Goldman Sachs

Annual Financial Statements and Management Report

December 31, 2024

Goldman Sachs Bank Europe SE

INDEX

Introduction

Goldman Sachs Bank Europe SE (GSBE or the bank) is engaged in a wide range of activities primarily in the E.U. and to a lesser extent internationally, including underwriting and market-making in debt and equity securities and derivatives, asset and wealth management services, deposit-taking, lending (including securities lending), advisory services and transaction banking services. The bank is a primary dealer for government bonds issued by E.U. sovereigns. The bank serves a diversified client base that includes corporations, financial institutions, governments and individuals, from its registered office in Frankfurt am Main and branches in Amsterdam, Athens, Copenhagen, Dublin, London, Luxembourg, Madrid, Milan, Paris, Stockholm and Warsaw. In March 2024, the bank also opened an office in Munich to expand its footprint in Germany. The London branch of the bank is currently in dormant status after it ceased its business activities during 2024. The bank is registered with the commercial register number HRB 114190 at the local district court in Frankfurt am Main, Germany.

The bank is directly supervised by the European Central Bank (ECB) and additionally by the Federal Financial Supervisory Authority (BaFin) and the Deutsche Bundesbank in the context of the E.U. Single Supervisory Mechanism.

The bank is a wholly-owned subsidiary of Goldman Sachs Bank USA (GS Bank USA), a New York State-chartered bank and a member of the Federal Reserve System. The bank's ultimate parent undertaking and controlling entity is The Goldman Sachs Group, Inc. (Group Inc.). Group Inc. is a bank holding company and a financial holding company regulated by the Board of Governors of the Federal Reserve System. In relation to the bank, "GS Group affiliate" means Group Inc. or any of its subsidiaries. Group Inc., together with its consolidated subsidiaries, form "GS Group". GS Group is a leading global financial institution that delivers a broad range of financial services to a large and diversified client base that includes corporations, financial institutions, governments and individuals.

The bank seeks to be the advisor of choice for its clients and a leading participant in financial markets. As part of GS Group, the bank also enters into transactions with affiliates in the normal course of business as part of its market-making activities and general operations.

The bank generates revenues from the following business activities: Investment Banking; Fixed Income, Currency and Commodities (FICC); Equities; and Investment Management, which includes Asset management and Wealth management.

All references to December 2024 and 2024 refer to the year ended, or the date, as the context requires, December 31, 2024. All references to December 2023 and 2023 refer to the year ended, or the date, as the context requires, December 31, 2023. Any reference to a future year refers to a year ending on December 31 of that year. Any statements relating to future periods are subject to a high degree of uncertainty.

The bank strives to maintain a work environment that fosters professionalism, excellence, high standards of business ethics, teamwork and cooperation among employees. The bank recognises that it needs the most talented people to deliver outstanding results for clients, and that the diversity of its workforce, including a diversity of perspectives, enhances its performance-based culture and is critical to its commercial success.

References to "the financial statements" are to the audited financial statements as presented in Part II of this report.

The bank's results presented in the management report have been prepared under the German Commercial Code (HGB), unless otherwise stated.

Business Environment

In 2024, the global economy grew, but was impacted throughout the year by broad macroeconomic and geopolitical concerns. Concerns regarding inflation and ongoing geopolitical stresses, including tensions with China and the conflicts in Ukraine and the Middle East, remained elevated. Despite these concerns, the economy in the Eurozone and U.K. showed some improvement from low levels, while in the U.S., the economy has remained resilient and equity markets have reacted favourably to the outcomes of national elections. Additionally, markets were focused on policy interest rate cuts by several central banks, including the European Central Bank, U.S. Federal Reserve and the Bank of England.

Results of Operations

Net Revenues

Net revenues are defined as the sum of interest income, interest expense, commission income, commission expense and net trading result. Net revenues arise from transactions with both third parties and GS Group affiliates. The bank has revenue sharing agreements with GS Group affiliates related to certain activities under which it receives revenues from, and transfers revenues to, such affiliates.

The table below presents the bank's net revenues by business activity.

	Year Ended December	
€ in millions	**2024**	2023
Investment Banking	**€ 566**	€ 492
FICC	**399**	461
Equities	**715**	495
Investment Management	**193**	217
Total	**€1,873**	€1,665

Income and expenses associated with the bank's sources and uses of funding, including returns on the bank's Global Core Liquid Assets (GCLA), are allocated to the bank's business activities.

Net revenues for 2024 were €1.87 billion, 12% higher than 2023, reflecting significantly higher net revenues in Equities and higher net revenues in Investment Banking, partially offset by lower net revenues in FICC and Investment Management.

Investment Banking

Investment Banking primarily generates revenues from the following:

Advisory. Includes strategic advisory engagements with respect to mergers and acquisitions, divestitures, corporate defence activities, restructurings and spin-offs.

Underwriting. Includes public offerings and private placements in both local and cross-border transactions of a wide range of securities and other financial instruments, including acquisition financing.

Other. Includes lending to corporate clients, including through relationship lending and acquisition financing, and transaction banking services.

2024 versus 2023. Net revenues in Investment Banking were €566 million for 2024, 15% higher than 2023, primarily due to higher net revenues in Advisory and Underwriting. The increase in Advisory net revenues reflected an increase in industry-wide completed mergers and acquisitions transactions. The increase in Underwriting primarily reflected higher net revenues in Equity underwriting.

FICC and Equities

FICC and Equities serve the bank's clients who buy and sell financial products, raise funding and manage risk. The bank does this by acting as a market maker and offering expertise primarily to European, and to a lesser extent to international, clients. FICC and Equities make markets and facilitate client transactions in fixed income, currency, commodity and equity products. In addition, the bank makes markets in, and clears client transactions on, major stock, options and futures exchanges in Europe or in other jurisdictions using the exchange membership of other GS Group affiliates.

The bank executes a high volume of transactions for its clients in large, highly liquid markets. The bank also executes transactions for its clients in less liquid markets for spreads and fees that are generally somewhat larger than those charged in more liquid markets. Additionally, the bank structures and executes transactions involving customised or tailor-made products that address its clients' risk exposures, investment objectives or other complex needs, as well as derivative transactions related to client advisory and underwriting activities.

The bank's net revenues are influenced by a combination of interconnected drivers, including (i) client activity levels and transactional bid/offer spreads (collectively, client activity) and (ii) changes in the fair value of its inventory, and interest income and interest expense related to the holding, hedging and funding of its inventory.

FICC. FICC generates revenues from intermediation and financing activities.

- **FICC intermediation.** Includes client execution activities related to making markets in both cash and derivative instruments, as detailed below.

  Interest Rate Products. Government bonds (including inflation-linked securities) across maturities, other government-backed securities, and interest rate swaps, options and other derivatives.

  Credit Products. Investment-grade and high-yield corporate securities, credit derivatives, exchange-traded funds (ETFs), bank and bridge loans and municipal securities.

  Currencies. Currency options, spot/forwards and other derivatives on G-10 currencies and emerging-market products.

  Commodities. Commodity derivatives involving crude oil and petroleum products, natural gas, agricultural, base, precious and other metals, electricity, including renewable power, environmental products and other commodity products.

- **FICC financing.** Includes (i) secured lending to the bank's clients through structured credit, asset-backed lending and (ii) financing through securities purchased under agreements to resell (resale agreements).

2024 versus 2023. Net revenues in FICC were €399 million for 2024, 13% lower than 2023, primarily due to lower net revenues in FICC intermediation. The decrease in FICC intermediation was driven by significantly lower net revenues in interest rate products reflecting lower client activity.

Equities. Equities generates revenues from intermediation and financing activities.

- **Equities intermediation.** The bank makes markets in equity securities and equity-related products, including ETFs, convertible securities, options, futures and over-the-counter (OTC) derivative instruments. The bank also structures and makes markets in derivatives on indices, industry sectors, financial measures and individual company stocks. The bank's exchange-based market-making activities include making markets in stocks and ETFs, futures and options on major exchanges in Europe or in other jurisdictions using the exchange membership of other GS Group affiliates. In addition, the bank generates commissions and fees from executing and clearing institutional client transactions on major stock, options and futures exchanges in Europe or in other jurisdictions using the exchange membership of other GS Group affiliates, as well as OTC transactions.
- **Equities financing.** Includes prime financing, which provides financing to the bank's clients for their securities trading activities through margin loans that are generally collateralised by securities or cash. Prime financing also includes services which involve lending securities to cover institutional client' short sales and borrowing securities to cover the bank's short sales and to make deliveries into the market. The bank is also an active participant in broker-to-broker securities lending and third-party agency lending activities. In addition, the bank executes swap transactions to provide its clients with exposure to securities and indices. Financing activities also include portfolio financing, which clients can utilise to manage their investment portfolios, and other equity financing activities, including securities-based loans to individuals.

2024 versus 2023. Net revenues in Equities were €715 million for 2024, 44% higher than 2023, due to significantly higher net revenues in Equities intermediation and Equities financing. The increase in Equities intermediation reflected significantly higher net revenues in derivatives and cash products. The increase in Equities financing reflected significantly higher net revenues in prime financing and portfolio financing.

Investment Management

Investment Management includes Asset management and Wealth management.

Asset management includes a share of asset-based fees on client assets that are being managed on a fiduciary basis by GS Group's portfolio managers. The bank's revenues represent its sales and distribution efforts and oversight of portfolio management delegated to other GS Group affiliates. During 2023, the bank agreed to transfer its asset management activities to Goldman Sachs Asset Management BV (GSAM BV), GS Group's primary E.U. asset management entity. The transfer was valued at €26 million, of which the bank accrued €20 million during 2023 and €6 million during 2024. See Note 21 to the financial statements for further information.

Wealth management includes wealth advisory services, including portfolio management and financial counselling, brokerage and other transaction services to high-net-worth individuals and families.

2024 versus 2023. Net revenues in Investment Management were €193 million for 2024, 11% lower than 2023, primarily due to significantly lower net revenues in Asset management, reflecting the transfer of the bank's asset management activities to GSAM BV, partially offset by higher net revenues in Wealth management.

Net Revenues by Income Statement Line Items

The table below presents the bank's net revenues by income statement line items.

	Year Ended December	
€ in millions	**2024**	2023
Interest income	**€2,634**	€1,951
Interest expense	**(2,989)**	(2,082)
Net interest expense	**(355)**	(131)
Commission income	**1,041**	891
Commission expense	**(210)**	(167)
Net commission income	**831**	724
Net trading result	**1,397**	1,072
Total	**€1,873**	€1,665

In the table above:

- Net interest expense relates to interest income and interest expense on banking book products.
- Net commission income relates to net revenues from certain financial advisory and underwriting engagements, executing and clearing transactions and certain investment management activities.
- Net trading result relates to interest income, interest expense and gains and losses on trading book products, transaction-based expenses and risk valuation adjustment according to Section 340e(3) and (4) HGB.
- Due to the nature of the bank's business activities, positive net revenues reported in net trading result can be partially offset by negative net revenues reported in net interest expense. For example, certain activities may produce trading revenues but incur interest expense related to the funding of the related inventory.

Net interest expense was €355 million for 2024, €224 million higher than 2023, reflecting a significant increase in net interest expense on banking book products due to the higher interest rate environment. The net interest expense was largely offset by net interest income on trading book products, reported within net trading result.

Net commission income was €831 million for 2024, 15% higher than 2023, reflecting an increase in investment banking net revenues partially offset by a decrease in investment management net revenues.

Net trading result was €1.40 billion for 2024, 30% higher than 2023, primarily reflecting a significant increase in trading income driven by increased activity. Net trading result includes net interest income of €343 million for 2024 (2023: €364 million) primarily relating to bonds and other fixed-income securities classified within the trading book, resale agreements and securities sold under agreements to repurchase (repurchase agreements).

Expenses

Expenses are primarily influenced by compensation (including the impact of the Group Inc. share price on share-based compensation), headcount and levels of business activity. Compensation and benefits includes salaries, allowances, year-end discretionary compensation, amortisation of share-based compensation, changes in the fair value of share-based payment awards between grant date and delivery date and other items such as benefits. Discretionary compensation is significantly impacted by, among other factors, the level of net revenues, overall financial performance, prevailing labour markets, business mix, the structure of share-based compensation programmes and the external environment.

The table below presents the bank's total expenses and headcount.

	Year Ended December	
€ in millions	**2024**	2023
Compensation and benefits	**€ 732**	€665
Other administration expenses	**258**	133
Depreciation and amortisation	**17**	26
Other operating expenses	**5**	8
Write-downs of certain securities and provisions for loan losses	**33**	2
Total	**€1,045**	€834
Headcount at year-end	**1,182**	1,038

In the table above:

- Compensation and benefits included wages and salaries, compulsory social security contributions and expenses for pensions and other employee benefits as presented on the income statement.
- Compensation and benefits included a charge of €103 million for 2024 (2023: €30 million) representing changes in the fair value of share-based payment awards recharged from Group Inc. during the period.
- Other administration expenses included a credit of €5 million for 2024 (2023: credit of €65 million), related to reversal of accruals for the E.U. Single Resolution Fund (SRF) as the E.U. SRF achieved its funding target in 2023, and has remained above the target level during 2024.
- Other administration expenses include charges relating to operational and administrative support and management services received from GS Group affiliates.

2024 versus 2023. Total expenses were €1.05 billion for 2024, 25% higher than 2023.

Compensation and benefits were €732 million for 2024, 10% higher than 2023. Excluding the impact of changes in the fair value of share-based payment awards for both years, compensation and benefits were €629 million for 2024, essentially unchanged compared to 2023.

Other administration expenses were €258 million for 2024, 94% higher than 2023, primarily due to reversal of accruals for the E.U. SRF leading to lower other administration expenses during 2023 and higher charges in 2024 relating to operational and administrative support and management services received from GS Group affiliates.

Write-downs of certain securities and provisions for loan losses were €33 million for 2024, compared with €2 million for 2023. Write-downs and provisions for 2024 reflected write-downs of equity shares and other variable-yield securities of €19 million, as well as provisions for loan losses of €14 million reflecting increased lending activity.

As of December 2024, headcount was 14% higher compared with December 2023, primarily due to increases in Investment Banking, FICC and Equities, Compliance, Risk and Corporate Treasury. The average headcount for 2024 was 3% higher compared to 2023.

Income Tax Expense

The effective tax rate was 32.1% for 2024, which is higher compared to the combined income tax rate for the jurisdictions in which the bank operates primarily due to the impact of certain permanent differences. The effective tax rate represents the bank's income tax expense divided by its result from ordinary activities.

The table below presents a reconciliation between the bank's income tax expense and the amount calculated by applying the German statutory (domestic) income tax rate applicable to the bank to the result from ordinary activities.

	Year Ended December	
€ in millions	**2024**	2023
Result from ordinary activities	**€879**	€881
Expected tax expense at domestic income tax rate of 32.0% (2023: 31.9%)	**281**	281
Effect of:		
Additions to the trading-related special reserve in accordance with Section 340e(4) HGB (permanent difference)	**49**	35
Non-deductible E.U. SRF expenses	**(1)**	(21)
Foreign tax rate differential	**(20)**	(17)
Adjustments in respect of prior periods	**(26)**	(11)
Other	**(1)**	15
Total income tax expense	**€282**	€282

In the table above, foreign tax rate differential represents the impact of the difference in the domestic income tax rate applicable to the bank and the applicable income tax rates for the foreign branches on the income tax expense.

Balance Sheet

Balance Sheet Analysis

As of December 2024, total assets were €107.24 billion, an increase of €21.87 billion from December 2023, primarily reflecting an increase in receivables from customers of €14.17 billion (primarily due to an increase in banking book resale and securities borrowing agreements, and an increase in lending activity), an increase in trading assets of €5.38 billion (primarily due to an increase in derivatives, as well as bonds and other fixed income securities, partially offset by a decrease in trading book resale agreements) and an increase in other assets of €2.28 billion (primarily due to an increase in collateral posted in connection with derivative transactions).

As of December 2024, total liabilities were €93.96 billion, an increase of €21.27 billion from December 2023, primarily reflecting an increase in liabilities to credit institutions of €9.97 billion (primarily due to an increase in intercompany unsecured borrowings and minimum requirement for own funds and eligible liabilities (MREL) borrowings), an increase in liabilities to customers of €5.63 billion (primarily due to an increase in banking book securities lending agreements and an increase in private wealth deposits, partially offset by a decrease in banking book repurchase agreements) and an increase in trading liabilities of €7.11 billion (primarily due to an increase in derivatives and trading book repurchase agreements).

As of December 2024, total shareholder's equity was €13.28 billion, an increase of €597 million from December 2023, reflecting the bank's profit for 2024.

Financial Position

Off-Balance Sheet commitments

As of December 2024, irrevocable lending commitments were €10.43 billion, an increase of €3.31 billion from December 2023, primarily reflecting an increase in the bank's lending activity. The bank has contingent liabilities in relation to financial guarantee contracts written of €746 million as of December 2024, an increase of €735 million from December 2023.

Liquidity

The liquidity management framework of the bank is designed to ensure sufficient liquidity is available at all times. The bank holds sufficient excess liquidity in the form of GCLA. Refer "Risk Report — Liquidity Risk Management" for more information about the bank's GCLA.

The bank had sufficient liquidity to meet its payment obligations at all times during the financial year. The bank is a wholly-owned subsidiary of GS Bank USA and an indirect, wholly-owned subsidiary of Group Inc. The shareholder's equity of Group Inc. was $122 billion as of December 2024 (December 2023: $117 billion). GS Bank USA and Group Inc. make a comprehensive range of liquidity and financing alternatives available for the bank, which is designed to allow flexibility in financing.

Funding Sources

The bank's primary sources of funding are collateralised financings (included within liabilities to credit institutions/ customers and trading liabilities), unsecured borrowings (included within liabilities to credit institutions/customers and trading liabilities), MREL-eligible borrowings (included within liabilities to credit institutions), deposits (included within liabilities to customers and securitised liabilities) and shareholder's equity.

The table below presents information about the bank's funding sources.

	As of December			
€ in millions	**2024**		2023	
Collateralised financings	**€29,720**	**39%**	€27,476	44%
Unsecured borrowings	**15,546**	**21%**	9,523	16%
MREL-eligible borrowings	**4,800**	**6%**	800	1%
Deposits	**12,141**	**16%**	10,830	18%
Shareholder's equity	**13,285**	**18%**	12,686	21%
Total	**€75,492**	**100%**	€61,315	100%

Collateralised Financings. The bank funds a significant amount of inventory on a secured basis, with GS Group affiliates, as well as external counterparties.

The bank seeks to raise secured funding with a term appropriate for the liquidity of the assets that are being financed, and seeks longer maturities for secured funding collateralised by asset classes that may be harder to fund on a secured basis, especially during times of market stress.

Unsecured Borrowings. The bank has both intercompany and external unsecured borrowings.

Intercompany Unsecured Borrowings

Intercompany unsecured borrowings include borrowings and subordinated loans. The bank's unsecured intercompany loans are primarily from its immediate parent undertaking, GS Bank USA.

External Unsecured Borrowings

External unsecured borrowings include registered bonds and promissory notes, debt securities issued and overdrafts.

MREL-eligible borrowings. The bank has MREL-eligible borrowings from its immediate parent undertaking, GS Bank USA.

Deposits. Deposits provide the bank with a diversified source of funding and reduce its reliance on wholesale funding. The bank accepts deposits, including demand and time deposits and issues certificates of deposit. The depositors primarily include private wealth clients, institutional clients and transaction banking clients.

Shareholder's Equity. Shareholder's equity is a stable and perpetual source of funding. See Note 19 to the financial statements for further information.

Regulatory Capital

The bank is subject to the capital requirements prescribed in the amended E.U. Capital Requirements Directive (CRD) and E.U. Capital Requirements Regulation (CRR), which are largely based on the Basel Committee on Banking Supervision's (Basel Committee) capital framework for strengthening international capital standards (Basel III). The Basel Committee is the primary global standard setter for prudential bank regulation.

The bank uses International Financial Reporting Standards (IFRS) as the basis of accounting, in accordance with Art. 24 (2) of Regulation (EU) No 575/2013, as amended, while calculating its prudential capital requirements.

The risk-based capital requirements are expressed as capital ratios that compare measures of regulatory capital to risk-weighted assets (RWAs). The Common Equity Tier 1 (CET1) capital ratio is defined as CET1 capital divided by RWAs. The Tier 1 capital ratio is defined as Tier 1 capital divided by RWAs. The Total capital ratio is defined as total capital divided by RWAs.

The CET1 capital, Tier 1 capital and Total capital ratio requirements (collectively, the Pillar 1 capital requirements) are supplemented by:

- A capital conservation buffer of 2.5% of RWAs, consisting entirely of capital that qualifies as CET1 capital.
- A countercyclical capital buffer of up to 2.5% of RWAs (and also consisting entirely of CET1 capital) in order to counteract excessive credit growth as assessed by the jurisdictions in which the bank operates. The buffer only applies to the bank's exposures to certain types of counterparties based in jurisdictions which have announced a countercyclical buffer. The buffer was 1.03% as of December 2024 and 0.84% as of December 2023.
- The individual Pillar 2 capital requirement (P2R) (an additional amount to cover risks not adequately captured in Pillar 1). The ECB performs an annual Supervisory Review and Evaluation Process (SREP), which leads to a final determination by the ECB of the SREP capital add-on which consists of P2R and a Pillar 2 capital guidance (P2G). The bank's P2R capital add-on was 2.75% (of which 1.55% has to be held in CET1 capital) as of December 2024 and 3.00% (of which 1.69% has to be held in CET1 capital) as of December 2023. The P2R capital add-on applicable to the bank from January 1, 2025 is 2.5%.
- An additional capital requirement according to the degree of systemic importance of the bank (O-SII buffer). The CRD and CRR provide that institutions that are systemically important at the E.U. or member state level, known as other systemically important institutions (O-SIIs), may be subject to O-SII buffers. The bank's O-SII buffer was 0.75% as of December 2024 and 0.5% as of December 2023. The O-SII buffer applicable to the bank from January 1, 2025 is 1.0%.

In 2024, the E.U. adopted rules to implement the Basel III Revisions, through amendments to the CRR and CRD, referred to as CRR III and CRD VI. The amendments include the Fundamental Review of the Trading Book (FRTB) rules, revised rules for credit risk capital, a new standardised approach for operational risk and credit valuation adjustment (CVA) risk capital and a floor on internally modelled capital requirements under the standardised approach, commonly known as the "output floor". Substantial parts of these rules became effective in January 2025, though certain provisions applied beginning July 2024. The FRTB rules are currently legislated to apply from January 2026. As of December 2024, the bank has considered the impact of the forthcoming changes in its broader Internal Capital Adequacy Assessment Process (ICAAP) and has taken action to ensure compliance with the rules.

Regulatory Risk-Based Capital Ratios

The table below presents information about the bank's risk-based capital requirements.

	As of December	
	2024	2023
CET1 capital ratio	**10.3%**	10.0%
Tier 1 capital ratio	**12.3%**	12.1%
Total capital ratio	**15.0%**	14.8%

In the table above:

- The increase in risk-based capital requirements is driven by the increase in the O-SII buffer by 25 basis points effective January 1, 2024 and the increase in the countercyclical capital buffer by 19 basis points, partially offset by a decrease in the P2R add-on by 14 basis points for CET1 capital, 19 basis points for Tier 1 capital and 25 basis points for Total capital, effective January 1, 2024.
- The minimum risk-based capital requirements do not include the P2G which represents the ECB's view of the capital that the bank would require to absorb losses in stressed market conditions.

The table below presents information about the bank's risk-based capital ratios.

	As of December	
€ in millions	**2024**	2023
CET1 capital	**€12,660**	€12,872
Tier 1 capital	**€12,660**	€12,872
Tier 2 capital	**€ 20**	€ 20
Total capital	**€12,680**	€12,892
RWAs	**€41,603**	€36,045
CET1 capital ratio	**30.4%**	35.7%
Tier 1 capital ratio	**30.4%**	35.7%
Total capital ratio	**30.5%**	35.8%

In the table above:

- CET1 capital comprises the bank's shareholder's equity less certain regulatory adjustments and deductions.
- The risk-based capital ratios as of December 2024 excluded the bank's profits for 2024, subject to approval by the bank's shareholder on May 23, 2025 to be included as regulatory capital. These profits would have contributed 151 basis points to the risk-based capital ratios.

Leverage Ratio

The bank was subject to a minimum leverage ratio requirement of 3.0% as of December 2024. The bank's minimum leverage ratio requirement increased by 20 basis points effective January 1, 2025 due to a Pillar 2 capital leverage ratio requirement (P2R-LR) (an additional amount to cover ECB's assessment of the risk of excessive leverage in the bank).

The leverage ratio compares Tier 1 capital to a measure of leverage exposure, defined as the sum of certain assets plus certain off-balance sheet exposures (which include a measure of derivatives, securities financing transactions, commitments and guarantees), less Tier 1 capital deductions.

The table below presents information about the bank's leverage ratio.

	As of December	
€ in millions	**2024**	2023
Tier 1 capital	**€ 12,660**	€ 12,872
Leverage exposure	**€136,882**	€112,901
Leverage ratio	**9.2%**	11.4%

In the table above, the leverage ratio as of December 2024 excluded the bank's profits for 2024, subject to approval by the bank's shareholder on May 23, 2025 to be included as regulatory capital. These profits would have contributed 54 basis points to the leverage ratio.

Minimum Requirement for Own Funds and Eligible Liabilities (MREL)

The CRR and the E.U. Bank Recovery and Resolution Directive (BRRD) are designed to, among other things, implement the Financial Stability Board's (FSB) minimum Total Loss Absorbing Capacity (TLAC) requirement for global systemically important banks (G-SIBs), such as GS Group.

The CRR requires material subsidiaries of non-E.U. G-SIBs, such as the bank, to meet internal TLAC (iTLAC) requirements equivalent to 90% of the external TLAC requirement applicable to E.U. G-SIBs. The bank satisfies this requirement through its total capital and MREL eligible intercompany borrowings.

The BRRD, as amended by BRRD II, subjects institutions to a minimum requirement for own funds and eligible liabilities. The E.U. Single Resolution Board's (SRB) internal MREL (iMREL) requirements became applicable to the bank from January 1, 2024.

As of December 2024, the bank was in compliance with its iMREL/iTLAC requirements. The minimum iMREL requirements are subject to change by the SRB annually.

The iMREL to RWAs minimum requirement for the bank will increase by 2.4% effective from March 2025 due to the SRB introducing a market confidence charge for O-SIIs.

The table below presents information about the bank's iMREL/iTLAC requirements.

	As of December	
	2024	2023
iMREL to RWAs	**26.3%**	N/A
iTLAC to RWAs	**20.5%**	20.0%
iMREL to leverage exposure	**6.0%**	N/A
iTLAC to leverage exposure	**6.1%**	6.1%

In the table above, iMREL/iTLAC to RWAs requirements are expressed including the combined buffer requirement (capital conservation buffer, countercyclical capital buffer and O-SII buffer).

The table below presents information about the bank's iMREL/iTLAC ratios.

	As of December	
€ in millions	**2024**	2023
Total capital	**€ 12,680**	€ 12,892
iMREL/iTLAC eligible intercompany borrowings	**4,800**	800
iMREL/iTLAC	**€ 17,480**	€ 13,692
RWAs	**€ 41,603**	€ 36,045
Leverage exposure	**€136,882**	€112,901
iMREL/iTLAC to RWAs	**42.0%**	38.0%
iMREL/iTLAC to leverage exposure	**12.8%**	12.1%

In the table above:

- The bank's iMREL/iTLAC eligible intercompany borrowing is from its immediate parent undertaking, GS Bank USA and increased by €4.00 billion during 2024.
- iMREL/iTLAC ratios as of December 2024 excluded the bank's profits for 2024, subject to approval by the bank's shareholder on May 23, 2025 to be included as regulatory capital. These profits would have contributed 142 basis points to the iMREL/iTLAC to RWAs ratio and 54 basis points to the iMREL/iTLAC to leverage exposure ratio.

Deposit Protection

The deposits of the bank are covered by the German statutory deposit protection scheme to the extent provided by law. In addition, the bank has elected to participate in the German voluntary deposit protection scheme which provides further insurance for certain eligible deposits beyond the coverage of the German statutory deposit protection scheme.

Minimum Reserves

The bank is subject to minimum reserve requirements at central banks in certain of the E.U. jurisdictions in which it operates under the harmonised minimum reserve requirements of the ECB. The combined minimum reserve requirement was €238 million for the reserve period including December 31, 2024 and €196 million for the reserve period including December 31, 2023. The bank was in compliance with these requirements.

Swaps, Derivatives and Commodities Regulation

The bank is a swap dealer registered with the Commodity Futures Trading Commission, and a security-based swap dealer registered with the U.S. Securities and Exchange Commissions. As of both December 2024 and December 2023, the bank was subject to and in compliance with applicable capital requirements for swap dealers and security-based swap dealers.

Key Performance Indicators

The bank's regulatory reporting and internal control framework is based on IFRS. The bank uses certain key performance indicators (KPI) to measure financial performance, as well as to manage the development of its business and capital strength.

The bank considers net revenues under IFRS, net income under IFRS and Total capital ratio as the primary KPIs. The bank will start using iMREL to RWAs ratio instead of Total capital ratio as the primary KPI from 2025 onwards as this ratio is the most binding regulatory ratio for the bank.

The table below presents the bank's income statement under IFRS.

	Year Ended December	
€ in millions	**2024**	2023
Non-interest income	**€2,756**	€1,968
Net interest income/(expense)	**(179)**	185
Net revenues	**2,577**	2,153
Impairments on financial instruments	**(14)**	(2)
Net operating expenses	**(1,561)**	(1,175)
Profit before taxation	**1,002**	976
Income tax expense	**(272)**	(276)
Net income	**€ 730**	€ 700

The bank prepares non-statutory financial information under IFRS for the limited purpose of supporting regulatory filings which can be found at www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsbe/index.html.

Net Revenues under IFRS

Net revenues for 2024 were €2.58 billion, 20% higher than 2023, reflecting significantly higher net revenues in Equities and higher net revenues in Investment Banking, partially offset by lower net revenues in FICC and Investment Management. The significant increase in net revenues exceeded the bank's expectation of an increase in net revenues for 2024, primarily due to a higher than expected increase in business activity.

The table below presents a reconciliation of the bank's net revenues under IFRS to HGB.

	Year Ended December	
€ in millions	**2024**	2023
Net revenues as per IFRS	**€2,577**	€2,153
Transaction based expenses reported within net revenues as per HGB	**(594)**	(382)
Risk valuation adjustment according to Section 340e(3) and (4) HGB	**(136)**	(121)
Other	**26**	15
Net revenues as per HGB	**€1,873**	€1,665

In the table above, transaction based expenses reported within net revenues as per HGB included brokerage, clearing and exchange expenses, as well as expenses incurred by the bank to satisfy some or all of its performance obligations under transactions in which the bank is a principal. Such transaction based expenses are included within net operating expenses in IFRS.

Net Income under IFRS

Net income for 2024 was €730 million, 4% higher than 2023. The increase reflected significantly higher net revenues, partially offset by a significant increase in net operating expenses (primarily due to significantly higher non-compensation expenses and higher compensation expenses). The increase in net income slightly exceeded the bank's expectation that net income would remain essentially unchanged for 2024, primarily due to significantly higher net revenues.

The table below presents a reconciliation of the bank's net income under IFRS to HGB.

	Year Ended December	
€ in millions	**2024**	2023
Net income as per IFRS	**€ 730**	€ 700
Risk valuation adjustment according to Section 340e(3) and (4) HGB	**(136)**	(121)
Other	**3**	20
Net income as per HGB	**€ 597**	€ 599

Total Capital Ratio

The Total capital ratio as of December 2024 was 30.5% (December 2023: 35.8%). This met the bank's expectation that the Total capital ratio would decrease compared to December 2023, primarily driven by an increase in business activity, though remaining conservatively above the minimum requirements.

Forecast and Opportunities Report

Economy

Economic momentum has been muted in the Euro area in 2024 driven by high energy prices, uncertainty, competition from China and weak industrial performance, especially in Germany. The bank expects the Euro area economy to grow by 0.8% in 2025, after 0.7% growth in 2024, and the German economy to grow by 0.2% in 2025 after a 0.2% decline in 2024. The bank expects improved financial conditions following the expected ECB policy rates cuts through July, and stronger consumption growth due to improvements in real disposable income growth to drive this while trade tensions, due to introduction of tariffs, and competition from China weigh on economic growth.

Measures of Euro area underlying inflationary pressures have cooled overall, though remain relatively more elevated in services. The bank expects headline inflation to average 2.5% and core inflation to average 2.3% in the Euro area in 2025, sustainably returning to 2% over the year. The bank expects sequential inflation pressure to be broadly consistent with the ECB's target in 2025. Given the easing inflation numbers, and mixed activity data, the bank expects a cut in the policy rate by 25 basis points in each of the ECB meetings in April 2025, June 2025 and July 2025 reaching the rate of 1.75% in July 2025.

In 2024, the Euro area banking sector proved broadly resilient, with earnings supported by stable economic growth and continued higher policy rates. Despite the monetary policy easing, which occurred from June 2024 onwards, European banks' revenues were supported by effective hedging strategies, combined with growth in both fee income and deposit volumes. In terms of provisions, European banks continued to be well insulated against higher credit costs, and whilst commercial real estate remained a focus area with regards to the asset quality of banks, its impact in aggregate has remained limited. Within the German banking industry specifically, exposure to certain structural economic issues proved manageable in part given the healthy excess capital levels within the banking industry.

Business Outlook

The bank's Executive Board continues to be cautiously optimistic about the business outlook for 2025. The Executive Board expects net revenues under IFRS in 2025 to be moderately higher and net income under IFRS in 2025 to remain essentially unchanged compared to 2024.

The bank's Executive Board expects that the iMREL to RWAs ratio will decrease significantly compared to 2024 primarily driven by CRR III rules becoming effective in January 2025 as described in "Regulatory Capital" as well as an expected increase in business activity. The bank will ensure that the iMREL to RWAs ratio remains conservatively above minimum requirements.

The business outlook is based on the current expectations of the bank's Executive Board and the actual results could differ, possibly materially, to the anticipated results due to certain factors, including those described in "Principal Risks and Uncertainties".

Principal Risks and Uncertainties

The bank faces a variety of risks that are substantial and inherent in its businesses. The principal risks and uncertainties that the bank faces are: liquidity risk, market risk, credit risk, operational risk, legal and regulatory risk, competition risk, and market developments and general business environment risk. These risks have been summarised below.

The risks are primarily addressed through the bank's risk management and corporate governance framework, see "Risk Report — Overview and Structure of Risk Management" for further information. For further information about liquidity risk, market risk, credit risk and operational risk and the bank's mitigants, see "Liquidity Risk Management", "Market Risk Management", "Credit Risk Management", and "Operational Risk Management", respectively. Legal and regulatory risks are primarily managed by Legal and Compliance, see "Risk Report — Overview and Structure of Risk Management" for further information. Competition risk is primarily managed by the bank's strategy and the bank's engagement with employees. Market developments and general business environment risks are overseen by a series of committees, councils and working groups at both the GS Group and the bank level, see "Risk Report — Overview and Structure of Risk Management" and "Risk Report — Strategic and Business Environment Risk" for further information.

Liquidity

- Loss of deposits could increase the bank's funding costs and adversely affect the bank's liquidity and ability to grow its business.
- The bank's businesses have been and may in the future be adversely affected by disruptions or lack of liquidity in the credit markets, including reduced access to credit and higher costs of obtaining credit.
- The bank's liquidity, profitability and businesses may be adversely affected by an inability of the bank's immediate parent, GS Bank USA and ultimate parent, Group Inc. to obtain funding or to sell assets.
- Reductions in the credit ratings or an increase in the credit spreads of the bank or its immediate parent, GS Bank USA or the ultimate parent, Group Inc. may adversely affect the bank's liquidity and cost of funding.

Market

- The bank's businesses have been and may in the future be adversely affected by conditions in the global financial markets and broader economic conditions.
- The bank's businesses have been and may in the future be adversely affected by declining asset values, particularly where it has net "long" positions, or receives or posts collateral.
- The bank's market-making activities have been and may in the future be affected by changes in the levels of market volatility.
- The bank's investment banking and investment management businesses have been adversely affected and may in the future be adversely affected by market uncertainty or lack of confidence among investors and chief executive officers due to declines in economic activity and other unfavourable economic, geopolitical or market conditions.
- The bank's investment management business has been and may in the future be adversely affected by the poor investment performance of the bank's investment products or a client preference for products other than those which the bank offers or for products that generate lower fees.
- Changes in market interest rates could adversely affect the bank's net revenues and expenses, the value of assets and obligations, and the availability and cost of funding.
- Inflation has had, and could continue to have, a negative effect on the bank's business, results of operations and financial condition.

Credit

- The bank's businesses, profitability and liquidity may be adversely affected by deterioration in the credit quality of or defaults by third parties.
- Concentration of risk increases the potential for significant losses in the bank's lending, market-making, underwriting and other activities.
- Derivative transactions and delayed documentation or settlements expose the bank to credit risk, unexpected risks and potential losses.
- The bank might underestimate the credit losses inherent in the bank's loan portfolio and have credit losses in excess of the amount reserved.

Operational

- A failure in the bank's or third-party operational systems or human error, malfeasance or other misconduct, could impair the bank's liquidity, disrupt its businesses, result in the disclosure of confidential information, damage its reputation and cause losses.
- A failure or disruption in the bank's infrastructure, or in the operational systems or infrastructure of third parties or those of GS Group affiliates', could impair the bank's liquidity, disrupt its businesses, damage its reputation and cause losses.
- The development and use of artificial intelligence (AI) presents risks and challenges that may adversely impact the bank's business.
- A failure to protect the bank's computer systems, networks and information, and its clients' information, against cyber attacks and similar threats could impair its ability to conduct its businesses, result in the disclosure, theft or destruction of confidential information, damage its reputation and cause losses.
- The bank has in the past incurred and may in the future incur losses as a result of ineffective risk management processes and strategies.
- The bank is reliant on Group Inc. and other GS Group affiliates for certain client business, various services, liquidity and capital.

Legal and Regulatory

- The bank's businesses and those of its clients are subject to extensive and pervasive regulation in various jurisdictions in which the bank or its branches operate.
- A failure to appropriately identify and address potential conflicts of interest could adversely affect the bank's businesses.
- Substantial civil or criminal liability or significant regulatory action against the bank could have material adverse financial effects and significant reputational consequences, which in turn could seriously harm its business prospects.
- In conducting its business in various jurisdictions, the bank is subject to political, legal, regulatory, tax and other risks that are inherent in operating in many countries.
- The application of regulatory strategies and requirements, particularly in the U.S. and in the E.U., to facilitate the orderly resolution of large financial institutions could create greater risk of loss for the bank's security holders.

Competition

- The bank's results have been and may in the future be adversely affected by the composition of its client base.
- The financial services industry is highly competitive.
- The bank's businesses would be adversely affected if it was unable to hire and retain qualified employees.

Market Developments and General Business Environment

- The bank's businesses, financial condition, liquidity and results of operations have been and may in the future be adversely affected by unforeseen or catastrophic events, including pandemics, terrorist attacks, wars, extreme weather events or other natural disasters.
- The bank may be adversely affected by negative publicity.
- Climate change could disrupt the bank's businesses, adversely affect client activity levels, and the creditworthiness of its client, counterparties, and the bank's actual or perceived action or inaction relating to climate change could result in damage to its reputation.
- The bank's business, financial condition, liquidity and results of operations have been adversely affected by disruptions in the global economy caused by conflicts, and related sanctions and other developments.
- Certain of the bank's businesses and its funding instruments may be adversely affected by changes in other reference rates, currencies, indices, baskets or ETFs to which products it offers or funding it raises are linked.
- The bank's business, financial condition, liquidity and results of operations may be adversely affected by disruptions in the global economy caused by escalating tensions between the U.S. and China.
- The bank faces enhanced risks as continued expansion of its activities lead it to engage in new activities, operate in new locations, transact with a broader array of clients and counterparties, and expose the bank to new asset classes and markets, including the risk of retaining qualified employees.

Risk Report

Risks are inherent in the bank's businesses and include liquidity, market, credit, operational, model, legal, compliance, conduct, regulatory, business environment and strategic risks, and reputational risks. The bank's risks include the risks across its risk categories, regions or businesses, as well as those which have uncertain outcomes and have the potential to materially impact the bank's financial results, its liquidity and its reputation. For further information about the bank's risk management processes, see "Overview and Structure of Risk Management". For information about the bank's areas of risk and capital adequacy, see "Liquidity Risk Management", "Market Risk Management", "Credit Risk Management", "Operational Risk Management", "Compliance Risk Management", "Model Risk Management", "Strategic and Business Environment Risk" and "Capital Adequacy".

Changes in Risk Management

The bank continued to execute on its strategic plan during 2024 which resulted in a further increase in activities and associated risk taking across market, credit, liquidity and operational risks in the bank. This risk taking was supported by further increases in capital, funding and Risk Appetite Limits. To adequately manage these risks, the bank continued to further evolve its risk management framework, policies and processes during the year. Key risk management changes implemented during 2024 included enhancements to the bank's risk limit framework reflecting the expanded activities. The bank has taken steps to further enhance its climate change risk management framework and integrate this risk into its broader risk management processes and governance. In addition, the bank further expanded its staffing level in several areas to ensure a sufficiently resourced and experienced independent control function to provide for an active and appropriate monitoring, evaluation and management of the risks associated with the bank's activities. During 2024, the bank also implemented changes to its three lines of defence framework. For further information, see "Overview and Structure of Risk Management".

The operating environment continued to be dominated by central banks' focus on inflation, with rates peaking during 2024, as well as geopolitical instability partly leading to stagnating growth and volatility across asset classes. Exposures in the bank's counterparty credit risk portfolio remained relatively stable throughout the year while the lending portfolio has been gradually growing as per expectations. The bank's market risk profile continued to evolve during 2024, with the continued execution of the bank's strategy resulting in growth across business activities and therefore an increase in the bank's market risk. The bank's operational risk and liquidity risk profiles remained stable during the year.

Overview and Structure of Risk Management

Overview

Effective risk management is critical to the bank's success. Accordingly, the bank has established an enterprise risk management framework that employs a comprehensive, integrated approach to risk management, and is designed to enable comprehensive risk management processes through which the risks associated with the bank's businesses are identified, assessed, monitored and managed.

The implementation of the bank's risk governance structure and core risk management processes are overseen by the bank's Executive Board, which is responsible for ensuring that the bank's framework provides a consistent and integrated approach to managing the various risks in a manner consistent with the bank's risk appetite.

The bank has defined its Risk Strategy which together with its Risk Appetite Statement (RAS), and in conjunction with GS Bank USA's RAS and GS Group's RAS, lays out the primary risk management philosophy, objectives and principles on how risks are managed within its appetite. For all material risks, the bank articulates its risk appetite and how it manages the risk profile within that appetite using qualitative, and where applicable, quantitative measures, thresholds and/or limits.

Together with the bank's Executive Board, an adequate committee structure with representation from senior management of the bank is key to the risk management culture throughout the bank. The bank's risk management structure, consistent with GS Bank USA and GS Group, is built around three core components: governance; processes; and people.

Governance. Risk management governance starts with the bank's Executive Board, which defines the Risk Strategy and risk appetite of the bank and, both directly and through established committees, including the GSBE Risk Committee, oversees the bank's approach to managing its risks through the enterprise risk management framework.

The bank's first line of defence consists of the revenue-producing units that directly report to the respective Executive Board members, Controllers and Corporate Treasury that directly report to the bank's chief financial officer, as well as Engineering and certain other corporate functions that directly report to the bank's chief operating officer. The first line of defence is responsible for its risk-generating activities, as well as for the design and execution of controls to mitigate such risks.

The bank's second line of defence consists of the Compliance function that directly reports to the bank's chief administrative officer and the bank's Risk functions that report to the bank's chief risk officer. The second line of defence provides independent assessment, oversight and challenge of the risks taken by the first line of defence, as well as lead and participate in risk committees.

The bank's third line of defence is Internal Audit which directly reports to the bank's Executive Board. Internal Audit includes professionals with a broad range of audit and industry experience, including risk management expertise. Internal Audit is responsible for independently assessing and validating the effectiveness of key controls, including those within the risk management framework, and providing timely reporting to the bank's Executive Board, senior management and regulators.

The three lines of defence structure promotes the accountability of first line risk takers, provides a framework for effective challenge by the second line, and empowers independent review from the third line.

Processes. The bank maintains various processes that are critical components of its risk management framework, including (i) risk identification and assessment, (ii) risk appetite, limits, thresholds and alerts, (iii) control monitoring and testing, and (iv) risk reporting.

The bank has a comprehensive data collection process, including bank-wide policies and procedures that require all employees to report and escalate risk events. The bank's approach for risk identification and assessment is comprehensive across all risk types, is dynamic and forward-looking to reflect and adapt to the bank's changing risk profile and business environment, leverages subject matter expertise, and allows for prioritisation of the bank's most critical tasks. The bank performs risk assessments periodically with the aim to ensure that its material financial and nonfinancial risks are mitigated through controls to an acceptable tolerance level in accordance with its risk appetite. The bank's risk assessments includes, among other things, the use of stress testing, as well as an assessment of its internal control processes designed to mitigate such risks. The bank's approach leverages the GS Group identification process complemented by an entity level process by which all material risks are determined on a regular basis with an overlay of materiality relative to the bank's size, scope of activities and associated risks.

Based on the results of 2024, the following risk categories are considered material for the bank:

- Liquidity risk
- Market risk
- Credit risk
- Operational risk
- Compliance risk
- Strategic and business environment risk

Please refer to the subsequent sections for further details on the individual risk categories. To effectively assess and monitor the bank's risks, the bank maintains a daily discipline of marking substantially all of its inventory to current market levels.

An important part of the bank's risk management processes is stress testing. It allows the bank to quantify its exposure to tail risks, highlight potential loss concentrations, undertake risk/reward analysis, and assess and mitigate its risk positions. Stress tests are performed on a regular basis and are designed to ensure a comprehensive analysis of the bank's vulnerabilities and idiosyncratic risks combining financial and non-financial risks, including, but not limited to, market, credit, liquidity and funding, operational and compliance, climate, strategic, as well as systemic and emerging risks into the bank's stress scenarios.

Ad hoc stress tests are also performed in anticipation of market events or conditions. Stress testing is also used to assess capital adequacy as part of the broader capital planning and stress testing process. See "Capital Adequacy" for further information.

The bank has defined a comprehensive risk limit framework reflective of its risk profile and risk appetite which are embedded into the risk decision making of the bank. Limits are set with the aim to ensure that the bank maintains an adequate capital and liquidity position, and overall risk taking on an ongoing basis. Further details on the limit system at the overall entity and risk category level and the risk decision making are described in the following sections.

The bank's control monitoring, testing and risk reporting processes are designed to take into account information about both existing and emerging risks, thereby enabling the bank's risk committees and senior management to perform their responsibilities with the appropriate level of insight into risk exposures. A detailed quarterly risk reporting to management is complemented by more frequent regular (daily, weekly or monthly) and ad-hoc reporting on the bank's material risks. Furthermore, the bank's early warning indicators, and limit and threshold breach processes provide means for timely escalation.

The bank evaluates changes in its risk profile and businesses, including changes in business mix and jurisdictions in which it operates, by monitoring risk factors at a bank-wide level.

People. The experience of the bank's professionals, and their understanding of the nuances and limitations of each risk measure, guide the bank in assessing exposures and maintaining them within prudent levels.

Structure

The bank has a two-tier board structure consisting of the Supervisory Board and the Executive Board.

Supervisory Board

The Supervisory Board supervises and advises the Executive Board and performs specific statutory tasks. The Supervisory Board is supported and advised by the Supervisory Board Audit Committee, Supervisory Board Risk Committee, Remuneration Committee and Nomination Committee in fulfilling its duties and responsibilities.

The key committees of the Supervisory Board are described below.

Supervisory Board Audit Committee. The Audit Committee of the Supervisory Board is responsible for providing advice to the Supervisory Board and assisting the Supervisory Board by overseeing (i) the integrity of the bank's financial statements and financial reporting processes; (ii) management's processes for ensuring the appropriateness and effectiveness of systems and controls; (iii) the process in relation to the appointment, re-appointment or replacement of the bank's external auditor; and (iv) safeguarding the independence and integrity of the bank's compliance and internal audit functions.

Supervisory Board Risk Committee. The Risk Committee of the Supervisory Board is responsible for providing advice to the Supervisory Board on the bank's current and future risk appetite and assisting the Supervisory Board in overseeing the implementation of that risk appetite and risk strategy by the bank's Executive Board.

Executive Board

The Executive Board has ultimate responsibility for all activities in the bank, including oversight of risk both directly and through delegation to various committees. A series of committees within the bank with specific risk management mandates covering important aspects of the bank's businesses also have oversight or decision-making responsibilities. The key committees with oversight of the bank's activities are described below.

GSBE Risk Committee. The GSBE Risk Committee is responsible for the ongoing monitoring and control of all financial and non-financial risks associated with the bank's activities. This includes reviewing key financial and risk metrics, including but not limited to profit and loss, capital (including Internal Capital Adequacy Assessment Process), funding, liquidity (including Internal Liquidity Adequacy Assessment Process), credit risk, market risk, operational risk, model risk, price verification and stress tests. Within its mandate, the GSBE Risk Committee approves market risk, credit risk, liquidity risk limits, as well as operational risk, climate risk and model risk thresholds or articulates recommendations with regard to those risk limits and thresholds which require Executive Board approval. Its membership includes senior managers from the revenue-producing units and independent risk oversight and control functions. The GSBE Risk Committee reports to the bank's Executive Board.

- **GSBE Compliance and Operational Risk Committee.** The GSBE Compliance and Operational Risk Committee provides oversight of the ongoing development and implementation of operational risk policies, framework and methodologies, with oversight from the GSBE Risk Committee and monitors the effectiveness of operational risk and resilience management. This committee is accountable for the implementation of business standards and practices, including reputational risk management, client service and conduct risk, within the scope of its mission. The GSBE Compliance and Operational Risk Committee reports to the GSBE Risk Committee.

GSBE Asset Liability Committee. The GSBE Asset Liability Committee reviews and approves the strategic direction for the bank's financial resources, including capital, liquidity, funding and balance sheet. This committee has oversight responsibility for asset liability management, including interest rate and currency risk, funds transfer pricing, capital allocation and incentives, and credit ratings. This committee makes recommendations as to any adjustments to asset liability management and financial resource allocation in light of current events, risks, exposures, and regulatory requirements and approves related policies. Its membership includes senior managers from the first and second line of defence. The GSBE Asset Liability Committee reports to the bank's Executive Board.

GS Group, Regional and GS Bank USA Risk Governance

As an indirect wholly-owned subsidiary and integrated part of GS Group, the comprehensive regional and global risk governance framework in place forms an integral part of the strategy and risk management processes of the bank. The integration into the firmwide risk management framework allows the bank to use GS Group's methods and systems and a consistent implementation of firmwide structures and principles while respecting the bank's own requirements and governance structure. GS Group has established a series of committees with specific risk management mandates, many of which include representation from the bank's senior management.

Primary GS Group risk and oversight committees include the Management Committee, Firmwide Enterprise Risk Committee and Firmwide Asset Liability Committee.

Primary regional committees include the European Management Committee, EMEA Operational Risk and Resilience Committee and EMEA Conduct Committee.

As a direct wholly-owned subsidiary of GS Bank USA, the bank's risk management processes are also embedded in the oversight provided by relevant governance bodies of GS Bank USA which includes Bank Management Committee and Bank Risk and Asset Liability Committee.

Liquidity Risk Management

Overview

Liquidity risk is the risk that the bank will be unable to fund itself or meet its liquidity needs in the event of bank-specific, broader industry, or market liquidity stress events. The bank has in place a comprehensive and conservative set of liquidity and funding policies. The bank's principal objective is to be able to fund itself either through GS Group or external funding sources and to enable its core businesses to continue to serve clients and generate revenues, even under adverse circumstances.

Corporate Treasury, which reports to the bank's chief financial officer, is responsible for the bank's liquidity, including developing and executing the bank's liquidity and funding strategy. The bank's Corporate Treasury function is integrated with GS Group's Corporate Treasury function.

Liquidity Risk, which is part of the bank's second line of defence and reports to the bank's chief risk officer, has primary responsibility for assessing, monitoring and managing the bank's liquidity risk by providing independent oversight and challenge across the bank's businesses. Liquidity Risk is also responsible for the establishment of stress testing and limits frameworks.

The bank's framework for managing liquidity risk is consistent with the framework of GS Group. The bank's Liquidity Risk function is integrated with GS Group's Liquidity Risk function which reports to GS Group's chief risk officer.

Liquidity Risk Management Principles

The bank manages liquidity risk according to three principles: (i) hold sufficient excess liquidity in the form of GCLA to cover outflows during a stressed period, (ii) maintain appropriate Asset-Liability Management and (iii) maintain a viable Contingency Funding Plan.

GCLA. GCLA is liquidity that the bank maintains to meet a broad range of potential cash outflows and collateral needs in a stressed environment. A primary liquidity principle is to pre-fund the bank's estimated potential cash and collateral needs during a liquidity crisis and hold this liquidity in the form of unencumbered, highly liquid securities and cash. The bank believes that the securities held in its GCLA would be readily convertible to cash in a matter of days, through liquidation, by entering into repurchase agreements or from maturities of resale agreements, and that this cash would allow it to meet immediate obligations without needing to sell other assets or depend on additional funding from credit-sensitive markets.

The bank's GCLA is distributed across asset types, issuers and clearing agents with the goal of providing sufficient operating liquidity to ensure timely settlement in all major markets, even in a difficult funding environment.

Asset-Liability Management. The bank's liquidity risk management policies are designed to ensure that the bank has a sufficient amount of financing, even when funding markets experience persistent stress. The bank seeks to maintain a diversified funding profile with an appropriate tenor, taking into consideration the characteristics and liquidity profile of the bank's assets and modelled tenor of deposits with no stated maturity.

The bank's approach to asset-liability management includes:

- Conservatively managing the overall characteristics of the bank's funding book, with a focus on maintaining long-term, diversified sources of funding in excess of the bank's current requirements;
- Actively managing and monitoring the bank's asset base, with particular focus on the liquidity, holding period and ability to fund assets on a secured basis. The bank assesses its funding requirements and its ability to liquidate assets in a stressed environment while appropriately managing risk. This enables the bank to determine the most appropriate funding products and tenors; and
- Raising deposits and obtaining other secured and unsecured funding sources that have a long contractual or modelled tenor relative to the liquidity profile of the bank's assets. This reduces the risk that the bank's liabilities will come due in advance of the bank's ability to generate liquidity from the sale of its assets.

The bank's goal is to ensure it maintains sufficient liquidity to fund its assets and meet its contractual and contingent obligations in normal times, as well as during periods of market stress. The bank's funding plan is reviewed by the GSBE Asset Liability Committee and the GSBE Executive Board. In a liquidity crisis, the bank would begin by liquidating and monetising its GCLA before selling other assets. However, the bank recognises that orderly asset sales may be prudent or necessary in a severe or persistent liquidity crisis.

Contingency Funding Plan. GS Group maintains a contingency funding plan, which has a GSBE-specific addendum, to provide a framework for analysing and responding to a liquidity crisis situation or periods of market stress. The contingency funding plan outlines a list of potential risk factors, key reports and metrics that are reviewed on an ongoing basis to assist in assessing the severity of, and managing through, a liquidity crisis and/or market dislocation. The contingency funding plan also describes the bank's potential responses if assessments indicate that the bank has entered a liquidity crisis, which include pre-funding for what the bank estimates will be its potential cash and collateral needs, as well as utilising secondary sources of liquidity. Mitigants and action items to address specific risks which may arise are also described and assigned to individuals responsible for execution.

The contingency funding plan identifies key groups of individuals and their responsibilities, which include fostering effective coordination, control and distribution of information, implementing liquidity maintenance activities and managing internal and external communication, all of which are critical in the management of a crisis or period of market stress.

Stress Tests

In order to determine the appropriate size of the bank's GCLA, the bank models liquidity outflows over a range of scenarios and time horizons. One of the bank's primary internal liquidity risk models, referred to as the Modeled Liquidity Outflow, quantifies the bank's liquidity risks over a 30-day stress scenario. The bank also considers other factors, including, but not limited to, an assessment of its potential intraday liquidity needs through an additional internal liquidity risk model, referred to as the Intraday Liquidity Model, the results of its long-term stress testing models, other applicable regulatory requirements and a qualitative assessment of the condition of the bank, as well as the financial markets. The results of the Modeled Liquidity Outflow, long-term stress testing models and the Intraday Liquidity Model are reported to the bank's Executive Board and senior management on a regular basis.

Modelled Liquidity Outflow. The Modeled Liquidity Outflow is based on conducting multiple scenarios that include combinations of market-wide and GS Group-specific stress. These scenarios are characterised by the following qualitative elements:

- Severely challenged market environments, which includes low consumer and corporate confidence, financial and political instability, and adverse changes in market values, including potential declines in equity markets and widening of credit spreads; and
- A GS Group specific crisis potentially triggered by material losses, reputational damage (including, as a result of, the dissemination of negative information through social media), litigation, and/or a ratings downgrade.

The following are key modelling elements of the Modeled Liquidity Outflow:

- Liquidity needs over a 30-day scenario;
- A two-notch downgrade of the long-term senior unsecured credit ratings of Group Inc. and its rated subsidiaries;
- Changing conditions in funding markets, which limit the bank's access to unsecured and secured funding;
- No support from additional government funding facilities. Although the bank has access to central bank funding it does not assume reliance on additional sources of funding in a liquidity crisis; and
- A combination of contractual outflows and contingent outflows arising from both the bank's on- and off-balance sheet arrangements. Contractual outflows include, among other things, upcoming maturities of term deposits, secured funding and unsecured debt. Contingent outflows include, among other things, increase in variation margin requirements due to adverse changes in the value of the bank's exchange-traded and OTC-cleared derivatives, draws on unfunded commitments and withdrawals of deposits that have no contractual maturity.

Intraday Liquidity Model. The bank's Intraday Liquidity Model measures the bank's intraday liquidity needs in a scenario where access to sources of intraday liquidity may become constrained. The intraday liquidity model considers a variety of factors, including historical settlement activity.

Long-Term Stress Testing. The bank utilises longer-term stress tests to take a forward view on its liquidity position through prolonged stress periods in which the bank experiences a severe liquidity stress and recovers in an environment that continues to be challenging. The bank is focused on ensuring conservative asset-liability management to prepare for a prolonged period of potential stress, seeking to maintain a diversified funding profile with an appropriate tenor, taking into consideration the characteristics and liquidity profile of the bank's assets.

Resolution Liquidity Models. In connection with GS Group's resolution planning efforts, GS Group has established a Resolution Liquidity Adequacy and Positioning framework, which estimates liquidity needs of its major subsidiaries, including the bank, in a stressed environment. GS Group has also established a Resolution Liquidity Execution Need framework, which measures the liquidity needs of its major subsidiaries, including the bank, to stabilise and wind-down following a Group Inc. bankruptcy filing in accordance with GS Group's preferred resolution strategy.

In addition, GS Group has established a triggers and alerts framework, which is designed to provide GS Group's board of directors with information needed to make an informed decision on whether and when to commence bankruptcy proceedings for Group Inc. The bank has also established resolution related liquidity triggers as part of its triggers and alerts framework.

In addition, the bank has capabilities to run resolution liquidity models in accordance with guidance published by local resolution authorities (i.e. SRB).

Limits

The bank uses liquidity risk limits at various levels and across liquidity risk types to manage the size of its liquidity exposures. Limits are measured relative to acceptable levels of risk given the liquidity risk tolerance of the bank. The purpose of these limits is to assist senior management in monitoring and controlling the bank's overall liquidity profile.

The bank's Executive Board and the GSBE Risk Committee approve the bank's risk appetite and limits. Limits derived from the bank's risk appetite are reviewed at least annually and amended, with required approvals, on a permanent and temporary basis, as appropriate, to reflect changing market or business conditions.

Limits are monitored by Corporate Treasury and Liquidity Risk. Liquidity Risk is responsible for identifying and escalating to the Executive Board and/or the GSBE Risk Committee, on a timely basis, instances where limits have been exceeded.

GCLA Metrics

Based on the results of the bank's internal liquidity risk models, described above, as well as consideration of other factors, including, but not limited to, a qualitative assessment of the condition of the bank, as well as the financial markets, the bank believes its liquidity position as of both December 2024 and December 2023 was appropriate. The bank strictly limits its GCLA to a narrowly defined list of securities and cash because they are highly liquid, even in a difficult funding environment. The bank does not include other potential sources of excess liquidity in its GCLA, such as less liquid unencumbered securities or committed credit facilities.

The table below presents information about GCLA.

	Average for the Year Ended December	
€ in millions	**2024**	2023
Central Bank cash placements	**€14,360**	€15,996
Non-U.S. government obligations	**4,925**	2,057
U.S. government obligations	**1,813**	1,084
Total	**€21,098**	€19,137

The GCLA held by the bank is intended for use only by the bank to meet its liquidity requirements. In addition to GCLA held in the bank, GS Group holds a portion of global GCLA directly at Group Inc. or Funding IHC, which in some circumstances may be additionally provided to the bank or other major subsidiaries.

Liquidity Regulatory Framework

The implementation of the Basel Committee's international framework for liquidity risk management, standards and monitoring calls for a liquidity coverage ratio (LCR) and a net stable funding ratio (NSFR).

The bank is subject to a minimum LCR of 100% under the LCR rule approved by the European Parliament and Council. The bank's average monthly LCR for the trailing twelve-month period ended 2024 exceeded the minimum requirement.

The NSFR is designed to promote medium- and long-term stable funding of the assets and off-balance sheet activities over a one-year time horizon. The Basel Committee's NSFR framework requires banking organisations to maintain a NSFR of 100%. The bank is subject to the applicable NSFR requirement in the E.U. As of December 2024, the bank's NSFR exceeded the regulatory minimum requirement.

Amendments to these rules as adopted by the regulatory authorities could impact the bank's liquidity and funding requirements and practices in the future.

Credit Ratings

Credit ratings are important when the bank is competing in certain markets, such as OTC derivatives, and when it seeks to engage in longer-term transactions.

The table below presents the unsecured credit ratings and outlook of the bank, GS Bank USA and Group Inc.

	As of December 2024		
	Fitch	**Moody's**	**S&P**
GSBE			
Short-term debt	**F1**	**P-1**	**A-1**
Long-term debt	**A+**	**A1**	**A+**
Short-term bank deposits	**N/A**	**P-1**	**N/A**
Long-term bank deposits	**N/A**	**A1**	**N/A**
Ratings outlook	**Stable**	**Stable**	**Stable**
GS Bank USA			
Short-term debt	**F1**	**P-1**	**A-1**
Long-term debt	**A+**	**A1**	**A+**
Short-term bank deposits	**F1+**	**P-1**	**N/A**
Long-term bank deposits	**AA-**	**A1**	**N/A**
Ratings outlook	**Stable**	**Stable**	**Stable**
Group Inc.			
Short-term debt	**F1**	**P-1**	**A-2**
Long-term debt	**A**	**A2**	**BBB+**
Ratings outlook	**Stable**	**Stable**	**Stable**

Certain of the bank's derivatives have been transacted under bilateral agreements with counterparties who may require the bank to post collateral or terminate the transactions based on changes in the credit ratings of either the bank and/or Group Inc. The bank assesses the impact of these bilateral agreements by determining the collateral or termination payments that would occur assuming a downgrade by all rating agencies of both Group Inc. and the bank simultaneously and of each entity individually.

Market Risk Management

Overview

Market risk is the risk of an adverse impact to the bank's earnings due to changes in market conditions. The bank's assets and liabilities that give rise to market risk primarily include inventory in the trading book and banking book, as well as certain other financial assets and liabilities. The bank employs a variety of risk measures, each described in the respective sections below, to monitor market risk. Categories of market risk include the following:

- Interest rate risk: results from exposures to changes in the level, slope and curvature of yield curves, the volatilities of interest rates, prepayment speeds and credit spreads;
- Equity price risk: results from exposures to changes in prices and volatilities of individual equities, baskets of equities and equity indices;
- Currency rate risk: results from exposures to changes in spot prices, forward prices and volatilities of currency rates; and
- Commodity price risk: results from exposures to changes in spot prices, forward prices and volatilities of commodities, such as crude oil and metals.

Market Risk, which is part of the bank's second line of defence and reports to the bank's chief risk officer, has primary responsibility for assessing, monitoring and managing the bank's market risk by providing independent oversight and challenge across the bank's businesses.

The bank's framework for managing market risk is consistent with the framework of GS Group. The bank's Market Risk function is integrated with GS Group's Market Risk function which reports to GS Group's chief risk officer.

Managers in revenue-producing units, Corporate Treasury and Market Risk discuss market information, positions and estimated loss scenarios on an ongoing basis. Managers in revenue-producing units and Corporate Treasury are accountable for managing risk within prescribed limits. The bank's Market Risk function monitors this risk against the bank's limits.

Market Risk Management Process

The bank's process for managing market risk includes the critical components of the risk management framework described in the "Overview and Structure of Risk Management", as well as the following:

- Monitoring compliance with established market risk limits and reporting the bank's exposures;
- Diversifying exposures;
- Controlling position sizes; and
- Evaluating mitigants, such as economic hedges in related securities or derivatives.

The results are analysed by business and in aggregate, at both the GS Group and the bank level.

Risk Measures

The bank produces risk measures and monitors them against established market risk limits. These measures reflect an extensive range of scenarios and the results are aggregated at the product, business and bank-wide level.

A variety of risk measures are used to estimate the size of potential losses for both small, moderate and more extreme market moves over both short- and long-term time horizons. Primary risk measures are value-at-risk (VaR), which is used for shorter-term periods, and stress tests. The bank's risk report details key risks, drivers and changes, and is distributed daily to the senior management of both the revenue-producing units and Risk, as well as members of the bank's Executive Board.

VaR. The bank calculates and monitors VaR for trading book positions, which is the potential loss in value due to adverse market movements over a defined time horizon with a specified confidence level. A one-day time horizon with a 95% confidence level is employed. The VaR model is a simulation model that simulates market risk factors, including interest rates, credit spreads, equity prices, currency rates and commodity prices in the trading book. As such, VaR facilitates comparison across portfolios of different risk characteristics. VaR also captures the diversification of aggregated risk across the bank. The VaR model is applied consistently across GS Group, including the bank.

VaR is analysed at the bank-wide level and a variety of more detailed levels, including risk category and business. Inherent limitations to VaR include:

- VaR does not estimate potential losses over longer time horizons where moves may be extreme;
- VaR does not take account of the relative liquidity of different risk positions; and
- Previous moves in market risk factors may not produce accurate predictions of all future market moves.

To comprehensively capture the bank's exposures and relevant risks in the VaR calculations, historical simulations with full valuation of market factors at the position level by simultaneously shocking the relevant market factors for that position are used. These market factors include spot prices, credit spreads, funding spreads, yield curves, volatility and correlation, and are updated periodically based on changes in the composition of positions, as well as variations in market conditions. A sample from five years of historical data is taken to generate the scenarios for the VaR calculation. The historical data is weighted so that the relative importance of the data reduces over time. This gives greater importance to more recent observations and reflects current asset volatilities, which improves the accuracy of estimates of potential loss. As a result, even if positions included in VaR were unchanged, VaR would increase with increasing market volatility and vice versa.

Given its reliance on historical data, VaR is most effective in estimating risk exposures in markets in which there are no sudden fundamental changes or shifts in market conditions.

VaR is analysed at the bank-wide level and a variety of more detailed levels, including by risk category and business. Diversification effect in the table below represents the difference between total VaR and the sum of the VaRs for the four risk categories. This effect arises because the four market risk categories are not perfectly correlated.

The table below presents the bank's period-end VaR.

	As of December	
€ in millions	**2024**	2023
Categories		
Interest rates	**€ 4**	€ 5
Equity prices	**2**	1
Currency rates	**1**	3
Diversification effect	**(3)**	(4)
Total	**€ 4**	€ 5

The table below presents the bank's average daily VaR, high and low VaR.

	Year Ended December	
€ in millions	**2024**	2023
Average daily VaR	**€5**	€ 6
High VaR	**€7**	€10
Low VaR	**€3**	€ 4

Stress Testing. Stress testing is a method of determining the effect on the bank of various hypothetical stress scenarios. The bank uses stress testing to examine risks of specific portfolios, as well as the potential impact of significant risk exposures across the bank. A variety of stress testing techniques to calculate the potential loss from a wide range of market moves on the bank's portfolios are used, including stress tests, sensitivity analysis and scenario analysis. Where relevant, market liquidity considerations are incorporated. The results of the various stress tests are analysed together for risk management purposes.

Unlike VaR measures, which have an implied probability because they are calculated at a specified confidence level, there may not be an implied probability that the bank stress testing scenarios will occur. Instead, stress tests are used to model both moderate and more extreme moves in underlying market risk factors. When estimating potential loss, it is generally assumed that positions cannot be reduced or hedged (although experience demonstrates that some risk reduction or hedging is possible).

Interest Rate Risk in the Banking Book (IRRBB). The bank's exposure to IRRBB arises from differences in interest earned or paid as interest rates change, due to the reset characteristics of the bank's assets and liabilities. IRRBB is subject to stress testing and the results are monitored against appropriate limits.

The table below presents the change in Economic Value of Equity (EVE) for +/-200 basis points (bps) instantaneous shock in interest rates (without rate flooring) across the bank's banking book positions as of December 2024.

	As of December 2024	
€ in millions	**+200bps**	**-200bps**
∆EVE ex Pension	**€102**	**€ (81)**
∆EVE Pension	**€ 37**	**€ (68)**
∆EVE	**€139**	**€ (149)**

In the table above, the exposure is primarily Euro denominated and is driven by the bank's fixed rate liabilities, including pension liabilities.

Non-Trading Currency Exposure Sensitivity. VaR excludes non-trading currency exposure. The bank monitors its non-trading currency exposure on a daily basis and frequently hedges this exposure. As such, there was no significant net exposure to any individual currency as of both December 2024 and December 2023.

Limits

The bank uses market risk limits at various levels to manage the size of the bank's market exposures. These limits are set based on VaR and stress tests relevant to the bank's exposures and reported to the Executive Board.

Limits are monitored by Corporate Treasury and Risk, as applicable. Risk is responsible for identifying and escalating to senior management and/or the GSBE Risk Committee in accordance with the delegation authority granted by the Executive Board, on a timely basis, instances where limits have been exceeded (e.g., due to positional changes or changes in market conditions, such as increased volatilities or changes in correlations). Such instances are remediated by a reduction in the positions the bank holds and/or a temporary or permanent increase to the limit, if warranted.

Credit Risk Management

Overview

Credit risk represents the potential for loss due to the default or deterioration in credit quality of a counterparty (e.g., an OTC derivatives counterparty or a borrower) or an issuer of securities or other instruments the bank holds. The bank further differentiates between trading counterparty risk including CVA, lending risk, deposit placement risk and settlement risk within its risk management approach.

The bank's exposure to credit risk comes mostly from client transactions in OTC / listed derivatives and loans and lending commitments. Credit risk also comes from cash placed with banks, securities financing transactions (i.e., resale and repurchase agreements and securities borrowing and lending activities) and customer and other receivables. In addition, the bank may hold other positions that give rise to credit risk (e.g., bonds held in trading book). These credit risks are captured as a component of market risk measures, which are monitored and managed by Market Risk, consistent with other inventory positions.

Credit Risk, which is part of the bank's second line of defence reports to the bank's chief risk officer, has primary responsibility for assessing, monitoring and managing the bank's credit risk by providing independent oversight and challenge across the bank's businesses.

The bank's framework for managing credit risk is consistent with the framework of GS Group. The bank's Credit Risk function is integrated with GS Group's Credit Risk function which reports to GS Group's chief risk officer.

The bank's credit risk strategy during 2024 aimed to maintain a high credit quality standard, to mitigate credit exposure as appropriate through the use of collateral or other forms of risk mitigation, and to avoid excessive concentration risks. The majority of counterparties which give rise to credit risk are generally of investment-grade quality.

Credit Risk Management Process

The process for managing credit risk includes the critical components of the bank's risk management framework described in the "Overview and Structure of Risk Management", as well as the following:

- Setting of credit limits and monitoring compliance with established credit risk limits;
- Regular reporting (daily, weekly, monthly, quarterly) on the bank's credit exposures and credit concentrations to the bank's chief credit officer, chief risk officer, GSBE Credit Risk Council, GSBE Risk Committee, and the Executive Board of the bank;
- Assessing and determining internal credit ratings for counterparties and the associated likelihood that a counterparty will default on its payment obligations;
- Measuring the bank's current and potential credit exposure and losses resulting from a counterparty default;
- Using credit risk mitigants, including netting, collateral, surety, sub-participations and hedging; and
- Maximising recovery through active workout and restructuring of claims.

The bank performs credit analyses, which incorporate initial and ongoing evaluations of the capacity and willingness of a counterparty to meet its financial obligations. The bank employs well-defined underwriting standards and policies, which seek to mitigate credit risk through analysis of a borrower's credit history, financial information, cash flow, sustainability of liquidity and collateral quality adequacy, if applicable. For substantially all of the bank's credit exposures, the core of the process is an annual counterparty credit evaluation or more frequently if deemed necessary as a result of events or changes in circumstances. The bank determines an internal credit rating for the counterparty by considering the results of the credit evaluations and assumptions with respect to the nature of and outlook for the counterparty's industry and the economic environment. Senior personnel, with expertise in specific industries, inspect and approve credit reviews and internal credit ratings.

The bank's risk assessment process may also include where applicable, reviewing certain key metrics, including, but not limited to, delinquency status, collateral value and other risk factors.

The credit risk management systems capture credit exposure to individual counterparties and on an aggregate basis to counterparties and their subsidiaries. These systems also provide management with comprehensive information about aggregate credit risk by product, internal credit rating, industry and country.

The bank assesses the expected credit losses (ECL) associated with financial assets measured at amortised cost on a forward looking basis in accordance with the provisions of IFRS 9 'Financial Instruments' (IFRS 9) in conjunction with IDW RS BFA 7. The ECL is determined by projecting the probability of default, loss given default and exposure at default (EAD) for each individual exposure. To calculate expected credit losses these three components are multiplied together and discounted back to the reporting date. The bank uses internal credit risk ratings that reflect the assessment of the probability of default of individual counterparties. See Note 2 to the financial statements for further information about the bank's accounting policy on impairment.

Risk Measures

Credit risk is measured based on the potential loss in the event of non-payment by a counterparty using current and potential exposure. For loans and lending commitments, the primary measure is a function of the notional amount of the position. For derivatives and securities financing transactions, current exposure represents the amount presently owed to the bank after taking into account applicable netting and collateral arrangements, while potential exposure represents the bank's estimate of the future exposure that could arise over the life of a transaction. Potential exposure is calculated using internal models calibrated based on market movements within a specified confidence level (usually at the 95th-percentile). Potential exposure also takes into account netting and collateral arrangements. In addition, complementary metrics are used to identify concentrations, most notably 'Shortfall' defined as residual unsecured loss following an extreme market stress, including portfolio liquidation after the application of any collateral held.

Stress Tests

The bank conducts regular stress tests to calculate the credit exposures, including potential concentrations that would result from applying shocks to counterparty credit ratings or credit risk factors (e.g., currency rates, interest rates, equity prices). These shocks cover a wide range of moderate and more extreme market movements, including shocks to multiple risk factors, consistent with the occurrence of a severe market or economic event. In the case of sovereign default the bank estimates the direct impact of the default on its sovereign credit exposures, changes to its credit exposures arising from potential market moves in response to the default, and the impact of credit market deterioration on corporate borrowers and counterparties that may result from the sovereign default. Unlike potential exposure, which is calculated within a specified confidence level, stress testing does not generally assume a probability of these events occurring. The bank also performs bank-wide stress tests. See "Overview and Structure of Risk Management" for further information about stress tests.

Limits

Credit limits and thresholds are used at various levels (e.g., counterparty, economic group, industry and country, climate high risk sector, shadow banking), as well as underwriting standards to manage the size and nature of the bank's credit exposures. The bank's Executive Board and the GSBE Risk Committee approve credit risk limits at the bank-wide level, and where appropriate the business and product level, consistent with the bank's risk appetite. Furthermore, the Executive Board or GSBE Risk Committee (and the GSBE Credit Risk Council) approves the framework that governs the setting of credit risk sub-limits at the bank level, which is delegated to Credit Risk.

Credit Risk is responsible for monitoring these limits, and identifying and escalating to senior management and/or the appropriate risk committee, on a timely basis, instances where limits have been exceeded.

Risk Mitigants

To reduce the bank's credit exposures on loans and lending commitments, depending on the credit quality of the borrower and other characteristics of the transaction, the bank employs a variety of potential risk mitigants. Risk mitigants include collateral provisions, guarantees, covenants, structural seniority of the bank loan claims and, for certain lending commitments, provisions in the legal documentation that allow the bank to adjust loan amounts, pricing, structure and other terms as market conditions change. The type and structure of risk mitigants employed can significantly influence the degree of credit risk involved in a loan or lending commitment.

For derivatives and securities financing transactions, the bank may enter into netting agreements with counterparties that permit it to offset receivables and payables with such counterparties. The bank may also reduce credit risk with counterparties by entering into agreements that enable it to obtain collateral from them on an upfront or contingent basis and/or to terminate transactions if the counterparty's credit rating falls below a specified level. The bank monitors the fair value of the collateral to ensure that credit exposures are appropriately collateralised. The bank seeks to minimise exposures where there is a significant positive correlation between the creditworthiness of counterparties and the market value of collateral received.

When the bank does not have sufficient visibility into a counterparty's financial strength or when it believes a counterparty requires support, the bank may obtain third-party guarantees of the counterparty's obligations. The bank may also seek to mitigate its credit risk using credit derivatives or participation agreements.

The table below presents bank's EAD.

	As of December	
€ in millions	**2024**	2023
Counterparty credit risk	**€26,969**	€21,626
Credit risk excluding counterparty credit risk	**24,177**	22,681
Settlement risk	**269**	91
Securitisation exposures in the banking book	**31**	39
Total	**€51,446**	€44,437

In the table above:

- EAD represents the credit exposure used to calculate the RWAs for regulatory capital purposes and is not directly comparable to the amounts presented on the balance sheet due to differences in measurement methodology, counterparty netting and collateral offsets used.
- Counterparty credit risk primarily relates to credit exposure on derivative and securities financing transactions.
- As of December 2024, counterparty credit risk primarily included credit exposure of €20.90 billion (December 2023: €16.64 billion) calculated using approved internal models, credit exposure of €3.73 billion (December 2023: €2.39 billion) against central clearing counterparties and credit exposure of €1.04 billion (December 2023: €1.71 billion) calculated using standardised approach.
- Credit risk excluding counterparty credit risk is calculated using the standardised approach and primarily relates to credit exposure on customer and other receivable balances, loans and lending commitments.

Credit Concentrations

The bank's concentrations to credit risk arise primarily from its client facilitation, underwriting, lending and collateralised transactions, and cash management activities, and may be impacted by changes in economic, industry, political or climate factors. These activities expose the bank to many different industries and countries, and may also subject the bank to a concentration of credit risk to a particular central bank, counterparty, borrower or issuer, or to a particular clearing house or exchange. Material counterparties are also subject to additional interconnectedness assessment taking into consideration economic dependencies. The bank seeks to mitigate credit risk, including potential wrong way risk exposures (where the size of the bank's credit exposure to a counterparty is considered adversely correlated to the counterparty's credit quality), by actively monitoring aggregate exposures against limits on individual entities and their consolidating groups, as well as countries and industries, and obtaining collateral from counterparties as deemed appropriate.

The bank measures and monitors its credit exposure based on amounts owed to the bank after taking into account risk mitigants that management considers when determining credit risk. Such risk mitigants include netting and collateral arrangements and economic hedges, such as credit derivatives, futures and forward contracts. Netting and collateral agreements permit the bank to offset receivables and payables with such counterparties and/or enable the bank to obtain collateral on an upfront or contingent basis.

The table below presents the bank's EAD by industry and region.

	As of December	
€ in millions	**2024**	2023
Credit exposure by industry		
Central Banks	**€13,079**	€16,577
Credit Institutions	**4,106**	3,345
Other Financial Corporations	**21,948**	16,649
Non-Financial Corporations	**10,393**	6,842
General Governments	**1,591**	795
Households	**329**	229
Total	**€51,446**	€44,437
Credit exposure by region		
EMEA	**€45,284**	€40,695
Americas	**4,990**	3,347
Asia	**1,172**	395
Total	**€51,446**	€44,437

Operational Risk Management

Overview

Operational risk is the risk of an adverse outcome resulting from inadequate or failed internal processes, people, systems or from external events. Exposure to operational risk arises from routine processing errors, as well as extraordinary incidents, such as major systems failures or legal and regulatory matters, that could occur for the bank or its third party vendors.

Potential types of loss events related to internal and external operational risk include:

- Execution, delivery and process management;
- Business disruption and system failures;
- Employment practices and workplace safety;
- Clients, products and business practices;
- Third-party risk, including vendor risk;
- Damage to physical assets;
- Internal fraud; and
- External fraud.

Operational Risk, which is part of the bank's second line of defence and reports to the bank's chief risk officer, has primary responsibility for developing and implementing a formalised framework for assessing, monitoring and managing operational risk to support oversight and challenge the bank's businesses, with the goal of maintaining the bank's exposure to operational risk at levels that are within its risk appetite.

The bank's framework for managing operational risk is consistent with the framework of GS Group. The bank's Operational Risk function is integrated with GS Group's Operational Risk function which reports to GS Group's chief risk officer.

Operational Risk Management Process

The bank's process for managing operational risk includes the critical components of the bank's risk management framework described in the "Overview and Structure of Risk Management", including a comprehensive data collection process.

Top-down and bottom-up approaches are combined to manage and measure operational risk. From a top-down perspective, senior management assesses bank-wide and business-level operational risk profiles. From a bottom-up perspective, the first and second lines of defence are responsible for risk identification and risk management on a day-to-day basis, including escalating operational risks and risk events to senior management.

The bank seeks to maintain a comprehensive control framework designed to provide a well-controlled environment to minimise operational risks. The GSBE Operational Risk and Resilience Committee provides oversight of the ongoing development and implementation of operational risk policies, framework and methodologies, and monitors the effectiveness of operational risk management with oversight from the Executive Board.

The operational risk management framework is designed to comply with the operational risk measurement rules under Basel III and has evolved based on the changing needs of the bank's businesses and regulatory guidance.

Policies have been established that require all employees and consultants to report and escalate operational risk events. When operational risk events are identified, policy requires that the events be documented and analysed to determine whether changes are required in the systems and/or processes to further mitigate the risk of future events.

Operational risk management applications are used to capture, analyse and report operational risk event data and key metrics. One of the bank's key risk identification and control assessment tools is an operational risk and control self-assessment process, which is performed by the bank's senior management. This process consists of the identification and rating of operational risks, on a forward-looking basis, and the related controls. The results from this process are analysed to evaluate operational risk exposures and identify businesses, activities or products with heightened levels of operational risk.

Risk Measurement

The bank's operational risk exposure is measured using both statistical modelling and scenario analyses, which involve qualitative and quantitative assessments of internal and external operational risk event data, business environment and internal control factors for each of the bank's businesses.

The results from these scenario analyses are used to monitor changes in operational risk and to determine business lines that may have heightened exposure to operational risk. The bank also performs stress tests (sensitivity analysis), in which the elementary model parameters used for the determination of the bank's internal operational risk capital, loss severity and frequency are varied to measure the sensitivity of the outputs. See "Capital Adequacy" for the results as of December 2024.

See "Overview and Structure of Risk Management" for further information about stress tests.

Types of Operational Risks

Increased reliance on technology and third-party relationships has resulted in increased operational risks, such as information and cybersecurity risk, third-party risk and business resilience risk. The bank manages those risks as follows:

Information and Cybersecurity Risk. Information and cybersecurity risk is the risk of compromising the confidentiality, integrity or availability of the bank's or GS Group affiliates' data and systems, leading to an adverse impact to the bank, its reputation, its clients and/or the broader financial system. The bank seeks to minimise the occurrence and impact of unauthorised access, disruption or use of information and/or information systems. The bank in conjunction with GS Group affiliates deploys and operates preventive and detective controls and processes to mitigate emerging and evolving information security and cyber security threats, including monitoring the bank's network for known vulnerabilities and signs of unauthorised attempts to access its data and systems. There is increased information risk through diversification of the bank's data across external service providers, including use of a variety of cloud-provided or hosted services and applications. In addition, new AI technologies may increase the frequency and severity of cybersecurity attacks.

Third-Party Risk. Third-party risk, including vendor risk, is the risk of an adverse impact due to reliance on third parties performing services or activities on the bank's behalf. These risks may include legal, regulatory, information security, cybersecurity, reputational, operational or other risks inherent in engaging a third party. The bank identifies, manages and reports key third-party risks and conducts due diligence across multiple risk domains, including information security and cybersecurity, resilience and additional supply chain dependencies. The bank evaluates whether vendors design, implement, and maintain information security controls consistent with its security policies and standards. Vendors that access and process the bank's information on their infrastructure external to GS Group's network are required to undergo an initial risk assessment, resulting in the assignment of a vendor inherent risk rating that is determined based on a number of factors, including the type of data stored and processed by a particular vendor. Subsequently, the bank conducts re-certifications at a depth and frequency that is commensurate with each vendor's inherent risk rating as a component of the bank's risk-based approach to vendor oversight. Vendors are required to agree to standard contractual provisions before receiving sensitive information from the bank. These provisions have specific information security control requirements, which apply to vendors that store, access, transmit or otherwise process sensitive information on behalf of the bank.

The bank is part of GS Group's Firmwide Vendor Program which monitors, reviews and reassesses third-party risks on an ongoing basis. This firmwide program is designed to ensure a consistent approach to those third parties which perform services directly for the bank, and those which perform services for GS Group affiliates who themselves provide outsourcing services to the bank. The bank also has an Outsourcing Governance Group (OGG) which oversees the outsourced activities of the bank. The OGG assists the bank's management in applying a comprehensive, risk-based approach to inter-affiliate outsourcing across GS Group and management of third party vendor relationships. In order to assist the bank's management, the OGG reviews new outsourcing arrangements, conducts annual performance and quality assessments of the outsourced services and coordinates with relevant groups within GS Group.

Business Resilience Risk. Business resilience risk is the risk of disruption to the bank's critical processes. The bank monitors threats and assesses risks and seeks to ensure its state of readiness in the event of a significant operational disruption to the normal operations of its critical functions or their dependencies, such as critical facilities, systems, third parties, data and/or personnel. The resilience framework defines the fundamental principles for business continuity planning and crisis management to ensure that critical functions can continue to operate in the event of a disruption.

The bank seeks to maintain a business continuity program that is comprehensive, consistent across GS Group and up-to-date, incorporating new information, including resilience capabilities. The bank's resilience assurance program encompasses testing of response and recovery strategies on a regular basis with the objective of minimizing and preventing significant operational disruptions.

Compliance Risk Management

Compliance risk is the risk of legal or regulatory sanctions, material financial loss or damage to the bank's reputation arising from its failure to comply with the requirements of applicable laws, rules and regulations, and its internal policies and procedures. Compliance risk is inherent in all activities through which the bank conducts its businesses. GS Group's Compliance Risk Management Program, administered by Compliance, assesses its compliance, regulatory and reputational risk; monitors for compliance with new or amended laws, rules and regulations; designs and implements controls, policies, procedures and training; conducts independent testing; investigates, surveils and monitors for compliance risks and breaches; and leads GS Group's responses to regulatory examinations, audits and inquiries. GS Group monitors and reviews business practices to assess whether they meet or exceed minimum regulatory and legal standards in all markets and jurisdictions in which it conducts business. The bank's framework for managing compliance risk, ensuring compliance with E.U. and German regulation, is consistent with, and part of, the GS Group framework.

Model Risk Management

Overview

Model risk is the potential for adverse consequences from decisions made based on model outputs that may be incorrect or used inappropriately. The bank relies on quantitative models across its business activities primarily to value certain financial assets and liabilities, to monitor and manage its risk, and to measure and monitor its regulatory capital.

Model Risk, which is part of the bank's second line of defence, is independent of model developers, model owners and model users, and has primary responsibility for assessing, monitoring and managing model risk by providing oversight and challenges across the bank's businesses. The head of the bank's Model Risk function has accountability to the bank's chief risk officer for the management of the bank's model risk.

The model risk management framework is consistently applied across GS Group, with the bank's Model Risk function being an integral part of the GS Group's Model Risk function which reports to GS Group's chief risk officer.

The model risk management framework is managed through a governance structure and risk management controls, which encompass standards designed to ensure maintenance of a comprehensive model inventory, including risk assessment and classification, sound model development practices, independent review and model-specific usage controls. The Firmwide Model Risk Control Committee oversees GS Group's model risk management framework. The GSBE Risk Committee, in coordination with Model Risk, is responsible for the ongoing oversight of the bank's model risk. Model Risk provides regular updates to the GSBE Risk Committee and the bank's Executive Board.

Model Review and Validation Process

Model Risk consists of quantitative professionals who perform an independent review, validation and approval of models. This review includes an analysis of the model documentation, independent testing, an assessment of the appropriateness of the methodology used, and verification of compliance with model development and implementation standards.

GS Group regularly refines and enhances its models to reflect changes in market or economic conditions and its business mix. All models are reviewed on an annual basis, and new models or significant changes to existing models and their assumptions are approved prior to implementation.

The model validation process incorporates a review of models and their assumptions in order to critically evaluate and verify the model's conceptual soundness, suitability of calculation techniques, accuracy and sensitivity to input parameters and assumptions, as well as the scope of testing performed by model developers.

See "Liquidity Risk Management", "Market Risk Management", "Credit Risk Management", "Operational Risk Management", and "Capital Adequacy" for further information about the bank's use of models within these areas.

Strategic and Business Environment Risk

Overview

Strategic and Business Environment Risk is the risk of an adverse outcome to the bank from its strategic business decisions or structural changes to the bank's business environment.

Risk Monitoring and Reporting

To adequately mitigate and control the key strategic and business environment risks inherent in its activities, the bank has implemented a number of governance structures and controls processes. Consistent with the GS Group's three lines of defence framework, business units take responsibility to identify, monitor and manage risk in executing the bank's strategy and relating to changes in the operating environment. The bank's control functions have established robust monitoring processes which are designed to ensure regular reporting of performance metrics and underlying drivers to the bank's governance bodies, including the Executive Board, and appropriate escalation procedures. Certain aspects of strategic and business environment risk may also manifest through other risk categories such as credit risk, market risk, liquidity risk or operational risk, which are in turn managed by the respective risk functions. Further, Strategic and Business Environment Risk integrates Climate-Related and Environmental Risk Management.

Climate-Related and Environmental Risk Management

Climate change risk is the risk of adverse outcomes arising from the long- and/or short-term impacts of climate change. The bank categorises climate-related and environmental risks into physical risk and transition risk. Physical risk is the risk that asset values may decline as a result of changes in the climate, while transition risk is the risk that asset values may decline because of changes in climate policies or changes in the underlying economy due to decarbonisation.

Climate-related and environmental risks manifest in different ways across GS Group's businesses and GS Group has continued to make significant enhancements to its climate risk management framework, including steps to further integrate climate risk into its broader risk management processes. Consistent with GS Group's integration of oversight of climate-related risks into its risk management governance structure from senior management to GS Group Board and its committees, including GS Group's Risk and Public Responsibilities Committees, the bank has integrated oversight of climate-related risks into the bank's risk management governance structure, including the oversight by the bank's Executive Board and GSBE Risk Committee.

The bank has begun integrating climate-related and environmental risks into existing risk disciplines, such as credit, liquidity and market risk. In addition, these factors are now being considered in select transaction underwriting decisions and broader business strategy. Senior management within Risk, in coordination with senior management in the bank's revenue-producing units, is responsible for the development of the climate-related and environmental risk program.

The objective of this program is to integrate climate-related and environmental risks into existing risk disciplines and business considerations, such as the integration of climate risk into the credit evaluation and underwriting processes for select industries.

As part of its oversight responsibility, the Executive Board and the GSBE Risk Committee receive regular reporting on risk appetite metrics for physical and transition risk and updates on its risk management approach to climate risk, including its approach towards scenario analysis and integration into existing risk management processes. In general, the bank is integrated into and thereby benefits from the broader GS Group firmwide risk management and control framework supporting climate change risk management commensurate with the bank's activities.

As of December 2024, climate change related risks are identified as relevant but assessed as non-material risks to the bank.

Reputational Risk Management

Reputational risk is the potential risk that negative publicity regarding the bank's business practices, whether true or not, will cause a decline in the bank's customer base, costly litigation or revenue reductions. The bank's reputation is critical to effectively serving the bank's clients and fostering and maintaining long-term client relationships, and it is integral to how the bank is viewed by the key stakeholders.

In evaluating business opportunities, reputational risk is one of the most significant components the bank considers. The bank evaluates the ethics, suitability and transparency of transactions undertaken. The bank's employees are responsible for considering the reputational impacts that the business activities may have.

The bank is included in a comprehensive programme designed to monitor reputational risk which GS Group has implemented.

Capital Adequacy

Overview

Capital risk is the risk that the bank's capital is insufficient to support its business activities under normal and stressed market conditions, or it faces capital reductions or RWA increases, including from new or revised rules or changes in interpretations of existing rules, and is therefore unable to meet its internal capital targets or external regulatory capital requirements. Capital adequacy is of critical importance to the bank. Accordingly, the bank has in place a comprehensive capital management policy that provides a framework, defines objectives and establishes guidelines to maintain an appropriate level and composition of capital in both business-as-usual and stressed conditions. The internal capital management framework is designed to provide it with the information needed to identify and comprehensively manage risk, and develop and apply projected stress scenarios that capture idiosyncratic vulnerabilities with a goal of holding sufficient capital to remain adequately capitalised even after experiencing a severe stress event.

The bank has established a comprehensive governance structure to manage and oversee its day-to-day capital management activities and compliance with capital rules and related policies. The bank's capital management activities are overseen by the Executive Board and its committees. The Executive Board is responsible for approving the bank's Internal Capital Adequacy Assessment Process (ICAAP) framework and outcomes and its capital management policy. In addition, members of senior management are responsible for the ongoing monitoring of the bank's capital adequacy and evaluate current and future regulatory capital requirements, review the results of its capital planning and stress testing processes, and the results of its capital models, review its key capital adequacy metrics, including regulatory capital ratios, as well as capital plan metrics, such as capital distributions and monitor risk limits and breaches. The bank's framework for capital risk management is consistent with, and part of, the GS Group framework.

Internal Capital Adequacy Assessment Process

The bank undertakes regular internal capital adequacy assessments as part of its broader ICAAP framework with the objective of ensuring appropriate capitalisation relative to the bank's risk. The bank's ICAAP is a comprehensive internal process which coherently integrates several key components, including risk identification and materiality assessment, capital planning, and risk appetite.

In line with the "ECB Guide to the internal capital adequacy assessment process (ICAAP)", the ICAAP comprises two complementary perspectives, the Normative Perspective and the Economic Internal Perspective. The bank's limit and escalation framework incorporates metrics based on both perspectives.

Normative Perspective

In the Normative Perspective, capital adequacy is considered from a regulatory and accounting view, and expressed in terms of regulatory metrics. The perspective includes determination of regulatory metrics as part of ongoing business-as-usual processes and integrates 3-year forward looking projections of the bank's ability to meet regulatory capital requirements under baseline and adverse macro-economic conditions. Capital requirements are calculated in accordance with regulatory capital rules over the assessment time horizon, taking into account the permission to use internal models for market risk (Internal Model Approach and CVA VaR), as well as internal models to calculate the counterparty credit risk exposure (Internal Model Method). The bank thereby leverages internal methodologies to project stress impacts reflective of the underlying scenario and consistent with the principles of the Normative Perspective. In all assessments performed during the year, the bank was projected to have sufficient capital to meet its regulatory capital requirements over the assessment period of the Normative Perspective.

Economic Internal Perspective

The Economic Internal Perspective (EIP) consists of the definition and quantification of internal capital resources and the amount of capital that the bank needs to hold to mitigate risks that could have a material impact on its capital position from an economic view on risk.

The bank uses the regulatory definition of total capital resources as a starting point to quantify internal capital, and incorporates adjustments to reflect economic value considerations. The bank applies its internal risk quantification methodologies that allow capturing an economic view on risk, targeting a risk horizon of one year and integrating a 3 year forward looking approach in the projections.

Economic capital requirements for market risk in the trading book is primarily quantified using stressed Value at Risk (sVaR) and Incremental Risk Charge (IRC). sVaR is the potential loss in value of inventory positions during a period of significant market stress. sVaR is calculated at a 99% confidence level over a 10-day holding period, and is calibrated based on a historical stress period which is appropriate for the bank's portfolio. IRC estimates the 99.9% tail loss in the loss distribution due to events of rating migration or default over the capital horizon of one year for the portfolio of credit-sensitive instruments. Further stress-based methods are applied to quantify additional risks in the trading book, which were of comparatively lower significance in the reporting year. Capital requirements for market risk in the banking book is mainly driven by IRRBB quantified through changes in accrual and economic value measures using +/- 200bp shocks without flooring. Other stress tests may be applied where appropriate to risk concentrations.

Economic capital requirements for credit risk are mainly driven by simulated losses in the bank's derivative and loan portfolio which are calibrated to expected shortfall to a confidence level of 99.9% and assume a 1-year holding period. For other credit risk positions, the economic capital requirements are mainly determined using a credit risk model, which is based on internal assessments (including internal credit ratings). Additional stress testing and model-based approaches are applied to calculate further capital requirements for credit risk, which include among other metrics concentration risk, general wrong way risk and tail risk.

Economic capital requirements for operational risk are quantified using the bank's internal Advanced Measurement Approach (AMA) model, which is calibrated to a confidence level of 99.9% and assumes a 1-year holding period. The internal capital requirement thereby reflects the tail exposure posed by the bank's current and anticipated activities.

The bank has revenue sharing agreements with GS Group affiliates related to certain activities under which it receives revenues from, and transfer revenues to, such affiliates. While these agreements generally include clauses that restrict loss sharing across participating GS Group affiliates, any participating affiliate including the bank could be affected by both positive and negative contribution from risk originated in another participating GS Group affiliate. As of December 2024, the bank had no economic capital requirement for revenue sharing agreements as profits are only subject to transfer pricing until conclusion of the financial year.

The bank had no economic capital requirement for Strategic and Business Environment Risk (SBER) as of December 2024 based on the bank's robust control framework in place and historical performance analysis, and non-materiality of climate change related risk.

Economic capital requirements are conservatively aggregated across material risk categories without taking benefit of diversification effects. The bank's limit system requires a minimum economic capital adequacy ratio of 100%. Capital is not deemed an adequate mitigant for liquidity risks which are managed in the course of the bank's liquidity management. The risk bearing capacity based on the EIP is assessed on a quarterly basis.

The table below presents the comparison of internal capital and economic capital requirements.

	As of December	
€ in millions	**2024**	2023
Components of Internal Capital Resources		
Total regulatory capital	**€12,680**	€12,892
Adjustments between regulatory capital and internal capital	**613**	(129)
Internal Capital Resources	**€13,293**	€12,763
Risk Components		
Market Risk	**€1,153**	€ 996
Credit Risk	**2,412**	1,529
Operational Risk	**309**	404
Economic Capital Requirements	**€3,874**	€ 2,929
Economic Capital Adequacy ratio	**343%**	436%

As of both December 2024 and December 2023, the bank was adequately capitalised and reported an economic capital adequacy ratio of 343% and 436%, respectively, relative to a minimum of 100%. Capital Ratios in the normative perspective are shown in the 'Regulatory Capital' section.

The assessment of capital adequacy is viewed in tandem with the bank's assessment of liquidity adequacy and is integrated into its overall risk management structure, governance and policy framework. See 'Overview and Structure of Risk Management' and 'Liquidity Risk Management' for further information.

Relationship with Affiliated Companies

Based on the circumstances of which the Executive Board was aware at the point in time the legal transactions were entered into, the bank received appropriate consideration for all legal transactions with GS Group affiliates.

Non-Financial Disclosure

The non-financial report for the bank prepared in accordance with Section 340a(1a) HGB in conjunction with Sections 289b to 289e HGB and in compliance with the European Union Directive 2014/95/EU and the German "CSR-Richtlinie-Umsetzungsgesetz" can be found at www.goldmansachs.com/disclosures/gsbank-europe-se-disclosures.html.

Annual Financial Statements

GOLDMAN SACHS BANK EUROPE SE
Balance Sheet

€ in millions	Note	As of December 2024	As of December 2023
Assets			
Cash reserve			
Balances with central banks (thereof: with Deutsche Bundesbank **€2,085**, 2023: €1)		**€ 2,439**	€ 347
Receivables from credit institutions			
Due on demand		**10,824**	15,096
Other receivables	3	**3,186**	1,016
Receivables from customers	3	**32,530**	18,357
Bonds and other fixed-income securities	6		
Bonds and notes of other issuers		**5**	—
Equity shares and other variable-yield securities	7	**11**	—
Trading assets	8	**49,564**	44,181
Assets held in trust	9	**72**	67
Intangible assets			
Internally developed intangible assets	10	**36**	8
Fixed assets	10	**24**	20
Other assets	11	**8,444**	6,169
Deferred tax assets	12	**103**	109
Total assets		**€107,238**	€85,370
Liabilities			
Liabilities to credit institutions			
Due on demand		**€ 136**	€ 68
With agreed term or notice period	3	**20,475**	10,576
Liabilities to customers			
Other liabilities			
Due on demand		**19,313**	13,104
With agreed term or notice period	3	**20,178**	20,758
Securitised liabilities			
Other securitised liabilities	15	**658**	1,467
Trading liabilities	8	**27,975**	20,867
Liabilities held in trust	9	**72**	67
Other liabilities	11	**4,053**	4,811
Deferred income		**4**	4
Provisions			
Provisions for pensions and similar commitments	16	**32**	112
Tax provisions		**13**	66
Other provisions	17	**604**	495
Subordinated debt	18	**20**	20
Fund for general banking risks (thereof: trading-related special reserve according to Section 340e(4) HGB: **€422**, 2023: €269)		**422**	269
Shareholder's equity	19		
Ordinary share capital		**329**	329
Capital reserve		**10,602**	10,602
Profit reserves			
Other profit reserves		**1,755**	1,156
Distributable profit		**597**	599
Total liabilities and shareholder's equity		**€107,238**	€85,370
Contingent liabilities			
Liabilities from sureties and guarantee agreements	26	**€ 746**	€ 11
Other obligations			
Irrevocable lending commitments	26	**€ 10,426**	€ 7,117

Income Statement

€ in millions	Note	Year Ended December **2024**	2023
Interest income from			
Lending and money market business (thereof: negative interest **€3**, 2023: €1)		**€2,634**	€1,951
Interest expense (thereof: positive interest **€19,** 2023: €10)		**(2,989)**	(2,082)
Commission income		**1,041**	891
Commission expense		**(210)**	(167)
Net trading result (thereof: additions to the trading-related special reserve **€153**, 2023: €109)		**1,397**	1,072
Other operating income	21	**51**	50
General administration expenses			
Staff expenses			
Wages and salaries		**(611)**	(558)
Compulsory social security contributions and expenses for pensions and other employee benefits (thereof for pensions: **€12**, 2023: €10)		**(121)**	(107)
Other administration expenses		**(258)**	(133)
Depreciation, amortisation and valuation allowance for intangible and fixed assets	8	**(17)**	(26)
Other operating expenses	21	**(5)**	(8)
Write-downs of, and value adjustments to, claims and certain securities, as well as additions to provisions for loan losses		**(33)**	(2)
Result from ordinary activities		**879**	881
Income tax expense (thereof: deferred tax benefit **€23**, 2023: deferred tax expense €6)		**(282)**	(282)
Net income/Distributable profit	24	**€ 597**	€ 599

Statement of Cash Flows

		Year Ended December	
€ in millions	**Note**	**2024**	2023
Net income		**€ 597**	€ 599
Depreciation, amortisation and valuation allowance for intangible and fixed assets		**17**	26
Write-downs of, and value adjustments to, claims and certain securities, as well as additions to provisions for loan losses		**33**	2
Increase in provisions		**(208)**	(238)
Non-cash expense related to share-based compensation expense		**232**	134
Non-cash expense related to pension expense net of contributions		**2**	2
Foreign exchange losses/(gain) on cash and cash equivalents		**3**	(17)
Decrease/(increase) in receivables from credit institutions		**2,101**	(3,203)
Increase in receivables from customers		**(14,168)**	(28)
Increase in securities	6,7	**(35)**	—
Decrease/(Increase) in trading assets/liabilities		**1,725**	(15,187)
Decrease/(Increase) in other assets from operating activities		**(2,194)**	473
Increase in liabilities to credit institutions		**5,967**	3,932
Increase in liabilities to customers		**5,555**	10,657
Increase/(decrease) in securitised liabilities		**(808)**	1,467
Increase in other liabilities from operating activities		**(584)**	(1,687)
Interest expense		**355**	131
Income tax expense		**282**	282
Interest payments and dividend payments received		**2,642**	1,823
Interest paid		**(2,898)**	(1,941)
Income tax payments, net of refunds		**(455)**	(265)
Cash flow used for operating activities		**(1,839)**	(3,038)
Payments received from business disposition	25	**26**	—
Payments for investments in fixed assets		**(11)**	(3)
Payments for investments in intangible assets	25	**(44)**	(5)
Cash flow used for investing activities		**(29)**	(8)
Proceeds from equity contributions from the shareholders of the parent company		**—**	3,260
Proceeds from MREL-eligible intercompany borrowings from the parent company		**4,000**	—
Interest paid on MREL-eligible intercompany borrowings		**(37)**	(21)
Cash flow from financing activities		**3,963**	3,239
Net increase in cash and cash equivalents		**2,095**	193
Changes in cash and cash equivalents due to exchange rates and valuation		**(3)**	17
Cash and cash equivalents, beginning balance		**347**	137
Cash and cash equivalents, ending balance	25	**€ 2,439**	€ 347

See Note 25 for further information about the statement of cash flows.

Note 1.

General Information

Goldman Sachs Bank Europe SE (GSBE or the bank) is registered with the commercial register number HRB 114190 at the local district court in Frankfurt am Main, Germany.

These financial statements have been prepared in accordance with the requirements of the German Commercial Code (HGB), the German Stock Corporation Act (AktG) and the Ordinance Regulating the Accounting Requirements for Banks and Financial Services Institutions (RechKredV). The financial statements also include the disclosure as required under Section 26a(1) sentence 2 of the German Banking Act (KWG).

The immediate parent undertaking and the parent company of the smallest group for which consolidated financial statements are prepared is Goldman Sachs Bank USA (GS Bank USA), a New York State-chartered bank and a member of the FRB with its principal office in New York, New York. Copies of its consolidated financial statements, as well as certain regulatory filings, that provide further information about GS Bank USA and its business activities, can be obtained at www.goldmansachs.com/investor-relations.

The ultimate controlling undertaking and the parent company of the largest group for which consolidated financial statements are prepared is Group Inc., a company incorporated in the United States of America. Copies of its consolidated financial statements, as well as certain regulatory filings that provide further information about GS Group and its business activities, can be obtained from Investor Relations, 200 West Street, New York, NY 10282, United States of America, Group Inc's principal place of business, or at www.goldmansachs.com/investor-relations.

Note 2.

Accounting and Valuation Methods

Cash Reserve and Receivables

Cash reserve is recognised at its nominal value. Receivables from credit institutions and from customers are recognised at their nominal values less any irrecoverable amounts and provision for loan losses and include accrued interest.

Impairment

The bank assesses the expected credit losses (ECL) associated with financial assets measured at amortised cost and irrevocable lending commitments on a forward-looking basis in accordance with the provisions of IFRS 9 'Financial Instruments' (IFRS 9) in conjunction with IDW RS BFA 7. The measurement of ECL reflects an unbiased and probability weighted amount that is determined by evaluating a range of possible outcomes, the time value of money, and reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions. Expected credit losses are recognised in write-downs of and value adjustments to claims and certain securities, as well as additions to provisions for loan losses.

The bank's impairment model is based on changes in credit quality since initial recognition of financial assets measured at amortised cost and incorporates the following three stages:

- **Stage 1.** Financial assets measured at amortised cost that are not credit-impaired on initial recognition and where there has been no significant increase in credit risk since initial recognition. The ECL is measured at an amount equal to the expected credit losses that result from default events possible within the next twelve months.
- **Stage 2.** Financial assets measured at amortised cost where there has been a significant increase in credit risk since initial recognition, however not yet deemed to be credit-impaired. The ECL is measured based on expected credit losses on a lifetime basis.
- **Stage 3.** Financial assets measured at amortised cost that are in default, or are defined as credit-impaired. The ECL is measured based on expected credit losses on a lifetime basis.

Determination of the relevant staging for each financial asset is dependent on the definition of 'significant increase in credit risk' (stage 1 to stage 2) and the definition of 'credit-impaired' (stage 2 to stage 3). The bank considers a financial asset to have experienced a significant increase in credit risk when certain quantitative or qualitative conditions are met. Quantitative thresholds include absolute probability of default thresholds on investment-grade financial assets and relative probability of default thresholds on non-investment-grade financial assets. Qualitative review is also performed as part of the bank's credit risk management process, including a back-stop consideration of 30 days past due.

The bank considers a financial asset to be credit-impaired when it meets Credit Risk's definition of default, which is either when the bank considers that the obligor is unlikely to pay its credit obligations to the bank in full, without recourse by the bank to actions, such as realising security (if held), or the obligor has defaulted on a payment and/or is past due more than 90 days.

The ECL is determined by projecting the probability of default, loss given default and exposure at default for each individual exposure. To calculate the expected credit losses these three components are multiplied together and discounted back to the reporting date. The discount rate used in the ECL calculation is the original effective interest rate. The probability of default represents the likelihood of a borrower defaulting on its financial obligation. The loss given default is the bank's expectation of the extent of loss on the default exposure, and takes into consideration amongst other things, collateral on the financial asset. The exposure at default is the amount the bank expects to be owed at the time the financial obligation defaults. The bank uses internal credit risk ratings that reflect the assessment of the probability of default of individual counterparties.

The bank uses multiple macroeconomic scenarios within the ECL calculation, the weightings for which are subject to ongoing internal review and approval.

The ECL model takes into account the weighted average of a range of forecasts of future economic conditions. The forecasts include baseline, favourable and adverse economic scenarios over a three-year period. To the extent the bank has financial assets in Stage 2 or Stage 3 which have an expected life beyond three years, the model reverts to historical loss information based on a non-linear modelled approach. The bank applies judgement in weighting individual scenarios each quarter based on a variety of factors, including internally derived economic outlook, market consensus, recent macroeconomic conditions and industry trends. Forward-looking information, such as key economic variables impacting credit risk and expected credit losses, is incorporated into both the assessment of staging and the calculation of ECL.

The allowance for impairment losses also includes qualitative components which allow management to reflect the uncertain nature of economic forecasting and account for model imprecision and concentration risk.

The bank writes off financial assets, in whole or in part, when it has concluded that there is no reasonable expectation of recovery. When a financial asset is deemed to be uncollectable, the bank concludes this to be an indicator that there is no reasonable expectation of recovery. The bank still seeks to recover amounts it is legally owed in full, but which have been wholly or partially written off due to no reasonable expectation of full recovery.

Securities

Securities classified to the banking book are accounted at acquisition cost, with write-downs to the lower of cost or market value when the impairment is expected to be permanent. Impairments of securities are reversed if the reason for the impairment no longer exists.

Temporary impairments of securities net of write-ups are reported within write-downs of and value adjustments to claims and certain securities, as well as additions to provisions for loan losses.

Trading Assets and Liabilities

Financial instruments which are held with a trading intent are recognised at fair value less risk adjustment in accordance with Section 340e(3) HGB. Fair value is defined as the amount at which a financial instrument could be exchanged in a current transaction between knowledgeable, willing and unrelated parties. Fair value measurements do not include transaction costs. Fair value gains and losses are included in the net trading result in the income statement.

The fair value of cash instruments and derivative financial instruments is either based on unadjusted quoted prices in active markets to which the bank had access at the measurement date for identical, unrestricted assets or liabilities or valuation models. If valuation models are used to determine the fair value, all the inputs to the valuation models could be observable, either directly or indirectly or one or more inputs to the valuation models could be significant and unobservable. If fair value cannot be determined, the amortised cost is used in accordance with Section 255(4) HGB.

Valuation techniques for cash instruments where the inputs are unobservable vary, but are generally based on discounted cash flow techniques. The bank's derivatives are valued using derivative pricing models (e.g., discounted cash flow models, correlation models, and models that incorporate option pricing methodologies, such as Monte Carlo simulations).

The fair valuation of certain financial instruments may require valuation adjustments that a market participant would require to arrive at fair value for factors, such as counterparty and the bank's and GS Group's credit quality, funding risk, transfer restrictions, liquidity and bid/offer spreads. Valuation adjustments are generally based on market evidence.

Valuation adjustments are integral to determining the fair value of derivative portfolios and are used to adjust the mid-market valuations produced by derivative pricing models to the exit price valuation.

These adjustments incorporate bid/offer spreads, the cost of liquidity, credit valuation adjustments, debt valuation adjustments and funding valuation adjustments, which account for the credit and funding risk inherent in the uncollateralised portion of derivative portfolios. The bank also makes funding valuation adjustments to collateralised derivatives where the terms of the agreement do not permit the bank to deliver or repledge collateral received.

Market-based inputs are generally used when calibrating valuation adjustments to market-clearing levels. In addition, for derivatives that include significant unobservable inputs, the bank makes model or exit price adjustments to account for the valuation uncertainty present in the transaction.

In order to reflect any remaining realisation risk for unrealised gains, the result of the fair value measurement is reduced by a risk adjustment, which is deducted from trading assets in accordance with Section 340e(3) HGB. The risk adjustment is based on value-at-risk which is calculated using a holding period of ten days and a confidence level of 99% for the whole portfolio. Additionally, a trading-related special reserve in accordance with Section 340e(4) HGB is established by taking at least 10% of the net trading result (after risk adjustment). This reserve has to increase until the trading-related special reserve corresponds to 50% of the five-year average of net trading result after risk adjustment. The reserve may, amongst others, be consumed to either release an amount exceeding the 50% threshold or to cover net trading losses.

To reduce credit exposures on derivatives, the bank may enter into master netting agreements or similar arrangements (collectively, netting agreements) with counterparties that permit it to offset receivables and payables with such counterparties. In addition, the bank receives and posts cash and securities collateral with respect to its derivatives, subject to the terms of the related credit support agreements or similar arrangements (collectively, credit support agreements). Collateral receivables and payables are presented as other assets or other liabilities, respectively. Receivables and payables from reverse repurchase agreements and repurchase agreements with the same maturity and with counterparties that permit it to offset are reported on a net basis.

Securities lending and repurchase agreements

Securities repurchase agreements are accounted for in accordance with the applicable principles of Section 340b HGB. The bank continues to recognise securities lent and securities sold under repurchase agreements on the balance sheet in accordance with their economic ownership, while securities borrowed and securities bought under repurchase agreements are not recognised on the balance sheet.

Assets & Liabilities Held In Trust

Assets held by the bank as a trustee in its own name but on behalf of third parties is reported within Assets held in trust as per Section 6(3) RechKredV. This asset corresponds to a liability position reported within Liabilities held in trust. The asset and liability is measured at fair value initially and subsequently with no impact to net revenues. Fees earned by the bank for providing the trustee services are recognised within commission income.

Investments in Affiliated Companies

Investments in affiliated companies are recognised at their acquisition cost less any write down due to impairment that is likely to be permanent. If the reasons for prior write downs performed are no longer applicable, they are reversed.

Fixed and Intangible Assets

Fixed and intangible assets are reported at their acquisition or manufacturing cost less any depreciation or amortisation. The amortisation and depreciation rates are based on the useful economic life of the asset. Write-downs are made for any impairment that is likely to be permanent.

The bank recognises internally developed software assets as permitted by Section 248(2) HGB. Capitalisation of development cost are only permitted in case that development cost can clearly be separated from research cost, and the intangible asset can be valued individually and will generate a future economic benefit. The estimated useful life of the internally developed software is three years.

Deferred Tax

The bank recognises deferred tax as permitted by Section 274(1) sentence 2 HGB. Deferred tax is recognised in respect of all temporary differences that have originated, but not reversed at the balance sheet date, where transactions or events have occurred at that date that will result in an obligation to pay more tax or a right to pay less tax in the future with the following exceptions:

- Deferred tax assets are recognised only to the extent that it is more likely than not that there will be suitable taxable profits from which the future reversal of the underlying temporary differences can be deducted.
- Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which temporary differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Liabilities

Liabilities are recognised with their settlement amounts. Registered bonds and promissory notes issued by the bank are recognised at nominal value and presented as liabilities to credit institutions/customers with agreed term or notice period.

Valuation Units (Hedge Accounting)

In instances in which for accounting purposes assets, liabilities, pending transactions or highly probable forecasted transactions (hedged items) and financial instruments (hedging instruments) are designated in a valuation unit to achieve an offset for changes in fair value or cash flows attributable to the hedged risk the general measurement rules are not applied. The bank utilises the freeze method, which means that offsetting value changes related to the hedged risk are not recorded and negative fair value changes related to the same type of risk are not recognised during the period of the hedge unless a net loss, i.e., negative ineffectiveness, arises which is recognised as a provision for imminent losses.

Provisions

Provisions are measured at the settlement amount that is determined necessary in accordance with reasonable commercial judgment. Provisions with a remaining term of more than one year are discounted with the average market interest rate of the past seven years according to their remaining term.

The applicable discount rate is determined and published by the German central bank (Deutsche Bundesbank) in accordance with the German discounting ordinance (Rückabzinsungsverordnung).

Provisions for pensions are valued using the Projected Unit Credit Method. The basis for valuation is the periodic allocation of the benefit obligation during the service period of the employee, the present value of this obligation is calculated with the help of actuarial assumptions. The actuarial assumptions reflect the fair value of cash flows (actuarial interest rate) and the likelihood of payments (assumptions about mortality, fluctuation and early retirement, etc.). The interest expense component and the effect from changes in the interest rate are recognised in other operating expenses.

The bank funded the defined benefit pension plan with plan assets held separately from those of the bank in a Contractual Trust Arrangement (CTA) which is managed by the Trustees. The plan assets were set off against the pension obligation in accordance with Section 246(2) sentence 2 HGB. Underfunded pension provisions are recognised on the balance sheet as provisions for pensions. Net income/ expense from the offsetting of gains on the plan assets and interest expense on the pension plan are recognised in other operating income/expenses.

Provisions for share-based compensation are recognised from the grant date up to the delivery date and are valued as of December 2024 with the share price of Group Inc.

A potential provision requirement for interest rate risk for the purposes of the loss-free valuation was assessed for all interest bearing financial instruments in the non-trading book using the present value method. The assessment resulted in no need to recognise a provision for anticipated losses.

Provision for pending losses from outstanding derivative transactions in the banking book (onerous contracts) are recognised at the present value on the reporting date.

Currency translation

Assets and liabilities denominated in foreign currencies were converted to Euro on the balance sheet date using GS Group currency conversion rates. Expenses and income are converted using the foreign exchange rates valid at the time of the transaction. The bank reports foreign currency changes of the trading book in the net trading result. Trading book foreign currency forwards are measured at fair value. Due to the specific coverage in the same currency, profits and losses from currency translation in the non-trading book are recognised through profit or loss in other operating income/ expense.

Equity

The ordinary share capital is recognised at nominal value and is fully paid up.

Notes to the Balance Sheet

Note 3.

Residual Maturity of Receivables and Liabilities

The tables below present the bank's other receivables from credit institutions and receivables from customers by expected maturity.

	As of December	
€ in millions	**2024**	2023
Other receivables from credit institutions		
With a remaining maturity of:		
up to three months	**€3,043**	€1,003
more than one year up to five years	**143**	13
Total	**€3,186**	€1,016

	As of December	
€ in millions	**2024**	2023
Receivables from customers		
With a remaining maturity of:		
up to three months	**€29,417**	€17,234
more than three months up to one year	**162**	19
more than one year up to five years	**2,778**	921
more than five years	**173**	183
Total	**€32,530**	€18,357

In the table above, receivables from customers do not include any balances with an indefinite term.

The tables below present the bank's liabilities to credit institutions and customers with agreed term or notice period by expected maturity.

	As of December	
€ in millions	**2024**	2023
Liabilities to credit institutions with agreed term or notice period		
With a remaining maturity of:		
up to three months	**€ 3**	€ 79
more than three months up to one year	**1,098**	1,103
more than one year up to five years	**14,574**	8,594
more than five years	**4,800**	800
Total	**€20,475**	€10,576

	As of December	
€ in millions	**2024**	2023
Other liabilities to customers with agreed term or notice period		
With a remaining maturity of:		
up to three months	**€19,759**	€20,502
more than three months up to one year	**285**	65
more than one year up to five years	**69**	121
more than five years	**65**	70
Total	**€20,178**	€20,758

Note 4.

Receivables and Liabilities with Affiliates

The table below presents the bank's receivables and liabilities with affiliates.

	As of December	
€ in millions	**2024**	2023
Receivables from credit institutions	**€ 3,055**	€ 1,189
Receivables from customers	**€26,167**	€15,687
Liabilities to credit institutions	**€19,475**	€ 9,453
Liabilities to customers	**€28,535**	€24,717
Subordinated debt	**€ 20**	€ 20

In the table above:

- Receivables from customers and liabilities to customers primarily include balances with a broker-dealer affiliate, Goldman Sachs International (GSI).
- Liabilities to credit institutions are primarily from the bank's immediate parent undertaking, GS Bank USA, and includes €4.80 billion of MREL-eligible borrowings.

Note 5.

Repurchase Agreements

The book value of assets transferred under repurchase agreements reported on the balance sheet within trading liabilities, liabilities to credit institutions and liabilities to customers as of December 2024 was €10.02 billion (December 2023: €10.08 billion).

Note 6.

Bonds and Other Fixed-Income Securities

Bonds and other fixed-income securities of €5 million as of December 2024 are unlisted and are not due in the following reporting period.

Note 7.

Equity Shares and Other Variable-Yield Securities

Equity shares and other variable-yield securities of €11 million as of December 2024 are unlisted and are not due in the following reporting period.

During 2024, the bank converted a loan position of €30 million into equity shares and other variable-yield securities as part of a restructuring exercise. The equity shares and other variable-yield securities were written down by €19 million during 2024.

Note 8.
Trading Assets and Liabilities

The criteria related to the designation of financial instruments to trading assets and trading liabilities have not changed in the reporting period.

The table below presents the bank's trading assets.

	As of December	
€ in millions	**2024**	2023
Derivatives	**€16,614**	€11,287
Receivables	**8,661**	11,687
Bonds and other fixed-income securities	**13,015**	11,881
Equity shares and other variable-yield securities	**11,292**	9,360
Risk adjustment according to Section 340e(3) HGB	**(18)**	(34)
Total	**€49,564**	€44,181

The table below presents the bank's trading liabilities.

	As of December	
€ in millions	**2024**	2023
Derivatives	**€12,826**	€ 8,452
Liabilities	**15,149**	12,415
Total	**€27,975**	€20,867

In the tables above:

- Receivables primarily included trading book resale agreements and corporate debt instruments.
- Liabilities primarily included bonds and other fixed-income securities and trading book repurchase agreements.
- During 2024, the bank updated its presentation of exchange-traded derivatives cleared by the bank primarily on behalf of clients at central clearing organisations, presenting these within derivative assets and liabilities. The impact of reflecting such transactions would have been an increase in both derivative assets and liabilities of €4.93 billion as of December 2023.
- Trading assets and trading liabilities as of December 2024 include offsetting of positive fair values of €138.67 billion with negative fair values of €138.67 billion on financial instruments held for trading with the associated cash collateral netting on assets of €9.80 billion and liabilities of €13.81 billion.

Forward transactions outstanding at the balance sheet date were executed almost exclusively to hedge interest rate, exchange rate and market price fluctuations in trading activities.

The table below presents the bank's trading and banking book derivative notionals which are primarily swaps and forwards.

	As of December	
€ in billions	**2024**	2023
OTC products		
Interest rates	**€ 8,399**	€10,858
Credit	**407**	341
Currency	**813**	833
Commodity	**62**	57
Equity	**237**	135
Exchange traded products	**191**	91
Total	**€10,109**	€12,315

In the table above, OTC products include notional for banking book derivatives of €73.93 billion as of December 2024 primarily within currency (December 2023: €43.25 billion).

Note 9.
Assets and Liabilities Held in Trust

The bank acts as a platform operator, registrar, underwriter, custodian and paying agent for certain digital debt issuances in Europe. The bank's obligation to safeguard the digital debt issuances for the custody platform users is recognised within Liabilities held in trust along with a corresponding asset within Assets held in trust on the balance sheet.

Note 10.
Non-Current Assets

Non-current assets include intangible assets, fixed assets and investments in affiliated companies.

The table below presents the bank's intangible and fixed assets.

	As of December	
€ in millions	**2024**	2023
Intangible assets	**€36**	€ 8
Leasehold improvement	**15**	13
Furniture and office equipment	**2**	3
Other	**7**	4
Fixed assets	**24**	20
Total	**€60**	**€28**

The table below presents the movements in the bank's intangible and fixed assets during the year.

€ in millions	Internally developed intangible assets	Fixed Assets
Acquisition cost		
As of December 2023	€12	€67
Additions	**26**	**11**
Transfers	**20**	**—**
As of December 2024	**€58**	**€78**
Accumulated depreciation		
As of December 2023	€ 4	€47
Charge for the period	**10**	**7**
Transfers	**8**	**—**
As of December 2024	**€22**	**€54**
Net book value		
As of December 2024	**€36**	**€24**
As of December 2023	€ 8	€20

The table below presents the unlisted companies in which the bank owns more than 20%.

€ in thousands	**Equity**	**Net profit in 2023**
Goldman, Sachs & Co. Verwaltungs GmbH	**€26**	**€11**
Goldman, Sachs Management GP GmbH	**€25**	**€10**
Goldman Sachs Gives gGmbH	**€25**	**€34**

In the table above, all the companies are registered in Frankfurt am Main and the bank is the sole shareholder.

Note 11.
Other Assets and Other Liabilities

The table below presents the bank's other assets by type.

	As of December	
€ in millions	**2024**	2023
Listed derivative activity	**€3,917**	€2,393
Collateral posted	**3,353**	2,593
Default fund contributions	**457**	352
Tax related receivables	**197**	97
Miscellaneous receivables and other	**520**	734
Total	**€8,444**	€6,169

The table below presents the bank's other liability by type.

	As of December	
€ in millions	**2024**	2023
Listed derivative activity	**€2,277**	€2,217
Collateral received	**1,315**	1,828
Miscellaneous payables and other	**461**	766
Total	**€4,053**	€4,811

In the tables above:

- Listed derivative activity reflected receivables and payables related to futures contracts.
- Collateral posted and collateral received primarily included collateral in connection with over-the-counter derivative transactions.
- Default fund contributions are maintained by various central clearing organisations where the bank is a member.
- Miscellaneous receivables/payables and other primarily included receivables/payables from/to GS Group affiliates related to revenue sharing agreements under which the bank receives revenues from and transfers revenues to other GS Group affiliates.

Note 12.
Deferred Tax Assets

The deferred tax assets recognised on the balance sheet primarily arose from temporary differences relating to compensation and benefits, including share-based compensation, pension obligations, goodwill and provisions for loan losses. The deferred taxes in the head office are measured using the relevant combined German income tax rate of 32.0% which includes corporate tax, trade tax and solidarity surcharge as applicable to the bank. The deferred taxes in the foreign branches are measured using the applicable tax rates which range from 13% to 30%.

As of December 2024, deferred tax assets presented on the balance sheet were €103 million (December 2023: €109 million).

Note 13.
Foreign Currency Volumes

The table below presents the bank's assets and liabilities denominated in foreign currencies.

	As of December	
€ in millions	**2024**	2023
Assets	**€39,567**	€24,583
Liabilities	**€40,550**	€22,538

Note 14.
Valuation Units

Registered bonds, promissory notes and offsetting interest rate swaps with a nominal value of €75 million as of December 2024 (December 2023: €100 million) were designated to valuation units for their whole duration. As per Section 285(19) of the HGB, the fair values of the interest rate swaps are determined following the market approach.

The table below presents the carrying value and the fair value of the interest rate swaps which are included within receivable from customers, other assets, liabilities to customers and other liabilities in the balance sheet.

€ in millions	Carrying amount	Market value
As of December 2024		
Asset	**€ 5**	**€ 6**
Liability	**€—**	**€—**
As of December 2023		
Asset	€ 5	€ 6
Liability	€—	€ (1)

The amount of hedged interest rate risk is €1 million as of December 2024 (December 2023: €1 million) and represents the net cumulative increase in fair value of assets/increase in liabilities that were not recognised in profit and loss, after considering hedges.

Note 15.
Securitised Liabilities

Securitised liabilities represent certificates of deposit issued to external counterparties.

The table below presents the bank's securitised liabilities by remaining maturity.

	As of December	
€ in millions	**2024**	2023
Securitised Liabilities		
With a remaining maturity of:		
up to three months	**€123**	€ 508
more than three months up to one year	**535**	959
Total	**€658**	€1,467

Note 16.

Provisions for Pensions and Similar Commitments

Provision for pensions

The bank sponsors a defined benefit pension plan in Germany (the Plan) which is a direct pension promise made by the bank to the employees. The Plan provides retirement benefits on the basis of members' final salary, with a normal retirement age of 65 for most members (and age 67 for members that joined the bank after September 30, 2012). The Plan was closed to new entrants effective December 31, 2013.

The Plan was funded by the bank during 2024 with assets of €81 million which are held separately from those of the bank in a CTA which is managed by the Trustees. The Trustees of the CTA are the legal owner of the assets however the responsibility for setting the investment strategy and deciding future funding requirements lies with the bank.

The Plan operates under the German Occupational Pensions Act and is managed and administered by the bank on behalf of the members and beneficiaries using a qualified pension consultant in accordance with the terms of the pension plan promise and relevant legislation. The bank has the right to outsource the management of the assets to a third party (i.e. fiduciary manager) but retains strategic control over the assets.

A full actuarial valuation of the Plan was carried out by a qualified independent actuary as of December 2024 using the projected unit credit method based upon membership data as of November 30, 2024.

The actuarial interest rate is based on the average interest rate of the previous ten years. The difference according to Section 253(6) sentence 1 HGB, when applying the average interest rate of the previous seven years compared to the average interest rate of the previous ten years, was €nil million (2023: €4 million).

The table below presents the actuarial assumptions used in the calculation.

	As of December	
	2024	2023
Biometrics	**Mortality tables Heubeck 2018 G**	Mortality tables Heubeck 2018 G
Actuarial interest rate	**1.93%**	1.90%
Dynamic of eligible payments	**3.25%**	3.25%
Dynamics of the social security contribution ceiling of the statutory pension scheme	**3.00%**	3.00%
Dynamics of adjustments to current pensions (inflation rate p.a.)	**1.00% for commitments after 1 Dec 2007, otherwise 2.10%**	1.00% for commitments after 1 Dec 2007, otherwise 2.21%

The table below presents the plan assets, plan liabilities and the net provision for pensions.

	Year Ended December	
€ in millions	**2024**	2023
Plan assets	**€ 81**	€ —
Plan liabilities	**(113)**	(112)
Provision for pensions	**€ (32)**	€ (112)

In the table above:

- The bank funded the plan assets based on the actuarial valuation as per IAS 19 'Employee Benefits'.
- The plan assets were offset against the plan liabilities in accordance with Section 246(2) sentence 2 HGB.
- The plan assets were held in cash as of December 2024.

The table below presents the offsetting of interest expense on the plan liabilities and the gains on the plan assets.

	Year Ended December	
€ in millions	**2024**	2023
Interest expense on pensions	**€ 1.2**	€1.6
Gains on plan assets	**(0.2)**	—
Net operating expense	**€ 1.0**	€1.6

Provision for other long-term employee benefit plan

The bank maintains a separate long-term employee benefit plan with related shares and other variable-income securities that are exclusively held for the fulfilment of the obligation of the long-term employee benefit plan.

As of December 2024, the fair value of the assets was €39 million (December 2023: €39 million) which was offset against the commitment for the employee benefit plan in accordance with Section 246(2) sentence 2 HGB. There is no excess amount resulting from the offsetting of assets with the obligations.

Note 17.

Other Provisions

The table below presents the bank's other provisions by type.

	As of December	
€ in millions	**2024**	2023
Compensation and benefits	**€529**	€423
Onerous losses	**7**	15
Allowance for impairment on irrevocable unfunded lending commitments	**16**	13
Accrued expenses and other	**52**	44
Total	**€604**	€495

In the table above:

- Compensation and benefits included provision for share-based compensation.
- Onerous losses relate to negative present value of derivatives in the banking book, with a maturity of one day. Corresponding unrealised gains on derivatives in the banking book have not been recognised in accordance with Section 252(1) No. 4 HGB.

Note 18.

Subordinated Debt

Subordinated debt was granted for an indefinite period of time by Group Inc. and remained unchanged in the reporting period. The rate of interest on the subordinated debt is 3 month EURIBOR plus 210 basis points. The bank paid interest on the subordinated debt of €1.2 million for 2024 and €1.1 million for 2023. An early repayment obligation does not exist.

Note 19.

Shareholder's Equity

Ordinary share capital

The sole shareholder of the bank is GS Bank USA with its registered office in New York, New York, U.S.A.

The table below presents the bank's ordinary share capital.

As of December 2023	328,642,800
As of December 2024	**328,642,800**

Capital reserve

The capital reserve remained unchanged at €10.60 billion.

Profit reserves

The table below presents the bank's profit reserve.

€ in millions	
As of December 2023	€1,156
Allocation of profit reserves	599
of which: addition from distributable profit of prior year	599
As of December 2024	**€1,755**

Notes to the Income Statement

Note 20.

Breakdown of Income by Geographical Markets

The table below presents the bank's total amount of interest income, commission income, net trading result and other operating income broken down by geographical markets pursuant to Section 34(2) No. 1 RechKredV.

	Year Ended December	
€ in millions	**2024**	2023
Europe	**€4,634**	€3,444
Americas	**400**	432
Asia	**89**	88
Total	**€5,123**	€3,964

Note 21.

Other Operating Income and Expense

The table below presents the bank's other operating income.

	As of December	
€ in millions	**2024**	2023
Reimbursements for services from GS Group affiliates	**€39**	€26
Other	**12**	24
Total	**€51**	€50

In the table above, other primarily includes:

- Income from the transfer of the bank's asset management activities to GSAM BV of €6 million (2023: €20 million).
- Income from the transfer of certain employees of the London branch of the bank to GSI of €6 million. The bank and GSI had agreed that, where it was not appropriate to redeploy certain employees into the E.U., they could be transferred to GSI and the bank would be compensated for any transfer of value over the lifetime of the branch, considering all the individual employee transfers in aggregate. The bank also transferred certain assets and liabilities associated with the employees to GSI with a net asset value of €3 million.

The table below presents the bank's other operating expenses.

	As of December	
€ in millions	**2024**	2023
Interest expense on pension plan liabilities net of gains on plan assets	**€1**	€2
Currency translation	**2**	1
Realised net revenues on banking book derivatives	**1**	4
Other	**1**	1
Total	**€5**	€8

Note 22.

Income Tax Expense

The Organisation for Economic Co-operation and Development (OECD) Global Anti-Base Erosion Model Rules (Pillar Two) aim to ensure that multinationals with revenues in excess of €750 million pay a minimum effective corporate tax rate of 15% in each jurisdiction in which they operate. Germany and other jurisdictions in which the bank has a foreign branch have adopted certain portions of Pillar Two effective for the financial year beginning January 1, 2024. There was no impact to the bank's effective tax rate as a result of Pillar Two rules. According to Section 274(3) HGB the recognition and measurement of deferred taxes do not take into account differences arising from the application of Pillar Two.

Other Information

Note 23.

Amounts Blocked from Profit Distribution

The table below presents the amounts blocked from profit distribution according to Sections 253(6) and 268(8) HGB.

	As of December	
€ in millions	**2024**	2023
Gross deferred tax assets	**€118**	€114
Internally developed intangible assets	**36**	8
Difference from the discounting of provisions for pension obligations	**—**	4
Total	**€154**	€126

In the table above, gross deferred tax assets deviate from the corresponding balance sheet position which includes deferred tax liabilities.

Note 24.

Profit Distribution

The Executive Board and Supervisory Board will propose that the net income of €597 million for 2024 is transferred to profit reserves at the Annual General Meeting on May 23, 2025. The net income for 2023 of €599 million was transferred to profit reserves at the Annual General Meeting on May 17, 2024.

Note 25.

Statement of Cash Flows

The cash flow statement is prepared using the indirect method and shows the composition and the net increase/decrease in cash and cash equivalents in the financial year.

Cash and cash equivalents represents the bank's cash balance held with central banks (due on demand) and are not subject to any restrictions on disposal.

The bank also holds central bank deposits (overnight) of €10.59 billion with Deutsche Bundesbank as of December 2024 (December 2023: €14.71 billion) which are reported within receivables from credit institutions.

Payments received from business disposition represent consideration received by the bank for the transfer of its asset management activities to GSAM BV.

Payments for investments in intangible assets included consideration paid of €18 million for purchase of intangible assets representing certain wealth management client contracts transferred from a GS Group affiliate which the bank had recognised during 2023.

Note 26.

Off-Balance Sheet Transactions

The table below presents the bank's off-balance sheet transactions.

	Year Ended December	
€ in millions	**2024**	2023
Irrevocable lending commitments	**€10,426**	€ 7,117
Collateralised agreements	**34,344**	21,647
Collateralised financings	**22,977**	18,084
Other commitments	**304**	411
Total	**€68,051**	€47,259

The bank originates a number of bank loans which are held as principal risk. The bank also holds bank loans which are sub-participated to GS Group affiliates and third party institutions. The unfunded portion of these agreements, where cash has not been deposited with the bank to collateralise the undrawn commitment is presented above in lending commitments. Risks arising from these transactions are considered in the impairment calculations and corresponding provisions are recognised.

Collateralised agreements include forward starting resale and securities borrowing agreements, and collateralised financings include forward starting repurchase and secured lending agreements that settle at a future date, generally within three business days. Collateralised agreements also include transactions where the bank has entered into commitments to provide contingent financing to its clients and counterparties through resale agreements. The bank's funding of these commitments depends on the satisfaction of all contractual conditions to the resale agreement and these commitments can expire unused.

Other commitments primarily relate to collateral commitments and lease commitments.

Guarantees

In the ordinary course of business, the bank provides financial guarantees of the obligations of third parties which can be in the form of standby letters of credit or other guarantees to enable clients to complete transactions. The bank has contingent liabilities in relation to financial guarantee contracts written of €746 million as of December 2024 and €11 million as of December 2023.

The bank has also received a guarantee from Group Inc. related to transactions entered into with certain of its counterparties for up to $7.0 billion of exposure at default. As of December 2024, $2.7 billion of the guarantee was utilised (December 2023: unutilised).

Note 27.

Report on Subsequent Events

No relevant issues occurred after the end of the reporting period that might significantly impact the financial situation of the bank.

Note 28.

Audit Fees

The table below presents the fees payable to the bank's statutory auditor, which are included in other administration expenses.

	Year Ended December	
€ in millions	**2024**	2023
Audit fees	**€3.9**	€4.5
Other audit-related services	**0.5**	0.6
Total	**€4.4**	€5.1

In the table above, other audit-related services relate to the audit of the bank's non-statutory financial information prepared for the limited purpose of supporting regulatory filings and the review of the non-financial report.

Note 29.

Executive and Supervisory Board

Executive Board

The table below presents members of the Executive Board who served throughout the year and to the date of this report, except where noted.

Name
Dr. Wolfgang Fink, Chief Executive Officer (Chair)
Robert Charnley, Chief Administrative Officer
Peter Hermann, FICC and Equities Sales, Private Wealth Management
Lear Janiv, FICC and Equities Trading
Jonathan Bury, Chief Operating Officer (appointed on August 24, 2024)
Michael Holmes, Chief Financial Officer
Michael Trokoudes, Chief Risk Officer (appointed on August 1, 2024)
Thomas Degn-Petersen, Chief Operating Officer (resigned on August 23, 2024)
Hei Man Lo, Chief Risk Officer (resigned on March 15, 2024)

The total remuneration of the members of the Executive Board for 2024 was €30.3 million (2023: €23.1 million), including 26,361 restricted stock units (2023: 26,925) with a fair value of €14.2 million (2023: €8.8 million) on their grant date.

The publication of the information required under Section 285 no. 9 letter b HGB has not been provided by the bank as permitted by exceptional provision of Section 286 no. 4 HGB. No advances or loans were granted to the members of the Executive Board in the reporting period.

Supervisory Board

The table below presents members of the Supervisory Board who served throughout the year and to the date of this report, except where noted.

Name
John F.W. Rogers, Managing Director (Chair)
Richard J. Gnodde, Managing Director (Deputy Chair)
Lisa Donnelly, Managing Director
Monique Rollins, Managing Director
Simon Morris, Investment Fund Manager
Ulrich Pukropski, German Certified Auditor
Dr. Wolfgang Feuring, Lawyer
Manuela Better, Family Office Managing Director (appointed on March 7, 2024)
Efthalia Chryssikou, Managing Director (resigned on July 22, 2024)

Four members of the Supervisory Board received remuneration of €0.6 million from the bank for 2024 (2023: €0.5 million). No advances or loans were granted to the members of the Supervisory Board in the reporting period.

Note 30.

Headcount

The table below presents the bank's average headcount.

	Year Ended December	
	2024	2023
Investment Banking	**315**	298
FICC and Equities	**341**	329
Investment Management	**137**	175
Support functions	**311**	272
Total average headcount	**1,104**	1,074

Frankfurt am Main, March 27, 2025
Goldman Sachs Bank Europe SE
The Executive Board

Dr. Wolfgang Fink

Robert Charnley

Peter Hermann

Lear Janiv

Jonathan Bury

Michael Holmes

Michael Trokoudes

INDEPENDENT AUDITOR'S REPORT

To Goldman Sachs Bank Europe SE, 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 Goldman Sachs Bank Europe SE, which comprise the balance sheet as at 31 December 2024, income statement, and the cash flow statement for the financial year from 1 January 2024 to 31 December 2024, as well as notes to the Financial Statements, including the presentation of the recognition and measurement policies. In addition, we have audited the Management Report of the Company for the financial year from 1 January 2024 to 31 December 2024. We have not audited the content of the components of the Management Report referred to in the section "Other information" of our auditor's report.

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 applicable to business corporations and give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2024 and of its financial performance for the financial year from 1 January 2024 to 31 December 2024 in compliance with German Legally Required Accounting Principles, and
- the accompanying management report as a whole provides a suitable 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. Our audit opinion on the management report does not cover the content of those parts of the management report listed in the "Other information" section.

Pursuant to Section 322 (3) 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 judgements

We conducted our audit of the annual financial statements and of the management report in accordance with Section 317 HGB and the EU Audit Regulation (No 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institute of Public Auditors in Germany (IDW) [Institut der Wirtschaftsprüfer in Deutschland]. 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 and on the management report.

Key audit matters in the audit of the annual financial statements

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the annual financial statements for the financial year from 1 January 2024 to 31 December 2024. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of financial instruments

Related information in the financial statements and management report

As at 31 December 2024, the trading portfolio on the assets side amounted to EUR 49,564 million and the trading portfolio on the liabilities side to EUR 27,975 million. The trading portfolio is mainly characterised by positions in derivative financial instruments (EUR 16,614 million on the assets side and EUR 12,826 million on the liabilities side), bonds and other fixed-income securities (EUR 13,015 million) and shares and other variable yield securities (EUR 11,292 million). Net income from the trading portfolio totalled EUR 1,397 million. Please refer to Note 2 for information on the accounting policies applied and Note 8 for information on the trading portfolio.

Facts and risk for the audit

Financial instruments in the trading portfolio are measured at fair value less a risk discount in accordance with Section 340e HGB. The Company concludes transactions in derivatives and other financial instruments, which it recognises in the balance sheet items "Trading assets" and "Trading liabilities". The income and expenses from these transactions are recognised in the income statement under "Net trading result".

These transactions include financial instruments that are measured on the basis of input parameters that are directly or indirectly observable in an active market but do not relate to identical assets or liabilities. In addition, transactions are included whose valuation methods are based on unobservable parameters. The valuations of these financial instruments may be based on complex valuation methods and contain assumptions and estimates regarding the input parameters used.

Due to the resulting estimation uncertainties, the valuation of these products was of particular importance for our audit.

Audit approach and findings

We gained an understanding of the processes for the valuation of financial instruments in the trading portfolio and assessed the appropriateness and effectiveness of the controls implemented in this regard. This related in particular to the controls in the context of independent price verification.

With the involvement of valuation specialists, we reviewed the valuation of the financial instruments on a sample basis. For this purpose, we carried out an independent revaluation of selected products as at the balance sheet date

Based on the audit procedures we have performed, we conclude that the methods and assumptions used to determine the fair values are appropriate overall.

Transfer Pricing

Related information in the financial statements and management report

As at 31 December 2024, net fee and commission income amounted to EUR 831 million, making it one of the most material income drivers in the annual financial statements of the Company. The net fee and commission income includes a significant amount of income from Transfer Pricing. Please refer to Note 2 for information on the accounting policies applied.

As at 31 December 2024, the net trading result amounted to EUR 1,397 million, making it one of the material income drivers in the annual financial statements of the Company. The net trading result includes a significant amount of income from Transfer Pricing. Please refer to Note 2 for information on the accounting policies applied.

Facts and risk for the audit

The recognition of income from Transfer Pricing was of particular significance in the context of our audit due to the complex internal calculations and the fact that these are not transactions with external third parties. Furthermore, the Transfer Pricing methods have a material impact on the net commission income of the Company.

If transactions with related parties were concluded at non-standard market conditions, this must be disclosed in the notes in addition to further information in accordance with Section 285 No. 21 HGB.

Audit approach and findings

As part of the audit of the annual financial statements, we first assessed the effectiveness of the Company's relevant internal controls in relation to Transfer Pricing systems. In doing so, we also considered the corresponding business organisation, the process flows defined for this purpose and the IT systems and support tools implemented.

As part of our substantive audit procedures, we assessed, among other things, the intercompany reconciliation within the Group; in this context, we also obtained balance confirmations from the Group companies involved. We also assessed the Transfer Pricing methods with regard to the tax appropriateness of the methods, assumptions and input parameters.

During our audit, we were able to satisfy ourselves of the existence and accuracy of the revenue realised from the Transfer Pricing system as well as of the appropriateness and effectiveness of the processes and controls implemented by the Company.

Other information

The Executive Board is responsible for the other information. The other information comprises the following non-audited part of the management report:

- the separate non-financial report in accordance with Section 289b (3) HGB, to which reference is made in the management report.

Our opinions on the Annual Financial Statements and on the management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

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

- presents material inconsistencies with the financial statements, the management report or our knowledge obtained during the audit, or
- otherwise appear to be materially misstated.

Responsibility of the Executive Board and the Supervisory Board for the annual financial statements and the management report

The Executive Board is responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law applicable to business corporations, 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 Board are responsible for such internal controls 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 Board is responsible for assessing the Company's ability to continue as a going concern. Furthermore, they are responsible 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, unless there are factual or legal circumstances to the contrary.

Furthermore, the Executive Board is 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 Board is 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 re-port.

The Supervisory Board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and 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, as well as to issue an auditor's report that includes our opinions on the annual financial statements and on the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by 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 opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- 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 in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control or on the effectiveness of these systems.

- evaluate the appropriateness of accounting policies used by the Executive Board and the reasonableness of accounting estimates and related disclosures made by the Executive Board.

- conclude on the appropriateness of the Executive Board's 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. We draw our conclusions on the basis of 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 Board in the management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the Executive Board 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 substantive unavoidable risk that future events will differ materially from the prospective information.

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, the actions taken or safeguards applied to address independence threats.

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.

Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditor by the annual general meeting on 17 May 2024. We were engaged by the supervisory board on 25 July 2024. We have been auditor of the Company since the financial year 2021.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (audit report).

Responsible auditor

The German Public Auditor responsible for the engagement is Mr Markus Morfeld.

Country-by-country reporting

The table below presents a breakdown of the bank's head office in Frankfurt and the bank's branches according to Section 26a (1) sentence 2 KWG where net revenues refers to the sum of interest income, interest expense, commission income, commission expense and net trading result. All figures presented are € millions, except headcount which shows the full time equivalent employees as of December 2024. All of the bank's branches are active in the business activities Investment Banking, FICC, Equities and Investment Management, except where otherwise stated.

				2024			
Name	Trading Name	Business	Location	Net revenues	Headcount	Profit before tax	Tax on profit or loss
GSBE Germany	GSBE	All	Frankfurt, Germany Munich, Germany	€ 822	384	€427	€157
GSBE Amsterdam Branch	GSBE Amsterdam Branch	Investment Banking, Investment Management	Amsterdam, Netherlands	27	22	11	4
GSBE Athens Branch	GSBE Athens Branch	Investment Banking	Athens, Greece	7	3	3	1
GSBE Copenhagen Branch, filial af Goldman Sachs Bank Europe SE, Tyskland	GSBE Copenhagen Branch	All	Copenhagen, Denmark	22	7	11	3
GSBE	GSBE Dublin Branch	Investment Management	Dublin, Ireland	3	9	1	—
GSBE London Branch	GSBE London Branch	Dormant	London, UK	26	—	—	(2)
GSBE Luxembourg Branch	GSBE Luxembourg Branch	Investment Management	Luxembourg	27	18	18	5
GSBE Sucursal en España	GSBE Madrid Branch	All	Madrid, Spain	53	48	18	8
GSBE Succursale Italia	GSBE Milan Branch	All	Milan, Italy	170	87	51	22
GSBE Succursale de Paris	GSBE Paris Branch	All	Paris, France	677	352	324	82
GSBE Sweden Bankfilial	GSBE Stockholm Branch	All	Stockholm, Sweden	38	69	14	2
GSBE Spółka Europejska Oddział w Polsce	GSBE Warsaw Branch	Investment Banking	Warsaw, Poland	1	183	1	—
Total				**€1,873**	**1,182**	**€879**	**€282**

There were no public subsidies in the reporting period according to Section 26a sentence 2 no. 6. The return on assets, calculated as a ratio of net income to total assets, was 0.6% for 2024 and decreased from 0.7% for 2023.