

**PROSPECTUS SUPPLEMENT NO. 1
TO THE BASE PROSPECTUS DATED 22 FEBRUARY 2022**



GOLDMAN, SACHS & CO. WERTPAPIER GMBH
(Incorporated with limited liability in Germany)

as Issuer

GOLDMAN SACHS INTERNATIONAL
(Incorporated with unlimited liability in England)

in respect of certain Securities issued by Goldman, Sachs & Co. Wertpapier GmbH only, as Guarantor

GOLDMAN SACHS FINANCE CORP INTERNATIONAL LTD
(Incorporated with limited liability in Jersey)

as Issuer

THE GOLDMAN SACHS GROUP, INC.
(A corporation organised under the laws of the State of Delaware)

in respect of Securities issued by Goldman Sachs Finance Corp International Ltd and certain Securities issued by Goldman, Sachs & Co. Wertpapier GmbH, 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 22 February 2022 prepared by Goldman, Sachs & Co. Wertpapier GmbH ("**GSW**") as issuer, Goldman Sachs Finance Corp International Ltd ("**GSFCI**") as issuer, Goldman Sachs International ("**GSI**") as guarantor in respect of certain Securities only and The Goldman Sachs Group, Inc. ("**GSG**") as guarantor in respect of certain Securities only (the "**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 it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 (as amended, the "**EUWA**") and regulations made thereunder (as amended, the "**UK Prospectus Regulation**"). On 22 February 2022, the United Kingdom Financial Conduct Authority (the "**FCA**") approved the Base Prospectus as competent authority under the UK Prospectus Regulation. The Base Prospectus has been approved on 22 February 2022 by the United Kingdom Financial Conduct Authority (the "**FCA**") as competent authority under the UK Prospectus Regulation 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.

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. The FCA only approves this Prospectus Supplement as meeting the standards of completeness, comprehensibility and consistency imposed by the UK Prospectus Regulation. Such approval by the FCA should not be considered as an endorsement of the Issuers or the quality of the Securities that are the subject of the Base Prospectus and this Prospectus Supplement. Investors should make their own assessment as to the suitability of investing in the Securities.

Right of withdrawal

In accordance with Article 23(2) of the UK Prospectus Regulation and PRR 3.4.1 of the FCA's Prospectus Regulation Rules sourcebook, investors in the United Kingdom who have already agreed to purchase or subscribe for Securities issued under the Programme 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, where the Securities are affected by the significant new factor, material mistake or material inaccuracy to which this Prospectus Supplement relates, have the right, exercisable until 12 April 2022, which is two working days after the publication of this Prospectus Supplement, to withdraw their acceptances. 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 and GSG accepts responsibility for the information given in this Prospectus Supplement and confirms that 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 2021 Annual Report (as defined below), GSG's 2022 Proxy Statement (as defined below) and GSG's 2021 Form 10-K (as defined below) and (b) make certain changes to the information in the "Risk Factors", "Documents Incorporated by Reference", "Form of GSG Guaranty", "The Goldman Sachs Group, Inc." and "General Information" sections of the Base Prospectus.

This Prospectus Supplement and the documents incorporated by reference into this Prospectus Supplement will be available on the website of the Luxembourg Stock Exchange at www.bourse.lu and the Financial Conduct Authority at <https://marketsecurities.fca.org.uk/>.

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 2021 of Goldman Sachs International ("**GSI's 2021 Annual Report**") containing, in Part II the Directors' Report and Audited Financial Statements of GSI for the period ended 31 December 2021;
- (b) the Proxy Statement relating to GSG's 2022 Annual Meeting of Shareholders on 28 April 2022 ("**GSG's 2022 Proxy Statement**"), as filed with the U.S. Securities and Exchange Commission ("**SEC**") on 18 March 2022); and
- (c) the Annual Report on Form 10-K, for the fiscal year ended 31 December 2021 of The Goldman Sachs Group, Inc. ("**GSG's 2021 Form 10-K**"), containing financial statements relating to the fiscal years ended 31 December 2021, 31 December 2020 and 31 December 2019, including Exhibit 21.1, as filed with the U.S. Securities and Exchange Commission on 24 February 2022.

GSI's 2021 Annual Report, GSG's 2022 Proxy Statement and GSG's 2021 Form 10-K are incorporated by reference into, and form part of, this Prospectus Supplement, and the information contained in this Prospectus Supplement and GSI's 2021 Annual Report, GSG's 2022 Proxy Statement and GSG's 2021 Form 10-K 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 the text under heading entitled "*Risks relating to GSG*" on pages 16 to 19 of the Base Prospectus and replacing it with the following:

"Market risks

See the following risk factors as incorporated by reference from the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, dated February 24, 2022 (the "GSG's 2021 Form 10-K") in the following order:

- (a) Our businesses have been and may in the future be adversely affected by conditions in the global financial markets and broader economic conditions. (pages 30-31 of the GSG's 2021 Form 10-K);
- (b) Our businesses have been and may in the future be adversely affected by declining asset values, particularly where we have net "long" positions, receive fees based on the value of assets managed, or receive or post collateral. (pages 31-32 of the GSG's 2021 Form 10-K);
- (c) Our market-making activities have been and may in the future be affected by changes in the levels of market volatility. (page 32 of the GSG's 2021 Form 10-K);
- (d) Our investment banking, client intermediation, asset management and wealth management businesses have been adversely affected and may in the future be adversely affected by market uncertainty or lack of confidence among investors and CEOs due to declines in economic activity and other unfavorable economic, geopolitical or market conditions. (page 32 of the GSG's 2021 Form 10-K); and
- (e) Our asset management and wealth management businesses have been and may in the future be adversely affected by the poor investment performance of our investment products or a client preference for products other than those which we offer or for products that generate lower fees. (page 33 of the GSG's 2021 Form 10-K).

Liquidity risks

See the following risk factors as incorporated by reference from the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, dated February 24, 2022 (the "GSG's 2021 Form 10-K") in the following order:

- (a) Our liquidity, profitability and businesses may be adversely affected by an inability to access the debt capital markets or to sell assets. (page 33 of the GSG's 2021 Form 10-K);
- (b) Our 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. (page 34 of the GSG's 2021 Form 10-K);
- (c) Reductions in our credit ratings or an increase in our credit spreads may adversely affect our liquidity and cost of funding. (page 34 of the GSG's 2021 Form 10-K); and
- (d) Group Inc. is a holding company and its liquidity depends on payments from its subsidiaries, many of which are subject to legal, regulatory and other restrictions on providing funds or assets to Group Inc. (page 35 of the GSG's 2021 Form 10-K).

Credit Risks

See the following risk factors as incorporated by reference from the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, dated February 24, 2022 (the "GSG's 2021 Form 10-K") in the following order:

- (a) Our businesses, profitability and liquidity may be adversely affected by deterioration in the credit quality of or defaults by third parties. (page 36 of the GSG's 2021 Form 10-K);
- (b) Concentration of risk increases the potential for significant losses in our market-making, underwriting, investing and financing activities. (page 36 of the GSG's 2021 Form 10-K); and

- (c) Derivative transactions and delayed documentation or settlements may expose us to credit risk, unexpected risks and potential losses. (page 37 of the GSG's 2021 Form 10-K).

Operational Risks

See the following risk factors as incorporated by reference from the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, dated February 24, 2022 (the "GSG's 2021 Form 10-K") in the following order:

- (a) A failure in our operational systems or infrastructure, or those of third parties, as well as human error, malfeasance or other misconduct, could impair our liquidity, disrupt our businesses, result in the disclosure of confidential information, damage our reputation and cause losses. (pages 37-40 of the GSG's 2021 Form 10-K);
- (b) A failure to protect our computer systems, networks and information, and our clients' information, against cyber attacks and similar threats could impair our ability to conduct our businesses, result in the disclosure, theft or destruction of confidential information, damage our reputation and cause losses. (pages 40-41 of the GSG's 2021 Form 10-K);
- (c) We may incur losses as a result of ineffective risk management processes and strategies. (pages 41-42 of the GSG's 2021 Form 10-K);
- (d) We may incur losses as a result of unforeseen or catastrophic events, including pandemics, terrorist attacks, extreme weather events or other natural disasters. (page 42 of the GSG's 2021 Form 10-K); and
- (e) Climate change could disrupt our businesses and adversely affect client activity levels and the creditworthiness of our clients and counterparties, and our efforts to address concerns relating to climate change could result in damage to our reputation. (pages 42-43 of the GSG's 2021 Form 10-K).

Legal and Regulatory Risks

See the following risk factors as incorporated by reference from the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, dated February 24, 2022 (the "GSG's 2021 Form 10-K") in the following order:

- (a) Our businesses and those of our clients are subject to extensive and pervasive regulation around the world. (pages 43-45 of the GSG's 2021 Form 10-K);
- (b) A failure to appropriately identify and address potential conflicts of interest could adversely affect our businesses. (page 45 of the GSG's 2021 Form 10-K);
- (c) We may be adversely affected by increased governmental and regulatory scrutiny or negative publicity. (pages 45-46 of the GSG's 2021 Form 10-K);
- (d) Substantial civil or criminal liability or significant regulatory action against us could have material adverse financial effects or cause us significant reputational harm, which in turn could seriously harm our business prospects. (page 46 of the GSG's 2021 Form 10-K);
- (e) In conducting our businesses around the world, we are subject to political, legal, regulatory and other risks that are inherent in operating in many countries. (page 47 of the GSG's 2021 Form 10-K);
- (f) The application of regulatory strategies and requirements in the U.S. and non-U.S. jurisdictions to facilitate the orderly resolution of large financial institutions could create greater risk of loss for Group Inc.'s security holders. (pages 47-48 of the GSG's 2021 Form 10-K);
- (g) The application of Group Inc.'s proposed resolution strategy could result in greater losses for Group Inc.'s security holders. (pages 48-49 of the GSG's 2021 Form 10-K); and
- (h) Our commodities activities, particularly our physical commodities activities, subject us to extensive regulation and involve certain potential risks, including environmental, reputational

and other risks that may expose us to significant liabilities and costs. (pages 49-50 of the GSG's 2021 Form 10-K).

Competition Risks

See the following risk factors as incorporated by reference from the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, dated February 24, 2022 (the "GSG's 2021 Form 10-K") in the following order:

- (a) Our results have been and may in the future be adversely affected by the composition of our client base. (page 50 of the GSG's 2021 Form 10-K);
- (b) The financial services industry is highly competitive. (pages 50-51 of the GSG's 2021 Form 10-K);
- (c) The growth of electronic trading and the introduction of new products and technologies, including trading technologies and cryptocurrencies, has increased competition. (page 51 of the GSG's 2021 Form 10-K); and
- (d) Our businesses would be adversely affected if we are unable to hire and retain qualified employees. (pages 51-52 of the GSG's 2021 Form 10-K).

Market Developments and General Business Environment Risks

See the following risk factors as incorporated by reference from the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, dated February 24, 2022 (the "GSG's 2021 Form 10-K") in the following order:

- (a) Our businesses, financial condition, liquidity and results of operations have been and may in the future be adversely affected by the COVID-19 pandemic. (pages 52-53 of the GSG's 2021 Form 10-K);
 - (b) Certain of our businesses, our funding instruments and financial products may be adversely affected by changes in or the discontinuance of Interbank Offered Rates (IBORs), in particular LIBOR. (pages 53-54 of the GSG's 2021 Form 10-K);
 - (c) Certain of our businesses and our funding instruments may be adversely affected by changes in other reference rates, currencies, indexes, baskets or ETFs to which products we offer or funding that we raise are linked. (page 54 of the GSG's 2021 Form 10-K);
 - (d) We face enhanced risks as new business initiatives and acquisitions lead us to engage in new activities, operate in new locations, transact with a broader array of clients and counterparties and expose us to new asset classes and new markets. (pages 54-55 of the GSG's 2021 Form 10-K); and
 - (e) We may not be able to fully realize the expected benefits or synergies from acquisitions in the time frames we expect, or at all. (page 55 of the GSG's 2021 Form 10-K)."; and
- (b) deleting the text under heading entitled "*Risks relating to GSI*" on pages 19 to 39 of the Base Prospectus and replacing it with the following:

"GSI faces a variety of risks that are substantial and inherent in its businesses including market, liquidity, credit, operational, model, legal, regulatory and reputational risks and uncertainties. The following are some of the more important factors that could affect GSI's businesses.

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 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, recently 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, clearinghouses, 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.

Regulatory changes relating to liquidity may also negatively impact GSI's results of operations and competitive position. Numerous regulations have been adopted or proposed to introduce more stringent liquidity requirements for large financial institutions. These regulations address, among other matters, liquidity stress testing, minimum liquidity requirements, wholesale funding, restrictions on short-term debt and structured notes issued by top-tier holding companies, deductions for holding total loss-absorbing capacity (TLAC) and prohibitions on parent guarantees that are subject to certain cross-defaults. New and prospective liquidity-related regulations may overlap with, and be impacted by, other regulatory changes, including rules relating to minimum long-term debt requirements and TLAC, capital, leverage and resolution and recovery frameworks applicable to large financial institutions. Given the overlap and complex interactions among these new and prospective regulations, they may have unintended cumulative effects, and their full impact will remain uncertain, while regulatory reforms are being adopted and market practices develop.

- (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 issuing long-term debt, by raising deposits at its bank subsidiaries, by issuing hybrid financial instruments and by obtaining bank loans or lines of credit. 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.

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' merger and acquisition transactions, particularly large transactions, and adversely affect GSI's financial 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 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 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; 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; concerns about sovereign defaults; uncertainty concerning fiscal or monetary policy; the extent of and uncertainty about potential increases in tax rates and other regulatory changes; limitations on international trade and travel; laws and regulations that limit trading in, or the issuance of, securities of issuers outside their domestic markets; outbreaks 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 serious lack of liquidity and by high levels of borrower defaults. In addition, concerns about the COVID-19 pandemic, European sovereign debt risk and its impact on the European banking system, limitations on international trade, and potential or actual changes

in interest rates, inflation and other market conditions, 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 can 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.

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 also been negatively impacted as market participants and market practices and structures continue to adjust to evolving regulatory frameworks.

- (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 (particularly in the case of credit products and private equities or other securities that are not freely tradable or lack established and liquid trading markets), it may not be possible or economic 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. Sudden declines and significant volatility in the prices of assets have in the past 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. The inability to sell or effectively hedge assets reduces GSI's ability to limit losses in such positions and the difficulty in valuing assets may negatively affect GSI's capital, liquidity or leverage ratios, increase its funding costs and generally require maintaining additional 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.

Collateral is posted to support obligations of GSI and received 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 has in the past and may in the future, despite credit monitoring, over-collateralisation, the ability to call for additional collateral or the ability to

force repayment of the underlying obligation, 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 or caused a client or counterparty to go out of business.

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, could 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 under derivatives 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.

(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 may be 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 EU, and a failure or downgrade of, or default by, such entities 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 have led to increased centralisation of trading activity through particular clearing houses, central agents 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 and exchanges. This has resulted in significant credit concentration with respect to these counterparties.

(c) ***Derivative transactions and delayed documentation or settlements may 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.

As a signatory to the International Swaps and Derivatives Association Universal Resolution Stay Protocol (ISDA Universal Protocol) and the International Swaps and Derivatives Association 2018 U.S. Resolution Stay Protocol (collectively, ISDA Protocols), GSI may not be able to exercise termination rights and other remedies against counterparties and, as this new 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 and has increased credit exposure to central clearing platforms.

2.4 Operational Risks

- (a) ***A failure in GSI's operational systems or infrastructure, or those of third parties, as well as human error, malfeasance or other misconduct, could impair GSI's 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 such requirements expand, compliance with these rules and regulations has become more challenging.

The use of computing devices and phones 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, in particular in light of work-from-home arrangements implemented in response to the COVID-19 pandemic. Computers and computer networks are subject to various risks, including, among others, cyber attacks, inherent technological defects, system 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 be discovered in the future. 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. During 2021, there were 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. Operational risks may be incurred in applying fixes and there may still be residual security risks.

Additionally, although the prevalence and scope of applications of distributed ledger technology and similar technologies is growing, the technology is also 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 cryptocurrencies, GSI's investments in firms 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 cryptocurrencies or other digital assets as collateral.

In addition, 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.

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.

- (b) ***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 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. The increasing migration of GSI's communication from devices GSI provides to employee-owned devices presents additional risks of cyber attacks, as do work-from-home arrangements such as those implemented in response to the COVID-19 pandemic. In addition, due to the interconnectivity with third-party vendors (and their respective service providers), central agents, 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, 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, especially 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 such events occur, this potentially could jeopardise GSI or its clients' or counterparties' 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 detected, and, following detection, 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.

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.

GSI's confidential information may also be at risk from the compromise of clients' personal electronic devices or 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 can heighten these and other operational risks, as can work-from-home arrangements. Certain aspects of the security of such 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 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.

(c) ***GSI may 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 reporting 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 such models may be ineffective, either because of poor design, ineffective testing or improper or flawed inputs, as well as unpermitted access to such 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, 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. In addition, to the extent permitted by applicable law and regulation, GSI invests its own capital in private equity, credit, real estate and hedge funds that it manages and limitations on its ability to withdraw some or all of its investments in these funds, whether for legal, reputational or other reasons, may make it more difficult for GSI to control the risk exposures relating to these investments.

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 funding or hedging activities.

(d) ***GSI may incur losses as a result of unforeseen or catastrophic events, including pandemics, terrorist attacks, extreme weather events or other natural disasters***

The occurrence of unforeseen or catastrophic events, including pandemics, such as COVID-19, or other widespread health emergencies (or concerns over the possibility of such an emergency), terrorist attacks, extreme weather events, solar events or other natural disasters, could create economic and financial disruptions, and could lead to operational difficulties (including travel limitations and limitations on occupancy in GSI's offices) that could impair GSI's ability to manage its businesses and result in losses.

(e) ***Climate change could disrupt the company's businesses and adversely affect client activity levels and the creditworthiness of its clients and counterparties, and the company's efforts to address concerns relating to climate change could result in damage to its reputation.***

Climate change may cause extreme weather events that disrupt operations at one or more of GSI's primary locations, which may negatively affect its ability to service and interact with its clients. 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 credit risk associated with loans and other credit 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. For example, GSI's reputation and client relationships may be damaged as a result of its involvement, or its clients' involvement, in certain industries or projects associated with causing or exacerbating climate change, as well as any decisions GSI makes to continue to conduct or change its activities in response to considerations relating to climate change. If Group is unable to achieve its objectives relating to climate change or its response to climate change is perceived to be ineffective or insufficient, GSI's business, reputation and efforts to recruit and retain employees may suffer.

New regulations or guidance relating to climate change, as well as the perspectives of regulators, Group's shareholders, employees or other stakeholders regarding climate change, may affect whether and on what terms and conditions GSI can engage 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. GSI also may become subject to new or heightened regulatory requirements relating to climate change, such as requirements relating to operational resiliency or stress testing for various climate stress scenarios. Any such new or heightened requirements could result in increased regulatory, compliance or other costs or higher capital requirements. The risks associated with, and the perspective of regulators, GS Group's shareholders, 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, and GSI expects that climate change-related risks will increase over time.

(f) ***GSI is reliant on GSG and other 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 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 Group's preferred resolution strategy. Although GSI has taken steps to reduce its reliance on other 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 Group affiliates to a significant extent, risks that could affect these entities could also have a significant impact on GSI.

Furthermore, GSI relies upon certain 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 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 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 UK, and the EU 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 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, 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, additional loss-absorbing capacity, leverage, minimum 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 and regulations that apply to GSI's businesses are often complex and, in many cases, GSI must make interpretive decisions regarding the application of those laws and regulations 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's businesses or those of GSI's clients, including capital liquidity, leverage, long-term debt, total loss absorbing capacity ("TLAC") and margin requirements, restrictions on other business practices, reporting requirements, requirements relating to the implementation of the EU Bank Recovery and Resolution Directive, 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 Group, compliance with these new laws and regulations, or changes in the enforcement of existing laws or regulations, could adversely affect the company'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 and other financial transactions, could adversely impact levels of market activity more broadly, and thus impact the company'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.

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.

The implementation of higher capital requirements, the liquidity coverage ratio, the net stable funding ratio, requirements relating to long-term debt and TLAC and the prohibition on proprietary trading and the sponsorship of, or investment in, covered funds by the Volcker Rule may continue to adversely affect GSI's profitability and competitive position, particularly if these requirements do not apply, or do not apply equally, to GSI's competitors or are not implemented uniformly across jurisdictions. GSI may also become subject to higher and more stringent capital and other regulatory requirements as a result of the implementation of Basel Committee on Banking Supervision's standards, including those published in December 2017.

GSI is also subject to laws and regulations 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 assumed to exist. To the extent that such efforts are successful, the cost of, and liabilities associated with, engaging in brokerage, clearing, market-making, prime brokerage, 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.

(b) ***A failure to appropriately identify and address potential conflicts of interest could adversely affect GSI's businesses***

Due to the broad scope of Group's businesses and client base, GSI regularly addresses potential conflicts of interest, including situations where services to a particular client or 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 Group and situations where it may be a creditor of an entity with which 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 or regulatory enforcement actions. Additionally, 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) ***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 and personnel, 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 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.

(d) ***Substantial civil or criminal liability or significant regulatory action against GSI could have material adverse financial effects or cause significant reputational harm, which in turn could seriously harm 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 several large financial institutions with governmental entities have been publicly announced. The trend of large settlements with governmental entities may adversely affect the outcomes for other financial institutions 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 UK 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.

(e) ***In conducting its business around the world, GSI is subject to political, legal, regulatory 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 EU 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 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 UK 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 any such violation 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).

(f) *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 Wall Street Reform and Consumer Protection Act (together, the "**U.S. Special Resolution Regimes**"), default rights against GSI in relation to the Securities or (if applicable) to the relevant Guarantee given by GSI (as Guarantor) in relation to any Securities 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 Securities 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.

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.

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 such 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 such 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 and could in the future adversely affect its market share in equities execution.

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

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 may not always fully compensate it for the risks taken.

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, 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) ***GSI's businesses would be adversely affected if it was 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 new talented and diverse employees and to retain and motivate existing employees. Factors that affect GSI's ability to attract and retain such employees include the level and composition of compensation and benefits, and a reputation as a successful business with a culture of fairly hiring, training and promoting qualified employees. 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 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 the 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.

Changes in law or regulation in jurisdictions in which GSI's operations are located that affect taxes on GSI's employees' income, or the amount or composition of compensation, 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 Prudential Regulation Authority (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 and 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 the COVID-19 pandemic***

The COVID-19 pandemic created economic and financial disruptions that have in the past adversely affected, and may in the future adversely affect GSI's business, financial condition, liquidity and results of operations. The extent to which the COVID-19 pandemic will negatively affect GSI's businesses, financial condition, liquidity and results of operations will depend on future developments, including the emergence of new variants of COVID-19 and the effectiveness of vaccines and treatments over the long term and against new variants, which are highly uncertain and cannot be predicted.

While financial markets have rebounded from the significant declines that occurred early in the pandemic and global economic conditions generally improved in 2021, certain of the circumstances that arose or became more pronounced after the onset of the COVID-19 pandemic persisted in 2021, including (i) relatively weak consumer confidence (ii) low levels of certain overnight interest rates and yields on certain government securities which, at times, were near zero; (iii) ongoing heightened credit risk with regard to industries that have been most severely impacted by the pandemic, including, at times, oil and gas, gaming and lodging, and airlines; (iv) significant interest at times by investors in liquidity products, which generate lower fees, relative to risk assets; (v) higher cybersecurity, information security and operational risks; and (vi) interruptions in the supply chain that have adversely affected many businesses and have contributed to higher rates of inflation.

Depending on the duration and severity of the pandemic going forward, as well as the effects of the pandemic on consumer and corporate confidence, the conditions noted above could continue for an extended period and other adverse developments may occur or reoccur, including (i) a repeat, or worse, of the decline in the valuation of equity, fixed-income and commodity markets that occurred at the outset of the pandemic; (ii) market dislocations that may make hedging strategies less effective or ineffective; (iii) disruption in the new issuance markets for debt and equity, leading to a decline in underwriting volumes; (iv) a deterioration in the liquidity profile of corporate borrowers, resulting in additional draws on credit lines; (v) defaults by consumers or corporate clients on loans; (vi) changes in consumer spending or borrowing patterns; and (vii) greater challenges in valuing derivative positions and associated collateral, leading to significant increases in collateral calls and valuation disputes.

The effects of the COVID-19 pandemic on economic and market conditions have in the past and may in the future also increase demands on GSI's liquidity as it meets client needs. Likewise, these adverse developments have in the past and may in the future affect GSI's capital and leverage ratios.

Governmental authorities worldwide have taken increased measures from March 2020 onwards to stabilise the markets and support economic growth. The continued success of these measures is unknown and they may not be sufficient to address future market dislocations or avert severe and prolonged reductions in economic activity.

(b) ***Certain of GSI's businesses, its funding instruments and financial products may be adversely affected by changes in or the discontinuance of IBORs, in particular LIBOR***

The Financial Conduct Authority and the administrator of LIBOR have announced that the publication of the most commonly used USD LIBOR settings will cease to be provided or cease to be representative after June 30, 2023. The publication of all other LIBOR settings ceased to be provided or ceased to be representative as of December 31, 2021. The U.S. federal banking agencies had also issued guidance strongly encouraging banking organisations to cease using the USD LIBOR as a reference rate in new contracts by December 31, 2021 at the latest. As the transition from LIBOR is ongoing, there continues to be substantial uncertainty as to the ultimate effect of the transition on the financial markets for LIBOR-linked financial instruments. Similar developments have occurred with respect to other IBORs.

Uncertainty regarding IBORs and the taking of discretionary actions or negotiation or implementation of fallback provisions could result in pricing volatility, loss of market share in certain products, adverse tax or accounting impacts, compliance, legal and operational costs and risks associated with client disclosures, as well as systems disruption, model disruption and other business continuity issues. In addition, uncertainty relating to IBORs could result in increased capital requirements for GSI given potential low transaction volumes, a lack of liquidity or limited observability for exposures linked to IBORs or any emerging successor rates and operational incidents associated with changes in and the discontinuance of IBORs.

The language in GSI's contracts and financial instruments that define IBORs, in particular LIBOR, have developed over time and have various events that trigger when a successor rate to the designated rate would be selected. Once a trigger is satisfied, contracts and financial instruments often give the calculation agent (which may be GSI) discretion over the successor rate or benchmark to be selected. As a result, for the most commonly used USD LIBOR settings, there continues to be considerable uncertainty as to how the financial services industry will address the discontinuance of designated rates in contracts and financial instruments or such designated rates ceasing to be acceptable reference rates. This uncertainty could ultimately result in client disputes and litigation surrounding the proper interpretation of GSI's IBOR-based contracts and financial instruments. For LIBOR settings that ceased to be provided or ceased to be representative as of December 2021, discretionary actions taken in connection with the implementation of fallback provisions could also result in client disputes and litigation particularly for derivatives and other synthetic instruments. Although GSI has adhered to the ISDA IBOR Fallbacks Protocol, the protocol is applicable to derivatives when both parties adhere to the protocol or otherwise agree for it to apply to their derivatives.

Further, the discontinuation of an IBOR, changes in an IBOR or changes in market acceptance of any IBOR as a reference rate may also adversely affect the yield on loans or securities held by GSI, amounts paid on securities GSI has issued, amounts received and paid on derivative instruments GSI has entered into, the value of such loans, securities or derivative instruments, the trading market for securities, the terms of new loans being made using different or modified reference rates, GSI's ability to effectively use derivative instruments to manage risk, or the availability or cost of its floating-rate funding and its exposure to fluctuations in interest rates.

- (c) ***Certain of GSI's businesses and its funding instruments may be adversely affected by changes in other 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 consistent with those described above for IBORs.

- (d) *GSI faces enhanced risks as new business initiatives and acquisitions lead it to engage in new activities, operate in new locations, transact with a broader array of clients and counterparties and expose it to new asset classes and new markets*

A number of GSI's recent and planned business initiatives and expansions of existing businesses may bring it into contact, directly or indirectly, with individuals and entities that are not within GSI's traditional client and counterparty base and expose it to new asset classes and new markets. For example, GSI continues to transact business and invest in new regions, including a wide range of emerging and growth markets.

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, 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, 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 62 to 64 of the Base Prospectus in its entirety and replacing it with the following:

"1 Goldman Sachs International

GSI files documents and information with the Financial Conduct Authority (the "FCA"). The following documents, which GSI has filed with the FCA, are hereby incorporated by reference into this Base Prospectus:

- (a) The Annual Report for the period ended 31 December 2021 of GSI ("**GSI's 2021 Annual Report**"), containing, in Part II, the Directors' Report and Audited Financial Statements of GSI for the period ended 31 December 2021 ("**GSI's 2021 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2021/12-31-21-financial-statements.pdf>);
- (b) The Unaudited Quarterly Financial Report of GSI for the period ended 30 September 2021 ("**GSI's 2021 Third Quarter Financial Report**"), containing, in Part II, the Unaudited Financial Statements of GSI for the period ended 30 September 2021 ("**GSI's 2021 Third Quarter Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2021/09-30-2021-financial-information.pdf>);
- (c) The Unaudited Quarterly Financial Report of GSI for the period ended 30 June 2021 ("**GSI's 2021 Second Quarter Financial Report**"), containing, in Part II, the Unaudited Financial Statements of GSI for the period ended 30 June 2021 ("**GSI's 2021 Second Quarter Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2021/06-30-2021-financial-statements.pdf>);
- (d) The Unaudited Quarterly Financial Report of GSI for the period ended 31 March 2021 ("**GSI's 2021 First Quarter Financial Report**"), containing, in Part II, the Unaudited Financial Statements of GSI for the period ended 31 March 2021 ("**GSI's 2021 First Quarter Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsi/2021/03-31-21-financial-information.pdf>);
- (e) The Annual Report for the period ended 31 December 2020 of GSI ("**GSI's 2020 Annual Report**"), containing, in Part II, the Directors' Report and Audited Financial Statements of GSI

for the period ended 31 December 2020 ("**GSI's 2020 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/financials/current/subsidiary-financial-info/gsi/12-31-20-financial-statements.pdf>); and

- (f) The Annual Report for the fiscal ended 30 November 2019 of GSI ("**GSI's 2019 Annual Report**"), containing, in Part II, the Directors' Report and Audited Financial Statements of GSI for the period ended 30 November 2019 ("**GSI's 2019 Financial Statements**") (accessible on <https://www.goldmansachs.com/investor-relations/redirects/gsi-11-30-19-financial-statements>).

Cross-Reference List

GSI Information in the Fiscal Statement	GSI's 2021 Annual Report	GSI's 2020 Annual Report	GSI's 2019 Annual Report
Management Report/ Strategic Report	pp. 2-30	pp. 2-47	pp. 2-41
Report of the Directors	pp. 31-49	pp. 48- 54	pp. 42-43
Balance Sheet	p. 47	p. 63	p. 51
Profit and Loss Account / Income Statement	p. 46	p. 62	p. 50
Statement of Cash Flows	p. 49	p. 65	p. 53
Notes to the Financial Statements	pp. 50-90	pp. 66-112	pp. 54-95
Independent Auditors' Report	pp. 38-45	p. 55	pp. 44-49

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 UK Prospectus Regulation and is not otherwise required to be included under the relevant schedules of the UK Prospectus Regulation)."; and

- (b) deleting sub section 3 entitled "The Goldman Sachs Group, Inc." on pages 64 to 67 of the Base Prospectus in its entirety and replacing it with the following:

"3. The Goldman Sachs Group, Inc.

GSG files documents and information with the U.S. Securities and Exchange Commission (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 Proxy Statement relating to GSG's 2022 Annual Meeting of Shareholders on 28 April 2022 ("**GSG's 2022 Proxy Statement**"), as filed with the SEC on 18 March 2022 (accessible on website <https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2022/2022-proxy-statement-pdf.pdf>);
- (b) The Annual Report on Form 10-K for the fiscal year ended 31 December 2021 of The Goldman Sachs Group, Inc. ("**GSG's 2021 Form 10-K**"), containing financial statements relating to the fiscal years ended 31 December 2021, 31 December 2020 and 31 December 2019, including Exhibit 21.1, as filed with the U.S. Securities and Exchange Commission on 24 February 2022 (accessible on website <https://www.goldmansachs.com/investor-relations/financials/10k/2021/2021-10-k.pdf>);
- (c) The Current Report on Form 8-K dated 18 January 2022 of The Goldman Sachs Group, Inc. ("**GSG's 18 January 2022 Form 8-K**"), including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 18 January 2022 Form 8-K**") as filed with the SEC on 18 January 2022 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2022/8k-01-18-22.pdf>);

- (d) The Quarterly Report on Form 10-Q for the third fiscal quarter ended 30 September 2021 of The Goldman Sachs Group, Inc. ("**GSG's 2021 Third Quarter Form 10-Q**"), as filed with the SEC on 1 November 2021 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10q/2021/third-quarter-2021-10-q.pdf>);
- (e) The Current Report on Form 8-K dated 15 October 2021 of The Goldman Sachs Group Inc. ("**GSG's 15 October 2021 Form 8-K**") including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 15 October 2021 Form 8-K**") as filed with the SEC on 15 October 2021 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2021/8k-10-15-21.pdf>);
- (f) The Quarterly Report on Form 10-Q for the second fiscal quarter ended 30 June 2021 of the Goldman Sachs Group, Inc. ("**GSG's 2021 Second Quarter Form 10-Q**"), as filed with the SEC on 3 August 2021 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10q/2021/second-quarter-2021-10-q.pdf>);
- (g) The Current Report on Form 8-K dated 13 July 2021 of The Goldman Sachs Group, Inc. ("**GSG's 13 July 2021 Form 8-K**"), including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 13 July 2021 Form 8-K**") as filed with the SEC on 13 July 2021 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2021/8k-07-13-21.pdf>);
- (h) The Quarterly Report on Form 10-Q for the first fiscal quarter ended 31 March 2021 of the Goldman Sachs Group, Inc. ("**GSG's 2021 First Quarter Form 10-Q**"), as filed with the SEC on 3 May 2021 (accessible on <https://www.goldmansachs.com/investor-relations/financials/10q/2021/first-quarter-2021-10-q.pdf>);
- (i) The Current Report on Form 8-K dated 14 April 2021 for the first fiscal quarter ended 31 March 2021 of The Goldman Sachs Group Inc. ("**GSG's 14 April 2021 Form 8-K**") including Exhibit 99.1 ("**Exhibit 99.1 to GSG's 14 April 2021 Form 8-K**") as filed with the SEC on 14 April 2021 (accessible on <https://www.goldmansachs.com/investor-relations/financials/8k/2021/8k-04-14-21.pdf>);
- (j) The Proxy Statement relating to GSG's 2021 Annual Meeting of Shareholders on 29 April 2021 ("**GSG's 2021 Proxy Statement**"), as filed with the SEC on 19 March 2020 (accessible on <https://www.goldmansachs.com/investor-relations/financials/current/proxy-statements/2021-proxy-statement-pdf.pdf>); and
- (k) The Annual Report on Form 10-K for the fiscal year ended 31 December 2020 of The Goldman Sachs Group, Inc. ("**GSG's 2020 Form 10-K**"), containing financial statements relating to the fiscal years ended 31 December 2020, 31 December 2019 and 31 December 2018, including Exhibit 21.1, as filed with the U.S. Securities and Exchange Commission on 19 February 2021 (accessible on <https://www.goldmansachs.com/investor-relations/financials/current/10k/2020-10-k.pdf>).

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

<u>Information required by the PR Regulation</u>	<u>Document/Location</u>
Information about GSG	
Risk factors relating to GSG (<i>Annex 6, Section 3, Item 3.1 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 29-55 in the Annual Report, equivalent to pp. 32-58 in the PDF)
History and development of the company (<i>Annex 6, Section 4, Item 4.1 of the PR Regulation</i>)	GSG's 2021 Form 10-K (p. 1)
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 PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 79-82, 121-124, 176-179)

Information required by the PR Regulation	Document/Location
Description of the expected financing of GSG's activities (<i>Annex 6, Item 4, Item 4.1.8 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 79-82)
Business overview	
GSG's principal activities (<i>Annex 6, Section 5, Item 5.1 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 1-5, 125)
GSG's principal markets (<i>Annex 6, Section 5, Item 5.1.1 (c) of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 9-10, 57, 208)
Organisational Structure (<i>Annex 6, Section 6, Items 6.1 and 6.2 of the PR Regulation</i>)	GSG's 2021 Form 10-K (p. 35, Exhibit 21.1)
Trend information (<i>Annex 6, Section 7, Items 7.1 and 7.2 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 58-116)
Administrative, management and supervisory bodies, including conflicts of interest (<i>Annex 6, Section 9, Items 9.1 and 9.2 of the PR Regulation</i>)	GSG's 2022 Proxy Statement (pp. 6-31, 84-86) GSG's 2021 Form 10-K (pp. 25-26)
Beneficial owners of more than five per cent. (<i>Annex 6, Section 10, Item 10.1 of the PR Regulation</i>)	GSG's 2022 Proxy Statement (p. 89)
Financial information	
Audited historical financial information for the fiscal years ended 31 December 2021, 31 December 2020, and 31 December 2019 (<i>Annex 6, Section 11, Items 11.1.1 and 11.1.5 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 121-226)
Audit report (<i>Annex 6, Section 11, Item 11.1.1 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 118-120)
Balance sheet (<i>Annex 6, Section 11, Item 11.1.5 of the PR Regulation</i>)	GSG's 2021 Form 10-K (p. 122)
Income statement (<i>Annex 6, Section 11, Item 11.1.5 of the PR Regulation</i>)	GSG's 2021 Form 10-K (p. 121)
Cash flow statement (<i>Annex 6, Section 11, Item 11.1.5 of the PR Regulation</i>)	GSG's 2021 Form 10-K (p. 124)
Accounting policies and explanatory notes (<i>Annex 6, Section 11, Item 11.1.5 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 60-63, 125-226)
Unaudited interim and other financial information (<i>Annex 6, Section 11, Item 11.2.1 of the PR Regulation</i>)	GSG's 2021 Third Quarter Form 10-Q (pp. 1-97)
Balance sheet (<i>Annex 6, Section 11, Item 11.2.1 of the PR Regulation</i>)	GSG's 2021 Third Quarter Form 10-Q (p. 2)
	Exhibit 99.1 to the GSG's 18 January 2022 Form 8-K (p. 13)

<u>Information required by the PR Regulation</u>	<u>Document/Location</u>
Income statement (<i>Annex 6, Section 11, Item 11.2.1 of the PR Regulation</i>)	GSG's 2021 Third Quarter Form 10-Q (p. 1) Exhibit 99.1 to the GSG's 18 January 2022 Form 8-K (pp. 11-12)
Cash flow statement (<i>Annex 6, Section 11, Item 11.2.1 of the PR Regulation</i>)	GSG's 2021 Third Quarter Form 10-Q (p. 4)
Accounting policies and explanatory notes (<i>Annex 6, Section 11, Item 11.2.1 of the PR Regulation</i>)	GSG's 2021 Third Quarter Form 10-Q (pp. 5-97)
Legal and arbitration proceedings (<i>Annex 6, Section 11, Item 11.4.1 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 56, 209-218)
Additional information	
Share capital (<i>Annex 6, Section 12, Item 12.1 of the PR Regulation</i>)	GSG's 2021 Form 10-K (pp. 123, 189-191)

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 UK Prospectus Regulation and is not otherwise required to be included under the relevant schedules of the UK Prospectus Regulation.

Investors who have not previously reviewed the information contained in the above documents should do so in connection with their evaluation of any Securities. Any statement contained in a document or the relevant portion of which is incorporated by reference into this Base Prospectus, shall be deemed to be modified or superseded for the purpose of this Base Prospectus to the extent that a statement contained in this Base Prospectus or in any supplement to this Base Prospectus, including any documents incorporated therein by reference, modifies or supersedes such earlier statement (whether expressly, by implication or otherwise).

The documents incorporated by reference into this Base Prospectus are available to investors by request from Investor Relations, 200 West Street, New York, New York 10282, USA, telephone +1 (212) 902-0300 and from the Luxembourg Paying Agent, Banque Internationale à Luxembourg at its office at 69 route d'Esch, L-2953 Luxembourg, Grand Duchy of Luxembourg. The documents incorporated by reference are also available on the Luxembourg Stock Exchange's website (www.bourse.lu).

3. Amendments to the section entitled "Form of GSG Guaranty"

The form of GSG guaranty section entitled "*Form of GSG Guaranty*" on pages 220 to 222 of the Base Prospectus is deleted in its entirety and replaced with the form of GSG guaranty in Annex A below.

4. Amendments to the section entitled "The Goldman Sachs Group, Inc."

The information in the section entitled "*The Goldman Sachs Group, Inc.*" is amended and supplemented by deleting the last paragraph on page 290 of the Base Prospectus and replacing it with the following:

"Information about GSG's executive officers is included on pages 25 to 26 of GSG's 2021 Form 10-K and information about GSG's directors is included on pages 7 to 30 of GSG's 2021 Proxy Statement, each of which is incorporated by reference into this Base Prospectus. Potential conflicts of interests: Transactions and relationships that may involve directors or executive officers or entities affiliated with them are described in the section "Certain Relationships and Related Transactions" on pages 91 to 94 of GSG's 2021 Proxy Statement, which is incorporated by reference herein."

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) relating to GSI in sub-section 2 "*Financial Statements*" on page 315 of the Base Prospectus in its entirety and replacing it with the following:

"The statutory financial statements of GSI for the periods ended 31 December 2021 and 31 December 2021 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 two paragraphs relating to GSG in sub-section 2 entitled "*Financial Statements*" on page 315 of the Base Prospectus and replacing it with the following:

"PricewaterhouseCoopers LLP, which is a member of the American Institute of Certified Public Accountants and regulated as an independent registered public accounting firm under the rules of the Public Company Accounting Oversight Board, of 300 Madison Avenue, New York, New York 10017, USA, audited GSG's consolidated statements of financial condition as of 31 December 2021 and 31 December 2020 and the related consolidated statements of earnings, cash flows and changes in shareholders' equity for the fiscal years ended 31 December 2021 and 31 December 2020 and issued unqualified audit opinions thereon.

The consolidated statements of GSG incorporated by reference in this Base Prospectus by reference from the GSG's 2021 Form 10-K for the fiscal year ended 31 December 2021 and management's assessment of the effectiveness of internal control over financial reporting (which is included in management's report on internal control over financial reporting) have been incorporated in reliance on the report of PricewaterhouseCoopers LLP included therein given on the authority of said firm as experts in auditing and accounting.";

- (c) deleting the no significant change and no material adverse change statements relating to GSI in sub-section 3 entitled "*No significant change and no material adverse change*" on page 315 of the Base Prospectus and replacing it with the following:

"There has been no significant change in the financial position or financial performance of GSI and its consolidated subsidiaries since 30 September 2021. There has been no material adverse change in the prospects of GSI since 31 December 2021";

- (d) deleting the no significant change and no material adverse change statements relating to GSG in sub-section 3 entitled "*No significant change and no material adverse change*" on page 316 of the Base Prospectus and replacing it with the following:

"There has been no significant change in the financial position or financial performance of GSG and its consolidated subsidiaries since 31 December 2021. There has been no material adverse change in the prospects of GSG since 31 December 2021.";

- (e) deleting sub-section 4 entitled "*Litigation*" on page 316 of the Base Prospectus and replacing it with the following:

"4. Litigation

Save as disclosed in (i) "Legal Proceedings" of Note 27 to the Financial Statements (pages 209 to 218) of GSG's 2021 Form 10-K and (ii) "Legal Proceedings" of Note 25 to the Financial Statements (pages 70 to 71) of GSI's 2021 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 or GSG is aware) during the 12 months before the date of this Base

Prospectus which may have, or have had in the recent past, significant effects on the financial position or profitability of GSI and its consolidated subsidiaries, GSW, GSFCE or GSG and its consolidated subsidiaries."; and

- (f) deleting sub-section 5 entitled "Availability of Documents" on pages 316 to 317 of the Base Prospectus 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) only, on https://www.goldmansachs.ch/ch/media/ch/dokumente/sonstiges/19-10-04-GSFCE_Constitutional_Documents.pdf and in the case of (ii) to (iv), (xvii) and (xxiii) on the website of the Issuer at <https://www.goldmansachs.com/investor-relations/>):

- (i) the constitutional documents of GSFCE;
- (ii) the constitutional documents of GSW;
- (iii) the constitutional documents of GSI;
- (iv) the certificate of incorporation of GSG;
- (v) GSI's 2021 Third Quarter Financial Report;
- (vi) GSI's 2021 Second Quarter Financial Report;
- (vii) GSI's 2021 First Quarter Financial Report;
- (viii) GSI's 2021 Annual Report;
- (ix) GSI's 2020 Annual Report;
- (x) GSI's 2019 Annual Report;
- (xi) GSFCE's 2021 Interim Financial Statements;
- (xii) GSFCE's 2020 Financial Statements;
- (xiii) GSFCE's 2019 Financial Statements;
- (xiv) GSG's 18 January 2022 Form 8-K;
- (xv) GSG's 15 October 2021 Form 8-K;
- (xvi) GSG's 13 July 2021 Form 8-K;
- (xvii) GSG's 14 April 2021 Form 8-K;
- (xxiii) GSG's 2021 Third Quarter Form 10-Q;
- (xix) GSG's 2021 Second Quarter Form 10-Q;
- (xx) GSG's 2021 First Quarter Form 10-Q;
- (xxi) GSG's 2022 Proxy Statement;
- (xxii) GSG's 2021 Proxy Statement;
- (xxiii) GSG's 2021 Form 10-K;
- (xxiv) GSG's 2020 Form 10-K;

- (xxv) GSG's 2019 Form 10-K;
- (xxvi) the GSG Guaranty;
- (xxvii) the GSI (Cayman) Guarantee;
- (xxviii) the Programme Agency Agreement;
- (xxix) the Deed of Covenant and the Cayman Deed of Covenant;
- (xxx) 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;
- (xxxi) a copy of the Base Prospectus;
- (xxxii) a copy of any supplement to the Base Prospectus and Issue Terms; and
- (xxxiii) 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.

The date of this Prospectus Supplement is 8 April 2022

ANNEX A

FORM OF GSG GUARANTY

THIS GUARANTY is made on 22 February 2022 by **THE GOLDMAN SACHS GROUP, INC.**, a corporation duly organized under the laws of the State of Delaware (the "**Guarantor**").

WHEREAS:

- (A) Goldman Sachs International ("**GSI**"), Goldman, Sachs & Co. Wertpapier GmbH ("**GSW**") and Goldman Sachs Finance Corp International Ltd ("**GSFCI**" and, together with GSI and GSW, the "**Issuers**" and each an "**Issuer**") have instituted the Series P programme for the issuance of warrants (the "**Warrants**"), certificates (the "**Certificates**", and together with the Warrants, the "**Instruments**") and notes (the "**Notes**", and together with the Warrants and the Certificates, the "**Securities**") (the "**Programme**") in connection with which the Issuers and the Guarantor (a) may prepare an Approved Base Prospectus (the "**Approved Base Prospectus**", which expression shall include any supplements thereto and any replacement thereof and any further base prospectus(es) prepared under the Programme), (b) may prepare a Private Placement Memorandum (the "**Private Placement Memorandum**", which expression shall include any supplements thereto and any replacement thereof prepared under the Programme), (c) may prepare an Offering Circular dated on or about the date hereof (the "**Offering Circular**", which expression shall include any supplements thereto and any replacement thereof prepared under the Programme), (d) may (in the case of one or more of the Issuers) prepare one or more further base prospectuses, private placement memoranda and/or offering circulars under the Programme from time to time and (e) may (in the case of one or more Issuers) prepare a securities note (which may or may not include a summary and a registration document, each for the purposes of Article 8 Regulation (EU) 2017/1129 (as amended) or Article 8 Regulation (EU) 2017/1129 (as amended) as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 and regulations made thereunder) or separate prospectus for the issuance of any particular Tranche of Securities (each such securities note or separate prospectus, a "**Securities Note**") and entered into (i) in the case of each Issuer, an amended and restated programme agency agreement dated on or around 16 July 2021 (the "**Programme Agency Agreement**", which expression shall include any amendments or supplements thereto or replacement thereof) with Citibank Europe plc, Germany Branch as Principal Programme Agent and Citibank, N.A., London Branch as Fiscal Agent and the other agents named therein; (ii) in the case of each Issuer in relation to Securities issued under the Programme other than EIS Notes which are expressed to be governed under Cayman Islands law, a deed of covenant dated 16 July 2021 (as amended and/or replaced from time to time the "**Deed of Covenant**") and, in the case of GSW or GSFCI in relation to EIS Notes which are expressed to be governed under Cayman Islands law issued under the Programme, a deed of covenant governed under Cayman Islands law dated 16 July 2021 (as amended and/or replaced from time to time the "**Cayman Deed of Covenant**").
- (B) From time to time the Issuers may (in accordance with the Programme Agency Agreement in relation to both Notes and Instruments) issue Tranches of Notes and Instruments under the Programme subject to the terms and conditions described in the relevant Approved Base Prospectus, the Private Placement Memorandum and the Offering Circular, as the case may be, and the relevant Final Terms and the relevant Pricing Supplement (as applicable) or the relevant Securities Note, as the case may be. For the avoidance of doubt, (i) all such Tranches of Notes and Instruments issued by GSFCI will have the benefit of this Guaranty and (ii) in respect of such Tranches of Notes and Instruments issued by GSI or GSW, such Tranches of Notes and Instruments will have the benefit of this Guaranty only where the relevant Final Terms, Pricing Supplement or Securities Note (as the case may be) specifies that the Guarantor of such Notes and Instruments shall be The Goldman Sachs Group, Inc., provided that any such Notes and Instruments which have the benefit of the GSG (Swiss) Guaranty made on 22 February 2022 by The Goldman Sachs Group, Inc (or any successor or replacement to such GSG (Swiss) Guaranty) shall not have the benefit of this Guaranty. As used in this Guaranty (other than the initial reference in Paragraph (A) above), the term "**Securities**" shall mean only such foregoing Notes and Instruments described herein which satisfy both of (i) and (ii) from the preceding paragraph and are not excluded by the proviso to the preceding paragraph, and which therefore have the benefit of this Guaranty.
- (C) The Guarantor has determined to execute this Guaranty of the payment obligations of GSI, GSW and GSFCI in respect of the Securities for the benefit of the Holders from time to time of the Securities.

- (D) Terms defined in the Approved Base Prospectus, the Private Placement Memorandum, the Offering Circular and the Programme Agency Agreement shall bear the same meaning in this Guaranty.

THE GUARANTOR hereby agrees as follows:

1. For value received, the Guarantor hereby unconditionally guarantees to the Holder of each Security the payment obligations of GSI, GSW and GSFCI in accordance with the terms and conditions of (where relevant) the Programme Agency Agreement, the Deed of Covenant, the Cayman Deed of Covenant and the Securities. In the case of failure of GSI and/or GSW and/or GSFCI punctually to make payment of any Settlement Amount or Redemption Amount, any Interest Amount or any other amount payable under the terms and conditions of the Securities, the Guarantor hereby agrees to cause any such payment to be made promptly when and as the same shall become due and payable as if such payment was made by GSI and/or GSW and/or GSFCI in accordance with the terms and conditions of the Securities. In the case of Securities providing for Physical Settlement, the Guarantor is obligated only to make payment of the Physical Settlement Disruption Amount in lieu of delivering any Deliverable Assets.
2. Any Securities issued by GSI, GSW or GSFCI under the Programme on or after the date hereof shall have the benefit of this Guaranty but shall not have the benefit of any subsequent guaranty by the Guarantor relating to Securities issued by GSI, GSW or GSFCI under the Programme on or after the date of such subsequent guaranty (unless expressly so provided in any such subsequent guaranty).
3. This Guaranty is one of payment and not of collection.
4. The Guarantor hereby waives notice of acceptance of this Guaranty and notice of any obligation or liability to which it may apply, and waives presentment, demand for payment, protest, notice of dishonour or non-payment of any such obligation or liability, suit or the taking of other action by any Holder against, and any notice to, the Issuers, the Guarantor or any other party.
5. The obligations of the Guarantor hereunder will not be impaired or released by (1) any change in the terms of any obligation or liability of GSI and/or GSW and/or GSFCI under the Programme Agency Agreement, the Deed of Covenant, the Cayman Deed of Covenant (in the case of EIS Notes which are expressed to be governed under Cayman Islands law issued under the Programme), or the Securities (2) the taking of or failure to take any action of any kind in respect of any security for any obligation or liability of GSI and/or GSW and/or GSFCI under the Programme Agency Agreement, the Deed of Covenant, the Cayman Deed of Covenant (in the case of EIS Notes which are expressed to be governed under Cayman Islands law issued under the Programme), or the Securities (3) the exercising or refraining from exercising of any rights against GSI and/or GSW and/or GSFCI or any other party or (4) the compromising or subordinating of any obligation or liability of GSI and/or GSW and/or GSFCI under the Programme Agency Agreement, the Deed of Covenant, the Cayman Deed of Covenant (in the case of EIS Notes which are expressed to be governed under Cayman Islands law issued under the Programme), or the Securities, including any security therefor.
6. Upon any assignment or delegation of GSI's and/or GSW's and/or GSFCI's rights and obligations under the Securities pursuant to the terms and conditions of the Securities to a partnership, corporation, trust or other organization in whatever form (the "**Substitute Issuer**") that assumes the obligations of GSI and/or GSW and/or GSFCI under the Securities by contract, operation of law or otherwise, this Guaranty shall remain in full force and effect and thereafter be construed as if each reference herein to the Issuer was a reference to the Substitute Issuer.
7. The Guarantor may not assign its rights nor delegate its obligations under this Guaranty in whole or in part, except for (i) an assignment and delegation of all of the Guarantor's rights and obligation hereunder to another entity in whatever form that succeeds to all or substantially all of the Guarantor's assets and business and that assumes such obligations by contract, operations of law or otherwise; or (ii) a transfer of this Guaranty or any interest or obligations of the Guarantor in or under this Guaranty to another entity as transferee as part of the resolution, restructuring, or reorganization of the Guarantor upon or following the Guarantor becoming subject to a receivership, insolvency, liquidation, resolution, or similar proceeding. Upon any such delegation and assumption of obligations, the Guarantor shall be relieved of and fully discharged from all obligations hereunder.
8. Notwithstanding anything contained herein, in the event the Guarantor becomes subject to a proceeding under the Federal Deposit Insurance Act or Title II of the Dodd-Frank Wall Street Reform and Consumer

Protection Act (together, the "**U.S. Special Resolution Regimes**"), the transfer of the Guaranty and any interest and obligation in or under the Guaranty, from the Guarantor will be effective to the same extent as the transfer would be effective under such U.S. Special Resolution Regime if the Guaranty, and any interest and obligation in or under the Guaranty, were governed by the laws of the United States or a state of the United States. In the event the Issuer or the Guarantor, or any of their affiliates, becomes subject to a U.S. Special Resolution Regime, default rights against the Issuer or the Guarantor and the Guaranty 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 Securities and the Guaranty were governed by the laws of the United States or a state of the United States.

9. **THIS GUARANTY SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.**

THE GOLDMAN SACHS GROUP, INC.

By:

Authorized Officer