid funds of €150.4 million (2022: €442.0 million), less cash-pooling liabilities of €1,016.6 million (2022: €1,198.5 million).

Cash flow statement (condensed)

in €m	2023	2022
Cash flow from operating activities	832.1	1,209.4
Cash flow from investing activities	– 3,819.5	– 392.5
Cash flow from financing activities	3,097.0	– 812.2
Cash and cash equivalents as at 31 December	**– 866.1**	**– 756.5**

Assets of Deutsche Börse AG

As at 31 December 2023, the non-current assets of Deutsche Börse AG amounted to €12,780.5 million (2022: €8,805.5 million). At €12,522.3 million, most of the non-current assets consisted of shares in affiliated companies (2022: €8,024.7 million). The increase in financial year 2023 is primarily due to the acquisition of SimCorp A/S for €3.9 billion.

Deutsche Börse AG's investments in intangible assets and property, plant and equipment totalled €37.6 million during the year under review (2022: €128.2 million) and were thus lower than in the previous year. Depreciation and amortisation in 2023 amounted to €73.9 million (2022: €73.6 million).

Receivables from and liabilities to affiliated companies include invoices for intra-Group services and amounts invested by Deutsche Börse AG within the scope of cash-pooling arrangements. The receivables from affiliated companies relate to invoices for intra-Group services, but primarily to Clearstream Holding AG for the company's profit transfer of €1,474.1 million. Liabilities to affiliated companies resulted mainly from cash-pooling amounting to €1,025.0 million (2022: €1,199.6 million) and trade liabilities of €80.8 million (2022: €84.8 million).

Concerning the change in treasury shares we refer to the more detailed comments in the notes to the financial statements of Deutsche Börse AG in accordance with Section 315 (2) sentence 2 HGB.

Deutsche Börse AG employees

The number of employees (as defined by HGB)[1] at Deutsche Börse AG rose by 860 in the reporting year and totalled 2,570 as at 31 December 2023 (31 December 2022: 1,710). The average number of employees at Deutsche Börse AG in the 2023 financial year was 2,158 (2022: 1,701).

Deutsche Börse AG has employees at eight locations around the world. Two offices were opened – in Czech Republic and Ireland – in 2023. During the 2023 financial year, 138 employees left Deutsche Börse AG, resulting in a staff turnover rate of 6 per cent. Deutsche Börse AG employees are 41 years old on average and have been with the company for an average of 8 years.

[1] Employees do not include the company's legal representatives, apprentices and employees on parental leave.

Remuneration report of Deutsche Börse AG

The principles governing the structure and design of the remuneration system at Deutsche Börse AG are the same as those for Deutsche Börse Group, so reference is made to the "Remuneration report" which is published alongside the annual report.

Corporate governance statement in accordance with section 289f HGB

The corporate governance statement in accordance with section 289f HGB is the same as that for Deutsche Börse Group. Reference is therefore made to the section "Corporate governance statement".

Opportunities and risks facing Deutsche Börse AG

The opportunities and risks of Deutsche Börse AG and the activities and processes to manage these are largely the same as for Deutsche Börse Group, so reference is made to the "Risk report" and the "Report on opportunities". As a rule, Deutsche Börse AG shares the opportunities and risks of its equity investments and subsidiaries in accordance with its equity interest. Risks that could potentially threaten the existence of the Eurex Clearing AG subsidiary would also have a direct influence on Deutsche Börse AG based on a letter of comfort issued by Deutsche Börse AG. As at the reporting date, there were no risks jeopardising the company's existence. Further information on the letter of comfort issued to Eurex Clearing AG is available in the section Other financial obligations and off-balance sheet transactions in the notes to the annual financial statements of Deutsche Börse AG. The description of the internal control system (ICS), required by section 289 (4) HGB, is provided in the Risk report section.

Report on expected developments for Deutsche Börse AG

The expected developments in Deutsche Börse AG's business are largely subject to the same factors as those influencing Deutsche Börse Group. However, the revenue of Deutsche Börse AG is largely determined by the Trading & Clearing segment, whereby this is mostly generated via Eurex Frankfurt AG (EFAG) and Eurex Clearing AG (ECAG) in the form of revenue transfers (operational management structure).

Additional factors affecting future earnings at Deutsche Börse AG are the investment income from affiliated companies and income from profit transfer agreements.

Deutsche Börse AG expects sales of more than €1.7 billion and EBITDA of more than €1.6 billion for 2024.

Further comments on Deutsche Börse AG can be found in the "Report on expected developments" section.

Takeover-related disclosures

Disclosures in accordance with sections 289a sentence 1 and 315a sentence 1 of the German Commercial Code (HGB) and explanatory notes

Deutsche Börse AG makes the following disclosure in accordance with sections 289a sentence 1 and 315a sentence 1 of the German Commercial Code (HGB) as at 31 December 2023:

The share capital of Deutsche Börse AG amounted to €190.0 million on the above-mentioned reporting date and was composed of 190 million no-par value registered shares. There are no other classes of shares besides these ordinary shares.

The share capital has been contingently increased by up to €17.8 million by issuing up to 17.8 million no-par value registered shares (contingent capital 2019). The contingent capital increase will only be implemented to the extent that holders of convertible bonds or of warrants attaching to bonds with warrants issued by the company or by a Group company in the period until 7 May 2024 on the basis of the authorisation granted to the Executive Board by resolution of the Annual General Meeting of 8 May 2019 on Item 8 (b) of the agenda exercise their conversion or option rights, that they meet their conversion or option obligations, or that shares are tendered, and no other means are used to settle such rights or obligations. More details can be found in Article 4 (7) of the Articles of Association of Deutsche Börse AG.

The Executive Board is only aware of those restrictions on voting rights that arise from Aktiengesetz (AktG, German Stock Corporation Act). Those shares affected by section 136 AktG are therefore excluded from voting rights. Furthermore, shares held by Deutsche Börse AG as treasury shares are exempted from the exercise of any rights according to section 71b AktG.

Under the Wertpapierhandelsgesetz (WpHG, German Securities Trading Act), any investor whose shareholding reaches, exceeds or falls below specified voting right thresholds as a result of purchase, sale or any other transaction is required to notify the company and Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin, German Federal Financial Supervisory Authority). The lowest threshold for this disclosure requirement is 3 per cent. Deutsche Börse AG is not aware of any direct or indirect equity interests in its capital exceeding 10 per cent of the voting rights.

There are no shares with special provisions granting the holder control rights.

Employees holding shares in Deutsche Börse AG exercise their rights in the same way as other shareholders in accordance with the statutory provisions and the Articles of Association.

Members of the Executive Board are appointed and dismissed in accordance with sections 84 and 85 AktG and with Article 6 of the Articles of Association of Deutsche Börse AG. Amendments to the Articles of Association of Deutsche Börse AG are adopted by resolution of the Annual General Meeting in accordance with section 119 (1) No. 6 AktG. Under Article 12 (4) of the Articles of Association of Deutsche Börse AG, the Supervisory Board has the power to make changes to the Articles of Association that relate to the wording only. In accordance with Article 18 (1) of the Articles of Association of Deutsche Börse AG, resolutions of the Annual General Meeting are passed by a simple majority of the votes cast, unless otherwise required by the Aktiengesetz. Insofar as AktG additionally prescribes a majority of the share capital represented at the time of a resolution, a simple majority of the share capital represented is sufficient where this is legally permissible.

Subject to the approval of the Supervisory Board, the Executive Board is authorised to increase the share capital by up to a total of €19.0 million on one or more occasions in the period up to 18 May 2026 by issuing new no-par value registered shares in exchange for cash and/or non-cash contributions (authorised capital I). Shareholders must be granted pre-emptive rights. However, subject to approval by the Supervisory Board, the Executive Board may exclude shareholders' pre-emptive rights with respect to fractional amounts. However, according to the authorisation, the Executive Board may only exclude shareholders' pre-emptive rights if the total number of shares that are issued during the term of authorisation and that exclude shareholders' pre-emptive rights does not exceed 10 per cent of the share capital. Full authorisation, and particularly the conditions under which shareholders' pre-emptive rights can be excluded, is derived from Article 4 (3) of the Articles of Association of Deutsche Börse AG.

The Executive Board is also authorised to increase the share capital by up to a total of €19.0 million on one or more occasions in the period up to 18 May 2025, subject to the approval of the Supervisory Board, by issuing new no-par value registered shares against cash and/or non-cash contributions (authorised capital II). Shareholders must be granted pre-emptive rights, which the Executive Board can exclude in certain cases, subject to the approval of the Supervisory Board in each case. The Executive Board is authorised to exclude shareholders' pre-emptive rights: (1) in the case of cash capital increases, provided that the issue price of the new shares is not significantly lower than the quoted price, and the total number of shares issued under exclusion of shareholders' pre-emptive rights does not exceed 10 per cent of the share capital; (2) in the case of physical capital increases in exchange for non-cash contributions for the purpose of acquiring companies, parts of companies, interests in companies or other assets; or (3) with respect to fractional amounts. However, according to the authorisation, the Executive Board may only exclude shareholders' pre-emptive rights if the total number of shares that are issued during the term of authorisation and that exclude shareholders' pre-emptive rights does not exceed 10 per cent of the share capital. Full authorisation, and particularly the conditions under which shareholders' pre-emptive rights can be excluded, is derived from Article 4 (4) of the Articles of Association of Deutsche Börse AG.

In addition, the Executive Board is authorised to increase the share capital by up to a total of €19.0 million on one or more occasions in the period up to 18 May 2024, subject to the approval of the Supervisory Board, by issuing new no-par value registered shares in exchange for cash contributions (authorised capital III). Shareholders must be granted pre-emptive rights, which the Executive Board can exclude, subject to the approval of the Supervisory Board, only for fractional amounts. However, according to the authorisation, the Executive Board may only exclude shareholders' pre-emptive rights if the total number of shares that are issued during the term of authorisation and that exclude shareholders' pre-emptive rights does not exceed 10 per cent of the share capital. The exact content of this authorisation is derived from Article 4 (5) of the Articles of Association of Deutsche Börse AG.

Subject to the approval of the Supervisory Board, the Executive Board is also authorised to increase the share capital by up to a total of €19.0 million on one or more occasions in the period up to 17 May 2027 by issuing new no-par value registered shares in exchange for cash and/or non-cash contributions (authorised capital IV). Shareholders must be granted pre-emptive rights unless the Executive Board makes use of the authorisation granted to it to exclude such rights, subject to the approval of the Supervisory Board. The Executive Board is authorised to exclude shareholders' pre-emptive rights for fractional amounts with the approval of the Supervisory Board. According to the authorisation, the Executive Board may only exclude shareholders' pre-emptive rights if the total number of shares that are issued during the term of authorisation and that exclude shareholders' pre-emptive rights does not exceed 10 per cent of the share capital. The full authorisation is derived from Article 4 (6) of the Articles of Association of Deutsche Börse AG.

The Executive Board is authorised to purchase treasury shares up to 10 per cent of the share capital. However, the acquired shares, together with any treasury shares acquired for other reasons that are held by the company or attributed to it in accordance with sections 71a et seq. AktG, may at no time exceed 10 per cent of the company's share capital. The authorisation to acquire treasury shares is valid until 7 May 2024 and may be exercised by the company in full or in part on one or more occasions. However, it may also be exercised by dependent companies, by companies in which Deutsche Börse AG holds a majority interest or by third parties on its or their behalf. The Executive Board may elect to acquire the shares: (1) on the stock exchange; (2) via a public tender offer addressed to all shareholders or via a public request for offers of sale addressed to the company's shareholders; (3) by issuing tender rights to shareholders; or (4) using derivatives (put options, call options, forward purchases or a combination of put options, call options and forward purchases). The full and exact wording of the authorisation to acquire treasury shares, and particularly the permissible uses to which the shares may be put, can be found in items 6 and 7 of the agenda for the Annual General Meeting held on 8 May 2019.

The following material agreements of the company are subject to a change-of-control clause following a takeover bid:

- On 21 March 2023, Deutsche Börse AG and its subsidiary Clearstream Banking S.A. entered into a facility agreement with a banking syndicate for a working capital credit totalling up to €750.0 million. If there is a change of control, the credit relationship between Deutsche Börse AG and the lenders can be reviewed in negotiations within a period of no more than 60 days. In this process, each lender has the right, at its own discretion, to terminate its credit commitment and demand partial or full repayment of the amounts owing to it. A change of control occurs if Deutsche Börse AG no longer directly or indirectly holds the majority of Clearstream Banking S.A. or if a person or a group of persons acting in concert acquires more than 50 per cent of the voting shares of Deutsche Börse AG.
- Under the terms of Deutsche Börse AG's €600.0 million fixed-rate bond issue 2020/2047 (hybrid bond), and the terms of Deutsche Börse AG's €500.0 million fixed-rated bond issue 2022/2048, Deutsche Börse AG has a termination right in the event of a change of control (as defined in the terms of the bond), which, if exercised, entitles Deutsche Börse AG to redeem the bonds at par, plus accrued interest. If Deutsche Börse AG does not exercise this termination right, the affected bonds' coupon will increase by an additional 500 basis points per annum. A change of control occurs if a person or a group of persons acting in concert, or third parties acting on their behalf, has or have acquired more than 50 per cent of the shares of Deutsche Börse AG or the number of Deutsche Börse AG shares required to exercise more than 50 per cent of the voting rights at Annual General Meetings of Deutsche Börse AG. In addition, the relevant bond terms require that the change of control must adversely affect the long-term rating given to Deutsche Börse AG by Moody's Investors Services, Inc., S&P Global Ratings or Fitch Ratings Limited. Further details can be found in the applicable bond terms.
- According to the terms of Deutsche Börse AG's €500.0 million fixed-rate bond issue 2015/2025, the terms of Deutsche Börse AG's €600.0 million fixed-rate bond issue 2018/2028, the terms of Deutsche Börse AG's €500.0 million fixed-rate bond issue 2021/2026, the terms of Deutsche Börse AG's €500.0 million fixed-rate bond issue 2021/2031, the terms of Deutsche Börse AG's €600.0 million fixed-rate bond issue 2022/2032, the terms of Deutsche Börse AG's €1,000.0 million fixed-rate bond issue 2023/2026, the terms of Deutsche Börse AG's €750.0 million fixed-rate bond issue 2023/2029 and the terms of Deutsche Börse AG's €1,250.0 million fixed-rate bond issue 2023/2033, the holders of the respective bonds have a termination right in the event of a change of control (as defined in the terms of the bond). If these termination rights are exercised, the bonds are repayable at par plus any accrued interest. A change of control occurs if a person or a group of persons acting in concert, or third parties acting on their behalf, has or have acquired more than 50 per cent of the shares of Deutsche Börse AG or the number of Deutsche Börse AG shares required to exercise more than

50 per cent of the voting rights at Annual General Meetings of Deutsche Börse AG. In addition, the respective bond terms require that the change of control must adversely affect the rating given to one of the preferential unsecured debt instruments of Deutsche Börse AG by Moody's Investors Services, Inc., S&P Global Ratings or Fitch Ratings Limited. Further details can be found in the applicable bond terms.

Annual financial statements of Deutsche Börse AG for the financial year from 1 January to 31 December2023

Balance Sheet

as at 31.12.2023

Assets

	31.12.2023 €	31.12.2022 € (thousand)
NON-CURRENT ASSETS		
Intangible Assets		
Licences and similar rights for data processing and software	118,341,069.76	89,104
Goodwill	7,372,583.35	0
Prepayments	5,710,498.02	36,831
	131,424,151.13	125,935
Tangible Assets		
Fixtures on third party land	37,327,629.86	17,062
Operating and office equipment	81,663,991.18	89,951
Prepayments on account and construction in progress	7,812,172.69	9,966
	126,803,793.73	116,979
Financial Assets		
Investments in affiliated companies	11,911,519,760.24	8,024,725
Loans to affiliated companies	364,578,410.10	302,601
Investments	171,246,507.04	128,765
Long-term securities	74,970,682.52	106,466
	12,522,315,359.90	8,562,557
Total non-current Assets	12,780,543,304.76	8,805,471
CURRENT ASSETS		
Accounts receivables and other assets		
Trade accounts receivables	187,299,594.00	148,798
thereof with a residual term over one year €0.00 (previous year: €0 thousand)		
Receivables from affiliated companies	1,843,688,180.69	575,743
thereof with a residual term over one year €0.00 (previous year: €0 thousand)		
Receivables from companies in which the Company has a participating interest	1,162,176.86	384
thereof with a residual term over one year €0.00 (previous year: €0 thousand)		
Other current assets	69,456,116.79	56,681
thereof with a residual term over one year €0.00 (previous year: €0 thousand)		
	2,101,606,068.34	781,606
Cash and bank balances	150,431,289.18	442,045
Total Current Assets	2,252,037,357.52	1,223,651
PREPAID EXPENSES AND DEFERRED CHARGES	98,299,986.98	80,285
EXCESS OF PLAN ASSETS OVER LIABILITIES	6,794.40	25
Total Assets	15,130,887,443.66	10,109,432

Shareholder's Equity and Liabilities

	31.12.2023 €	31.12.2022 € (thousand)
SHAREHOLDER'S EQUITY		
Subscribed Capital		
Subscribed capital before retirement	190,000,000.00	190,000
Nominal value of treasury shares acquired	(4,887,540.00)	(6,261)
Total Subscribed Capital	185,112,460.00	183,739
Capital Reserve	1,538,897,743.26	1,408,135
Retained Earnings	3,134,811,590.56	1,937,984
Unappropriated Surplus	1,060,000,000.00	700,000
Total Shareholder's Equity	5,918,821,793.82	4,229,858
PROVISIONS		
Provisions for pensions and similar obligations	76,324,193.38	79,300
Provisions for taxes	149,042,300.65	172,885
Other provisions	301,606,481.85	372,263
Total Provisions	526,972,975.88	624,448
LIABILITIES		
Bonds	7,389,077,230.22	3,859,978
thereof with a residual term up to one year €589,077,230.22 (previous year: €60,022 thousand)		
thereof with a residual term over one year €6,800,000,000.00 (previous year: €3,800,000 thousand)		
Trade accounts payables	18,367,454.33	2,109
thereof with a residual term up to one year €18,367,454.33 (previous year: €2,109 thousand)		
thereof with a residual term over one year €0.00 (previous year: €0 thousand)		
Liabilities affiliated companies	1,105,768,297.58	1,284,426
thereof with a residual term up to one year €1,105,768,297.58 (previous year: €1,284,426 thousand)		
thereof with a residual term over one year €0.00 (previous year: €0 thousand)		
Liabilities to companies in which the company has a participating interest	179,719.31	0
thereof with a residual term up to one year €179,719.31 (previous year: €0 thousand)		
thereof with a residual term over one year €0.00 (previous year: €0 thousand)		
Other Liabilities	70,898,535.27	41,221
thereof with a residual term up to one year €70,898,535.27 (previous year: €41,221 thousand)		
thereof from taxes €8,077,354.36 (previous year: €12,025 thousand)		
thereof from social security €257,025.58 (previous year: €174 thousand)		
thereof with a residual term over one year €0.00 (previous year: €0 thousand)		
Total Liabilities	8,584,291,236.71	5,187,734
DEFERRED INCOME	100,801,437.25	67,392
Total Shareholder's Equity and Liabilities	15,130,887,443.66	10,109,432

Income Statement

for the period of 1 January to 31 December 2023

	2023 €	2022 € (thousand)
Sales revenue	1,697,353,345.77	1,647,912
Other operating income	471,842,463.51	108,673
thereof from currency translation €49,868,756.37 (previous year: €52,389 thousand)		
Personnel expenses		
Wages and salaries	-292,285,784.01	-246,260
Social securities, pensions and other benefits	-49,073,167.54	-47,667
thereof for pensions €-13,305,211.85 (previous year: €-23,086 thousand)		
	-341,358,951.55	-293,927
Depreciation		
of intangible and tangible assets	-73,867,003.31	-73,637
Other operating expenses	-865,396,391.30	-832,273
thereof from currency translation €-59,909,512.63 (previous year: €-64,884 thousand)		
Income from participating interests	261,696,590.11	161,580
thereof from affiliated companies €252,404,247.71 (previous year: €137,692 thousand)		
Income from profit and loss agreements	1,474,050,425.67	412,117
Income from Financial Assets: Long-term Securities and Loans	619,343.74	10,968
thereof from affiliated companies €0.00 (previous year: €0 thousand)		
Other interest and similar income	51,787,504.71	18,698
thereof from affiliated companies €21,436,212.55 (previous year: €15,994 thousand)		
thereof from addition of discounted interest €165,768.25 (previous year: €27 thousand)		
Depreciation of Current Assets: Financial Assets and Securities	-322,815,568.17	-76,225
thereof from affiliated companies €-318,024,644.85 (previous year: €-19,690 thousand)		
Interest and similar expenses	-136,801,711.98	-100,928
thereof to affiliated companies €-33,146,655.65 (previous year: €-7,192 thousand)		
thereof from addition of compounded interest €-8,500,905.91 (previous year: €-10,538 thousand)		
Tax on profit	-98,759,747.68	-107,870
Income after Tax	2,118,350,299.52	875,088
Other Taxes	0.00	3
Net Income for the financial year	2,118,350,299.52	875,091
Allocations to other profit reserve	-1,058,350,299.52	-175,091
Unappropriated Surplus	1,060,000,000.00	700,000

Notes to the financial statements for financial year 2023

General information on the Company

Deutsche Börse AG (the "Company"), which has its registered office in Frankfurt/Main, Germany, is registered in Commercial Register B of Frankfurt/Main District Court under the number HRB 32232.

Accounting policies

Deutsche Börse AG's financial statements for financial year 2023 were prepared in accordance with the provisions of the Handelsgesetzbuch (HGB, German Commercial Code) and of the Aktiengesetz (AktG, German Stock Corporation Act).

The total cost accounting method was chosen for the income statement.

The Company is a large corporation as defined by section 267 (3) HGB.

In the reporting year,the Company implemented a parallel general ledger for HGB and IFRS accounting as part of the SAP/S4 Hana transformation and redesigned the current chart of accounts. The separate general ledger accounting for HGB and IFRS now facilitates parallel processing of data and the new chart of accounts and optimisation of interface systems allow for greater data granularity. Reporting of individual accounting issues is therefore more precise, which may lead to different recognition compared to the previous approach. The Company's figures for the previous year have not been adjusted. The effects of the transition will be presented separately in the notes to the respective balance sheet items.

Due to commercial rounding, there may be slight deviations from the published figures from the previous year and from the addition of rounded individual values.

Non-current assets

Acquired intangible assets are carried at cost and amortised using the straight-line method or valued at the lower fair value. Licences and similar rights for IT and software are amortised over a useful life of between three and ten years. No use was made of the option to capitalise internally generated intangible assets.

Property, plant and equipment are carried at cost. Fixtures on third-party land are depreciated according to the term of the relevant rental agreements. Depreciable property, plant and equipment is depreciated using the straight-line method over its useful life or valued at its lower fair value.

For movable assets, the tax simplification rules regarding the depreciation start date are applied in their valid form on the respective date of acquisition. Other assets, furniture and office equipment are depreciated over a useful life of between three and 19 years. Low-value assets with acquisition or production costs of between €250 and €800 are written off in full in the year of acquisition or production in accordance with section 6 (2) of the

Einkommensteuergesetz (German Income Tax Act, EStG). In this respect, no use was made of the option granted by section 6 (2a) EStG.

Investments in affiliated companies stated under financial assets as well as equity interests are carried at the lower of cost or fair value if the impairment is expected to be permanent. Loans are recognised at nominal value, taking into account any permanent impairment, where applicable. Securities are carried at acquisition cost or at the lower exchange rate on the reporting date, in the event of permanent impairment. If the circumstances which led to the write-down of financial assets no longer apply, a reversal is recognised up to a maximum of the original acquisition cost.

Fixed asset line items denominated in foreign currency have been translated into euro amounts using the historical exchange rates valid on the date of acquisition; in cases of permanent impairment, the conversion is at the period-end exchange rate.

Current assets

Receivables and other assets are always carried at their nominal amount. All discernible risks are impaired on an item-by-item basis, while latent risks are considered on a portfolio basis.

Demand deposits at banks are recognised at their nominal value.

Accounts receivable and other assets as well as bank balances in foreign currency are translated at Bloomberg average spot exchange rates upon acquisition. Subsequent measurement takes place on the reporting date in accordance with section 256a HGB.

Prepaid expenses

Prepaid expenses generally include expenditure incurred before the reporting date if it represents an expense for a certain time thereafter.

Equity

Subscribed capital is carried at nominal value.

Provisions

Provisions for pensions and similar obligations have been determined on the basis of actuarial tables using the projected unit credit method based on the 2018 G mortality tables (generation tables) developed by Dr Klaus Heubeck.

Actuarial assumptions

	31.12.2023 %	31.12.2022 %
Pensions and similar obligations		
10-year average discount rate	1.83	1.79
7-year average discount rate	1.76	1.45
Salary growth	3.00	3.00
Pension growth	2.20	2.20
Staff turnover rate (up to age 50, thereafter 0.00%)	2.00	2.00
Deferred compensation programme		
Discount rate	1.83	1.79

In accordance with section 253 (2) sentence 1 HGB, provisions for pension obligations with a residual term of more than one year are to be discounted at the average market interest rate for the past ten financial years that corresponds to their residual term. Section 253 (2) sentence 2 HGB provides the option of using the average market interest rate relating to an assumed duration of 15 years in order to discount the total pension obligations. Use has been made of this option. The discount rates are calculated and announced by Deutsche Bundesbank. The calculation methodology and the modes of publication are in accordance with the Rückstellungsabzinsungsverordnung (RückAbzinsV, German Regulation on the Discounting of Provisions).
The 10-year interest rate of 1.83 per cent that was forecast in September 2023 for the calculation of pension provisions differs by one basis point from the interest rate of 1.82 per cent announced by the Deutsche Bundesbank. The 7-year interest rate of 1.76 per cent that was forecast and the interest rate of 1.74 per cent differs by two basis points from the interest rate of 1.74 per cent published by the Deutsche Bundesbank as at 31 December 2023. These do not lead to significant differences in the extent of the obligation.

Owing to the current very high inflation rates, pension adjustments in the next two to three years will significantly exceed the assumed (long-term) pension trend. This cumulative inflation (adjustment backlog) was taken into account in the corresponding commitments through the one-off increase in pensions of 6.2 per cent (CPI) and 1.7 per cent (civil servants).

In accordance with section 246 (2) HGB, the settlement amount of pension liabilities as at the reporting date was offset against the fair value of those assets that are protected from all creditors and exclusively serve the purpose of meeting liabilities arising from pension obligations or comparable long-term commitments to employees (plan assets). The accumulated acquisition costs of these assets were €252,495.8 thousand (previous year: €252,892 thousand).

The values of the provisions for the Stock Bonus Plan and Long-term Sustainable Instrument (LSI) are calculated on the basis of the price of Deutsche Börse AG's shares on the reporting date. The provision for the Co-Performance Investment Plan (CPIP) was recognised pro rata temporis. The measurement was based on an option pricing model that takes the programme's key parameters into account.

The provisions for anniversary payments and early retirement were measured at the amount to be paid in accordance with actuarial principles, and for early retirees at present value. In line with the pension obligations, the projected unit credit method was applied as the basis of this assessment. During the year under review, the interest rate of 1.76 per cent (previous year: 1.45 per cent) published by Deutsche Bundesbank (the German central bank) was applied. The modified “2018 G” mortality tables developed by Dr Klaus Heubeck formed the basis of these projections. In this case, too, the simplification provision of section 253 (2) sentence 2 HGB was applied.

For all hedge accounting procedures as defined by section 254 HGB, Deutsche Börse AG exercises the option of only stating hedges on the balance sheet to the extent that the hedge was ineffective and a negative result arises (compensatory valuation/net hedge presentation method). In such an event, a provision for contingent losses is recognised.

The other provisions have been estimated in consideration of all known risks and unknown liabilities as at the reporting date and were estimated at the amount which is required to be paid according to a reasonable commercial assessment. Provisions with a maturity of more than one year are discounted using the market interest rates published by Deutsche Bundesbank according to the remainder of their maturity pursuant to section 253 (2) HGB. If the fair value of the plan assets for partial retirement exceeds the fulfilment provisions, the difference is recognised as a debit difference from plan assets.

Tax provisions are recognised in the amount of the anticipated settlement value based on prudent commercial judgement. There is currently a uniform rate of corporation tax of 15 per cent plus a solidarity surcharge of 5.5 per cent. Taking trade tax into account, this results in an aggregate tax rate of 27.4 per cent this year.

In October 2021, as part of the “OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS)”, over 135 countries agreed to introduce a global minimum taxation for multinational corporations with a consolidated annual turnover of at least €750 million. The objective of the proposed Pillar Two reform is to ensure effective minimum taxation of the profits of multinational groups concerned at 15 per cent per jurisdiction. This should limit international tax competition and ensure fair and appropriate taxation. After the OECD published the Pillar Two model rules in December 2021, the EU member states agreed on 12 December 2022 on a directive for the effective minimum taxation of multinational groups, which was required to be transposed into domestic law by 31 December 2023. On 10 November 2023, the German Bundestag adopted a draft bill to implement the Minimum Taxation Act (MinStG) with effect for financial years as from 1 January 2024; corresponding provisions also apply in the majority of jurisdictions outside the EU that are relevant for Deutsche Börse Group.
There should be no material tax effects either for the Company itself or due to its position as the ultimate parent company of Deutsche Börse Group in the first year of application 2024. The Group’s subsidiaries and offices are largely located in jurisdictions whose nominal tax rate is higher than the minimum tax rate of 15 per cent. The application of the primary supplementary tax regulation is not expected to lead to any subsequent taxation of low-taxed foreign revenue at Company level, as a national supplementary tax will be implemented from 2024 in the Group’s relevant jurisdictions that have effective tax rates below 15 per cent.

The amendments to section 274 (1) HGB brought about by the Minimum Taxation Directive Implementation Act provide for a temporary exemption from the obligation to recognise deferred taxes in connection with the introduction of the global minimum taxation.

Liabilities

In accordance with section 253 (1) HGB, liabilities are recognised at their respective settlement amounts.

Foreign currency liabilities are translated at Bloomberg average spot exchange rates upon acquisition. Subsequent measurement takes place on the reporting date in accordance with section 256a HGB.

Deferred Income

Accrued payables generally include receipts before the reporting date if they represent income for a certain time after this date.

Deferred taxes

Deferred taxes are calculated in accordance with section 274 HGB on temporary differences between the carrying amounts according to commercial law and their taxable values. Deferred tax liabilities are reported only insofar as they exceed deferred tax assets.

In view of the existing single-entity relationship for tax purposes with Clearstream Holding AG, temporary differences between the carrying amounts according to commercial law and their taxable values of this company were accounted for at the level of the controlling company, Deutsche Börse AG. Calculations of deferred taxes are based on the expected combined income tax rate of all the companies comprising a single entity for tax purposes with Deutsche Börse AG, which currently stands at an average of 27.4 per cent.

As at 31.12.2023, the excess of deferred tax assets amounted to €33.6 million (previous year: €57.7 million). The excess of deferred tax assets is mainly the result of differences in the carrying amounts in the provisions for pensions and their related cover assets, in intangible assets and in other provisions.

In accordance with section 274 (1) sentence 2 HGB, the Company refrains from reporting the excess of deferred tax assets.

Balance sheet disclosures

Non-current assets

The changes in non-current assets are described in the statement of changes in non-current assets.

As part of the SAP/S4-HANA migration as at 01 January 2023, a reclassification in intangible assets from licences and similar rights to prepayments in the amount of €3.1 million was made for a more precise representation of the balance sheet item. In addition, assets in the amount of €117.4 million that were already written off were derecognised (disposed of).

In financial year 2023, impairment losses of €35.9 million (previous year: €76.2 million) were recognised on financial assets. This related to the investments in Crypto Finance AG (€27.6 million), CloudMargin Ltd. (€4.5 million), FundsDLT (€3.5 million) and Finleap GmbH (€0.3 million). In addition, there was a reversal of impairment of the participation in Forge Global Holdings Inc. in the amount of €37.3 million.

Investments in affiliated companies

As at 31 December 2023, Deutsche Börse AG had the following investments in affiliated companies within the meaning of section 271 (2) HGB.

Investments in affiliated companies

Company	Domicile	Equity as at 31.12.2022 in € thous.[1]	2022 net profit/loss in € thous.	Equity interest, direct (indirect), in %
Clearstream Fund Centre AG	Zurich, Switzerland	465,762	3,690	100.00
Clearstream Fund Centre (Hong Kong) Limited	Hong Kong, Hong Kong	1,134	248	(100.00)
Clearstream Holding AG	Frankfurt/Main, Germany	1,437,077	0	100.00
Clearstream Banking AG	Frankfurt/Main, Germany	594,151	173,384	(100.00)
Clearstream Banking S.A.	Luxembourg, Luxembourg	1,461,341	432,240	(100.00)
Clearstream Australia Limited	Sydney, Australia	15,851	2,214	(100.00)
Clearstream Australia Nominees Pty Ltd.[3]	Sydney, Australia	n/a	n/a	(100.00)
Clearstream Fund Centre Holding S.A.	Luxembourg, Luxembourg	269,918	-241	(100.00)
Clearstream Fund Centre S.A.	Luxembourg, Luxembourg	294,169	8,441	(100.00)
Clearstream London Ltd.[3]	London, United Kingdom	n/a	n/a	(100.00)
Clearstream Global Securities Services Limited	Cork, Ireland	22,394	3,481	(100.00)

Investments in affiliated companies

Company	Domicile	Equity as at 31.12. 2022 in € thous.[1]	2022 net profit/loss in € thous.	Equity interest, direct (indirect), in %
Clearstream International S.A.	Luxembourg, Luxembourg	27,824	1,668	(100.00)
Clearstream Nominees Limited [3]	London, United Kingdom	n/a	n/a	(100.00)
Clearstream Operations Prague s.r.o.	Prague, Czech Republic	14,693	1,396	(100.00)
Clearstream Services S.A.	Luxembourg, Luxembourg	183,252	14,083	(100.00)
LuxCSD S.A.	Luxembourg, Luxembourg	6,682	754	(100.00)
CF Asset Holding AG	Baar, Switzerland	17,484	-29,022	100.00
Crypto Finance AG	Zurich, Switzerland	67,948	-9,162	91.94
Crypto Finance (Deutschland) GmbH	Frankfurt/Main, Germany	909	-612	(91.94)
Crypto Finance (Asset Management) AG	Zurich, Switzerland	4,089	-2,101	(91.94)
DB1 Ventures GmbH	Frankfurt/Main, Germany	32	-24	100.00
Deutsche Boerse Market Data + Services Singapore Pte. Ltd.	Singapore, Singapore	984	69	100.00
Deutsche Boerse Systems Inc.	Chicago, USA	203,270	3,279	100.00
Centana Growth Partners, LLC	New York, USA	0	0	(100.00)
Bryant Sands Partners, LLC	Delaware, USA	0	0	(100.00)
Bryant Sands Partners II, LLC	Delaware, USA	0	0	(100.00)
Quantitative Brokers LLC	New York, USA	898	-2,325	(72.60)
Quantitative Brokers UK Limited	Hounslow, United Kingdom	865	139	(72.60)
Quantitative Brokers Australia Pty Ltd.	Sydney, Australia	447	134	(72.60)
Quantitative Brokers Singapore Pte Ltd.[3]	Singapore, Singapore	n/a	n/a	(72.60)
Quantitative Brokers Software India Private Limited	Chennai, India	454	124	(72.24)
U.S. Exchange, L.L.C. [3]	Wilmington, USA	n/a	n/a	(100.00)
Deutsche Börse Digital Exchange GmbH	Frankfurt/Main, Germany	8,338	-662	100.00
Deutsche Börse Photography Foundation gGmbH	Frankfurt/Main, Germany	368	106	100.00
Deutsche Börse Services s.r.o.	Prague, Czech Republic	34,615	5,533	100.00
Eurex Frankfurt AG	Frankfurt/Main, Germany	841,155	54,857	100.00
Eurex Clearing AG	Frankfurt/Main, Germany	749,813	0	(100.00)
Eurex Repo GmbH	Frankfurt/Main, Germany	25,000	0	(100.00)
Eurex Securities Transactions Services GmbH	Frankfurt/Main, Germany	5,000	0	(100.00)
Eurex Global Derivatives AG	Zug, Switzerland	236,458	82,849	100.00
Eurex Services GmbH	Frankfurt/Main, Germany	38	-46	100.00
European Energy Exchange AG	Leipzig, Germany	594,248	66,011	75.05
EEX Asia Pte. Limited	Singapore, Singapore	6,435	91	(75.05)

Investments in affiliated companies

Company	Domicile	Equity as at 31.12.2022 in € thous.[1)]	2022 net profit/loss in € thous.	Equity interest, direct (indirect), in %
EEX Australia Pty Ltd.[2)]	Sydney, Australia	14,651	362	(75.05)
Lacima Group Pty Ltd.[2)]	Sydney, Australia	3,921	107	(75.05)
Lacima Group (US), Inc.[2)]	Denver, USA	58	7	(75.05)
LG UK Pty Limited [2)]	Sydney, Australia	148	-7	(75.05)
Lacima Workbench Pty Ltd.[2)]	Sydney, Australia	363	27	(75.05)
EEX Link GmbH	Leipzig, Germany	67	0	(75.05)
European Commodity Clearing AG	Leipzig, Germany	218,000	132,076	(75.05)
European Commodity Clearing Luxembourg S.à r.l.	Luxembourg, Luxembourg	270	55	(75.05)
Get Baltic UAB	Vilnius, Lithuania	1,181	542	(49.53)
Grexel Systems oy	Helsinki, Finland	845	542	(75.05)
KB Tech Ltd.[3)]	Tunbridge Wells, United Kingdom	429	24	(75.05)
Nodal Exchange Holdings, LLC	Tysons Corner, USA	182,539	30,488	(75.05)
Nodal Exchange, LLC	Tysons Corner, USA	89,964	35,627	(75.05)
Nodal Clear, LLC	Tysons Corner, USA	51,809	37,654	(75.05)
EEX CEGH Gas Exchange Services GmbH	Vienna, Austria	4,732	1,007	(38.27)
EPEX SPOT SE	Paris, France	69,585	27,480	(38.27)
EPEX Netherlands B.V.	Amsterdam, Netherlands	0	0	(38.27)
EPEX SPOT Schweiz AG	Bern, Switzerland	152	116	(38.27)
Power Exchange Central Europe a.s.	Prague, Czech Republic	1,500	-743	(50.03)
Power Exchange Central Europe Poland sp.z.o.o.	Warsaw, Poland	5	3	(50.03)
ISS STOXX GmbH	Eschborn, Germany	1,503,916	104,525	80.31
ISS STOXX Index GmbH	Eschborn, Germany	731,258	0	(80.31)
Stoxx Ltd.	Zug, Switzerland	120,834	119,314	(80.31)
INDEX PROXXY Ltd.[3)]	London, United Kingdom	n/a	n/a	(80.31)
ISS HoldCo Inc.	Rockville, USA	2,129,158	0	(80.31)
Institutional Shareholder Services Inc.	Rockville, USA	2,177,596	12,996	(80.31)
Asset International, Inc.	Rockville, USA	22,993	-360	(80.31)
Asset International Australia Pty Ltd.	Melbourne, Australia	13,343	-575	(80.31)
Rainmaker Information Pty Limited	Sydney, Australia	11,941	744	(80.31)
Data Management & Integrity Systems Pty Ltd.[3)]	Sydney, Australia	n/a	n/a	(80.31)
Financial Standard Pty Ltd.[3)]	Sydney, Australia	n/a	n/a	(80.31)
Asset International Deutschland GmbH	Haar, Germany	-734	1,105	(80.31)
FWW Fundservices GmbH	Haar, Germany	3,100	2,923	(80.31)

Investments in affiliated companies

Company	Domicile	Equity as at 31.12. 2022 in € thous.[1]	2022 net profit/loss in € thous.	Equity interest, direct (indirect), in %
FWW Media GmbH	Haar, Germany	134	74	(80.31)
Intelligent Financial Systems Limited	London, United Kingdom	11,655	-256	(80.31)
Discovery Data, Inc.	Rockville, USA	206,206	-7,359	(80.31)
Institutional Shareholder Services (Australia) Pty. Ltd.	Sydney, Australia	1,014	656	(80.31)
Institutional Shareholder Services (Hong Kong) Limited	Hong Kong, Hong Kong	121	55	(80.31)
Institutional Shareholder Services Canada Inc.	Toronto, Canada	2,090	1,769	(80.31)
Institutional Shareholder Services Europe S.A.	Brussels, Belgium	9,189	4,374	(80.31)
Institutional Shareholder Services France S.A.S.	Paris, France	1,163	222	(80.31)
Institutional Shareholder Services Switzerland AG	Zug, Switzerland	1,950	1,029	(80.31)
Institutional Shareholder Services Germany AG	Munich, Germany	1,259	7,169	(80.31)
Institutional Shareholder Services India Private Limited	Mumbai, India	6,283	2,115	(80.31)
Institutional Shareholder Services K.K.	Tokyo, Japan	1,012	10	(80.31)
Institutional Shareholder Services Philippines Inc.	Manila, Philippines	561	409	(80.31)
Institutional Shareholder Services (Singapore) Private Limited	Singapore, Singapore	486	39	(80.31)
ISS Corporate Solutions, Inc.	Rockville, USA	82,810	8,868	(80.31)
ISS Europe Limited	London, United Kingdom	2,955	732	(80.31)
ISS-Ethix AB	Stockholm, Sweden	2,950	3,159	(80.31)
Institutional Shareholder Services UK Limited	London, United Kingdom	-829	5,309	(80.31)
Securities Class Action Services, LLC	Rockville, USA	53,993	3,268	(80.31)
KNEIP Communication S.A.	Luxembourg, Luxembourg	-3,902	-14,800	100.00
KNEIP Asia Ltd.	Hong Kong, Hong Kong	-8	0	(100.00)
KNEIP Communication GmbH	Frankfurt/Main, Germany	-8	-5	(100.00)
Fundlook S.à r.l.	Luxembourg, Luxembourg	100	7	(100.00)
Dataglide Ltd.	London, United Kingdom	813	108	(100.00)
360 Treasury Systems AG	Frankfurt/Main, Germany	152,991	32,126	100.00
360 Trading Networks Inc.	New York, USA	8,970	658	(100.00)
360 Trading Networks Limited	Dubai, United Arab Emirates (UAE)	733	114	(100.00)
360 Trading Networks Sdn Bhd	Kuala Lumpur, Malaysia	72	8	(100.00)
360 Trading Networks UK Limited [3]	London, United Kingdom	n/a	n/a	(100.00)
360T Asia Pacific Pte. Ltd.	Singapore, Singapore	5,242	470	(100.00)
360TGTX Inc.	New York, USA	75,985	-1,293	(100.00)

Investments in affiliated companies

Company	Domicile	Equity as at 31.12.2022 in € thous.[1]	2022 net profit/loss in € thous.	Equity interest, direct (indirect), in %
Finbird GmbH	Frankfurt/Main, Germany	1,424	0	(100.00)
ThreeSixty Trading Networks (India) Pte. Ltd.	Mumbai, India	1,106	70	(100.00)
SimCorp A/S	Copenhagen, Denmark	336,720	92,387	100.00
SimCorp sp z.o.o.	Warsaw, Poland	1,076	615	(100.00)
SimCorp Japan KK	Tokyo, Japan	-282	-156	(100.00)
SimCorp France S.A.S.	Paris, France	5,537	1,358	(100.00)
SimCorp Schweiz AG	Zurich, Switzerland	6,565	5,528	(100.00)
SimCorp Norge AS	Oslo, Norway	578	878	(100.00)
SimCorp Iberia S.L. (Spain)	Barcelona, Spain	853	-333	(100.00)
SimCorp Ukraine LLC	Kiev, Ukraine	1,137	591	(100.00)
SimCorp Österreich GmbH	Vienna, Austria	619	456	(100.00)
SimCorp Luxembourg S.a.r.l.	Luxembourg, Luxembourg	33,425	-471	(100.00)
SimCorp Gain Switzerland GmbH	Zurich, Switzerland	1,649	55	(100.00)
SimCorp Gain Austria GmbH	Vienna, Austria	8,233	1,274	(100.00)
SimCorp Ltd. (UK)	London, United Kingdom	6,019	4,540	(100.00)
SimCorp Canada Inc.	Toronto, Canada	5,397	617	(100.00)
SimCorp GmbH (Germany)	Bad Homburg, Germany	6,140	5,645	(100.00)
SImCorp Hong Kong Ltd.	Hong Kong, China	1,611	73	(100.00)
SimCorp Italiana S.r.l	Milan, Italy	11,373	8,172	(100.00)
SimCorp Philippines Inc.	Manila, Philippines	-34	-118	(100.00)
SimCorp Advanced for Information Technology [3]	Riyadh, Saudi Arabia	n/a	n/a	(100.00)
SCIM SDN. BHD. [3]	Kuala Lumpur, Malaysia	n/a	n/a	(100.00)
SimCorp Singapore Pte. Ltd.	Singapore, Singapore	1,251	974	(100.00)
SimCorp USA Inc.	New York, USA	19,861	2,653	(100.00)
SimCorp Sverige AB	Stockholm, Sweden	2,111	1,174	(100.00)
SimCorp India LLP	Noida, India	112	141	(100.00)
SimCorp Coric Ltd. (UK)	London, United Kingdom	5,496	3,913	(100.00)
SimCorp Coric Inc.	Boston, USA	1,902	85	(100.00)
SimCorp Asia Pty. Ltd.	Sydney, Australia	2,799	1,042	(100.00)
SimCorp Benelux SA/NV	Brussels, Belgium	102	2,154	(100.00)

Investments in affiliated companies

Company	Domicile	Equity as at 31.12.2022 in € thous.[1]	2022 net profit/loss in € thous.	Equity interest, direct (indirect), in %
Axioma Inc.	New York, USA	4,150	-11,143	(100.00)
Axioma (CH) GmbH	Vernier, Switzerland	481	51	(100.00)
Axioma (HK) Ltd.	Hong Kong, Hong Kong	954	254	(100.00)
Axioma (UK) Ltd.	London, United Kingdom	3,268	914	(100.00)
Axioma Argentina S.A.U.	Buenos Aires, Argentina	566	665	(100.00)
Axioma Asia Pte. Ltd.	Singapore, Singapore	2,267	209	(100.00)
Axioma Deutschland GmbH	Frankfurt/Main, Germany	155	40	(100.00)
Axioma Japan G.K.	Tokyo, Japan	66	6	(100.00)
Axioma Ltd.	Sydney, Australia	-984	-51	(100.00)
Axioma S.A.S.U.	Paris, France	444	105	(100.00)
Qontigo Inc.[3]	Wilmington, USA	n/a	n/a	(100.00)
FundsDLT S.A.	Belvaux, Luxembourg	4,180	-4,713	100.00

1) Includes capital reserves and retained earnings, accumulated gains or losses and net income or loss for the year and, if necessary, further components according to the respective local GAAP.

2) Because the financial year ends on 31 March of a calendar year, the figures given here are as at 31 March 2023.

3) This company is to be classed as a dormant company as of 31 December 2022. It employs no staff and has no business operations.

The currency selling rate based on the reference rates from Bloomberg as at 31 December 2022 was used for translation of the equity and net profit/loss from foreign currencies.

Investments

As at 31 December 2023, Deutsche Börse AG held the following investments within the meaning of section 271 (1) HGB:

Composition of investments

Company	Domicile	Equity as at 31.12.2022 in € thous.[1)]	2022 net profit/loss in € thous.	Equity interest, direct (indirect), in %
360X AG	Frankfurt/Main, Germany	13,103	-2,097	48.30
BrainTrade Gesellschaft für Börsensysteme mbH	Frankfurt/Main, Germany	1,616	93	(28.57)
China Europe International Exchange AG[2)]	Frankfurt/Main, Germany	n/a	n/a	40.00
Deutsche Börse Commodities GmbH	Frankfurt/Main, Germany	11,276	7,797	16.20
Dyalog Ltd.	Hampshire, United Kingdom	1,221	478	(22.98)
EMEX East Med. Energy Exchange Ltd.	Givatayim, Israel	-367	-155	(30.02)
Forge Europe GmbH	Berlin, Germany	14,166	-109	40.00
GlobalDairyTrade Holdings Ltd.[3)]	Auckland, New Zealand	6,558	815	(25.01)
HQLAx S.à r.l	Luxembourg, Luxembourg	973	-7,027	30.49
N5 Energia E Servicos DE Tecnologia LTDA N5[4)]	Sao Paulo, Brasilia	n/a	n/a	(37.52)
Origin Primary Limited	London, United Kingdom	3,249	-1,129	20.00
Opus Nebula Limited	Berkhamsted, United Kingdom	335	68	(23.18)
Tradegate Exchange GmbH	Berlin, Germany	25,219	1,610	42.84

1) Includes capital reserves and retained earnings, accumulated gains or losses and net income or loss for the year and, if necessary, further components according to the respective local GAAP.

2) The information is omitted here in accordance with section 286 (3) sentence 2 HGB.

3) Consolidated Financial Statement 2022

4) It was established after 31 December 2022.

The currency selling rate based on the reference rates from Bloomberg as at 31 December 2022 was used for translation of the equity and net profit/loss from foreign currencies.

Trade accounts receivables

The item in the amount of €187.3 million (previous year: €148.8 million) comprises only trade receivables.

Receivables from affiliated companies

The item breaks down as follows:

	2023 €m	2022 €m
Receivables from affiliated companies		
Trade receivables	1,684.3	525.7
Other assets	159.4	50.1
of which resulting from internal Group cash pooling	152.4	43.7
Total	1,843.7	575.8

Receivables from companies in which the Company has an equity interest

The item in the amount of €1.2 million (previous year: €0.4 million) comprises only trade receivables.

Marketable securities

Investments in affiliated companies are recognised in the item "Marketable securities", provided these are only held on a short-term basis or for sale. As at 31 December 2023, Deutsche Börse AG held marketable securities in the amount of €0.0 million (previous year: €0.0 million). In financial year 2023, the Axioma Inc. shares in the amount of €287.0 million were amortised on the basis of the strict lower of cost or market principle.

Prepaid expenses

The prepaid expenses item of €98.3 million (previous year: €80.2 million) mainly comprises expenditure for deliveries of goods and provision of services before the reporting date in the amount of €61.8 million (previous year: €62.0 million) where it represents an expense for a certain time thereafter. They also include discounts for bond issues as defined by section 250 (3) HGB of €36.5 million (previous year: €18.2 million)

Deferred tax assets

As at 31.12.2023, the excess of deferred tax assets amounted to €33.6 million (previous year: €57.7 million). Deutsche Börse AG does not exercise the option to recognise deferred tax assets.

Equity

Fully paid-in share capital amounts to €190.0 million (previous year: €190.0 million) and is divided into 190,000,000 no-par value registered shares. There were 4,887,540 treasury shares held at the end of the year (previous year: 6,261,055 shares) in the amount of €4,887,540 (previous year: €6,261,055) or 2.6% per cent (previous year: 3.3 per cent) of the share capital. As part of employee programmes, 129,872 shares were sold at a price of €13,950,328.4 million during financial year 2023. In addition, 1,243,643 shares were sold at a price of €208,209,611.40 for the acquisition of investments in affiliated companies. The shares sold equated to €1,373,515.00 or 0.7 per cent of the share capital.

On the basis of the share price of €186.50 as at 31 December 2023, the shares are valued at €911.5 million.

In November 2023, Deutsche Börse AG announced a treasury share buyback programme for 2024 on the basis of the authorisation of the Annual General Meeting on 8 May 2019. In the period up to 3 May 2024 at the latest, the Company shall repurchase up to 14,000,000 shares at an acquisition cost totalling up to €300 million (excluding ancillary acquisition costs).

Subject to the agreement of the Supervisory Board, the Executive Board is authorised to increase the subscribed share capital by the following amounts:

Authorised share capital

	Amount in €	Date of shareholder approval	Conclusion of approval process	Existing shareholders' pre-emptive rights may be disapplied for fractioning and/or may be disapplied if the share issue is:
Authorised share capital I*	19,000,000	19.05.2021	18.05.2026	N/A
Authorised share capital II*	19,000,000	19.05.2020	18.05.2025	- for cash at an issue price not significantly lower than the exchange-traded share price up to a maximum amount of 10 per cent of the share capital. - against non-cash contributions for the purpose of acquiring companies, parts of companies, interests in companies, or other assets.
Authorised share capital III*	19,000,000	19.05.2020	18.05.2024	N/A
Authorised share capital IV	19,000,000	18.05.2022	17.05.2027	N/A

* Shares may only be issued without subscription rights if during the term of the authorisation the total number of new shares issued without subscription rights (including those issued in accordance with other authorisations) does not constitute more than 10 per cent of the share capital.

Contingent capital

By resolution of the Annual General Meeting on 8 May 2019, the Executive Board was authorised – until 7 May 2024 and subject to the approval of the Supervisory Board – to issue individual or multiple convertible bonds and/or bonds with warrants or a combination of these instruments having a total nominal value of up to €5,000,000,000 and with limited or unlimited terms and to grant the holders/creditors conversion rights and/or options on new no-par value registered shares in Deutsche Börse AG with a proportionate interest in the share capital totalling up to €17,800,000, subject to the terms and conditions of the convertible bonds/the terms and conditions of the warrants attached to the bonds with warrants.
Subject to the Supervisory Board's approval, the Executive Board is authorised to disapply shareholders' pre-emptive rights to bonds with conversion rights or options on shares in Deutsche Börse AG in the following cases: (i) For the purpose of eliminating fractions; (ii) If a bond's issue price is not significantly lower than the theoretical market value calculated using recognised financial and mathematical methods and the sum of the shares attributable to these bonds does not exceed 10 per cent of the share capital; (iii) To grant the holders of conversion rights and/or options on shares in Deutsche Börse AG as many pre-emptive rights as they would be entitled to after exercising these rights, for the purpose of eliminating dilution.

The bonds may also be issued by German or foreign-domiciled companies affiliated with Deutsche Börse AG in accordance with sections 15 et seq. AktG. As a result, the share capital was increased conditionally by up to €17,800,000 (contingent capital 2019). So far, no use has been made of the authorisation to issue convertible bonds and/or bonds with warrants.
No other rights to acquire shares existed as at 31 December 2023 or 31 December 2022.

The Company's capital reserves and retained earnings changed as follows:

Capital reserves and retained earnings

	Capital reserves	Retained earnings		
	€m	Statutory reserve €m	Other retained earnings €m	Total €m
Brought forward as at 01.01.2023	1,408.2	0.0	1,937.9	1,937.9
Addition from previous year's net profit	0.0	0.0	38.5	38.5
Addition from 2023 net income	0.0	0.0	1,058.4	1,058.4
Addition due to sale of own shares	130.7	0.0	97.3	97.3
Withdrawal due to purchase of own shares	0.0	0.0	0.0	0.0
Addition due to calling of own shares	0.0	0.0	0.0	0.0
Withdrawal due to calling of own shares	0.0	0.0	0.0	0.0
Currency translation difference	0.0	0.0	-0.9	-0.9
Addition to share-based remuneration	0.0	0.0	3.6	3.6
Balance as at 31.12.2023	1,538.9	0.0	3,134.8	3,134.8

As the fair value of the plan assets is higher than their acquisition cost when deferred tax liabilities are taken into account, there is a block on distributions in accordance with section 268 (8) of the HGB in the amount of €23.6 million (previous year: €12.7 million).

The accumulated profit as at 31 December 2023 does not include any profit carried forward from the prior year. A profit of €38.5 million that was carried forward from the prior year was added to other retained earnings.

Proposal for the appropriation of net profit

The Executive Board proposes appropriating the net for the year of €1,060,000,000 reported in Deutsche Börse AG's annual financial statements as follows:

Distribution of €3.80 for each no-par value share granting entitlement to a dividend, i.e. €703,427,348 in total, and adding an amount of €356,572,652 to "Other retained earnings".

The proposed appropriation of earnings takes into account the treasury shares held directly or indirectly by the Company, which do not grant entitlement to a dividend pursuant to section 71b AktG. The number of shares granting entitlement to a dividend may increase or decrease prior to the Annual General Meeting as a result of the acquisition of treasury shares (with or without the subsequent withdrawal of the acquired shares) or the sale of treasury shares. In this case, a correspondingly amended proposal for a resolution regarding the appropriation of earnings will be submitted to the Annual General Meeting, with an unchanged distribution of €3.80.

Provisions for pensions and similar obligations

The plan assets, which correspond to a 72.0 per cent share (previous year: 72.0 per cent) in a domestic alternative investment fund as defined by section 1 (10) of the Kapitalanlagegesetzbuch (KAGB, German Capital Investment Code) had a fair value at the balance sheet date of €285.0 million (previous year: €270.4 million), which is equivalent to the market value as defined by section 278 in conjunction with section 168 KAGB. This special fund is an international mixed fund (mixed special fund) with regulatory investment restrictions. In accordance with the investment guidelines, an absolute return approach with a capital protection mechanism is applied and investments can be made in different asset classes. Withdrawals were made totalling €6.7 million during the period under review (previous year: €10.4 million). €6.3 million of this amount consisted of ongoing pension payments and was immediately added back to the plan assets, while €0.4 million was released from the sale of shares to cover current administration fees. A total amount of €6.3 million (previous year: €10.0 million) was added to the special fund in the year under review. The assets are protected from all creditor claims and are not repayable on demand.

Asset offsetting pursuant to section 246 (2) sentence 2 HGB

	€m
Pension obligations payable	-361.4
Fair value of plan assets	285.0
Provisions for pensions and similar obligations	-76.4

Netting profit and loss

	€m
Expenses arising from pension obligations	-6.3
Net expense stated under personnel expenses	-6.3
Interest expense arising from pension obligations	-4.2
Write-ups of plan assets	15.0
Income from plan assets	1.2
Net revenue stated under financial result	12.0

Changes in the discount rate are recognised in the financial result.

Due to a change in the HGB relating to the implementation of the Mortgage Credit Directive, since 2016 the pension provisions have been discounted using a 10-year average discount (until 2015 the 7-year average discount rate was used). The resulting difference is as follows:

Value of obligation based on different discount rates

	€m
Pension provision discounted using 10-year average	361.0
Pension provision discounted using 7-year average	364.8
Difference	3.8

The difference less deferred taxes may not be distributed pursuant to section 253 (6) HGB.

Other provisions

Other provisions amounting to €301.6 million (previous year: €372.3 million) comprised the following:

Composition of other provisions

	2023 €m	2022 €m
Outstanding invoices	91.8	139.6
Variable remuneration	62.3	50.5
Phantom stock option plans and stock bonus plan	45.4	56.1
Other personnel provisions	44.4	25.8
Interest relating to the tax field audit	18.7	45.1
Provisions for anticipated losses from financial derivatives	10.0	13.7
Obligation to reimburse current and future pension payments to the chamber of commerce (IHK) on the basis of the transition agreement	7.0	7.1
Anticipated losses from leases and asset retirement obligations	7.0	2.7
Supervisory Board remuneration	2.7	2.6
Provisions recognised as part of the efficiency programmes	7.2	22.0
Process risks	0.5	0.2
Miscellaneous provisions	4.6	6.9
Total other provisions	301.6	372.3

In accordance with section 246 (2) HGB, the settlement amount of the obligations under the partial retirement programme as at the reporting date was offset against the fair value of those assets that are protected from all creditors and exclusively serve the purpose of meeting liabilities arising from pension obligations or comparable long-term commitments to employees (plan assets). The accumulated acquisition costs of these assets were €5.7 million (previous year: €4.0 million). The amount of the plan assets in excess of the settlement amount was recognised as an asset difference from the offsetting of assets pursuant to section 246 (2) HGB.

Asset offsetting pursuant to section 246 (2) sentence 2 HGB

	31.12.2023 € thous.
Settlement amount of obligations under partial retirement programme	-5,713.8
Fair value of plan assets	5,720.6
Asset difference resulting from netting	6.8

Netting of profit and loss

	€ thous.
Expenses from obligations under partial retirement programme	-1,768.4
Net expense stated under personnel expenses	-1,768.4
Interest expense from obligations under partial retirement programme	-44.5
Write-ups of plan assets	263.1
Expenses from plan assets	-0.1
Net revenue stated under financial result	218.5

Liabilities

Liabilities are divided into the categories below.

Liabilities

Amount in €m	Total amount		Thereof: > 5 years	
	31.12.2023	31.12.2022	31.12.2023	31.12.2022
Bonds	7,389.1	3,860.0	4,200.0	2,800.0
Liabilities to banks	0	0.0	0.0	0.0
Trade payables	18.3	2.1	0.0	0.0
Liabilities towards affiliated companies	1,105.8	1,284.4	0.0	0.0
thereof trade payables	80.8	84.8	0.0	0.0
thereof other liabilities	1,025.0	1,199.6	0.0	0.0
Payables to companies in which the Company has an equity interest	0.2	0.0	0.0	0.0
thereof trade payables	0.2	0.0	0.0	0.0
Other liabilities	70.9	41.2	0.0	0.0
thereof taxes	8.1	12.0	0.0	0.0
thereof social security contributions	0.3	0.2	0.0	0.0
Total liabilities	8,584.3	5,187.7	4,200.0	2,800.0

Lien rights or similar rights are not included in liabilities.

Deferred Income

The balance sheet item mainly comprises accrued payables of €94.6 million from the early settlement of an interest rate derivative in connection with own bonds issued in financial years 2022 and 2023. These will be released in instalments over the term of the issued bonds.

It also includes receipts for deliveries of goods and provision of services before the reporting date in the amount of €4.2 million (previous year: €1.7 million) where these represent income for a certain time thereafter. Premiums for bond issues as defined by section 250 (2) HGB of €2.0 million (previous year: €3.0 million) are also included.

Income statement disclosures

Sales revenue

Sales revenue breaks down by field of activity as follows:

Sales revenue by segment

	31.12.2023 €m	31.12.2022 €m
Trading & Clearing	1,523.9	1,501.0
Securities Services	107.8	116.3
Fund Services	54.6	25.9
Investment Management Solutions	11.1	4.7
Total	1,697.4	1,647.9

Sales revenue breaks down by region as follows:

Sales revenue by region

	31.12.2023 €m	31.12.2022 €m
Germany	484.2	511.2
Other European Union	608.0	552.6
Rest of Europe	477.5	475.7
America	117.5	100.5
Asia/Pacific	10.2	7.9
Total	1,697.4	1,647.9

Other operating income

Other operating income breaks down as follows:

Summary of other operating income

	31.12.2023 €m	31.12.2022 €m
Income from the sale of ISS HoldCo. to ISS STOXX GmbH	164.5	0.0
Income from the sale of shares in ISS STOXX GmbH	149.3	0.0
Currency translation	49.9	52.4
Reversal of provisions from previous years	13.5	8.0
Sale of Regulatory Services GmbH	0.0	17.0
Sale of shares in Trifacta Inc.	0.0	1.0
Other	94.7	30.3
of which from the reversal of the impairment on the shares in Forge Global Holdings Inc.	37.3	0.0
of which income with respect to affiliated companies	21.7	21.8
of which income from the merger of Börse Frankfurt Zertifikate AG	11.0	0.0
of which income from insurance for legal disputes	6.9	0.0
of which payments in kind	2.3	1.7
of which income from already impaired trade receivables	0.8	1.5
Total other operating income	471.9	108.7

Other operating income includes income relating to other periods in the amount of €21.7 million (previous year: €0.0 million).

Other operating expenses

Other operating expenses break down as follows:

Summary of other operating income

	31.12.2023 €m	31.12.2022 €m
Compensation for operational management	232.6	219.6
IT services	165.6	197.0
Legal and consulting expenses	120.6	106.8
Currency translation expenses	59.9	64.9
Lease expenses	53.8	43.7
Expenses for data purchasing and remuneration of specialists	51.0	39.8
Agency fees to affiliated companies	49.5	53.6
Non-deductible input tax	48.0	46.0
Sales of price information	14.6	10.7
Advertising and marketing	9.2	9.0
Communication network	7.4	6.3
Incidental personnel costs	5.1	4.0
Insurance	4.6	4.9
Travel, hospitality and entertainment expenses	4.4	3.4
Contributions, charges and fees	4.1	3.6
Supervisory Board remuneration	2.7	2.6
Voluntary social expenses	2.6	1.2
Other	29.7	15.2
Total other operating expenses	865.4	832.3

Other operating expenses include expenses relating to other periods in the amount of €17.0 million (previous year: €0.0 million).

Auditor’s fee

The Company is included in the scope of consolidation of Deutsche Börse AG. In accordance with section 285 (17) HGB, disclosures as to the auditor’s fee are contained in the notes to the consolidated financial statements of Deutsche Börse Aktiengesellschaft.

The fee for auditing services of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (PwC) related mainly to the audit of the consolidated financial statements and annual financial statements of Deutsche Börse AG as well as various audits conducted of the annual financial statements of subsidiaries. As an integrated part of the audit, audit inspections were carried out on interim financial statements. Other assurance services essentially relate to statutory or contractually required business management audits in relation to internal systems and controls, the voluntary review of the content of the remuneration report and the issuance of comfort letters.

Other disclosures

Disclosures on derivative financial instruments and hedging transactions

As at the reporting date, outstanding currency forward transactions amounted to USD 354.0 million and CHF 135.5 million (previous year: USD 829.0 million). The fair value of the derivatives depends on the exchange rate. In the event of a negative fair value of a derivative on the reporting date, a provision for contingent losses is set aside. This amounted to €10.0 million as at 31 December 2023 (previous year: €13.7 million).

In connection with the restructuring of the ISS STOXX sub-group, Deutsche Börse AG has assumed a standby position in respect of an external bank, where 19.69 per cent of the shares in ISS STOXX GmbH can be tendered in the event of a default by the minority investor (conditional put option). Deutsche Börse AG has the right to utilise treasury shares to fulfil the put option. The fair value as at 31 December 2023 was €30.1 million. Deutsche Börse AG does not recognise the derivative. Exercise was considered unlikely as at 31 December 2023.

Other financial obligations and transactions not included in the balance sheet

Other financial obligations

	Total amount		Thereof up to 1 year		Thereof: 1-5 years		Thereof: > 5 years	
	31.12.2023	31.12.2022	31.12.2023	31.12.2022	31.12.2023	31.12.2022	31.12.2023	31.12.2022
	€m	€m	€m	€m	€m	€m	€m	€m
Rental, leasing and maintenance contracts	342.1	319.1	48.0	32.2	104.3	91.0	189.8	195.9
Management and agency agreements	266.5	254.9	266.4	254.8	0.1	0.1	0	0
thereof to affiliated or associated companies	266.3	254.9	266.3	254.8	0.1	0.1	0	0
Other agreements, in particular service agreements	289.2	102.4	39.0	54.1	116.1	45.2	134.1	3.1
Total	897.8	676.4	353.4	341.1	220.5	136.3	323.9	199.0

Deutsche Börse AG has issued a letter of comfort in favour of Eurex Clearing AG. In it, Deutsche Börse AG undertakes to provide Eurex Clearing AG with the financial resources it requires to meet its obligations. The maximum aggregate amount to be provided in accordance with the letter of comfort is €600.0 million. If Deutsche Börse AG makes payments to Eurex Clearing AG in the form of borrowed capital on the basis of the letter of comfort, these payments shall be made available to Eurex Clearing AG in the form of an interest-free loan. Third parties are not entitled to any rights under the letter of comfort. Due to the risk management system implemented by Eurex Clearing AG, in particular the lines of defence, and the fact that Deutsche Börse AG has not been called upon in the event of defaults by clearing participants or other situations in the past, Deutsche Börse AG currently believes that utilisation of the letter of comfort is unlikely.

In addition, in accordance with section 5 (10) of the statute of the Deposit Protection Fund, an unlimited statement of commitment has been issued to Clearstream Banking AG, according to which Deutsche Börse AG indemnifies Bundesverband deutscher Banken e.V. from all potential loss claims. In view of the capital resources of Clearstream Banking AG, Deutsche Börse AG considers the probability of a claim to be very low at the present time.

Moreover, Deutsche Börse AG provides loan commitments in favour of affiliated companies and companies in which the Company has an equity interest of €320 million and US$150 million (previous year: €225 million (of which US$105 million)).

Provisions arising from deferred compensation were recognised in the balance sheet under employee expenses for individual subsidiaries. However, as Deutsche Börse AG has an obligation as a provider towards participating employees, a contingent liability of €76.7 million (previous year: €71.6 million) arises which is equivalent to the amount of the provisions made by the individual subsidiaries.

Supervisory Board

The members of the Supervisory Board are:

Martin Jetter Chairman	Chairman of the Supervisory Board of Deutsche Börse AG
Dr Markus Beck Deputy Chairman	Legal Counsel, Corporate & Regulatory Legal, Deutsche Börse AG, Frankfurt/Main
Prof. Dr Nadine Brandl	Head of department, Legal and Legal Policy, ver.di national administration, Berlin Lawyer, EurAA Rechtsanwaltsgesellschaft Anwälte für Arbeitnehmer, Frankfurt/Main
Dr Andreas Gottschling	Member of the Supervisory Board of Deutsche Börse AG
Dr Anja Greenwood	Head of Customer Due Diligence & KYC, European Commodity Clearing AG, Leipzig
Oliver Greie	Regional Director, ver.di Saxony, Saxony-Anhalt, Thuringia, Leipzig
Shannon A. Johnston	Executive Vice President and Chief Digital Officer and Deputy CIO, Global Payments Inc., Atlanta
Susann Just-Marx	Head of Sales Clearing, European Energy Exchange AG, Leipzig
Achim Karle	Employee, Equity & Index Sales EMEA, Eurex Frankfurt AG, Frankfurt/Main

Barbara Lambert	Member of supervisory boards and boards of directors, Givrins
Supervisory Board appointments	SYNLAB AG, Munich, member of the Supervisory Board (mandate will be resigned as of 31. march 2024) Merck KGaA, Darmstadt, member of the Supervisory Board (since 11 August 2023)
Other appointments	Implenia AG, Dietlikon, member of the Board of Directors UBS Switzerland AG, Zurich, member of the Board of Directors Credit Suisse (Schweiz) AG, Zurich (group mandate), member of the Board of Directors (since 01 November 2023)
Michael Rüdiger	Independent Management Consultant, Utting am Ammersee
Supervisory Board appointments	BlackRock Asset Management Deutschland AG, Munich, Chairman of the Supervisory Board Evonik Industries AG, Essen, member of the Supervisory Board
Other appointments	BlackRock Asset Management Schweiz AG, Zurich, Chairman of the Board of Directors (since 01 February 2023)
Peter Günter Sack	Employee, Clearing Design, Eurex Clearing AG, Frankfurt/Main
Charles G. T. Stonehill	Green & Blue Advisors LLC, founding partner, New York
Other appointments	Equitable Holdings Inc., New York, member of the Board of Directors AXA Equitable Life Insurance Company, New York (group mandate), member of the Board of Directors AllianceBernstein Holdings L.P., New York (group mandate), member of the Board of Directors Equitable Financial Life Insurance Company of America, New York (group mandate), member of the Board of Directors Constellation Acquisition Corp. I, Grand Cayman, member of the Board of Directors (until 30 January 2023) Strangeworks Inc., Austin, member of the Board of Directors (since 03 October 2023)
Clara-Christina Streit	Member of supervisory boards and boards of directors, Cologne
Supervisory Board appointments	Vonovia SE, Bochum, member of the Supervisory Board
Other appointments	Vontobel Holding AG, Zurich, member of the Board of Directors Jeronimo Martins SGPS S.A., Lisbon, member of the Board of Directors
Chong Lee Tan	CEO 65 Equity Partners, Temasek Holdings, Singapore
Other appointments	CLA Real Estate Holdings Pte. Ltd, Singapore, member of the Board of Directors (until 01 February 2023) Double R Srl, Milan, member of the Board of Directors
Daniel Vollstedt	Head of Infrastructure Service Design & Support, Deutsche Börse AG, Frankfurt/Main

In the year under review, the members of the Supervisory Board received remuneration of €2.7 million.

The Supervisory Board has established the following committees:

Audit Committee
Barbara Lambert (Chair)
Dr Andreas Gottschling
Oliver Greie
Achim Karle
Susann Just-Marx
Michael Rüdiger

Nomination Committee
Martin Jetter (Chairman)
Dr Markus Beck
Prof. Dr Nadine Brandl
Dr Anja Greenwood
Michael Rüdiger
Clara-Christina Streit

Risk Committee
Dr Andreas Gottschling (Chairman)
Susann Just-Marx
Barbara Lambert
Daniel Vollstedt

Strategy and Sustainability Committee
Martin Jetter (Chairman)
Dr Anja Greenwood
Achim Karle
Peter Sack
Charles Stonehill
Chong Lee Tan

Technology Committee
Shannon A. Johnston (Chair)
Dr Markus Beck
Dr Andreas Gottschling
Peter Sack
Charles Stonehill
Daniel Vollstedt

Mediation Committee
Martin Jetter (Chairman)
Dr Markus Beck
Oliver Greie
Barbara Lambert

General Committee
Martin Jetter (Chairman)
Dr Markus Beck
Prof. Dr Nadine Brandl
Clara-Christina Streit

Executive Board

The members of the Executive Board are:

Dr Theodor Weimer Dr. rer. pol.	Chairman of the Executive Board
Supervisory Board appointments	Deutsche Bank AG, Frankfurt/Main (member of the Supervisory Board) Knorr-Bremse AG, Munich (Deputy Chairman of the Supervisory Board)
Dr Christoph Böhm Dr.-Ing.	Member of the Executive Board and Chief Information Officer/Chief Operating Officer
Supervisory Board appointments	Clearstream Holding AG (member of the Supervisory Board)
Other appointments	Clearstream Services S.A. (Deputy Chairman of the Supervisory Board) SimCorp A/S (member of the Board of Directors) (since 03 November 2023) Qontigo GmbH (now ISS STOXX GmbH) (member of the Committee of Shareholders) (until 01 November 2023)
Dr Thomas Book Dr. rer. pol.	Member of the Executive Board of Deutsche Börse AG, responsible for Trading & Clearing
Supervisory Board appointments	360 Treasury Systems AG (Deputy Chairman of the Supervisory Board) China Europe International Exchange AG (member of the Supervisory Board) Eurex Frankfurt AG (member of the Supervisory Board) European Energy Exchange AG (Chairman of the Supervisory Board)
Heike Eckert Graduate economist	Member of the Executive Board of Deutsche Börse AG, responsible for Governance, People & Culture and Labour Director
Supervisory Board appointments	European Commodity Clearing AG (Chair of the Supervisory Board) European Energy Exchange AG (member of the Supervisory Board) Clearstream Banking S.A. (member of the Supervisory Board) (since 04 May 2023)
Other appointments	ISS Holdco Inc. (member of the Supervisory Board) (until 31 October 2023) ISS STOXX GmbH (member of the Committee of Shareholders) (since 01 November 2023)

Dr Stephan Leithner Dr. oec. HSG	Member of the Executive Board of Deutsche Börse AG, responsible for pre- & post-trading
Supervisory Board appointments	Clearstream Banking AG (Chairman of the Supervisory Board) Clearstream Holding AG (Chairman of the Supervisory Board) Clearstream Banking S.A. (Chairman of the Supervisory Board) Clearstream Fund Centre S.A. (Chairman of the Supervisory Board) Clearstream Services S.A. (Chairman of the Supervisory Board)
Other appointments	SimCorp A/S (Chairman of the Board of Directors) (since 03 November 2023) ISS Holdco Inc. (Chairman of the Supervisory Board) (until 31 October 2023) ISS STOXX GmbH (formerly Qontigo GmbH) (Chairman of the Committee of Shareholders)
Gregor Pottmeyer Business Administration graduate	Member of the Executive Board and Chief Information Officer of Deutsche Börse AG
Supervisory Board appointments	Clearstream Holding AG (Deputy Chairman of the Supervisory Board) Clearstream Banking S.A. (Deputy Chairman of the Supervisory Board) Eurex Clearing AG (Deputy Chairman of the Supervisory Board) Eurex Frankfurt AG (Deputy Chairman of the Supervisory Board) UBS Europe SE (member of the Supervisory Board)

In 2023, the total remuneration of members of the Executive Board amounted to €24.1 million (previous year: €22.7 million).

Total remuneration included share-based remuneration of €4.2 million. The number of stock options in the amount of 25,076 is based on a Deutsche Börse AG share price of 168.05 €, resulting from the average price during the calendar month December 2022.

The compensation of former members of the Executive Board and their surviving dependants amounted to €3.2 million in 2023 (previous year: €6.5 million). A total of €62.8 million (previous year: €54.8 million) has been reserved for pension obligations to former members of the Executive Board and their surviving dependants.

Employees

As at 31.12.2023, the number of employees at Deutsche Börse AG was 2.570 (previous year: 1.710). The average number of employees during financial year 2023 was 2.158 (previous year: 1.701).

Number of employees

	Male	Female	Total
Management employees	109	28	137
Non-management employees	1,265	757	2,021
Number of employees	1,374	785	2,158

Intercompany agreements

As part of the profit transfer agreement concluded between Clearstream Holding AG and Deutsche Börse AG, Clearstream Holding AG is obliged to transfer its entire net income for the year to Deutsche Börse AG, less any losses carried forward from the previous year and the amount to be added to the reserves, as required by section 300 AktG.
Simultaneously, Deutsche Börse AG is required to equalise any losses incurred at Clearstream Holding AG during the year through loss absorption, provided that such losses have not already been balanced by transfers from other retained earnings added during the term of the contract.

A control agreement ("Beherrschungsvertrag") is in place between Deutsche Börse AG and Clearstream Banking AG. As part of this agreement, Clearstream Banking AG subordinates the management of its company to Deutsche Börse AG, and Deutsche Börse AG has the right to give instructions to the Executive Board of Clearstream Banking AG with respect to the management of the company.

A shareholders' agreement is in place between Deutsche Börse AG and Eurex Global Derivatives AG,
which governs in particular the collaboration of the Eurex companies (EFAG and ECAG), the distribution of turnover and the reimbursement of operational management expenses. With regard to Deutsche Börse AG,
it is important to emphasise the operational management agreement with Eurex Frankfurt AG and the clearing agency agreement between Eurex Frankfurt AG and Eurex Clearing AG. Identical
agreements are in place between Eurex Global Derivatives AG and Eurex Frankfurt AG and Eurex Clearing AG. On the basis of the clearing agency agreement, Eurex Clearing AG receives the combined trading and clearing fees for operating and clearing on the Eurex derivatives market in its own name and for the account of third parties for Deutsche Börse AG and Eurex Global Derivatives AG. The corresponding fees will be divided between Deutsche Börse AG and Eurex Global Derivatives AG at a ratio of 88:12. Fees for connecting trading participants to the Eurex systems are invoiced centrally to Eurex Frankfurt for all Eurex companies and are forwarded in full at a ratio of 88:12. On the basis of the shareholders' agreement, it was stipulated between Deutsche Börse AG and Eurex Global Derivatives AG that the operational management expenses of Eurex Frankfurt AG and Eurex Clearing AG are assumed by Deutsche Börse AG and Eurex Global Derivatives AG at a ratio of 88:12.

Combined management report

The management report of Deutsche Börse AG and the management report on the consolidated financial statements of Deutsche Börse AG have been summarised in accordance with section 315 (5) HGB in conjunction with section 298 (2) HGB and German Accounting Standard (GAS) 20 (22).

Group structure

Deutsche Börse AG, which has its registered office in Frankfurt/Main, Germany (ultimate parent), prepares consolidated financial statements in accordance with International Financial Reporting Standards, as applicable within the European Union. The consolidated financial statements are published in the electronic version of the German Federal Gazette and are also available at the Company's premises.

Ownership structure

Deutsche Börse AG received the following notifications in accordance with section 33 of the Wertpapierhandelsgesetz (WpHG, German Securities Trading Act):

Discloser	Domicile and country in which the domicile or place of residence of the discloser is located	Date investment reached, exceeded or fell below the threshold	Over-/under-stepping (+/-)	Reporting threshold in %	Attribution in accordance with sections 21, 22, 25 and 25a of the WpHG	Investment in %	Investment in voting rights
Deutsche Börse AG	Frankfurt/Main, Germany	31.07.2023	–	5.00%	n/a	2.65%	5,034,902
Amundi S.A.	Paris, France	22.11.2023	+	3.00%	n/a	3.01%	5,717,902
Artisan Partners Asset Management	Wilmington, USA	28.11.2018	-	5.00%	n/a	4.99%	9,498,062
Artisan Partners Funds, Inc	Madison, USA	19.09.2018	-	5.00%	sections 21, 22 WpHG section 25 (1) no. 1/2 WpHG sections 21, 22 WpHG in conjunction with section 25 (1) no. 1/2 WpHG	3.00% 0.00% 0.00%	5,787,032 0 0
BlackRock Advisors Holdings, Inc.	New York, USA	01.12.2009	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.35%	6,526,163
BlackRock Delaware Holding, Inc	Wilmington, USA	19.05.2015	+	3.00%	section 22 (1) sentence 1 no. 1 WphG section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01% 0.93% 2.08%	5,799,497 1,787,637 4,011,860
BlackRock Financial Management, Inc.	Wilmington, USA	27.10.2015	+	5.00%	section 25 of the WpHG sections 21, 22 of the WpHG	5.51% 0.20% 5.31%	10,632,040 380,000 10,252,040
Black Rock Group Limited	London, United Kingdom	07.12.2012	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.00%	5,790,525
BlackRock Holdco 2, Inc.	Wilmington, USA	27.10.2015	+	5.00%	section 25 of the WpHG sections 21, 22 of the WpHG	5.51% 0.20% 5.31%	10,632,040 380,000 10,252,040
BlackRock Holdco 4, Inc.	Wilmington, USA	19.05.2015	+	3.00%	Section 22 (1) sentence 1 no. 1 WphG section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01% 0.93% 2.08%	5,799,497 1,787,637 4,011,860
BlackRock Holdco 6, Inc.	Wilmington, USA	19.05.2015	+	3.00%	section 22 (1) sentence 1 no. 1 WphG section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01% 0.93% 2.08%	5,799,497 1,787,637 4,011,860
BlackRock, Inc.	Wilmington, USA	19.11.2018	+	5.00%	Section 25 (1) no. 1 WphG sections 21, 22 of the WpHG	6.70% 0.11% 6.59%	12,934,306 223,161 12,711,145
BlackRock International Holdings, Inc.	New York, USA	02.08.2012	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.58%	6,981,055
BR Jersey International Holdings, L.P.	St. Helier, Jersey, Channel Islands	08.02.2012	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.58%	6,981,055
DWS Investment GmbH	Frankfurt/Main, Germany	16.02.2022	-	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	2.96%	5,632,067
FIL Limited	Pembroke, Bermuda	15.05.2018	+	3.00%	section 22 (1) sentence 1 no. 6 WphG	3.11%	6,007,175

Discloser	Domicile and country in which the domicile or place of residence of the discloser is located	Date investment reached, exceeded or fell below the threshold	Over-/under-stepping (+/-)	Reporting threshold in %	Attribution in accordance with sections 21,22,25 and 25a of the WpHG	Investment in %	Investment in voting rights
FMR LLC	Wilmington, USA	11.10.2023	-	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	2.84%	5,396,098
Flossbach von Storch AG	Cologne, Germany	20.07.2021	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.02%	5,728,660
Invesco Limited	Hamilton, Bermuda	14.03.2018	-	3.00%	sections 21, 22 of the WpHG	2.94%	5,689,975
Invesco Advisers, Inc	Wilmington, USA	21.10.2015	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01%	5,804,518
Invesco Group Services, Inc	Wilmington, USA	21.10.2015	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01%	5,804,518
Invesco Holding Company Limited	Henley, United Kingdom	21.10.2015	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01%	5,804,518
Invesco North American Holdings Inc	Wilmington, USA	21.10.2015	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01%	5,804,518
Invesco Management Group, Inc	Wilmington, USA	21.10.2015	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01%	5,804,518
IVZ, Inc.	Wilmington, USA	21.10.2015	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01%	5,804,518
IVZ UK Limited	Henley, United Kingdom	21.10.2015	+	3.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	3.01%	5,804,518
Jupiter Fund Management plc UK	London, United Kingdom	08.05.2019	+	3.00%	Sections 21,25 (1) nos. 1 and 2 WpHG	2.99%	5,695,810
Massachusetts Financial Services Company	Boston, USA	13.12.2023	-	5.00%	section 22 (1) sentence 1 no. 6 in conjunction with section 22 (1) sentence 2 WpHG	4.96%	9,417,509
Morgan Stanley	Wilmington, USA	21.05.2013	–	5.00%	 sections 21, 22 of the WpHG section 25 of the WpHG section 25a of the WpHG	4.11% 0.23% 0.25% 3.62%	7,926,928 448,039 489,195 6,989,694
Morgan Stanley International Holdings Inc	Wilmington, USA	21.05.2013	–	5.00%	 sections 21, 22 of the WpHG section 25 of the WpHG section 25a of the WpHG	4.01% 0.21% 0.18% 3.62%	7,734,733 403,568 341,471 6,989,694
Morgan Stanley International Limited	London, United Kingdom	21.05.2013	–	5.00%	 sections 21, 22 of the WpHG section 25a of the WpHG	3.70% 0.21% 3.49%	7,138,902 403,568 6,735,334
Morgan Stanley Group Europe	London, United Kingdom	21.05.2013	–	5.00%	 sections 21, 22 of the WpHG section 25a of the WpHG	3.70% 0.21% 3.49%	7,138,902 403,568 6,735,334
Morgan Stanley UK Group	London, United Kingdom	21.05.2013	–	5.00%	 sections 21, 22 of the WpHG section 25a of the WpHG	3.70% 0.21% 3.49%	7,138,902 403,568 6,735,334
Morgan Stanley & Co International Plc	London, United Kingdom	21.05.2013	–	5.00%	 sections 21, 22 of the WpHG section 25a of the WpHG	3.70% 0.21% 3.49%	7,138,902 403,568 6,735,334

Discloser	Domicile and country in which the domicile or place of residence of the discloser is located	Date investment reached, exceeded or fell below the threshold	Over-/under-stepping (+/-)	Reporting threshold in %	Attribution in accordance with sections 21,22,25 and 25a of the WpHG	Investment in %	Investment in voting rights
Societe Generale S.A	Paris, France	02.10.2015	–	5.00%		4.46%	8,614,620
					section 25a of the WpHG	4.44%	8,570,359
					section 25 of the WpHG	0.02%	44,261
Societe Generale Effekten GmbH	Frankfurt/Main, Germany	10.08.2015	–	5.00%	section 25a of the WpHG	4.93%	9,505,422
The Capital Group Companies, Inc.	Los Angeles, USA	10.11.2020	–	3.00%		2.84%	5,390,265
UBS AG	Zurich, Switzerland	20.05.2014	–	5.00%		4.60%	8,882,666
					sections 21, 22 of the WpHG	2.52%	4,865,398
					section 25 of the WpHG	1.39%	2,687,268
					section 25a of the WpHG	0.69%	1,330,000

German corporate governance code

On 07 December 2023, the Executive Board and the Supervisory Board jointly issued the updated declaration of conformity in accordance with section 161 AktG and made it available to shareholders on a permanent basis on the website of Deutsche Börse Aktiengesellschaft.

Statement of changes in non-current assets

Statement of Changes in Non-current Assets as at 31 December 2023

Intangible assets

	Licences and similar rights €	Goodwill €	Prepayments €	Total €
Acquisition and production costs as at 01.01.2023	336,993,159.72	514,150.36	41,202,255.01	378,709,565.09
Additions	25,221,400.60	8,175,737.44	4,249,874.66	37,647,012.70
Disposals[1]	77,090,425.24	0.00	0.00	77,090,425.24
Transfers[1]	34,930,263.42	0.00	-34,136,332.07	793,931.35
Acquisition and production costs as at 31.12.2023	320,054,398.50	8,689,887.80	11,315,797.60	340,060,083.90
Amortisation and depreciation as at 01.01.2023	252,260,393.98	514,150.36	0.00	252,774,544.34
Exchange differences	27.56	12,162.49	0.00	12,190.05
Amortisation and depreciation	31,315,528.67	790,991.60	0.00	32,106,520.27
Disposals[1]	77,051,253.24	0.00	0.00	77,051,253.24
Reversals	0.00	0.00	0.00	0.00
Transfers[1]	-4,811,368.23	0.00	5,605,299.58	793,931.35
Amortisation and depreciation as at 31.12.2023	201,713,328.74	1,317,304.45	5,605,299.58	208,635,932.77
Book Value as at 31.12.2023	118,341,069.76	7,372,583.35	5,710,498.02	131,424,151.13
Book Value as at 31.12.2022	84,732,765.74	0.00	41,202,255.01	125,935,020.75

[1] See explanations in the section "Non-current Assets"

Statement of Changes in Non-current Assets as at 31 December 2023

Tangible assets

	Fixtures on third party land €	Other assets, Operating and office equipment €	Prepayments and construction in progress €	Total €
Acquisition and production costs as at 01.01.2023	46,861,518.95	313,718,935.20	9,965,479.36	370,545,933.51
Additions	19,264,840.41	29,502,263.21	3,635,087.00	52,402,190.62
Disposals[2]	1,819,685.69	49,068,546.71	138,085.01	51,026,317.41
Transfers	8,649,622.07	3,014,018.12	-5,650,308.66	6,013,331.53
Acquisition and production costs as at 31.12.2023	72,956,295.74	297,166,669.82	7,812,172.69	377,935,138.25
Amortisation and depreciation as at 0.01.2023	29,799,760.57	223,767,547.11	0.00	253,567,307.68
Exchange differences	5,351.90	7,340.93	0.0	12,692.83
Amortisation and depreciation	4,643,875.70	37,394,874.36	0.00	42,038,750.06
Disposals[2]	1,819,635.70	48,645,257.76	0.00	50,464,893.46
Reversals	0.00	-35,844.12	0.00	-35,844.12
Transfers	2,999,313.41	3,014,018.12	0.00	6,013,331.53
Amortisation and depreciation as at 31.12.2023	35,628,665.88	215,502,678.64	0.00	251,131,344.52
Book Value as at 31.12.2023	37,327,629.86	81,663,991.18	7,812,172.69	126,803,793.73
Book Value as at 31.12.2022	17,061,758.38	89,951,388.09	9,965,479.36	116,978,625.83

[2] See explanations in the section "Non-current assets"

Statement of Changes in Non-current Assets as at 31 December 2023

Financial assets

	Shares in affiliated companies €	Loans to affiliated companies €	Investments €	Long-term securities €	Total €
Acquisition and production costs as at 01.01.2023	8,044,415,550.02	302,601,061.06	198,739,366.56	106,974,871.53	8,652,730,849.17
Exchange differences	0.00	0.00	0.00	0.00	0.00
Discount	0.00	0.00	0.00	0.00	0.00
Additions	4,807,331,200.36	169,660,049.40	13,990,433.09	24,677,353.58	5,015,659,036.43
Disposals	606,511,944.05	107,682,700.36	0.00	56,187,062.88	770,381,707.29
Transfers	4,000,000.00	0.00	-4,000,000.00	0.00	0.00
Acquisition and production costs as at 31.12.2023	12,249,234,806.33	364,578,410.10	208,729,799.65	75,465,162.23	12,898,008,178.31
Amortisation and depreciation as at 0.01.2023	19,690,401.24	0.00	69,974,054.23	509,098.01	90,173,553.48
Amortisation and depreciation	314,561,813.85	0.00	8,263,550.96	0.00	322,825,364.81
Reversals	0.00	0.00	-37,291,481.58	0.00	-37,291,481.58
Disposals	0.00	0.00	0.00	14,618.30	14,618.30
Transfers	3,462,831.00	0.00	-3,462,831.00	0.00	0.00
Amortisation and depreciation as at 31.12.2023	337,715,046.09	0.00	37,483,292.61	494,479.71	375,692,818.41
Book Value as at 31.12.2023	11,911,519,760.24	364,578,410.10	171,246,507.04	74,970,682.52	12,522,315,359.90
Book Value as at 31.12.2022	8,024,725,148.78	302,601,061.06	128,765,312.33	106,465,773.52	8,562,557,295.69

Frankfurt/Main, 5 March 2024

Deutsche Börse Aktiengesellschaft

The Executive Board

Theodor Weimer	Christoph Böhm	Thomas Book
Heike Eckert	Stephan Leithner	Gregor Pottmeyer

Responsibility Statement by the Executive Board

To the best of our knowledge, and in accordance with the applicable reporting principles, the financial statements of Deutsche Börse Aktiengesellschaft give a true and fair view of the assets, liabilities, financial position and profit and loss of the Company, and the management report includes a fair review of the development and performance of the business and the position of the Company, together with a description of the principal opportunities and risks associated with the expected development of the Company.

Frankfurt/Main, 5 March 2024

Deutsche Börse Aktiengesellschaft

The Executive Board

Theodor Weimer

Christoph Böhm

Thomas Book

Heike Eckert

Stephan Leithner

Gregor Pottmeyer

INDEPENDENT AUDITOR'S REPORT

To Deutsche Börse Aktiengesellschaft, Frankfurt am Main

REPORT ON THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS AND OF THE MANAGEMENT REPORT

Audit Opinions

We have audited the annual financial statements of Deutsche Börse Aktiengesellschaft, Frankfurt am Main, which comprise the balance sheet as at 31 December 2023, and the statement of profit and loss for the financial year from 1 January to 31 December 2023 and notes to the financial statements, including the presentation of the recognition and measurement policies. In addition, we have audited the management report of Deutsche Börse Aktiengesellschaft, which is combined with the group management report, including the non-financial statement to comply with §§ [Articles] 289b to 289e HGB [Handelsgesetzbuch: German Commercial Code] and with §§ 315b to 315c HGB included in section "Non-financial statement" for the financial year from 1 January to 31 December 2023. In accordance with the German legal requirements, we have not audited the content of the statement on corporate governance pursuant to § 289f HGB and § 315d HGB.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law and give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2023 and of its financial performance for the financial year from 1 January to 31 December 2023 in compliance with German Legally Required Accounting Principles,
- the accompanying management report (excluding the non-financial statement included therein) as a whole provides an appropriate view of the Company's position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development; we do not express an audit opinion on the statement on corporate governance referred to above and
- the non-financial statement included in section „Non-financial statement " of the management report is prepared, in all material respects, in accordance with the applicable German legal and European requirements as well as with the specifying criteria disclosed by the Company's executive directors.

Pursuant to § 322 Abs. [paragraph] 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements and of the management report.

Basis for the Audit Opinions

We conducted our audit of the annual financial statements and of the management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as “EU Audit Regulation”) in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor’s Responsibilities for the Audit of the Annual Financial Statements and of the Management Report" section of our auditor’s report. We are independent of the Company in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the annual financial statements, on the management report and on the non-financial statement included in the management report.

Key Audit Matters in the Audit of the Annual Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements for the financial year from 1 January to 31 December 2023. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matter of most significance in our audit was as follows:

❶ Valuation of shares in affiliated companies and impairment of securities of current assets using discounted cash flow models

Our presentation of this key audit matter has been structured as follows:

① Matter and issue

② Audit approach and findings

③ Reference to further information

Hereinafter we present the key audit matter:

❶ Valuation of shares in affiliated companies and impairment of securities of current assets using discounted casha flow models

① Shares in affiliated companies totalling €11,912 million (78.7% of total assets) are reported under "Financial assets" in the annual financial statements of Deutsche Börse Aktiengesellschaft. Shares in affiliated companies and marketable securities are measured under commercial law at the lower of cost and fair value. The fair values are determined using discounted cash flow (DCF) models as the present values of the expected future cash flows resulting from the planning calculations prepared by the legal representatives. Expectations about future market developments and assumptions about the development of macroeconomic factors are also taken into account. Discounting is carried out using the individually calculated cost of capital.

Based on the values determined and further documentation, there was an impairment requirement totalling € 35.9 million for shares in affiliated companies in the 2023 financial year, of which € 27.6 million was attributable to Crypto Finance AG, Zurich, Switzerland.

There was also an impairment loss of €287.0 million calculated using a DCF model for securities of current assets . This related to the measurement of the shares in Axioma Inc., New York, United States, which were only held during the year. Deutsche Börse acquired these shares from a subsidiary and transferred them to another subsidiary after impairment. The shares in Axioma Inc. were allocated to current assets; the expense is recognised in the item "Write-downs of financial assets and marketable securities".

The result of the valuation using DCF models is highly dependent on how the legal representatives estimate future cash flows and on the discount rates and growth rates used in each case. The valuation is therefore subject to significant uncertainties. Against this background and due to the high complexity of the valuation and its material significance for the net assets and results of operations of the company, this matter was of particular significance in the context of our audit.

② As part of our audit, we first analysed the valuation methodology. We assessed whether the fair values were determined appropriately in accordance with the relevant valuation standards. With the involvement of our valuation specialists, for a risk-oriented sample we performed a comparison with general and industry-specific market expectations and were provided with extensive explanations by the executive directors on the key value drivers underlying the expected cash flows. To assess the appropriateness of the planning calculations, we also considered plan-actual and plan-plan analyses in certain cases. We also assessed the appropriateness of the growth assumptions after the forecast period and the assumed weighted average cost of capital and verified the arithmetical accuracy of the valuation. Furthermore, we analysed the synergy effects taken into account by the executive directors in the valuations and their allocation to the respective companies. The valuations of Deutsche Börse Aktiengesellschaft were generally additionally assessed by comparing the implied multiples with market multiples. In order to take account of the existing forecast uncertainties, we also assessed the sensitivity analyses prepared by the company. Where there was a need for amortisation as at the balance sheet date, we verified the appropriate recognition of the amortisation.

In our view, the valuation methods, parameters and underlying valuation assumptions applied by the legal representatives are suitable overall, taking into account the information available, to appropriately measure the shares in affiliated companies and marketable securities using discounted cash flow models.

③ The company's disclosures on financial assets are contained in the section "Non-current assets" and on marketable securities in the section of the same name in the notes.

Other Information

The executive directors are responsible for the other information. The other information comprises the statement on corporate governance pursuant to § 289f HGB and § 315d HGB as an unaudited part of the management report.

Our audit opinions on the annual financial statements, on the management report and on the non-financial statement included in the management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information mentioned above and, in so doing, to consider whether the other information

- is materially inconsistent with the annual financial statements, with the management report disclosures audited in terms of content or with our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Annual Financial Statements and the Management Report

The executive directors are responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles. In addition, the executive directors are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the annual financial statements, the executive directors are responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the management report that as a whole provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the management report.

The executive directors are also responsible for the preparation of the non-financial statement included in the management report in accordance with the applicable German legal and European requirements as well as with the specifying criteria disclosed by the Company's executive directors. Furthermore, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a non-financial statement that is free from material misstatement, whether due to fraud (i.e., fraudulent reporting in the non-financial statement) or error.

The applicable requirements contain wording and terms that are subject to considerable interpretation uncertainties and for which authoritative comprehensive interpretations have not yet been published. Accordingly, the executive directors have disclosed their interpretations of such wording and terms in the non-financial statement in section "Erklärung zur Unternehmensführung" of the non-financial statement. The executive directors are responsible for the defensibility of these interpretations. As such wording and terms may be interpreted differently by regulators or courts, the legal conformity of these interpretations is uncertain.

The supervisory board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and of the management report as well as of the non-financial statement included in the management report.

Auditor's Responsibilities for the Audit of the Annual Financial Statements and of the Management Report

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, and whether the non-financial statement has been prepared, in all material respects, in accordance with the applicable German legal and European requirements and with the specifying criteria disclosed by the Company's executive directors, as well as to issue an auditor's report that includes our audit opinions on the annual financial statements, on the management report and on the non-financial statement.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual financial statements and of the management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit of the annual financial statements and of arrangements and measures (systems) relevant to the audit of the management report and of the non-financial statement included in the management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems of the Company.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements and in the management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles.
- Evaluate the consistency of the management report with the annual financial statements, its conformity with German law, and the view of the Company's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.
- Evaluate the suitability of the criteria presented by the executive directors in the non-financial statement as a whole. As explained in the description of the responsibilities of the executive directors, the executive directors have interpreted the wording and terms contained in the relevant regulations; the legal conformity of these interpretations is subject to inherent uncertainties mentioned in this description. Those inherent uncertainties in the interpretation apply to our audit accordingly.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Report on the Assurance on the Electronic Rendering of the Annual Financial Statements and the Management Report Prepared for Publication Purposes in Accordance with § 317 Abs. 3a HGB

Assurance Opinion

We have performed assurance work in accordance with § 317 Abs. 3a HGB to obtain reasonable assurance as to whether the rendering of the annual financial statements and the management report (hereinafter the "ESEF documents") contained in the electronic file Deutsche Boerse AG 2023-12-31 DE.zip and prepared for publication purposes complies in all material respects with the requirements of § 328 Abs. 1 HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the annual financial statements and the management report into the ESEF format and therefore relates neither to the information contained within these renderings nor to any other information contained in the electronic file identified above.

In our opinion, the rendering of the annual financial statements and the management report contained in the electronic file identified above and prepared for publication purposes complies in all material respects with the requirements of § 328 Abs. 1 HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying annual financial statements and the accompanying management report for the financial year from 1 January to 31 December 2023 contained in the "Report on the Audit of the Annual Financial Statements and on the Management Report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the electronic file identified above.

Basis for the Assurance Opinion

We conducted our assurance work on the rendering of the annual financial statements and the management report contained in the electronic file identified above in accordance with § 317 Abs. 3a HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering, of Financial Statements and Management Reports, Prepared for Publication Purposes in Accordance with § 317 Abs. 3a HGB (IDW AsS 410 (06.2022)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibility in accordance therewith is further described in the "Auditor's Responsibilities for the Assurance Work on the ESEF Documents" section. Our audit firm applies the IDW Standard on Quality Management: Requirements for Quality Management in the Audit Firm (IDW QMS 1 (09.2022)).

Responsibilities of the Executive Directors and the Supervisory Board for the ESEF Documents

The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic rendering of the annual financial statements and the management report in accordance with § 328 Abs. 1 Satz 4 Nr. [number] 1 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have considered necessary to enable the preparation of ESEF documents that are free from material non-compliance with the requirements of § 328 Abs. 1 HGB for the electronic reporting format, whether due to fraud or error.

The supervisory board is responsible for overseeing the process for preparing the ESEF-documents as part of the financial reporting process.

Auditor's Responsibilities for the Assurance Work on the ESEF Documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of § 328 Abs. 1 HGB, whether due to fraud or error. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also:

- Identify and assess the risks of material non-compliance with the requirements of § 328 Abs. 1 HGB, whether due to fraud or error, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance work on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e., whether the electronic file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815 in the version in force at the date of the annual financial statements on the technical specification for this electronic file.
- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited annual financial statements and to the audited management report.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditor by the annual general meeting on 16 May 2023. We were engaged by the supervisory board on 14 September 2023. We have been the auditor of the Deutsche Börse Aktiengesellschaft, Frankfurt am Main, without interruption since the financial year 2021.

We declare that the audit opinions expressed in this auditor’s report aare consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

REFERENCE TO AN OTHER MATTER– USE OF THE AUDITOR’S REPORT

Our auditor’s report must always be read together with the audited annual financial statements and the audited management report as well as the assured ESEF documents. The annual financial statements and the management report converted to the ESEF format – including the versions to be filed in the company register – are merely electronic renderings of the audited annual financial statements and the audited management report and do not take their place. In particular, the “Report on the Assurance on the Electronic Rendering of the Annual Financial Statements and the Management Report Prepared for Publication Purposes in Accordance with § 317 Abs. 3a HGB” and our assurance opinion contained therein are to be used solely together with the assured ESEF documents made available in electronic form.

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Dr. Michael Rönnberg.

Frankfurt am Main, 6 March 2024

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Marc Billeb	Dr Michael Rönnberg
Certified Public Auditor	Certified Public Auditor