



**PROSPECTUS SUPPLEMENT NO. 4**

**TO THE BASE PROSPECTUS DATED 19 DECEMBER 2024**

**GOLDMAN, SACHS & CO. WERTPAPIER GMBH**

*(Incorporated with limited liability in Germany)*

**as Issuer**

**GOLDMAN SACHS FINANCE CORP INTERNATIONAL LTD**

*(Incorporated with limited liability in Jersey)*

**as Issuer**

**GOLDMAN SACHS INTERNATIONAL**

*(Incorporated with unlimited liability in England)*

**as Issuer and, in respect of certain Securities only, as Guarantor**

**GOLDMAN SACHS BANK EUROPE SE**

*(Incorporated with limited liability in German)*

**as Issuer**

**THE GOLDMAN SACHS GROUP, INC.**

*(A corporation organised under the laws of the State of Delaware)*

**in respect of certain Securities only, as Guarantor**

**SERIES P PROGRAMME FOR THE ISSUANCE OF  
WARRANTS, NOTES AND CERTIFICATES**

**This Prospectus Supplement**

This prospectus supplement (the "**Prospectus Supplement**") to the base prospectus dated 19 December 2024 prepared by Goldman, Sachs & Co. Wertpapier GmbH ("**GSW**") as issuer, Goldman Sachs Finance Corp International Ltd ("**GSFCI**") as issuer, Goldman Sachs International ("**GSI**") as issuer and as guarantor in respect of certain Securities only, Goldman Sachs Bank Europe SE ("**GSBE**") as issuer and The Goldman Sachs Group, Inc. ("**GSG**") as guarantor in respect of certain Securities only (the "**Original Base Prospectus**") under their Series P programme for the issuance of warrants, notes and certificates with respect to the Securities (the "**Programme**"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (as amended, the "**EU Prospectus Regulation**") and should be read in conjunction with Prospectus Supplement No. 1 to the Original Base Prospectus dated 17 January 2025, the Prospectus Supplement dated 23 January 2025 to the Final Terms dated 13 January 2025 (in respect of certain Securities only (ISIN: JE00BS6BFH46)) issued under the Original Base Prospectus, Prospectus Supplement No. 2 to the Original Base Prospectus dated 4 February 2025, the Prospectus Supplement dated 7 February 2025 to the Final Terms dated 13 January 2025 (in respect of certain Securities only (XS2948654541)), Prospectus Supplement No. 3 to the Original Base Prospectus dated 18 March 2025 and the Prospectus Supplement dated 4 April 2025 to the Final Terms dated 17 March 2025 (in respect of certain Securities only (XS3000706633)) (the Original Base Prospectus as so supplemented, the "**Base Prospectus**"). On 19 December 2024, the Base Prospectus was approved by the *Commission de Surveillance du Secteur Financier* (the "**CSSF**") for the purposes of Article 6 of the Luxembourg Law dated 16 July 2019 on prospectuses for securities and by the Luxembourg Stock Exchange pursuant to the rules and regulations of the Luxembourg Stock Exchange for the Luxembourg Stock Exchange's Euro MTF market.

Application has also been made to the Luxembourg Stock Exchange under part IV of the Luxembourg law dated 16 July 2019 on prospectuses for securities, to approve this Prospectus Supplement.

Terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement unless otherwise defined herein. This Prospectus Supplement shall form part of and be read in conjunction with the Base Prospectus.

### **Right of withdrawal**

**In accordance with Article 23(2) of the EU Prospectus Regulation, investors in the European Economic Area who have already agreed to purchase or subscribe for Securities issued under the Base Prospectus before this Prospectus Supplement is published and where the Securities have not yet been delivered to them at the time when the significant new factor, material mistake or material inaccuracy to which this Prospectus Supplement relates, arose or was noted and for where any of the information in this Prospectus Supplement relates to such Securities (within the meaning of Article 23(4) of the EU Prospectus Regulation) have the right, exercisable until 29 April 2025, which is three working days after the publication of this Prospectus Supplement, to withdraw their acceptances, provided that the significant new factor, material mistake or material inaccuracy to which this Prospectus Supplement relates arose or was noted before the closing of the offer period or delivery of the Securities, whichever occurs first. Investors may contact the relevant Authorised Offeror(s) (as set out in the Final Terms of the relevant Securities) should they wish to exercise such right of withdrawal.**

### **Responsibility**

Each of GSI, GSW, GSFCI, GSBE and GSG accepts responsibility for the information given in this Prospectus Supplement and confirms that, having taken all reasonable care to ensure that such is the case, the information contained in this Prospectus Supplement is, to the best of their knowledge, in accordance with the facts and does not omit anything likely to affect its import.

### **Purpose of this Prospectus Supplement**

The purpose of this Prospectus Supplement is to (a) incorporate by reference GSI's 2024 Annual Report (as defined below), GSG's 14 April 2025 Form 8-K (as defined below), GSG's 2025 Proxy Statement (as defined below) and GSFCI's 2024 Annual Report (as defined below), and (b) make certain changes to the information in the "*Risk Factors*", "*Documents Incorporated by Reference*", "*Goldman Sachs International*", "*Goldman Sachs Finance Corp International Ltd*" and "*General Information*" sections of the Base Prospectus.

This Prospectus Supplement and the document incorporated by reference into this Prospectus Supplement will be available on the website of the Luxembourg Stock Exchange at [www.luxse.com](http://www.luxse.com).

### **Information being supplemented**

#### ***Incorporation by reference***

This Prospectus Supplement supplements the Base Prospectus by incorporating by reference:

- (a) the Annual Report for the twelve months ended 31 December 2024 of Goldman Sachs International ("**GSI's 2024 Annual Report**") containing, in Part II, the Directors' Report and Audited Financial Statements of GSI for the period ended 31 December 2024;
- (b) the Current Report on Form 8-K dated 14 April 2025 of The Goldman Sachs Group, Inc. ("**GSG's 14 April 2025 Form 8-K**"), as filed with the SEC on 14 April 2025;
- (c) the Proxy Statement relating to GSG's 2025 Annual Meeting of Shareholders on 23 April 2025 ("**GSG's 2025 Proxy Statement**"), as filed with the SEC on 14 March 2025; and
- (d) the Annual Report for the fiscal year ended 31 December 2024 of GSFCI ("**GSFCI's 2024 Annual Report**"), which includes the management report and the audited financial statements of GSFCI for the period ended 31 December 2024 ("**GSFCI's 2024 Financial Statements**").

Copies of GSI's 2024 Annual Report, GSG's 14 April 2025 Form 8-K, GSG's 2025 Proxy Statement and GSFCI's 2024 Annual Report have been filed with the CSSF in its capacity as competent authority under the Luxembourg Law dated 16 July 2019 on prospectuses for securities.

GSI's 2024 Annual Report, GSG's 14 April 2025 Form 8-K, GSG's 2025 Proxy Statement and GSFCI's 2024 Annual Report are incorporated by reference into, and form part of, this Prospectus Supplement, and the information contained in this Prospectus Supplement, GSI's 2024 Annual Report, GSG's 14 April 2025 Form 8-K, GSG's 2025 Proxy Statement and GSFCI's 2024 Annual Report shall be deemed to update and, where applicable, supersede any information contained in the Base Prospectus, or any documents incorporated by reference therein.

## **Amendments and updates to certain information in the Base Prospectus**

The Base Prospectus is amended and supplemented as follows:

### **1. Amendments to the section entitled "Risk Factors"**

The information in the section entitled "*Risk Factors*" is amended and supplemented by:

- (a) deleting sub-section 2 entitled "*Risks relating to GSI*" on pages 25 to 46 of the Base Prospectus in its entirety and replacing it with the following:

#### **"2. Risks relating to GSI**

GSI faces a variety of risks that are substantial and inherent in its businesses. The principal risks and uncertainties that GSI faces are: market risk, liquidity risk, credit risk, operational risk, legal and regulatory risk, competition risk, and market developments and general business environment risk.

##### **2.1 Liquidity Risks**

- (a) ***GSI's liquidity, profitability and businesses may be adversely affected by an inability to access the debt capital markets or to sell assets***

Liquidity is essential to GSI's businesses. It is of critical importance to GSI, as most of the failures of financial institutions have occurred in large part due to insufficient liquidity. GSI's liquidity may be impaired by an inability to access secured and/or unsecured debt markets, an inability to access funds from GSG or other GS Group affiliates, an inability to sell assets or redeem investments, lack of timely settlement of transactions, or other unforeseen outflows of cash or collateral. This situation may arise due to circumstances that GSI may be unable to control, such as a general market or economic disruption or an operational problem that affects third parties or GSI or its affiliates or even by the perception among market participants that GSI, or other market participants, are experiencing greater liquidity risk.

GSI employs structured products to benefit its clients and hedge its own risks. The financial instruments that GSI holds and the contracts to which it is a party are often complex, and these complex structured products often do not have readily available markets to access in times of liquidity stress. GSI's investing and financing activities may lead to situations where the holdings from these activities represent a significant portion of specific markets, which could restrict liquidity for GSI's positions.

Further, GSI's ability to sell assets may be impaired if there is not generally a liquid market for such assets, as well as in circumstances where other market participants are seeking to sell similar otherwise generally liquid assets at the same time, as is likely to occur in a liquidity or other market crisis or in response to changes to rules or regulations. For example, in 2021, an investment management firm with large positions with several

financial institutions defaulted, resulting in rapidly declining prices in the securities underlying those positions. In addition, clearing houses, exchanges and other financial institutions with which GSI interacts may exercise set-off rights or the right to require additional collateral, including in difficult market conditions, which could further impair GSI's liquidity.

Numerous regulations impose stringent liquidity requirements on large financial institutions, including GSI. These regulations require GSI to hold large amounts of highly liquid assets and reduce GSI's flexibility to source and deploy funding.

- (b) ***GSI'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***

Widening credit spreads for GSI or GSG, as well as significant declines in the availability of credit, have in the past adversely affected GSI's ability to borrow on a secured and unsecured basis and may do so in the future. GSI obtains the majority of its unsecured funding indirectly from GSG, which funds itself on an unsecured basis by primarily issuing long-term debt, by raising deposits at its bank subsidiaries and by issuing hybrid financial instruments. GSI seeks to finance many of its assets on a secured basis. Any disruptions in the credit markets may make it harder and more expensive to obtain funding for businesses. If GSI's available funding is limited or GSI is forced to fund operations at a higher cost, these conditions may require curtailment of business activities and increase the cost of funding, both of which could reduce profitability, particularly in businesses that involve investing and market making.

GSI's clients engaging in mergers, acquisitions and other types of strategic transactions often rely on access to the secured and unsecured credit markets to finance their transactions. A lack of available credit or an increased cost of credit can adversely affect the size, volume and timing of clients' mergers and acquisitions transactions, particularly large transactions, and adversely affect GSI's advisory and underwriting businesses.

GSI's credit businesses have been and may in the future be negatively affected by a lack of liquidity in credit markets. A lack of liquidity reduces price transparency, increases price volatility and decreases transaction volumes and size, all of which can increase transaction risk or decrease the profitability of these businesses.

- (c) ***Reductions in GSI's and/or GSG's credit ratings or an increase in its credit spreads may adversely affect its liquidity and cost of funding***

GSI is an indirect, wholly-owned operating subsidiary of GSG and depends on GSG for capital and funding. The credit ratings of GSI and those of GSG are important to GSI's liquidity. A reduction in GSI's and/or GSG's credit ratings could adversely affect GSI's liquidity and competitive position, increase borrowing costs, limit access to the capital markets or funding from GSG or trigger obligations under certain provisions in some trading and collateralised financing contracts. Under these provisions, counterparties could be permitted to terminate contracts with GSI or GSG or require additional collateral. Termination of trading and collateralised financing contracts could cause losses and impair liquidity by requiring GSG or GSI to find other sources of financing or to make significant cash payments or securities movements.

GSI's cost of obtaining long-term unsecured funding is directly related to both the credit spreads (the amount in excess of the interest rate of benchmark securities that GSI or GSG (as applicable) need to pay) of GSI and GSG increases in the credit spreads of GSI and/or GSG can significantly increase the cost of this funding. Changes in credit spreads are continuous, market-driven, and subject at times to unpredictable and highly volatile

movements. The credit spreads of GSI and/or GSG are also influenced by market perceptions of GSI's and/or GSG's creditworthiness and movements in the costs to purchasers of credit default swaps referenced to GSG's long-term debt. The market for credit default swaps has proven to be extremely volatile and at times has lacked a high degree of transparency or liquidity.

## 2.2 Market Risks

(a) *GSI's businesses have been and may in the future be adversely affected by conditions in the global financial markets and broader economic conditions*

GSI's businesses, by their nature, do not produce predictable earnings and are materially affected by conditions in the global financial markets and economic conditions generally, both directly and through their impact on client activity levels and creditworthiness. These conditions can change suddenly and negatively.

GSI's financial performance is highly dependent on the environment in which its businesses operate. A favourable business environment is generally characterised by, among other factors, high global gross domestic product growth, regulatory and market conditions that result in transparent, liquid and efficient capital markets, low inflation, business, consumer and investor confidence, stable geopolitical conditions and strong business earnings.

Unfavourable or uncertain economic and market conditions can be caused by: low levels of or declines in economic growth, business activity or investor, business or consumer confidence; concerns over a potential recession; changes in consumer spending or borrowing patterns; pandemics; limitations on the availability or increases in the cost of credit and capital; illiquid markets; increases in inflation, interest rates, exchange rate or basic commodity price volatility or default rates; high levels of inflation or stagflation; concerns about U.S. and other sovereign defaults; uncertainty concerning fiscal or monetary policy, government shutdowns, debt ceilings or funding; the extent of and uncertainty about potential changes in tax rates and regulatory changes; limitations on international trade and travel; changes in immigration policies; laws and regulations that limit trading in, or the issuance of, securities of issuers outside their domestic markets; outbreaks or worsening of domestic or international tensions or hostilities, terrorism, nuclear proliferation, cybersecurity threats or attacks and other forms of disruption to or curtailment of global communication, energy transmission or transportation networks or other geopolitical instability or uncertainty; corporate, political or other scandals that reduce investor confidence in capital markets; extreme weather events or other natural disasters; or a combination of these or other factors.

The financial services industry and the securities and other financial markets have been materially and adversely affected in the past by significant declines in the values of nearly all asset classes, by a severe lack of liquidity and by high levels of borrower defaults. In addition, concerns about actual or potential increases in interest rates, inflation and other borrowing costs, a public health emergency, sovereign debt risk and its impact on the relevant sovereign banking system, and limitations on international trade, have, at times, negatively impacted the levels of client activity.

General uncertainty about economic, political and market activities, and the scope, timing and impact of regulatory reform, as well as weak consumer, investor and chief executive officer confidence resulting in large part from such uncertainty, has in the past negatively impacted client activity, which has in the past adversely affected and could in the future adversely affect many of GSI's businesses. Periods of low volatility and periods of high volatility combined with a lack of liquidity, have at times had an unfavourable impact on GSI's market-making businesses.

Changes, or proposed changes, to U.S. international trade and investment policies, particularly with important trading partners, have in recent years negatively impacted financial markets. Continued or escalating tensions may result in further actions taken by the U.S. or other countries that could disrupt international trade and investment and adversely affect financial markets. Those actions could include, among others, the implementation of or increase in sanctions, tariffs or foreign exchange measures, the large-scale sale of U.S. Treasury securities or other restrictions on cross-border trade, investment, or transfer of information or technology. Such developments have in the past affected and could in the future adversely affect GSI or GSI's clients' businesses.

Financial institution returns may be negatively impacted by increased funding costs due in part to the lack of perceived government support of such institutions in the event of future financial crises relative to financial institutions in countries in which governmental support is maintained. In addition, liquidity in the financial markets has in the past been, and could in the future be negatively impacted as market participants and market practices and structures adjust to evolving regulatory frameworks.

In 2023, the U.S. federal government suspended the federal debt limit until 2025. If Congress does not raise the debt ceiling, the U.S. could default on its obligations, including Treasury securities that play an integral role in financial markets. A default by the U.S. could result in unprecedented market volatility and illiquidity, heightened operational risks relating to the clearance and settlement of transactions, margin and other disputes with clients and counterparties, an adverse impact to investors including money market funds that invest in U.S. Treasuries, downgrades in the U.S. credit rating, further increases in interest rates and borrowing costs and a recession in the U.S. or other economies. Continued uncertainty relating to the debt ceiling could result in downgrades of the U.S. credit rating, which could adversely affect market conditions, lead to margin disputes, increases in interest rates and borrowing costs and necessitate significant operational changes among market participants, including us. A downgrade of the U.S. federal government's credit rating could also materially and adversely affect the market for repurchase agreements, securities borrowing and lending, and other financings typically collateralised by U.S. Treasury or agency obligations. Further, the fair value, liquidity and credit ratings of securities issued by, or other obligations of, agencies of the U.S. government or related to the U.S. government or its agencies, as well as municipal bonds could be similarly adversely affected. An increasing frequency of government shutdowns, or near shutdowns, in the U.S. could also lead to uncertainty as to the continued funding of the U.S. government, which could, in turn, adversely affect the credit ratings of the U.S. and the market for U.S. Treasury or agency obligations.

In 2024, numerous elections were held globally, including the U.S. presidential election. The outcomes of the elections are expected to result in changes in policy, which could also have adverse effects on GSI or the business environment in which GSI operates more generally. For example, the new U.S. presidential administration has imposed or increased tariffs, including on imports from China, and proposed imposing or increasing tariffs on U.S. trading partners, which could adversely affect markets, the business environment and some of GSI's businesses.

- (b) ***GSI's businesses have been and may in the future be adversely affected by declining asset values, particularly where GSI has net "long" positions, receives fees based on the value of assets managed, or receives or posts collateral***

Many of GSI's businesses have net "long" positions in debt securities, loans, derivatives, mortgages, equities (including private equity) and most other asset classes. These include positions taken when GSI acts as a principal to facilitate clients' activities, including exchange-based market-making activities, or commits large amounts of capital to maintain positions in interest rate and credit products, as well as through currencies,

commodities, equities and mortgage-related activities. In addition, GSI invests in similar asset classes. Substantially all of GSI's investing and market-making positions are marked-to-market on a daily basis and declines in asset values directly and immediately impact earnings, unless GSI has effectively "hedged" its exposures to those declines.

In certain circumstances, it may not be possible or economic for GSI to hedge its exposures and, to the extent that this is done, the hedge may be ineffective or may greatly reduce GSI's ability to profit from increases in the values of the assets. This is particularly the case for credit products, private equities or other securities that are not freely tradable or lack established and liquid trading markets. Sudden declines and significant volatility in the prices of assets have in the past substantially curtailed or eliminated, and may in the future substantially curtail or eliminate, the trading markets for certain assets, which may make it difficult to sell, hedge or value such assets. GSI may incur losses from time to time as trading markets deteriorate or cease to function, including with respect to securities offerings GSI has underwritten. The inability to sell or effectively hedge assets reduces GSI's ability to limit losses in such positions and the difficulty in valuing assets has in the past negatively affected, and may in the future negatively affect, GSI's capital, liquidity or leverage ratios, its funding costs and its ability to deploy capital.

In GSI's exchange-based market-making activities, GSI is obligated by stock exchange rules to maintain an orderly market, including by purchasing securities in a declining market. In markets where asset values are declining and in volatile markets, this results in losses and an increased need for liquidity.

GSI posts collateral to support its obligations and receives collateral that supports the obligations of clients and counterparties. When the value of the assets posted as collateral or the credit ratings of the party posting collateral decline, the party posting the collateral may need to provide additional collateral or, if possible, reduce its trading position. An example of such a situation is a "margin call" in connection with a brokerage account. Therefore, declines in the value of asset classes used as collateral mean that either the cost of funding positions is increased or the size of positions is decreased. If GSI is the party providing collateral, this can increase costs and reduce profitability and if GSI is the party receiving collateral, this can also reduce profitability by reducing the level of business done with clients and counterparties.

In addition, volatile or less liquid markets increase the difficulty of valuing assets which can lead to costly and time-consuming disputes over asset values and the level of required collateral, as well as increased credit risk to the recipient of the collateral due to delays in receiving adequate collateral. In cases where GSI forecloses on collateral, sudden declines in the value or liquidity of the collateral have in the past resulted in and may in the future, result in significant losses to GSI, especially where there is a single type of collateral supporting the obligation. In addition, GSI may be subject to claims that the foreclosure was not permitted under the legal documents, was conducted in an improper manner, including in violation of law, or caused a client or counterparty to incur significant losses or go out of business.

(c) ***GSI's market-making activities have been and may in the future be affected by changes in the levels of market volatility***

Certain of GSI's market-making activities depend on market volatility to provide trading and arbitrage opportunities to its clients, and decreases in volatility have reduced and may in the future reduce these opportunities and the level of client activity associated with them and have adversely affected and may in the future adversely affect the results of these activities. While increased volatility can increase trading volumes and spreads, it also increases risk as measured by Value-at-Risk (VaR) and increases risks in

connection with GSI's market-making activities and can cause GSI to reduce its inventory. Limiting the size of GSI's market-making positions can adversely affect GSI's profitability. In periods when volatility is increasing, but asset values are declining significantly, it may not be possible to sell assets at all or it may only be possible to do so at steep discounts. In those circumstances, GSI has been and may in the future be forced to either take on additional risk or to realize losses in order to decrease its VaR. In addition, increases in volatility increase the level of GSI's RWAs, which increases the amount of capital that GSI is required to hold, and this can reduce GSI's profitability and reduce its ability to distribute capital to its shareholders.

- (d) ***GSI's investment banking and client intermediation 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***

GSI's investment banking business has been and may in the future be adversely affected by market conditions. Poor economic conditions and other uncertain geopolitical conditions may adversely affect and have in the past adversely affected investor and CEO confidence, resulting in significant industry-wide declines in the size and number of underwritings and of advisory transactions, which would likely have and have in the past had an adverse effect on GSI's revenues and profit margins. In particular, because a significant portion of GSI's investment banking revenues is derived from GSI's participation in large transactions, a decline in the number of large transactions has in the past and would in the future adversely affect GSI's investment banking business. Similarly, in recent years, cross-border initial public offerings and other securities offerings have accounted for a significant proportion of new issuance activity. Legislative, regulatory or other changes that limit trading in, or the issuance of, securities outside the issuers' domestic markets, that result in or could result in the delisting or removal of securities from exchanges or indices, have in the past adversely affected and would in the future adversely affect GSI's underwriting and client intermediation businesses. Furthermore, changes, or proposed changes, to international trade and investment policies of the U.S. and other countries could negatively affect market activity levels and GSI's revenues.

In certain circumstances, market uncertainty or general declines in market or economic activity may adversely affect GSI's client intermediation businesses by decreasing levels of overall activity or by decreasing volatility.

- (e) ***Inflation has had, and could continue to have, a negative effect on GSI's business, results of operations and financial condition***

Inflationary pressures in recent years have affected economies, financial markets and market participants worldwide. Inflationary pressures in recent years have increased certain of GSI's operating expenses, and have adversely affected consumer sentiment and CEO confidence. Central bank responses to inflationary pressures in recent years have also resulted in higher market interest rates, which, in turn, have contributed to lower activity levels across financial markets, in particular for debt underwriting transactions and mortgage originations, and resulted in lower values for certain financial assets which have adversely affected GSI's equity and debt investments. Higher interest rates increase GSI's borrowing costs. If inflationary pressures increase, GSI's expenses may increase; activity levels for certain of GSI's businesses, in particular debt underwriting, may decline; GSI's interest expense could increase faster than GSI's interest income, reducing GSI's net interest income and net interest margin; certain of GSI's investments could incur losses or generally low levels of returns; assets under supervision could decline, reducing management and other fees; economies worldwide

could experience recessions; and GSI could continue to operate in a generally unfavourable economic and market environment.

### 2.3 Credit Risks

(a) ***GSI's businesses, profitability and liquidity may be adversely affected by deterioration in the credit quality of or defaults by third parties***

GSI is exposed to the risk that third parties who owe money, securities or other assets will not perform their obligations. These parties may default on their obligations to GSI due to bankruptcy, lack of liquidity, operational failure or other reasons. A failure of a significant market participant, or even concerns about a default by such an institution, has in the past and could in the future lead to significant liquidity problems, losses or defaults by other institutions, which in turn could adversely affect GSI.

GSI is also subject to the risk that its rights against third parties may not be enforceable in all circumstances. In addition, deterioration in the credit quality of third parties whose securities or obligations are held by GSI, including a deterioration in the value of collateral posted by third parties to secure their obligations to GSI, including under derivative contracts and loan agreements, could result in losses and/or adversely affect GSI's ability to rehypothecate or otherwise use those securities or obligations for liquidity purposes.

A significant downgrade in the credit ratings of GSI's counterparties could also have a negative impact on GSI's results. While in many cases GSI is permitted to require additional collateral from counterparties that experience financial difficulty, disputes may arise as to the amount of collateral GSI is entitled to receive and the value of pledged assets. The termination of contracts and the foreclosure on collateral may subject GSI to claims for the improper exercise of its rights. Default rates, downgrades and disputes with counterparties as to the valuation of collateral typically increase significantly in times of market stress, increased volatility and illiquidity.

As part of GSI's clearing and prime financing activities, GSI finances its clients' positions, and GSI could be held responsible for the defaults or misconduct of GS's clients. Default risk may arise from events or circumstances that are difficult to detect or foresee.

(b) ***Concentration of risk increases the potential for significant losses in GSI's market-making, underwriting, investing and financing activities***

Concentration of risk increases the potential for significant losses in market-making, underwriting, investing and financing activities. The number and size of these transactions has affected and may in the future affect GSI's results of operations in a given period. Moreover, because of concentrated risk, GSI may suffer losses even when economic and market conditions are generally favourable for competitors. Disruptions in the credit markets can make it difficult to hedge these credit exposures effectively or economically.

In the ordinary course of business, GSI is at times subject to a concentration of credit risk to a particular counterparty, borrower, issuer (including sovereign issuers) or geographic area or group of related countries, such as the E.U., and a failure or downgrade of, or default by, such entity could negatively impact GSI's businesses, perhaps materially, and the systems by which GSI sets limits and monitors the level of its credit exposure to individual entities, industries, countries and regions may not function as anticipated. Regulatory reforms, including the European Market Infrastructure Regulation and the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "**Dodd-Frank Act**") have led to increased centralisation of trading

activity through particular clearing houses, agent banks or exchanges, which has significantly increased GSI's concentration of risk with respect to these entities. While GSI's activities expose it to many different industries, counterparties and countries, GSI routinely executes a high volume of transactions with counterparties engaged in financial services activities, including brokers and dealers, commercial banks, clearing houses, exchanges and investment funds. This has resulted in significant credit concentration with respect to these counterparties.

(c) ***Derivative transactions and delayed documentation or settlements expose GSI to credit risk, unexpected risks and potential losses***

GSI is party to a large number of derivative transactions, including credit derivatives. Many of these derivative instruments are individually negotiated and non-standardised, which can make exiting, transferring or settling positions difficult. Many credit derivatives require that GSI deliver to the counterparty the underlying security, loan or other obligation in order to receive payment. In a number of cases, GSI does not hold the underlying security, loan or other obligation and may not be able to obtain the underlying security, loan or other obligation. This could cause GSI to forfeit the payments due under these contracts or result in settlement delays with the attendant credit and operational risk as well as increased costs to GSI.

Derivative transactions also involve the risk that documentation has not been properly executed, that executed agreements may not be enforceable against the counterparty, or that obligations under such agreements may not be able to be "netted" against other obligations with such counterparty. In addition, counterparties may claim that such transactions were not appropriate or authorized.

As a signatory to the International Swaps and Derivatives Association Universal Resolution Stay Protocol (the "**ISDA Universal Protocol**") and the International Swaps and Derivatives Association 2018 U.S. Resolution Stay Protocol (collectively, the "**ISDA Protocols**"), GSI may not be able to exercise termination rights and other remedies against counterparties and, as this regime has not yet been tested, GSI may suffer risks or losses that it would not have expected to suffer if it could immediately close out transactions upon a termination event. The ISDA Protocols and these rules and regulations extend to repurchase agreements and other instruments that are not derivative contracts.

Derivative contracts and other transactions entered into with third parties are not always confirmed by the counterparties or settled on a timely basis. While the transaction remains unconfirmed or during any delay in settlement, GSI is subject to heightened credit and operational risk and in the event of a default may find it more difficult to enforce its rights.

In addition, as new complex derivative products are created, covering a wider array of underlying credit and other instruments, disputes about the terms of the underlying contracts could arise, which could impair GSI's ability to effectively manage its risk exposures from these products and subject it to increased costs. The provisions of legislation requiring central clearing of credit derivatives and other over-the-counter derivatives, or a market shift toward standardised derivatives, could reduce the risk associated with these transactions, but under certain circumstances could also limit GSI's ability to develop derivatives that best suit the needs of clients and to hedge its own risks, and could adversely affect GSI's profitability. In addition, these provisions have increased credit exposure to central clearing platforms.

## **2.4 Operational Risks**

- (a) ***A failure in GSI's or third party operational systems or human error, malfeasance or other misconduct, could impair its liquidity, disrupt its businesses, result in the disclosure of confidential information, damage its reputation and cause losses***

GSI's businesses are highly dependent on its ability to process and monitor, on a daily basis, a very large number of transactions, many of which are highly complex, and occur at high volumes and frequencies, across numerous and diverse markets in many currencies. These transactions, as well as the information technology services provided to clients, often must adhere to client-specific guidelines, as well as legal and regulatory standards.

Many rules and regulations worldwide govern GSI's obligations to execute transactions and report such transactions and other information to regulators, exchanges and investors. Compliance with these legal and reporting requirements can be challenging, and GSI has been, and may in the future be, subject to regulatory fines and penalties for failing to follow these rules or to report timely, accurate and complete information in accordance with these rules.

As the volume, speed, frequency and complexity of transactions, especially electronic transactions (as well as the requirements to report such transactions on a real-time basis to clients, regulators and exchanges) increase, developing and maintaining GSI's operational systems and infrastructure has become more challenging, and the risk of systems or human error by GSI or GSI's third-party service providers in connection with such transactions has increased, as have the potential consequences of such errors due to the speed and volume of transactions involved and the potential difficulty associated with discovering errors quickly enough to limit the resulting consequences. These risks are exacerbated in times of increased volatility.

GSI's financial, accounting, data processing or other operational systems and facilities have in the past not operated properly in certain respects and may in the future not operate properly or become disabled as a result of events that are wholly or partially beyond GSI's control, such as a spike in transaction volume or an operational disruption at a third-party service provider, adversely affecting GSI's ability to process these transactions or provide these services. GSI must continuously update GSI's systems to support its operations and growth and to respond to changes in regulations and markets, and invest heavily in systemic controls and training to pursue GSI's objective of ensuring that such transactions do not violate applicable rules and regulations or, due to errors in processing such transactions, adversely affect markets, GSI's clients and counterparties or GSI. Enhancements and updates to systems, as well as the requisite training, including in connection with the integration of new businesses, entail significant costs and create risks associated with implementing new systems and integrating them with existing ones.

The use of computing devices, phones and other mobile devices is critical to the work done by GSI's employees and the operation of GSI's systems and businesses and those of its clients and third-party service providers and vendors. Their importance has continued to increase, for both GSI's regular operations and business continuity plans. Computers and computer networks are subject to various risks, including, among others, cyber attacks, inherent technological defects, system disruptions and failures and human error. For example, fundamental security flaws in computer chips found in many types of these computing devices and phones have been reported in the past and may occur in the future, and in July 2024 there was a widely publicised information technology outage as a result of a faulty update to a cybersecurity software product that affected many businesses worldwide. The use of personal devices by GSI's employees or by GSI's vendors for work-related activities also presents risks related to potential violations of record retention and other requirements. Cloud technologies are also critical to the operation of GSI's systems and platforms and GSI's reliance on cloud technologies is

growing. Service disruptions have resulted, and may result in the future, in delays in accessing, or the loss of, data that is important to GSI's businesses and may hinder GSI's clients' access to GSI's platforms. There have been a number of widely publicised cases of outages in connection with access to cloud computing providers. Addressing these and similar issues could be costly and affect the performance of these businesses and systems. Applying fixes can introduce operational risks, and, despite the fixes, there may still be residual security risks.

Notwithstanding the proliferation of technology and technology-based risk and control systems, GSI's businesses ultimately rely on people as its greatest resource, and, from time to time, they have in the past and may in the future make mistakes or engage in violations of applicable policies, laws, rules or procedures that are not always caught immediately by GSI's technological processes or by GSI's controls and other procedures, which are intended to prevent and detect such errors or violations. These have in the past and may in the future include calculation errors, mistakes in addressing emails, errors in software or model development or implementation, or simple errors in judgment, as well as intentional efforts to ignore or circumvent applicable policies, laws, rules or procedures. Human errors, malfeasance and other misconduct, including the intentional misuse of client information in connection with insider trading or for other purposes, even if promptly discovered and remediated, has in the past resulted and may in the future result in reputational damage and losses and liabilities for GSI.

The majority of GSI's employees are based in London and work in close proximity to one another. They are subject to potential catastrophic events, including, but not limited to, terrorist attacks, extreme weather, or other hostile events that could negatively affect GSI's business. Notwithstanding GSI's efforts to maintain business continuity, business disruptions impacting GSI's offices and employees could lead to GSI's employees' inability to occupy the offices, communicate with or travel to other office locations or work remotely. As a result, GSI's ability to service and interact with clients may be adversely impacted, due to GSI's failure or inability to successfully implement business contingency plans.

(b) ***A failure or disruption in GSI's infrastructure, or in the operational systems or infrastructure of third parties, could impair GSI's liquidity, disrupt GSI's businesses, damage GSI's reputation and cause losses***

GSI faces the risk of operational failure or significant operational delay, termination or capacity constraints of any of the clearing agents, exchanges, clearing houses or other financial intermediaries that it uses to facilitate securities and derivatives transactions, and as interconnectivity with clients grows, GSI will increasingly face the risk of operational failure or significant operational delay with respect to clients' systems.

There has been significant consolidation among clearing agents, exchanges and clearing houses and an increasing number of derivative transactions are cleared on exchanges, which has increased GSI's exposure to operational failure or significant operational delay, termination or capacity constraints of the particular financial intermediaries that GSI uses and could affect GSI's ability to find adequate and cost-effective alternatives in the event of any such failure, delay, termination or constraint. Industry consolidation, whether among market participants or financial intermediaries, increases the risk of operational failure or significant operational delay as disparate complex systems need to be integrated, often on an accelerated basis.

The interconnectivity of multiple financial institutions with agent banks, exchanges and clearing houses, and the increased centrality of these entities, increases the risk that an operational failure at one institution or entity may cause an industry-wide operational failure that could materially impact GSI's ability to conduct business. Interconnectivity

of financial institutions with other companies through, among other things, application programming interfaces or APIs presents similar risks. Any such failure, termination or constraint could adversely affect GSI's ability to effect transactions, service GSI's clients, manage GSI's exposure to risk or expand GSI's businesses or result in financial loss or liability to GSI's clients, impairment of GSI's liquidity, disruption of GSI's businesses, regulatory intervention or reputational damage.

Despite GSI's resiliency plans and facilities, its ability to conduct business may be adversely impacted by a disruption in the infrastructure that supports its businesses and the communities where GSI is located. This may include a disruption involving electrical, satellite, undersea cable or other communications, internet, transportation or other facilities used by GSI, its employees or third parties with which GSI conducts business, including cloud service providers. These disruptions may occur as a result of events that affect only GSI's buildings or systems or those of such third parties, or as a result of events with a broader impact globally, regionally or in the cities where those buildings or systems are located, including, but not limited to, natural disasters, war, civil unrest, terrorism, economic or political developments, pandemics and weather events.

In addition, although GSI seeks to diversify its third-party vendors to increase its resiliency, GSI is also exposed to the risk that a disruption or other information technology event at a common service provider to GSI's vendors could impede their ability to provide products or services to GSI, including in connection with GSI's new business initiatives. GSI may not be able to effectively monitor or mitigate operational risks relating to its vendors' use of common service providers.

Additionally, although the prevalence and scope of applications of distributed ledger technology, cryptocurrency and similar technologies is growing, the technology is nascent and may be vulnerable to cyber attacks or have other inherent weaknesses. GSI is exposed to risks, and may become exposed to additional risks, related to distributed ledger technology, including through GSI's facilitation of clients' activities involving financial products that use distributed ledger technology, such as blockchain, or other digital assets, GSI's investments in companies that seek to develop platforms based on distributed ledger technology, the use of distributed ledger technology by third-party vendors, clients, counterparties, clearing houses and other financial intermediaries, and the receipt of digital assets as collateral. Market volatility of financial products using distributed ledger technology may increase these risks.

(c) ***The development and use of artificial intelligence (AI) presents risks and challenges that may adversely impact GSI's business***

GSI or GSI's third-party vendors, clients or counterparties have in the past developed or incorporated, and may in the future develop or incorporate, AI technology in certain business processes, services or products. The development and use of AI present a number of risks and challenges to GSI's business. The legal and regulatory environment relating to AI is uncertain and rapidly evolving, and includes regulation targeted specifically at AI as well as provisions in intellectual property, privacy, consumer protection, employment and other laws applicable to the use of AI. These evolving laws and regulations could require changes in GSI's implementation of AI technology and increase GSI's compliance costs and the risk of non-compliance. AI models, particularly generative AI models, may produce output or take action that is incorrect, that result in the release of private, confidential or proprietary information, that reflect biases included in the data on which they are trained, infringe on the intellectual property rights of others, or that is otherwise harmful. In addition, the complexity of many AI models makes it challenging to understand why they are generating particular outputs. This limited transparency increases the challenges associated with assessing the proper operation of AI models, understanding and monitoring the capabilities of the AI models, reducing

erroneous output, eliminating bias and complying with regulations that require documentation or explanation of the basis on which decisions are made. Further, GSI may rely on AI models developed by third parties, and, to that extent, would be dependent in part on the manner in which those third parties develop and train their models, including risks arising from the inclusion of any unauthorized material in the training data for their models, and the effectiveness of the steps these third parties have taken to limit the risks associated with the output of their models, matters over which GSI may have limited visibility. Additionally, GSI is exposed to risks related to the use of AI technologies by third-party vendors, clients, counterparties, clearing houses and other financial intermediaries. Any of these risks could expose GSI to liability or adverse legal or regulatory consequences and harm GSI's reputation and the public perception of GSI's business or the effectiveness of GSI's security measures.

In addition to GSI's use of AI technologies, GSI is exposed to risks arising from the use of AI technologies by bad actors to commit fraud and misappropriate funds and to facilitate cyberattacks. Generative AI, if used to perpetrate fraud or launch cyberattacks, could result in losses, liquidity outflows or other adverse effects at a particular financial institution or exchange.

- (d) ***A failure to protect GSI'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***

GSI's operations rely on the secure processing, storage and transmission of confidential and other information in GSI's computer systems and networks and those of GSI's vendors. There have been a number of highly publicised cases involving financial services companies, consumer-based companies, software and information technology service providers, governmental agencies and other organisations reporting the unauthorized access or disclosure of client, customer or other confidential information in recent years, as well as cyber attacks involving the dissemination, theft and destruction of corporate information or other assets, as a result of inadequate procedures or the failure to follow procedures by employees or contractors or as a result of actions by third parties, including actions by foreign governments. There have also been a number of highly publicised cases where hackers have requested "ransom" payments in exchange for not disclosing customer information or for restoring access to information or systems.

GSI is regularly the target of attempted cyber attacks, including denial-of-service attacks, and must continuously monitor and develop its systems to protect the integrity and functionality of its technology infrastructure and access to and the security of its data. Further, the use of AI by cybercriminals may increase the frequency and severity of cybersecurity attacks against GSI or GSI's third-party vendors and clients. The use of employee-owned devices presents additional risks of cyber attacks, as do hybrid work arrangements. In addition, due to the interconnectivity with third-party vendors (and their respective service providers), agent banks, exchanges, clearing houses and other financial institutions, GSI could be adversely impacted if any of them is subject to a successful cyber attack or other information security event. These impacts could include the loss of access to information or services from the third party subject to the cyber attack or other information security event or could result in unauthorised access to or disclosure of client, customer or other confidential information, which could, in turn, interrupt certain of GSI's businesses.

Despite GSI's efforts to ensure the integrity of its systems and information, it may not be able to anticipate, detect or implement effective preventive measures against all cyber threats, including because the techniques used are increasingly sophisticated, change frequently and are often not recognised until launched. Cyber attacks can originate from

a variety of sources, including third parties who are affiliated with or sponsored by foreign governments or are involved with organised crime or terrorist organisations. Third parties may also attempt to place individuals in GSI's office or induce employees, clients or other users of GSI's systems to disclose sensitive information or provide access to GSI's data or that of its clients, and these types of risks may be difficult to detect or prevent.

Although GSI takes protective measures proactively and endeavours to modify them as circumstances warrant, its computer systems, software and networks may be vulnerable to unauthorised access, misuse, computer viruses or other malicious code, cyber attacks on GSI's vendors and other events that could have a security impact. Risks relating to cyber attacks on GSI's vendors have been increasing given the greater frequency and severity in recent years of supply chain attacks affecting software and information technology service providers. Due to the complexity and interconnectedness of GSI's systems, the process of enhancing protective measures can itself create a risk of systems disruptions and security issues. In addition, protective measures that GSI employs to compartmentalise its data may reduce its visibility into, and adversely affect its ability to respond to, cyber threats and issues within its systems.

If one or more of these types of events occur, it potentially could jeopardise GSI or its clients' or counterparties' or third parties' confidential and other information processed, stored in or transmitted through GSI's computer systems and networks, or otherwise cause interruptions or malfunctions in GSI's operations or those of its clients, its counterparties or third parties, which could impact their ability to transact with GSI or otherwise result in legal or regulatory action, significant losses or reputational damage. In addition, such an event could persist for an extended period of time before being properly detected or escalated, and, following detection or escalation, it could take considerable time for GSI to obtain full and reliable information about the extent, amount and type of information compromised. During the course of an investigation, GSI may not know the full impact of the event and how to remediate it, and actions, decisions and mistakes that are taken or made may further increase the negative effects of the event on GSI's business, results of operations and reputation. Moreover, new regulations require GS Group to disclose information on a timely basis about material cybersecurity incidents, including those that may not have been resolved or fully investigated at the time of disclosure.

GSI has expended, and expects to continue to expend, significant resources on an ongoing basis to modify its protective measures and to investigate and remediate vulnerabilities or other exposures, but these measures may be ineffective and GSI may be subject to legal or regulatory action, as well as financial losses that are either not insured against or not fully covered through any insurance it maintains. Regulatory agencies have become increasingly focused on cybersecurity incidents.

GSI's confidential information may also be at risk from the compromise of clients' accounts, including as a result of a data security breach at an unrelated company. Losses due to unauthorised account activity could harm GSI's reputation and may have adverse effects on its business, financial condition and results of operations.

The increased use of mobile and cloud technologies heightens these and other operational risks, as can hybrid work arrangements. Certain aspects of the security of these technologies are unpredictable or beyond GSI's control, and the failure by mobile technology and cloud service providers to adequately safeguard their systems and prevent cyber attacks could disrupt GSI's operations and result in misappropriation, corruption or loss of confidential and other information. In addition, there is a risk that encryption and other protective measures, despite their sophistication, may be defeated,

particularly to the extent that new computing technologies, such as quantum computing, vastly increase the speed and computing power available.

GSI routinely transmits and receives personal, confidential and proprietary information by email and other electronic means. GSI has discussed and worked with clients, vendors, service providers, counterparties and other third parties to develop secure transmission capabilities and protect against cyber attacks, but does not have, and may be unable to put in place, secure capabilities with all of its clients, vendors, service providers, counterparties and other third parties and it may not be able to ensure that these third parties have appropriate controls in place to protect the confidentiality of the information. An interception, misuse or mishandling of personal, confidential or proprietary information being sent to or received from a client, vendor, service provider, counterparty or other third party could result in legal liability, regulatory action and reputational harm.

(e) ***GSI has incurred and may in the future incur losses as a result of ineffective risk management processes and strategies***

GSI seeks to monitor and control its risk exposure through a risk and control framework encompassing a variety of separate, but complementary financial, credit, operational, compliance and legal systems, internal controls, management review processes and other mechanisms. GSI's risk management process seeks to balance its ability to profit from market-making positions and underwriting activities with its exposure to potential losses. Whilst GSI employs a broad and diversified set of risk monitoring and risk mitigation techniques, those techniques and the judgements that accompany their application cannot anticipate every economic and financial outcome or the specifics and timing of such outcomes. Thus, in the course of its activities, GSI has incurred and may in the future incur losses. Market conditions in recent years have involved unprecedented dislocations and highlight the limitations inherent in using historical data to manage risk.

The models that GSI uses to assess and control its risk exposures reflect assumptions about the degrees of correlation or lack thereof among prices of various asset classes or other market indicators. In times of market stress or other unforeseen circumstances, previously uncorrelated indicators may become correlated, or conversely previously correlated indicators may move in different directions. These types of market movements have at times limited the effectiveness of GSI's hedging strategies and have caused it to incur significant losses, and they may do so in the future. These changes in correlation have been and may in the future be exacerbated where other market participants are using risk or trading models with assumptions or algorithms that are similar to GSI's. In these and other cases, it may be difficult to reduce GSI's risk positions due to the activity of other market participants or widespread market dislocations, including circumstances where asset values are declining significantly or no market exists for certain assets.

In addition, the use of models in connection with risk management and numerous other critical activities presents risks that the models may be ineffective, either because of poor design, ineffective testing or improper or flawed inputs, as well as unpermitted access to the models resulting in unapproved or malicious changes to the model or its inputs.

To the extent that GSI has positions through its market-making or origination activities or it makes investments directly through its investing activities, including private equity or private credit, that do not have an established liquid trading market or are otherwise subject to restrictions on sale or hedging, GSI may not be able to reduce its positions and therefore reduce its risk associated with those positions.

Prudent risk management, as well as regulatory restrictions, may cause GSI to limit its exposure to counterparties, geographic areas or markets, which may limit its business opportunities and increase the cost of its funding or hedging activities.

(f) ***GSI is reliant on GSG and other GS Group affiliates for client business, various services and capital***

GSI is a wholly-owned subsidiary of GSG. As a wholly-owned subsidiary, GSI relies on various business relationships of GSG and other GS Group affiliates generally, including the ability to receive various services, as well as, in part, the capital and liquidity of GSI's ultimate parent, GSG, as well as the liquidity of Goldman Sachs Funding LLC ("**Funding IHC**"), a wholly-owned, direct subsidiary of GSG that facilitates the execution of GS Group's preferred resolution strategy. Although GSI has taken steps to reduce its reliance on other GS Group affiliates, it remains an operating subsidiary of a larger organisation and therefore its interconnectedness within the organisation will continue. Because GSI's business relies upon GSG and other GS Group affiliates to a significant extent, risks that could affect these entities could also have a significant impact on GSI.

Clients of our affiliates, as well as the affiliates themselves, often serve as our counterparties to derivative transactions. Furthermore, GSI relies upon certain GS Group affiliates for various support services, including, but not limited to, trade execution, relationship management, settlement and clearing, risk management and other technical, operational and administrative services. Such services are provided to GSI pursuant to the intercompany services agreement, which is generally terminable upon mutual agreement of GSG and its subsidiaries, subject to certain exceptions, including material breach of the agreement.

As a consequence of the foregoing, in the event GSI's relationships with other GS Group affiliates are not maintained, for any reason, including as a result of possible strategic decisions that GSG may make from time-to-time or as a result of material adverse changes in GSG's performance, GSI's net revenues may decline, the cost of operating and funding its business may increase and GSI's business, financial condition and profitability may be materially and adversely affected.

Furthermore, GSI receives a portion of its funding in the form of unsecured funding indirectly from GSG and from Funding IHC, and collateralised financings from other GS Group affiliates. To the extent such funding is not available to GSI, its growth could be constrained and/or its cost of funding could increase.

## **2.5 Legal and Regulatory Risks**

(a) ***GSI's businesses and those of its clients are subject to extensive and pervasive regulation around the world***

As a participant in the financial services industry and a subsidiary of a systemically important financial institution, GSI is subject to extensive regulation, principally in the U.K., and the E.U. more generally, but also in the U.S. as a subsidiary of GSG and in certain other jurisdictions. GSI faces the risk of significant intervention by law enforcement, regulatory and tax authorities, as well as private litigation, in all jurisdictions in which it conducts its businesses. In many cases, GSI's activities have been and may continue to be subject to overlapping and divergent regulation in different jurisdictions. Among other things, as a result of law enforcement authorities, regulators or private parties challenging GSI's compliance with laws and regulations, GSI or its employees have been and could be fined, criminally charged or sanctioned, prohibited from engaging in certain business activities, subjected to limitations or conditions on its

business activities including higher capital requirements, or subjected to new or substantially higher taxes or other governmental charges in connection with the conduct of its businesses or with respect to its employees. These limitations or conditions may limit business activities and negatively impact GSI's profitability.

In addition to the impact on the scope and profitability of GSI's business activities, day-to-day compliance with existing laws and regulations has involved and will continue to involve significant amounts of time, including that of GSI's senior leaders and that of a large number of dedicated compliance and other reporting and operational personnel, in connection with which GSI expects to continue to add personnel, all of which may negatively impact GSI's profitability.

GSI's revenues and profitability and those of its competitors have been and will continue to be impacted by requirements relating to capital, leverage, liquidity and long-term funding levels, requirements related to resolution and recovery planning, derivatives clearing and margin rules and levels of regulatory oversight, as well as limitations on which and, if permitted, how certain business activities may be carried out by financial institutions. The laws, regulations and accounting standards that apply to GSI's businesses are often complex and, in many cases, GSI must make interpretive decisions regarding the application of those laws, regulations and accounting standards to its business activities. Changes in interpretations, whether in response to regulatory guidance, industry conventions, GSI's own reassessments or otherwise, could adversely affect its businesses, results of operations or ability to satisfy applicable regulatory requirements, such as capital or liquidity requirements.

If there are new laws or regulations or changes in the interpretation or enforcement of existing laws or regulations applicable to GSI, GSI's businesses or those of GSI's clients, including changes to the U.K. capital framework under the Basel Committee on Banking Supervision's ("**Basel Committee**") revised capital framework for strengthening internal capital standards ("**Basel III**"), including changes to minimum capital requirements, liquidity, leverage, long-term debt, margin requirements, restrictions on other business practices, reporting requirements, the application of regulatory strategies and requirements to facilitate the orderly resolution of large financial institutions, tax burdens and compensation restrictions, that are imposed on a limited subset of financial institutions (whether based on size, method of funding, activities, geography or other criteria) which may include GSI or GS Group, compliance with these new laws and regulations, or changes in the enforcement of existing laws or regulations, could adversely affect GSI's ability to compete effectively with other institutions that are not affected in the same way. In addition, regulation imposed on financial institutions or market participants generally, such as taxes on stock transfers, share repurchases and other financial transactions, could adversely impact levels of market activity more broadly, and thus impact GSI's businesses. Changes to laws and regulations, such as tax laws, could also have a disproportionate impact on GSI, based on the way those laws or regulations are applied to financial services and financial firms or due to its corporate structure or how GSI provides these services. Recent political developments have added additional uncertainty with respect to new laws and regulations or changes in the interpretations or enforcement of existing laws and regulations.

These developments could impact GSI's profitability in the affected jurisdictions, or even make it uneconomic to continue to conduct all or certain businesses in those jurisdictions, or could result in GSI incurring significant costs associated with changing business practices, restructuring businesses, moving all or certain businesses and employees to other locations or complying with applicable capital requirements, including liquidating assets or raising capital in a manner that adversely increases GSI's funding costs or otherwise adversely affects its shareholder and creditors.

U.S. and non-U.S. regulatory developments, in particular the Dodd-Frank Act and Basel III, have significantly altered the regulatory framework within which GSG operates and have adversely affected and may in the future adversely affect GSG's profitability. Among the aspects of the Dodd-Frank Act that have affected or may in the future affect GSG's businesses are: increased capital, liquidity and reporting requirements; limitations on activities in which GSG may engage; increased regulation of and restrictions on OTC derivatives markets and transactions; limitations on incentive compensation; limitations on affiliate transactions; requirements to reorganize or limit activities in connection with recovery and resolution planning; increased deposit insurance assessments; and increased standards of care for broker-dealers and investment advisers in dealing with clients.

The U.K.'s Prudential Regulation Authority (the "**PRA**") issued near-final rules with a proposed effective date of January 1, 2027, implementing the Basel III Committee's finalisation of the Basel III post-crisis regulatory reforms (the "**Basel III Revisions**"), including new rules covering the Fundamental Review of the Trading Books (the "**FRTB**") credit risk, counterparty credit risk, credit valuation adjustment risk and operational risk. The FRTB, among other things, revises the standardised and internal model-based approaches used to calculate market risk requirements and clarifies the scope of positions subject to market risk capital requirements. Among other changes, this rule includes provisions that set a floor on internally modelled capital requirements at a percentage of the capital requirements under the standardised approach (known as the 'output floor'). The PRA's near-final rules exclude U.K. subsidiaries of overseas banking groups that are subject to the output floor on a global consolidated basis from a standalone output floor requirement. As such, GSI does not expect to be subject to this requirement on a standalone basis in the U.K..

However, the impact of the Basel III Revisions is subject to uncertainty until the corresponding legislation and regulation are finalized and implemented by the PRA, the U.S. federal bank regulatory agencies and the E.U. In 2023, the U.S. federal bank regulatory agencies proposed a rule implementing the Basel III Revisions, including the FRTB, and the U.S. Board of Governors of the Federal Reserve System has indicated that it expects to work the other U.S. federal bank regulatory agencies in 2025 on a revised proposal. Substantial parts of the E.U. rules implementing the Basel III Revisions became effective on January 1, 2025; the E.U. has delayed implementation of the FRTB rules to January 1, 2026.

GSI is also subject to laws and regulations, such as the General Data Protection Regulation ("**GDPR**"), relating to the privacy of the information of clients, employees or others, and any failure to comply with these laws and regulations could expose GSI to liability and/or reputational damage. As new privacy-related laws and regulations are implemented, the time and resources needed for GSI to comply with such laws and regulations, as well as GSI's potential liability for non-compliance and reporting obligations in the case of data breaches, may significantly increase.

In addition, GSI's businesses are increasingly subject to laws and regulations relating to surveillance, encryption and data on-shoring in the jurisdictions in which GSI operates. Compliance with these laws and regulations may require GSI to change its policies, procedures and technology for information security, which could, among other things, make GSI more vulnerable to cyber attacks and misappropriation, corruption or loss of information or technology.

Increasingly, regulators and courts have sought to hold financial institutions liable for the misconduct of their clients where they have determined that the financial institution should have detected that the client was engaged in wrongdoing, even though the financial institution had no direct knowledge of the activities engaged in by its client.

Regulators and courts have also increasingly found liability as a "control person" for activities of entities in which financial institutions or funds controlled by financial institutions have an investment, but which they do not actively manage. In addition, regulators and courts continue to seek to establish "fiduciary" obligations to counterparties to which no such duty had been thought to exist. To the extent that such efforts are successful, the cost of, and liabilities associated with, engaging in brokerage, clearing, market-making, prime financing, investing and other similar activities could increase significantly. To the extent that GSI has fiduciary obligations in connection with acting as a financial advisor or investment advisor or in other roles for individual, institutional, sovereign or investment fund clients, any breach, or even an alleged breach, of such obligations could have materially negative legal, regulatory and reputational consequences.

Further, we are subject to regulatory settlements, orders and feedback that require significant remediation activities, which require us to commit significant resources, including hiring, as well as testing the operation and effectiveness of new controls, policies and procedures.

(b) ***A failure to appropriately identify and address potential conflicts of interest has in the past and may in the future adversely affect GSI's businesses***

Due to the broad scope of GS Group's businesses and client base, GSI regularly addresses potential conflicts of interest, including situations where services to a particular client or GS Group's own investments or other interests conflict, or are perceived to conflict, with the interests of that client or another client, as well as situations where one or more of its businesses have access to material non-public information that may not be shared with other businesses within GS Group and situations where it may be a creditor of an entity with which GS Group also has an advisory or other relationship.

Extensive procedures and controls are in place that are designed to identify and address conflicts of interest, including those designed to prevent the improper sharing of information among businesses. However, appropriately identifying and dealing with conflicts of interest is complex and difficult, and GSI's reputation, which is one of its most important assets, could be damaged and the willingness of clients to enter into transactions with GSI may be adversely affected if it fails, or appears to fail, to identify, disclose and deal appropriately with conflicts of interest. In addition, potential or perceived conflicts could give rise to litigation, government investigations or enforcement actions. Additionally, GS Group's One Goldman Sachs initiative aims to increase collaboration amongst its businesses, which may increase the potential for actual or perceived conflicts of interest and improper information sharing.

(c) ***Substantial civil or criminal liability or significant regulatory action against GSI has in the past had and may in the future have material adverse financial effects and significant reputational consequences, which in turn could seriously harm its business prospects***

GSI faces significant legal risks in its businesses, and the volume of claims and amount of damages and penalties claimed in litigation and regulatory proceedings against financial institutions remain high. GSI is, from time to time, subject to a number of other investigations and reviews by, and in some cases has received requests for documents and information from, various governmental and regulatory bodies and self-regulatory organisations relating to various aspects of GSI's businesses and operations. GSI has seen legal claims by clients increase in a market downturn and employment-related claims increase following periods of headcount reduction. Additionally, governmental entities have been plaintiffs and are parties in certain of GSI's legal proceedings, and it

may face future civil or criminal actions or claims by the same or other governmental entities, as well as follow-on civil litigation that is often commenced after regulatory settlements.

Significant settlements by large financial institutions with governmental entities have become common. The trend of large settlements with governmental entities may adversely affect the outcomes for other financial institutions, including, in some cases, GSI, or GS Group, in similar actions, especially where governmental officials have announced that the large settlements will be used as the basis or a template for other settlements. The uncertain regulatory enforcement environment makes it difficult to estimate probable losses, which can lead to substantial disparities between legal reserves and subsequent actual settlements or penalties.

GSI is subject to laws and regulations worldwide, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, relating to corrupt and illegal payments to, and hiring practices with regard to, government officials and others. Violation of these or similar laws and regulations have in the past resulted in and could in the future result in significant monetary penalties. Such violations could also result in severe restrictions on GSI's activities and damage to its reputation.

Resolution of a criminal matter involving GSI or its employees could lead to increased exposure to civil litigation, could adversely affect GSI's reputation, could result in penalties or limitations on GSI's ability to conduct its activities generally or in certain circumstances and could have other negative effects.

(d) ***In conducting its business around the world, GSI is subject to political, legal, regulatory, tax and other risks that are inherent in operating in many countries***

In conducting GSI's businesses and supporting its global operations, GSI is subject to risks of possible nationalisation, expropriation, price controls, capital controls, exchange controls, communications and other content restrictions and other restrictive governmental actions, as well as the outbreak of hostilities or acts of terrorism. For example, sanctions have been imposed by the U.S. and the E.U. on certain individuals and companies in Russia and Venezuela. In many countries, the laws and regulations applicable to the securities and financial services industries and many of the transactions in which GSI is involved are uncertain and evolving, and it may be difficult to determine the exact requirements of local laws in every market. GSI has been in some cases subject to divergent and conflicting laws and regulations across markets, and is increasingly subject to the risk that the jurisdictions in which it operates have implemented or may implement laws and regulations that directly conflict with those of another jurisdiction. Any determination by local regulators that GSI has not acted in compliance with the application of local laws in a particular market or a failure to develop effective working relationships with local regulators could have a significant and negative effect not only on GSI's businesses in that market, but also on its reputation generally. Further, in some jurisdictions a failure, or alleged failure, to comply with laws and regulations have subjected and may in the future subject GSI and its personnel not only to civil actions but also criminal actions and other sanctions. GSI is also subject to the enhanced risk that transactions it structures might not be legally enforceable in all cases.

While business and other practices throughout the world differ, GSI is subject in its operations worldwide to rules and regulations relating to corrupt and illegal payments, hiring practices and money laundering, as well as laws relating to doing business with certain individuals, groups and countries, such as the U.S. Foreign Corrupt Practices Act, the U.S. Bank Secrecy Act, as amended, and the U.K. Bribery Act. While GSI has invested and continues to invest significant resources in training and in compliance monitoring, the geographical diversity of its operations, employees, and clients, as well

as the vendors and other third parties that GSI deals with, greatly increases the risk that GSI may be found in violation of such rules or regulations and such violations could subject it to significant penalties or adversely affect its reputation.

In addition, there have been a number of highly publicised cases around the world, involving actual or alleged fraud or other misconduct by employees in the financial services industry in recent years, and GSI has had, and may in the future have, employee misconduct. This misconduct has included and may also in the future include intentional efforts to ignore or circumvent applicable policies, rules or procedures or misappropriation of funds and the theft of proprietary information, including proprietary software. It is not always possible to deter or prevent employee misconduct and the precautions taken to prevent and detect this activity have not been and may not be effective in all cases, as reflected by the settlements relating to 1Malaysia Development Berhad ("**1MDB**").

- (e) *The application of regulatory strategies and requirements to facilitate the orderly resolution of large financial institutions could create greater risk of loss for GSI's security holders*

The circumstances in which a resolution authority would exercise its "bail-in" powers to recapitalise a failing entity by writing down its unsecured debt or converting it into equity are uncertain. If these powers were to be exercised (or if there was a suggestion that they could be exercised) in respect of GSI, such exercise would likely have a material adverse effect on the value of debt investments in GSI, including a potential loss of some or all of such investments.

The EU Bank Recovery and Resolution Directive ("**BRRD**") entered into force on 2 July 2014. EU member states were required to adopt and publish the laws, regulations and administrative provisions necessary to comply with the BRRD. Its stated aim is to provide national "resolution authorities" with powers and tools to address banking crises pre-emptively in order to safeguard financial stability and minimise taxpayers' exposure to losses.

The majority of the requirements of the BRRD have been implemented in the UK through the UK Banking Act 2009, as amended, and related statutory instruments (together, the "**UK Banking Act**"). The UK Banking Act provides for a "resolution regime" granting substantial powers to the Bank of England (or, in certain circumstances, HM Treasury), to implement resolution measures (in consultation with other UK authorities) with respect to a UK financial institution (such as GSI) where the resolution authority considers that the relevant institution is failing or is likely to fail, there is no reasonable prospect of other measures preventing the failure of the institution and resolution action is necessary in the public interest.

The resolution powers available to the resolution authority include powers to: write down the amount owing, including to zero, or convert the relevant securities into other securities, including ordinary shares of the relevant institution (or a subsidiary) – the so-called "bail-in" tool; transfer all or part of the business of the relevant institution to a "bridge bank"; transfer impaired or problem assets to an asset management vehicle; and sell the relevant institution to a commercial purchaser.

In addition, the resolution authority is empowered to modify contractual arrangements, suspend enforcement or termination rights that might otherwise be triggered and disapply or modify laws in the UK (with possible retrospective effect) to enable the recovery and resolution powers under the UK Banking Act to be used effectively.

You should assume that, in a resolution situation, financial public support will only be available to GSI (or any member of Goldman Sachs) as a last resort after the relevant resolution authorities have assessed and used, to the maximum extent practicable, the resolution tools, including the bail-in tool.

In the event that GSI, or any of its affiliates, becomes subject to a proceeding under the Federal Deposit Insurance Act or Title II of the Dodd-Frank Act (together, the "**U.S. Special Resolution Regimes**"), default rights against GSI in relation to the Instruments or (if applicable) to the relevant Guarantee given by GSI (as Guarantor) in relation to any Instruments issued by GSW, are permitted to be exercised to no greater extent than such default rights could be exercised under such U.S. Special Resolution Regime if the Instruments were governed by the laws of the United States or a state of the United States.

You should be aware that the exercise of any such resolution power or even the suggestion of any such potential exercise in respect of GSI (or any member of Goldman Sachs) could have a material adverse effect on the rights of holders of Securities and (if applicable) the relevant Guarantee given by GSI (as Guarantor), and could lead to a loss of some or all of the investment. The resolution regime is designed to be triggered prior to insolvency of the relevant institution, and holders of securities issued by such institution may not be able to anticipate the exercise of any resolution power (including exercise of the "bail-in" tool) by the resolution authority. Further, holders of securities issued by an institution which has been taken into a resolution regime will have very limited rights to challenge the exercise of powers by the resolution authority, even where such powers have resulted in the write down of the securities or conversion of the securities to equity.

**Acknowledgement of bail-in power in respect of Swiss Securities issued by GSI:** if you purchase Swiss Securities issued by GSI, you shall be deemed to have agreed to be bound by the exercise of any UK Bail-In Power by the Relevant UK Resolution Authority. See General Instrument Condition 7 (*Contractual acknowledgement of bail-in in respect of Swiss Securities, French Law Instruments and Italian Law Instruments issued by GSI*) and General Note Condition 7 (*Contractual acknowledgement of bail-in in respect of Swiss Securities, French Law Notes and Italian Law Notes issued by GSI*).

**Acknowledgement of bail-in power in respect of French Law Instruments and French Law Notes issued by GSI:** if you purchase French Law Instruments or French Law Notes issued by GSI, you shall be deemed to have agreed to be bound by the exercise of any UK Bail-In Power by the Relevant UK Resolution Authority. See General Instrument Condition 7 (*Contractual acknowledgement of bail-in in respect of Swiss Securities, French Law Instruments and Italian Law Instruments issued by GSI*) and General Note Condition 7 (*Contractual acknowledgement of bail-in in respect of Swiss Securities, French Law Notes and Italian Law Notes issued by GSI*).

**Acknowledgement of bail-in power in respect of Italian Law Instruments and Italian Law Notes issued by GSI:** if you purchase Italian Law Instruments or Italian Law Notes issued by GSI, you shall be deemed to have agreed to be bound by the exercise of any UK Bail-In Power by the Relevant UK Resolution Authority. See General Instrument Condition 7 (*Contractual acknowledgement of bail-in in respect of Swiss Securities, French Law Instruments and Italian Law Instruments issued by GSI*) and General Note Condition 7 (*Contractual acknowledgement of bail-in in respect of Swiss Securities, French Law Notes and Italian Law Notes issued by GSI*).

- (f) ***GSI's commodities activities, particularly GSI's physical commodities activities, subject GSI to extensive regulation and involve certain potential risks, including environmental, reputational and other risks that may expose GSI to significant liabilities and costs***

As part of GSI's commodities business, GSI purchases and sells certain physical commodities, arranges for their storage and transport, and engages in market making of commodities. The commodities involved in these activities may include crude oil, refined oil products, natural gas, liquefied natural gas, electric power, agricultural products, base, precious, and other metals, minerals (including unenriched uranium), emission credits, coal, freight and related products and indices.

GSI makes investments in and finances entities that engage in the production, storage and transportation of numerous commodities, including many of the commodities referenced above. These activities subject GSI and/or the entities in which GSI invests to extensive and evolving national, regional and local energy, environmental, antitrust and other governmental laws and regulations worldwide, including environmental laws and regulations relating to, among others, air quality, water quality, waste management, transportation of hazardous substances, natural resources, site remediation and health and safety. Additionally, rising climate change concerns have led to additional laws and regulations, regulatory scrutiny and disclosure obligations that have increased and could further increase the operating costs and could adversely affect the profitability of certain of GSI's investments and activities.

There may be substantial costs in complying with current or future laws and regulations relating to GSI's commodities-related activities and investments. Compliance with these laws and regulations could require significant commitments of capital toward environmental and operational monitoring, development of appropriate operational and supervisory procedures and processes, payment of emission fees and carbon or other taxes, and application for, and holding of, permits and licenses.

Commodities involved in GSI's intermediation activities and investments are also subject to the risk of unforeseen or catastrophic events, which are likely to be outside of GSI's control, including those arising from the breakdown or failure of third-party or service providers' transport vessels, storage facilities or other equipment or processes or other mechanical malfunctions, fires, leaks, spills or release of hazardous substances, performance below expected levels of output or efficiency, terrorist attacks, extreme weather events or other natural disasters or other hostile or catastrophic events. In addition, GSI relies on third-party suppliers or service providers to perform GSI's contractual obligations and any failure on their part, including the failure to supply or to safely transport or store commodities, could expose GSI to costs or losses. Also, while GSI seeks to insure against potential risks, GSI does not have insurance to cover some of these risks and the insurance that GSI has may be inadequate to cover its losses.

The occurrence of any of such events may prevent GSI from performing under its agreements with clients, may impair GSI's operations or financial results and may result in litigation, regulatory action, negative publicity or other reputational harm.

GSI has made changes to and may also be required to divest or discontinue certain of these activities for regulatory or legal reasons or due to the transition to a less carbon-dependent economy in response to climate change.

## **2.6 Competition Risks**

### **(a) *GSI's results have been and may in the future be adversely affected by the composition of its client base***

GSI's client base is not the same as that of its major competitors. GSI's businesses may have a higher or lower percentage of clients in certain industries or markets than some or all of its competitors. Therefore, unfavourable industry developments or market conditions affecting certain industries or markets have resulted in the past and may result

in the future in GSI's businesses underperforming relative to similar businesses of a competitor if its businesses have a higher concentration of clients in such industries or markets. For example, GSI's market-making businesses has a higher percentage of clients with actively managed assets than some of its competitors and these clients have in the past been and may in the future be disproportionately affected by low volatility.

Correspondingly, favourable or simply less adverse developments or market conditions involving industries or markets in a business where GSI has a lower concentration of clients in that industry or market have also resulted in the past and may result in the future in GSI underperforming relative to a similar business of a competitor that has a higher concentration of clients in that industry or market. For example, GSI has a smaller corporate client base in its market-making businesses than some of its peers and therefore GSI's competitors may benefit more from increased activity by corporate clients. Similarly, GSI has not historically engaged in retail equities intermediation to the same extent as other financial institutions, which has in the past affected and could in the future adversely affect its market share in equities execution.

(b) ***The financial services industry is highly competitive***

The financial services industry and all of GSI's businesses are intensely competitive, and GSI expects them to remain so. GSI competes on the basis of a number of factors, including transaction execution, our products and services, innovation, reputation, creditworthiness and price. There has been substantial consolidation and convergence among companies in the financial services industry. This has hastened the globalization of the securities and other financial services markets. As a result, GSI has had to commit capital to support its international operations and to execute large global transactions. To the extent GSI expands into new business areas and new geographic regions, it will face competitors with more experience and more established relationships with clients, regulators and industry participants in the relevant market, which could adversely affect its ability to expand.

Governments and regulators have adopted regulations, imposed taxes, adopted compensation restrictions or otherwise put forward various proposals that have impacted or may impact GSI's ability to conduct certain of its businesses in a cost-effective manner or at all in certain or all jurisdictions, including proposals relating to restrictions on the type of activities in which financial institutions are permitted to engage. These or other similar rules, many of which do not apply to all GSI's competitors, could impact its ability to compete effectively.

Pricing and other competitive pressures in GSI's businesses have continued to increase, particularly in situations where some competitors may seek to increase market share by reducing prices. For example, in connection with investment banking and other engagements, in response to competitive pressure GSI has experienced, GSI has extended and priced credit at levels that in some cases have not fully compensated it for the risks it has undertaken.

The financial services industry is highly interrelated in that a significant volume of transactions occur among a limited number of members of that industry. Many transactions are syndicated to other financial institutions and financial institutions are often counterparties in transactions. This has led to claims by other market participants and regulators that such institutions have colluded in order to manipulate markets or market prices, including allegations that antitrust laws have been violated. While GSI has extensive procedures and controls that are designed to identify and prevent such activities, they may not be effective. Allegations of such activities, particularly by regulators, can have a negative reputational impact and can subject GSI to large fines and settlements, and potentially significant penalties, including treble damages.

- (c) ***The growth of electronic trading and the introduction of new products and technologies, including trading and distributed ledger technologies, such as cryptocurrencies, and AI technologies, has increased competition***

Technology is fundamental to GSI's business and industry. The growth of electronic trading and the introduction of new technologies is changing GSI's businesses and presenting GSI with new challenges. Securities, futures and options transactions are increasingly occurring electronically, both on GSI's own systems and through other alternative trading systems, and it appears that the trend toward alternative trading systems will continue. Some of these alternative trading systems compete with GSI, particularly GSI's exchange-based market-making activities, and GSI may experience continued competitive pressures in these and other areas. In addition, the increased use by GSI's clients of low-cost electronic trading systems and direct electronic access to trading markets has caused and could continue to cause a reduction in commissions and spreads. As GSI's clients increasingly use GSI's systems to trade directly in the markets, GSI may incur liabilities as a result of their use of GSI's order routing and execution infrastructure.

GSI has invested significant resources into the development of electronic trading systems and expect to continue to do so, but there is no assurance that the revenues generated by these systems will yield an adequate return, particularly given the generally lower commissions arising from electronic trades.

In addition, the emergence, adoption and evolution of new technologies, including distributed ledgers, such as digital assets and blockchain, and AI technologies, have required GSI to invest resources to adapt its existing products and services, and GSI expects to continue to make such investments, which could be material. The adoption and evolution of such new technologies may also increase GSI's compliance and regulatory costs. Further, technologies, such as those based on distributed ledgers, that do not require intermediation could also significantly disrupt payments processing and other financial services. Regulatory limitations on GSI's involvement in products and platforms involving digital assets and distributed ledger technologies may not apply equally or in some cases at all to certain of GSI's competitors. GSI may not be as timely or successful in developing or integrating, or even able to develop or integrate, new products and technologies, such as those built on distributed ledgers or AI technologies, into GSI's existing products and services, adapting to changes in client preferences or achieving market acceptance of GSI's products and services. For example, GSI's competitors may be more timely or successful in developing or integrating AI technologies to increase their productivity and reduce their costs or to provide better transaction execution or improved product services to clients. Any of the foregoing could affect GSI's ability to attract or retain clients, cause GSI to lose market share or result in service disruptions and in turn reduce GSI's revenues or otherwise adversely affect GSI.

- (d) ***GSI's businesses would be adversely affected if it is unable to hire and retain qualified employees***

GSI's performance is largely dependent on the talents and efforts of highly skilled people; therefore, GSI's continued ability to compete effectively in its businesses, to manage its businesses effectively and to expand into new businesses and geographic areas depends on its ability to attract and retain a talented workforce. Factors that affect GSI's ability to attract and retain such employees include the level and composition of compensation and benefits, a reputation as a successful business with a culture of fairly hiring, training and promoting qualified employees and government policies, including immigration policy. As a significant portion of the compensation that GSI pays to its employees is paid in the form of year-end discretionary compensation, a significant portion of which

is in the form of deferred equity-related awards, declines in the GS Group's profitability, or in the outlook for its future profitability, as well as regulatory limitations on compensation levels and terms, can negatively impact GSI's ability to hire and retain highly qualified employees.

Competition from within the financial services industry and from businesses outside the financial services industry, including the technology industry, for qualified employees has often been intense. GSI has experienced increased competition in hiring and retaining employees to address the demands of new regulatory requirements and GSI's technology initiatives. This is also the case in emerging and growth markets, where GSI is often competing for qualified employees with entities that have a significantly greater presence or more extensive experience in the region.

Laws or regulations in jurisdictions in which GSI's operations are located that affect taxes on GSI's employees' income or the amount or composition of compensation, or that require GSI to disclose its competitors' compensation practices may also adversely affect GSI's ability to hire and retain qualified employees in those jurisdictions.

GSI's compensation practices are subject to review by, and the standards of, the PRA and the Financial Conduct Authority ("FCA"). As a large financial institution, GSI is subject to limitations on compensation practices (which may or may not affect the companies with which GSI competes for talent) by the PRA, the FCA and other regulators worldwide. These limitations have shaped GSI's compensation practices, which has, in some cases, adversely affected GSI's ability to attract and retain talented employees, in particular in relation to companies not subject to these limitations, and future legislation or regulation may have similar adverse effects.

## **2.7 Market Developments and General Business Environment Risks**

- (a) ***GSI'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 occurrence of unforeseen or catastrophic events, including pandemics or other widespread health emergencies (or concerns over the possibility of such an emergency), terrorist attacks, wars, extreme weather events, solar events or other natural disasters, could adversely affect GSI's business, financial condition, liquidity and results of operations. These events could have such effects through economic or financial market disruptions or challenging economic or market conditions more generally, the deterioration of GSI's creditworthiness or that of GSI's counterparties, changes in consumer sentiment and consumer borrowing, spending and savings patterns, liquidity stress, or operational difficulties (such as travel limitations and limitations on occupancy in GSI's offices) that impair GSI's ability to manage GSI's businesses.

- (b) ***Climate change could disrupt GS Group's businesses and adversely affect client activity levels and the creditworthiness of GSI's clients and counterparties, and GSI's actual or perceived action or inaction relating to climate change could result in damage to GSI's reputation***

Climate change may cause, or be a contributing factor to, extreme weather events that disrupt operations one or more of our or GS Group's primary locations, which may negatively affect GSI's ability to service and interact with GSI's clients, adversely affect the value of GSI's investments, and reduce the availability or increase the cost of insurance. Climate change and the transition to a less carbon-dependent economy may also have a negative impact on the operations or financial condition of GSI's clients and

counterparties, which may decrease revenues from those clients and counterparties and increase the risk and other exposures to those clients and counterparties. In addition, climate change may impact the broader economy.

GSI is also exposed to risks resulting from changes in public policy, laws and regulations, or market and public perceptions and preferences in connection with the transition to a less carbon-dependent economy. These changes could adversely affect GSI's business, results of operations and reputation. If GSI's response to climate change is subject to criticism, its business, reputation and efforts to recruit and retain employees may suffer.

New laws, regulations or guidance relating to climate change, as well as the perspectives of government officials, regulators, employees and other stakeholders regarding climate change, may affect whether and on what terms and conditions GSI engages in certain activities or offer certain products. Banking regulators and supervisory authorities, shareholders and other stakeholders have increasingly viewed financial institutions as playing an important role in helping to address risks related to climate change, both directly and with respect to their clients, which may result in financial institutions coming under increased requirements and expectations regarding the disclosure and management of their climate risks and related lending, investment and advisory activities.

In 2021, the FCA introduced mandatory Taskforce on Climate-related Financial Disclosures-aligned disclosure requirements for GSI. GSI is also subject to climate-related financial disclosures required under the U.K. Companies Act. GSI continues to assess the impact of other ESG-related regulatory frameworks that will, or are proposed to, in the future apply to GSI. GSI is also subject to the PRA's supervisory expectations for the management of climate-related financial risks, including with respect to governance, risk management, scenario analysis and disclosure.

In the E.U., GSI is expected to be subject to sustainability-related laws being implemented, including directives, such as the Corporate Sustainability Reporting Directive ("**CSRD**") and the Corporate Sustainability Due Diligence Directive ("**CSDDD**"), which would significantly expand the scope of ESG disclosure requirements applicable to GSI and impose stringent due diligence requirements with respect to adverse human rights and environmental impacts in GSI's upstream business partners' operations as well as require GSI to put into effect a climate transition plan

These, as well as any additional or heightened laws, regulations, guidance and expectations have in the past subjected and may in the future subject GSI to different and potentially conflicting requirements and expectations in the various jurisdictions in which GSI operates, and have in the past resulted in and could in the future result in increased regulatory, compliance or other costs or higher capital requirements. The risks associated with, and the perspective of government officials, regulators, employees and other stakeholders regarding, climate change are continuing to evolve rapidly, which can make it difficult to assess the ultimate impact on GSI of climate change-related risks and uncertainties, but GSI expects that climate change-related risks will increase over time.

- (c) ***GSI'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***

The conflict between Russia and Ukraine has negatively affected the global economy. Governments around the world have responded to Russia's invasion by imposing economic sanctions and export controls on certain industry sectors, including price caps on Russian oil, and on Russian businesses and persons. Compliance with economic sanctions and restrictions imposed by governments has increased GSI's costs and otherwise adversely affected GSI's business and may continue to do so. Russia has

responded with its own restrictions against investors and countries outside Russia and has proposed additional measures aimed at non-Russian owned businesses. Businesses globally have experienced shortages in materials and increased costs for transportation, energy, and raw materials due in part to the negative effects of the conflict on the global economy.

The conflicts in the Middle East could also affect and harm GSI's business and increase market uncertainty. The impact of these conflicts on GSI's business and operations is uncertain and therefore cannot be predicted.

The escalation or continuation of these conflicts or other hostilities could result in, among other things, an increased risk of cyber attacks, an increased frequency and volume of failures to settle securities transactions, supply chain disruptions, higher inflation, lower consumer demand and increased volatility in commodity, currency and other financial markets.

The extent and duration of the conflicts, sanctions and resulting market disruptions are impossible to predict, and the consequences for GSI's business could be significant. If international political instability and geopolitical tensions continue or increase in any region in which GSI does business, GSI's business and results of operations could be harmed.

(d) ***GSI may be adversely affected by negative publicity***

The financial services industry generally and GSI's businesses in particular have been subject to negative publicity. GSI's reputation and businesses may be adversely affected by negative publicity or information regarding its business, personnel, corporate engagement programs and other initiatives, whether or not accurate or true, that may be posted on social media or other internet forums or published by news organisations. Postings on these types of forums may also adversely impact risk positions of GSI's clients and other parties that owe it money, securities or other assets and increase the chance that they will not perform their obligation to the firm or reduce the revenues received from their use of GSI's services. The speed and pervasiveness with which information can be disseminated through these channels, in particular social media, may magnify risks relating to negative publicity.

(e) ***Certain of GSI's businesses and its funding instruments may be adversely affected by changes in reference rates, currencies, indices, baskets or exchange-traded funds ("ETFs") to which products GSI offers or funding that GSI raises are linked***

Many of the products that GSI owns or that it offers, such as structured notes, warrants, swaps or security-based swaps, pay interest or determine the principal amount to be paid at maturity or in the event of default by reference to rates or by reference to an index, currency, basket, ETF or other financial metric (the underlier). In the event that the composition of the underlier is significantly changed, by reference to rules governing such underlier or otherwise, the underlier ceases to exist (for example, in the event that a country withdraws from the Euro or links its currency to or delinks its currency from another currency or benchmark, an index or ETF sponsor materially alters the composition of an index or ETF, or stocks in a basket are delisted or become impermissible to be included in the index or ETF), the underlier ceases to be recognised as an acceptable market benchmark or there are legal or regulatory constraints on linking a financial instrument to the underlier, GSI may experience adverse effects.

(f) ***GSI'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***

Continued or escalating tensions between the U.S. and China have resulted in and may result in additional changes to U.S. international trade and investment policies, which could disrupt international trade and investment, adversely affect financial markets, including market activity levels, and adversely impact GSI's revenues. Continued or escalating tensions may also lead to the U.S., China or other countries taking other actions, which could include the implementation of sanctions, tariffs or foreign exchange measures, the large-scale sale of U.S. Treasury securities or restrictions on cross-border trade, investment or transfer of information or technology. Any such developments could adversely affect GSI's or GSI's clients' businesses, as well as GSI's financial condition, liquidity and results of operations, possibly materially.

A conflict, or concerns about a potential conflict, involving China and Taiwan, the U.S. or other countries could negatively impact financial markets and GSI's or GSI's clients' businesses. Trade restrictions by the U.S. or other countries in response to a conflict or potential conflict involving China, including financial and economic sanctions and export controls against certain organisations or individuals, or actions taken by China in response to trade restrictions, could negatively impact GSI's or GSI's clients' ability to conduct business in certain countries or with certain counterparties and could negatively impact regional and global financial markets and economic conditions. Any of the foregoing could adversely affect GSI's business, financial condition, liquidity and results of operations, possibly materially.

(g) ***GSI faces enhanced risks as GSG operates in new locations, and the company transacts with a broader array of clients and counterparties***

GSI's businesses, have in the past, and may in the future, bring GSI into contact, directly or indirectly, with individuals and entities that are not within GSI's traditional client and counterparty base, expose GSI to new asset classes and new markets, and present GSI with integration challenges. For example, GSI continues to transact business and invest in new regions, including a wide range of emerging and growth markets, and GSI expects this trend to continue. Various emerging and growth market countries have experienced severe economic and financial disruptions, including significant devaluations of their currencies, defaults or threatened defaults on sovereign debt, capital and currency exchange controls, and low or negative growth rates in their economies. The possible effects of any of these conditions include an adverse impact on GSI's businesses and increased volatility in financial markets generally.

New business initiatives expose GSI to new and enhanced risks, including risks associated with dealing with governmental entities, reputational concerns arising from dealing with different types of clients, business partners, counterparties and investors, greater regulatory scrutiny of these activities, increased credit-related, market, sovereign and operational risks, risks arising from accidents or acts of terrorism, and reputational concerns with the manner in which certain assets are being operated or held or in which GSI interacts with these clients, business partners, counterparties and investors. Legal, regulatory and reputational risks may also exist in connection with activities and transactions involving new products or markets where there is regulatory uncertainty or where there are different or conflicting regulations depending on the regulator or the jurisdiction involved, particularly where transactions in such products may involve multiple jurisdictions.";

**2. Amendments to the section entitled "Documents Incorporated by Reference"**

The information in the section entitled "*Documents Incorporated by Reference*" is amended and supplemented by:

- (a) deleting sub-section 1 entitled "*Goldman Sachs International*" on pages 127 to 128 of the Base Prospectus in its entirety and replacing it with the following:

## 1. Goldman Sachs International

GSI files documents and information with the *Commission de Surveillance du Secteur Financier* (the "CSSF"). The following documents, which GSI has filed with the CSSF, are hereby incorporated by reference into this Base Prospectus:

- (a) The Annual Report for the period ended 31 December 2024 of GSI ("**GSI's 2024 Annual Report**"), containing, in Part II, the Directors' Report and Audited Financial Statements of GSI for the period ended 31 December 2023 ("**GSI's 2024 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2024/12-31-24-financial-statements.pdf>);
- (b) The Unaudited Quarterly Financial Report of GSI for the period ended 30 September 2024 ("**GSI's 2024 Third Quarter Financial Report**"), containing the Unaudited Financial Statements of GSI for the period ended 30 September 2024 ("**GSI's 2024 Third Quarter Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2024/09-30-24-financial-information.pdf>);
- (c) The Unaudited Half-yearly Financial Report of GSI for the half year ended 30 June 2024 ("**GSI's 2024 Half-yearly Financial Report**"), containing, in Part II, the Unaudited Financial Statements of GSI for the half year ended 30 June 2024 ("**GSI's 2024 Half-yearly Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2024/06-30-24-financial-statements.pdf>);
- (d) The Unaudited Quarterly Financial Report of GSI for the period ended 31 March 2024 ("**GSI's 2024 First Quarter Financial Report**"), containing the Unaudited Financial Statements of GSI for the period ended 31 March 2024 ("**GSI's 2024 First Quarter Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2024/03-31-24-financial-information.pdf>);
- (e) The Annual Report for the period ended 31 December 2023 of GSI ("**GSI's 2023 Annual Report**"), containing, in Part II, the Directors' Report and Audited Financial Statements of GSI for the period ended 31 December 2023 ("**GSI's 2023 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2023/12-31-23-financial-statements.pdf>); and
- (f) The Annual Report for the period ended 31 December 2022 of GSI ("GSI's 2022 Annual Report"), containing, in Part II, the Directors' Report and Audited Financial Statements of GSI for the period ended 31 December 2022 ("**GSI's 2022 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2022/12-31-22-financial-statements.pdf>).

### Cross-Reference List

<b>GSI Information in the Fiscal Statement</b>	<b>GSI's 2024 Annual Report</b>	<b>GSI's 2024 Third Quarter Financial Report</b>	<b>GSI's 2024 Half-yearly Financial Report</b>	<b>GSI's 2024 First Quarter Financial Report</b>	<b>GSI's 2023 Annual Report</b>	<b>GSI's 2022 Annual Report</b>
Management Report/ Strategic Report	pp. 2-35	pp. 1-5	pp. 1-13	pp. 1-3	pp. 2-35	pp. 2-30
Report of the Directors	pp. 36-40	N/A	N/A	N/A	pp. 36-40	pp. 31-49
Balance Sheet	p. 50	p. 7	p. 15	p. 5	p. 50	p. 47
Profit and Loss Account	p. 49	p. 6	p. 14	p. 4	p. 49	p. 46

/ Income Statement						
Statement of Cash Flows	p. 52	N/A	p. 17	N/A	p. 52	p. 49
Notes to the Financial Statements	pp. 53-93	pp. 8-13	pp. 18-31	pp. 6-10	pp. 53-93	pp. 50-90
Independent Auditors' Report	pp. 41-48	N/A	N/A	N/A	pp. 41-48	pp. 38-45

Any information included in the documents incorporated by reference that is not included in the cross reference list is not incorporated by reference and is therefore not relevant to an investor (meaning that it is not necessary information to be included in this Base Prospectus pursuant to Article 6(1) of the EU Prospectus Regulation and is not otherwise required to be included under the relevant schedules of Commission Delegated Regulation (EU) 2019/980 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council and repealing Commission (EC) No 809/2004, (as amended, the "EU PR Regulation").";

- (b) deleting sub-section 3 entitled "*Goldman Sachs Finance Corp International Ltd*" on pages 130 to 131 of the Base Prospectus in its entirety and replacing it with the following:

### 3. **Goldman Sachs Finance Corp International Ltd**

The following documents, which have previously been published and have been filed with the CSSF, shall be deemed to be incorporated by reference into, and to form part of, this Base Prospectus:

- (a) The Annual Report for the fiscal year ended 31 December 2024 of GSFCI ("**GSFCI's 2024 Annual Report**"), which includes the management report and the audited financial statements of GSFCI for the period ended 31 December 2024 ("**GSFCI's 2024 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsfci/2024/gsfci-31-dec-2024-financial-statements.pdf>);
- (b) The Unaudited Half-yearly Financial Report of GSFCI for the half year ended 30 June 2024 ("**GSFCI's 2024 Half-yearly Financial Report**"), containing, in Part II, the Unaudited Financial Statements of GSFCI for the half year ended 30 June 2024 ("**GSFCI's 2024 Half-yearly Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsfci/2024/gsfci-30-june-2024-financial-statements.pdf>);
- (c) The Annual Report for the fiscal year ended 31 December 2023 of GSFCI ("**GSFCI's 2023 Annual Report**"), which includes the management report and the audited financial statements of GSFCI for the period ended 31 December 2023 ("**GSFCI's 2023 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsfci/2023/gsfci-31-dec-2023-financial-statements.pdf>); and
- (d) The Annual Report for the fiscal year ended 31 December 2022 of GSFCI ("**GSFCI's 2022 Annual Report**"), which includes the management report and the audited financial statements of GSFCI for the period ended 31 December 2022 ("**GSFCI's 2022 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsfci/2022/gsfci-31-dec-2022-financial-statements.pdf>).

#### Cross-Reference List

GSFCI's Information in	<u>GSFCI's 2024 Annual Report</u>	<u>GSFCI's 2024 Half-yearly Financial Report</u>	<u>GSFCI's 2023 Annual Report</u>	<u>GSFCI's 2022 Annual Report</u>
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**the Financial Statements**

Management Report	pp. 2-4	pp. 2-3	pp. 2-4	pp. 2-5
Profit and Loss Account	p. 13	p. 4	p. 12	p. 13
Balance Sheet	p. 14	p. 5	p. 13	p. 14
Statement of Changes in Equity	p. 15	p. 6	p. 14	p. 15
Statement of Cash Flows	p. 15	p. 6	p. 14	p. 15
Notes to the Financial Statements	pp. 16-32	pp. 7-13	pp. 15-33	pp. 16-32
Independent Auditors' Report	pp. 7-12	N/A	pp. 7-11	pp. 8-12

**Information required by the EU PR Regulation**

**Document/Location**

*Expected financing of GSFCl's activities (Annex 6, Item 4, Item 4.1.8 of the EU PR Regulation)*

GSFCl's 2024 Annual Report (pp. 2-3)

For the avoidance of doubt, any information not listed in the cross-reference table but included in the document referred to in the cross-reference table is not incorporated herein by reference for the purposes of the Prospectus Regulation and is either (a) covered elsewhere in the Base Prospectus; or (b) not relevant for the investor."; and

- (c) deleting sub-section 5 entitled "*The Goldman Sachs Group, Inc.*" on pages 134 to 138 of the Base Prospectus in its entirety and replacing it with the following:

**"5. The Goldman Sachs Group, Inc.**

GSG files documents and information with the SEC. The following documents, which have previously been published and filed with the SEC, shall be deemed to be incorporated by reference in, and to form part of, this Base Prospectus:

- (a) The Current Report on GSG's 14 April 2025 Form 8-K of The Goldman Sachs Group, Inc. ("**GSG's 14 April 2025 Form 8-K**"), including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 14 April 2025 Form 8-K**") as filed with the SEC on 14 April 2025 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2025/8k-04-14-25.pdf>);
- (b) The Proxy Statement relating to GSG's 2025 Annual Meeting of Shareholders on 23 April 2025 ("**GSG's 2025 Proxy Statement**"), as filed with the SEC on 14 March 2025 (accessible on <https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2025/proxy-statement.pdf>);
- (c) The Annual Report on Form 10-K for the fiscal year ended 31 December 2024 of The Goldman Sachs Group, Inc. ("**GSG's 2024 Form 10-K**"), containing financial statements relating to the fiscal years ended 31 December 2024, 31 December 2023 and 31 December 2022, including

Exhibit 21.1, as filed with the U.S. Securities and Exchange Commission on 27 February 2025 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10k/2024/2024-10-k.pdf>);

- (d) The Current Report on GSG's 15 January 2025 Form 8-K of The Goldman Sachs Group, Inc. ("**GSG's 15 January 2025 Form 8-K**"), including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 15 January 2025 Form 8-K**") as filed with the SEC on 15 January 2025 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2024/8k-01-15-24.pdf>);
- (e) The Quarterly Report on Form 10-Q for the third fiscal quarter ended 30 September 2024 of The Goldman Sachs Group, Inc. ("**GSG's 2024 Third Quarter Form 10-Q**"), as filed with the SEC on 4 November 2024 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10q/2024/third-quarter-2024-10-q.pdf>);
- (f) The Current Report on GSG's 15 October 2024 Form 8-K of The Goldman Sachs Group, Inc. ("**GSG's 15 October 2024 Form 8-K**"), including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 15 October 2024 Form 8-K**") as filed with the SEC on 15 October 2024 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2024/8k-10-15-24.pdf>);
- (g) The Quarterly Report on Form 10-Q for the second fiscal quarter ended 30 June 2024 of The Goldman Sachs Group, Inc. ("**GSG's 2024 Second Quarter Form 10-Q**"), as filed with the SEC on 2 August 2024 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10q/2024/second-quarter-2024-10-q.pdf>);
- (h) The Current Report on GSG's 15 July 2024 Form 8-K of The Goldman Sachs Group, Inc. ("**GSG's 15 July 2024 Form 8-K**"), including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 15 July 2024 Form 8-K**") as filed with the SEC on 15 July 2024 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2024/07-15-2024.pdf>);
- (i) The Quarterly Report on Form 10-Q for the first fiscal quarter ended 31 March 2024 of The Goldman Sachs Group, Inc. ("**GSG's 2024 First Quarter Form 10-Q**"), as filed with the SEC on 3 May 2024 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10q/2024/first-quarter-2024-10-q.pdf>);
- (j) The Current Report on GSG's 15 April 2024 Form 8-K of The Goldman Sachs Group, Inc. ("**GSG's 15 April 2024 Form 8-K**"), including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 15 April 2024 Form 8-K**") as filed with the SEC on 15 April 2024 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2024/8k-04-15-24.pdf>);
- (k) The Proxy Statement relating to GSG's 2024 Annual Meeting of Shareholders on 24 April 2024 ("**GSG's 2024 Proxy Statement**"), as filed with the SEC on 15 March 2024 (accessible on <https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2024/2024-proxy-statement-pdf.pdf>);
- (l) The Annual Report on Form 10-K for the fiscal year ended 31 December 2023 of The Goldman Sachs Group, Inc. ("**GSG's 2023 Form 10-K**"), containing financial statements relating to the fiscal years ended 31 December 2023, 31 December 2022 and 31 December 2021, including Exhibit 21.1, as filed with the U.S. Securities and Exchange Commission on 23 February 2024 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10k/2023/2023-10-k.pdf>); and
- (m) The Annual Report on Form 10-K for the fiscal year ended 31 December 2022 of The Goldman Sachs Group, Inc. ("**GSG's 2022 Form 10-K**"), containing financial statements relating to the fiscal years ended 31 December 2022, 31 December 2021 and 31 December 2020, including Exhibit 21.1, as filed with the U.S. Securities and Exchange Commission on 24 February 2023 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf>).

The following table indicates where information required by the EU Prospectus Regulation to be disclosed in, and incorporated by reference into, this Base Prospectus can be found in the documents referred to above.

<b>Information required by the EU PR Regulation</b>	<b>Document/Location</b>
Risk factors relating to GSG ( <i>Annex 6, Section 3, Item 3.1 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (Market risks (pp. 33-36), Liquidity risks (pp. 36-38), Credit risks (pp. 38-40), Operational risks (pp. 40-45), Legal and Regulatory risks (pp. 46-53), Competition risks (pp. 53-55) and Market Developments and General Business Environment risks (pp. 56-59))
<b>Information about GSG</b>	
History and development of the company ( <i>Annex 6, Section 4, Item 4.1 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (p. 1)
Details of any recent events particular to GSG and which are to a material extent relevant to an evaluation of GSG's solvency ( <i>Annex 6, Section 4, Item 4.1.5 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 62-126)
Information on the material changes in GSG's borrowing or funding structure since the last financial year ( <i>Annex 6, Section 4, Item 4.1.7 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 83-87, 131-134, 190-192)
Description of the expected financing of GSG's activities ( <i>Annex 6, Item 4, Item 4.1.8 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 83-87)
<b>Business overview</b>	
GSG's principal activities ( <i>Annex 6, Section 5, Item 5.1 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 1-5, 135)
GSG's principal markets ( <i>Annex 6, Section 5, Item 5.1.1 (c) of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 9-10, 61, 214)
Organisational Structure ( <i>Annex 6, Section 6, Items 6.1 and 6.2 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (p. 38, Exhibit 21.1)
Trend information ( <i>Annex 6, Section 7, Items 7.1 and 7.2 of the EU PR Regulation</i> )	Exhibit 99.1 to GSG's 14 April 2025 Form 8-K (pp. 1-6)  GSG's 2024 Form 10-K (pp. 62-126)  Exhibit 99.1 to GSG's 15 January 2025 Form 8-K (pp. 1-8)  GSG's 2024 Third Quarter Form 10-Q (pp. 104-173)  Exhibit 99.1 to GSG's 15 October 2024 Form 8-K (pp. 1-6)  GSG's 2024 Second Quarter Form 10-Q (pp. 104-173)  Exhibit 99.1 to GSG's 15 July 2024 Form 8-K (pp. 1-6)  GSG's 2024 First Quarter Form 10-Q (pp. 101-165)  Exhibit 99.1 to GSG's 15 April 2024 Form 8-K (pp. 1-6)

<b>Information required by the EU PR Regulation</b>	<b>Document/Location</b>
	GSG's 2023 Form 10-K (pp. 62-123)
	GSG's 2022 Form 10-K (pp. 57-118)
Administrative, management and supervisory bodies, including conflicts of interest ( <i>Annex 6, Section 9, Items 9.1 and 9.2 of the EU PR Regulation</i> )	GSG's 2025 Proxy Statement (pp. 8-32, 93-95) GSG's 2024 Form 10-K (p. 27)
	GSG's 2024 Proxy Statement (pp. 7-30, 97-99) GSG's 2023 Form 10-K (pp. 27-28) GSG's 2022 Form 10-K (pp. 24-25)
Beneficial owners of more than five per cent. ( <i>Annex 6, Section 10, Item 10.1 of the EU PR Regulation</i> )	GSG's 2025 Proxy Statement (p. 98) GSG's 2024 Proxy Statement (p. 102)
<b>Financial information</b>	
Audited historical financial information for the fiscal years ended 31 December 2024, 31 December 2023 and 31 December 2022 ( <i>Annex 6, Section 11, Items 11.1.1 and 11.1.5 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 131-239)
Audit report ( <i>Annex 6, Section 11, Item 11.1.1 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 128-130)
Balance sheet ( <i>Annex 6, Section 11, Item 11.1.5 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (p. 132)
Income statement ( <i>Annex 6, Section 11, Item 11.1.5 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (p. 131)
Cash flow statement ( <i>Annex 6, Section 11, Item 11.1.5 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (p. 134)
Accounting policies and explanatory notes ( <i>Annex 6, Section 11, Item 11.1.5 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 64-67, 135-239)

<b>Information required by the EU PR Regulation</b>	<b>Document/Location</b>
Unaudited interim and other financial information (Annex 6, Section 11, Item 11.2.1 of the EU PR Regulation)	GSG's 2024 Third Quarter Form 10-Q (pp. 1-101)
	GSG's 2024 Second Quarter Form 10-Q (pp. 1-101)
	GSG's 2024 First Quarter Form 10-Q (pp. 1-98)
Balance sheet (Annex 6, Section 11, Item 11.2.1 of the EU PR Regulation)	Exhibit 99.1 to GSG's 14 April 2025 Form 8-K (p. 9)
	Exhibit 99.1 to GSG's 15 January 2025 Form 8-K (p. 13)
	GSG's 2024 Third Quarter Form 10-Q (p. 2)
	Exhibit 99.1 to GSG's 15 October 2024 Form 8-K (p. 11)
	GSG's 2024 Second Quarter Form 10-Q (p. 2)
	Exhibit 99.1 to GSG's 15 July 2024 Form 8-K (p. 11)
Income statement (Annex 6, Section 11, Item 11.2.1 of the EU PR Regulation)	GSG's 2024 First Quarter Form 10-Q (p. 2)
	Exhibit 99.1 to GSG's 15 April 2024 Form 8-K (p. 9)
	Exhibit 99.1 to GSG's 14 April 2025 Form 8-K (p. 8)
	Exhibit 99.1 to GSG's 15 January 2025 Form 8-K (pp. 11-12)
	GSG's 2024 Third Quarter Form 10-Q (p. 1)
	Exhibit 99.1 to GSG's 15 October 2024 Form 8-K (pp. 9-10)
Cash flow statement (Annex 6, Section 11, Item 11.2.1 of the EU PR Regulation)	GSG's 2024 Second Quarter Form 10-Q (p. 1)
	Exhibit 99.1 to GSG's 15 July 2024 Form 8-K (pp. 9-10)
	GSG's 2024 First Quarter Form 10-Q (p. 1)
	Exhibit 99.1 to GSG's 15 April 2024 Form 8-K (p. 8)
	GSG's 2024 Third Quarter Form 10-Q (p. 4)
	GSG's 2024 Second Quarter Form 10-Q (p. 4)
Accounting policies and explanatory notes (Annex 6, Section 11, Item 11.2.1 of the EU PR Regulation)	GSG's 2024 First Quarter Form 10-Q (p. 4)
	GSG's 2024 Third Quarter Form 10-Q (pp. 5-100)
	GSG's 2024 Second Quarter Form 10-Q (pp. 5-101)
	GSG's 2024 First Quarter Form 10-Q (pp. 5-98)
Legal and arbitration proceedings (Annex 6, Section 11, Item 11.4.1 of the EU PR Regulation)	GSG's 2024 Form 10-K (pp. 60, 218-230)
	GSG's 2024 Third Quarter Form 10-Q (pp. 88-100)
	GSG's 2024 Second Quarter Form 10-Q (pp. 88-100)

<b>Information required by the EU PR Regulation</b>	<b>Document/Location</b>
	GSG's 2024 First Quarter Form 10-Q (pp. 85-97)
	GSG's 2023 Form 10-K (pp. 60, 216-230)
<b>Additional information</b>	
Share capital ( <i>Annex 6, Section 12, Item 12.1 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 133, 202-204)
	GSG's 2024 Third Quarter Form 10-Q (pp. 3, 73-76)
	GSG's 2024 Second Quarter Form 10-Q (pp. 3, 73-76)
	GSG's 2024 First Quarter Form 10-Q (pp. 5, 72-74)
	GSG's 2023 Form 10-K (pp. 130, 201-203)
	GSG's 2022 Form 10-K (pp. 125, 192-194)

### **Material contracts**

Material contracts ( <i>Annex 6, Section 13, Item 13.1 of the EU PR Regulation</i> )	GSG's 2024 Form 10-K (pp. 190-192)
	GSG's 2024 Third Quarter Form 10-Q (pp. 60-63)
	GSG's 2024 Second Quarter Form 10-Q (pp. 60-63)
	GSG's 2024 First Quarter Form 10-Q (pp. 59-62)
	GSG's 2023 Form 10-K (pp. 188-190)
	GSG's 2022 Form 10-K (pp. 180-183)

Certain material risks that are specific to the Issuer and/or Guarantor and that may affect the Issuer's and/or Guarantor's ability to fulfil its obligations under the Securities may be described by referring to the relevant sections therein of the above documents incorporated by reference (as applicable). See "*Risks relating to GSG*" under the section of this Base Prospectus entitled "*Risk Factors*".

Any information included in the documents incorporated by reference that is not included in the cross-reference list is not incorporated by reference and is therefore not relevant to an investor (meaning that it is not necessary information to be included in this Base Prospectus pursuant to Article 6(1) of the EU Prospectus Regulation and is not otherwise required to be included under the relevant schedules of the EU Prospectus Regulation)."

### **3. Amendments to the section entitled "Goldman Sachs International"**

The information in the section entitled "*Goldman Sachs International*" is amended and supplemented by:

- (a) deleting the sixth paragraph under the sub-section entitled "*General Information on Goldman Sachs International*" on page 1210 of the Base Prospectus in its entirety and replacing it with the following:

"A description of GSI's principal future investments on which its management body has already made firm commitments may be found in Note 25 of the "Notes to the Financial Statements" at page 73 of GSI's 2024 Annual Report, which has been incorporated by reference into this Base Prospectus as set out above.";

- (b) deleting the ninth paragraph under the sub-section entitled "*General Information on Goldman Sachs International*" on page 1210 of the Base Prospectus in its entirety and replacing it with the following:

"GSI's primary sources of funding are collateralised financings, unsecured borrowings (intercompany unsecured borrowings and external unsecured borrowings) and shareholder's equity. A description of

GSI's funding sources may be found in the section "Funding Sources" on PDF-page 8 of GSI's 2024 Annual Report.";

- (c) deleting the first paragraph under the sub-section entitled "*Capitalisation*" on page 1211 of the Base Prospectus in its entirety and replacing it with the following:

"As at 31 December 2024, GSI had 598,182,053 issued ordinary shares of U.S.\$ 1.00 each. The issue of additional shares by GSI shall be at the discretion of the Directors of GSI in accordance with Article 1.6 of the Articles of Association of GSI. All of the issued shares are fully paid and are owned by Goldman Sachs Group UK Limited";

- (d) deleting the line item corresponding to "Nirubhan Pathmanabhan" from the table within the sub-section entitled "*Management of GSI*" on page 1214 of the Base Prospectus in its entirety; and

- (e) deleting the sub-section entitled "*Selected Financial Information*" on pages 1214 to 1215 of the Base Prospectus in its entirety and replacing it with the following:

**"Selected Financial Information**

The selected financial information set out below has been extracted from GSI's 2024 Financial Statements and GSI's 2023 Financial Statements, which have been audited by PricewaterhouseCoopers LLP and on which PricewaterhouseCoopers LLP issued an unqualified audit report.

GSI's 2024 Financial Statements and GSI's 2023 Financial Statements have been prepared in accordance with International Financial Reporting Standards ("**IFRS**"). The financial information presented below should be read in conjunction with the financial statements included in such documents, the notes thereto and report thereon.

The following table shows selected key historical financial information in relation to GSI:

	<b>As at and for the period ended (audited)</b>	
<i>(in USD millions)</i>	<b>31 December 2024</b>	<b>31 December 2023</b>
Operating Profit	N/A	N/A
Profit before taxation	3,673	5,066
Profit for the financial period	2,799	4,151
	<b>As at (audited)</b>	
<i>(in USD millions)</i>	<b>31 December 2024</b>	<b>31 December 2023</b>
Fixed Assets	538 <sup>1</sup>	530 <sup>1</sup>
Current Assets	1,108,226	1,200,455
Total Shareholders' Equity	40,217	40,119

<sup>1</sup> Fixed Assets are computed by adding (i) Property, leasehold improvements and equipment, (ii) Intangible assets and (iii) Right-of-use assets in Note 14. Other Assets of GSI's 2024 Financial Statements."

#### 4. Amendments to the section entitled "Goldman Sachs Finance Corp International Ltd"

The information in the section entitled "*Goldman Sachs Finance Corp International Ltd*" is amended and supplemented by deleting the information under the sub-heading entitled "*Selected Financial Information*" on pages 1218 to 1219 of the Base Prospectus in its entirety and replacing it with the following:

##### "Selected Financial Information"

The selected financial information set out below has been extracted from GSFCI's 2024 Financial Statements and GSFCI's 2023 Financial Statements, which have been audited by PricewaterhouseCoopers LLP and on which PricewaterhouseCoopers LLP have issued an unqualified audit report.

GSFCI's 2024 Financial Statements and GSFCI's 2023 Financial Statements are incorporated by reference into this Base Prospectus. The financial information presented below should be read in conjunction with GSFCI's 2024 Financial Statements and GSFCI's 2023 Financial Statements and the notes thereto.

The following table shows selected key historical financial information in relation to GSFCI:

	As at and for the period ended (audited)	
<i>(in USD thousands)</i>	31 December 2024	31 December 2023
Operating profit	(10,000)	62,000
Profit for the financial period	(10,000)	62,000
	As of (audited)	
<i>(in USD thousands)</i>	31 December 2024	31 December 2023
Current assets	54,958,000	46,356,000
Net assets	322,000	337,000
Total shareholder's funds	322,000	337,000

PricewaterhouseCoopers LLP of 7 More London Riverside, London SE1 2RT have been appointed as auditors to GSFCI."

#### 5. Amendments to the section entitled "General Information"

The information in the section entitled "*General Information*" is amended and supplemented by:

- (a) deleting the paragraph (a) entitled "*Goldman Sachs International*" of sub-section 2 entitled "*Financial Statements*" on page 1359 of the Base Prospectus in its entirety and replacing it with the following:

##### "(a) Goldman Sachs International"

The statutory financial statements of GSI for the periods ended 31 December 2024 and 31 December 2023 have been audited without qualification by PricewaterhouseCoopers LLP, Chartered Accountants and Statutory Auditors, of 7 More London Riverside, London, SE1 2RT

in accordance with the laws of England. PricewaterhouseCoopers LLP is a registered member of the Institute of Chartered Accountants in England and Wales.";

- (b) deleting the paragraph (c) entitled "*Goldman Sachs Finance Corp International Ltd*" of sub-section 2 entitled "*Financial Statements*" on page 1359 of the Base Prospectus in its entirety and replacing it with the following:

**"(c) Goldman Sachs Finance Corp International Ltd**

The annual financial statements of GSFCI for the periods ended 31 December 2024 and 31 December 2023 have been audited without qualification by PricewaterhouseCoopers LLP, Chartered Accountants and Statutory Auditors, of 7 More London Riverside, London, SE1 2RT. PricewaterhouseCoopers LLP is a registered member of the Institute of Chartered Accountants in England and Wales.";

- (c) deleting the statement relating to GSI in sub-section 3 entitled "*No significant change in the financial position or financial performance and no material change in prospects*" on page 1360 of the Base Prospectus in its entirety and replacing it with the following:

**"GSI:** There has been no significant change in the financial position or financial performance of GSI since 31 December 2024. There has been no material adverse change in the prospects of GSI since 31 December 2024.";

- (d) deleting the statement relating to GSFCI in sub-section 3 entitled "*No significant change in the financial position or financial performance and no material change in prospects*" on page 1360 of the Base Prospectus in its entirety and replacing it with the following:

**"GSFCI:** There has been no significant change in the financial position or financial performance of GSFCI since 31 December 2024. There has been no material adverse change in the prospects of GSFCI since 31 December 2024.";

- (e) deleting sub-section 4 entitled "*Litigation*" on page 1360 of the Base Prospectus in its entirety and replacing it with the following:

**"4. Litigation**

Save as disclosed in (i) "Legal Proceedings" of Note 27 to the Financial Statements (pages 218 to 230) of GSG's 2024 Form 10-K and (ii) "Legal Proceedings" of Note 25 to the Financial Statements (page 74) of GSI's 2024 Annual Report, there have been no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which GSI, GSW, GSFCI, GSBE or GSG is aware) during the 12 months before the date of this Base Prospectus (as supplemented to, and including, the date of Prospectus Supplement No. 4) which may have, or have had in the recent past, significant effects on GSI, GSW, GSFCI, GSBE or GSG's financial position or profitability."; and

- (f) deleting sub-section 5 entitled "*Availability of Documents*" on pages 1360 to 1362 of the Base Prospectus in its entirety and replacing it with the following:

**"5. Availability of Documents**

Copies of the following documents will be made available for at least 10 years and may be obtained free of charge upon request during normal business hours from the specified office of the Issuers and the office of the Paying Agent in Luxembourg and each of the Paying Agents and (in the case of (i), on <https://www.goldmansachs.com/investor-relations/docs/gsfci-memorandum-and-articles-of-association.pdf> and in the case of (ii) to (xl) on the website of the Issuer at <https://www.goldmansachs.com/investor-relations/>, except for (xii), (xiii), (xxi), (xxii) and (xxiii), which are available on <https://www.gs.de/en/services/documents/registration>):

- (i) the constitutional documents of GSFCI;

- (ii) the constitutional documents of GSW;
- (iii) the constitutional documents of GSI;
- (iv) the constitutional documents of GSBE;
- (v) the certificate of incorporation of GSG;
- (vi) GSI's 2024 Third Quarter Financial Report;
- (vii) GSI's 2024 Half-yearly Financial Report;
- (viii) GSI's 2024 First Quarter Financial Report;
- (ix) GSI's 2024 Annual Report;
- (x) GSI's 2023 Annual Report;
- (xi) GSI's 2022 Annual Report;
- (xii) GSW 2024 Registration Document;
- (xiii) First Supplement to the GSW 2024 Registration Document;
- (xiv) GSW's 2024 Half-yearly Financial Report;
- (xv) GSW's 2023 Annual Report;
- (xvi) GSW's 2022 Annual Report;
- (xvii) GSFCE's 2024 Half-yearly Financial Report;
- (xviii) GSFCE's 2024 Annual Report;
- (xix) GSFCE's 2023 Annual Report;
- (xx) GSFCE's 2022 Annual Report;
- (xxi) GSBE 2024 Registration Document;
- (xxii) First Supplement to the GSBE 2024 Registration Document;
- (xxiii) Second Supplement to the GSBE 2024 Registration Document;
- (xxiv) GSBE's 2024 Third Quarter Financial Report;
- (xxv) GSBE's 2024 Half-yearly Financial Report;
- (xxvi) GSBE's 2023 Financial Statements;
- (xxvii) GSBE's 2022 Financial Statements;
- (xxviii) GSG's 14 April 2025 Form 8-K;
- (xxix) GSG's 15 January 2025 Form 8-K;
- (xxx) GSG's 15 October 2024 Form 8-K;
- (xxxi) GSG's 15 July 2024 Form 8-K;
- (xxxii) GSG's 15 April 2024 Form 8-K;
- (xxxiii) GSG's 2024 Third Quarter Form 10-Q;

- (xxxiv) GSG's 2024 Second Quarter Form 10-Q;
- (xxxv) GSG's 2024 First Quarter Form 10-Q;
- (xxxvi) GSG's 2025 Proxy Statement;
- (xxxvii) GSG's 2024 Proxy Statement;
- (xxxviii) GSG's 2024 Form 10-K;
- (xxxix) GSG's 2023 Form 10-K;
- (xl) GSG's 2022 Form 10-K;
- (xli) the GSG Guaranty;
- (xlii) the GSI Guarantee;
- (xliii) the GSI (Cayman) Guarantee;
- (xliv) the Programme Agency Agreement;
- (xlv) the Deed of Covenant and the Cayman Deed of Covenant;
- (xlvi) the Issue Terms for each Tranche or Series of Securities that are listed on the Official List of the Luxembourg Stock Exchange or any other stock exchange;
- (xlvii) a copy of the Base Prospectus;
- (xlviii) a copy of any supplement to the Base Prospectus and Issue Terms; and
- (xlix) all reports, letters and other documents, balance sheets, valuations and statements by any expert any part of which is extracted or referred to in this Base Prospectus."

### **Interpretation**

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement and (b) any other statement in or incorporated by reference into the Base Prospectus, the statements in (a) above will prevail.

References to the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement.

### **U.S. notice**

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

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The date of this Prospectus Supplement is 24 April 2025.