Supplement No. 1

pursuant to Section 16 para. 1 of the German Securities Prospectus Act
(*Wertpapierprospektgesetz*)

dated 10 April 2018

to the

Registration Document

dated 10 January 2018

of

Goldman Sachs International
London, England

Subject of this supplement (the "**Supplement**") is (i) the publication of the report on the Regulatory Ratios of Goldman Sachs International for the fiscal quarter ended 31 December 2017 (the "**Report**") on 18 January 2018 and (ii) the publication of the Annual Report of for the fiscal year ended 31 December 2017 of Goldman Sachs International (the "**Annual Report**"), containing, in Part II, the Directors' Report and Audited Financial Statements of Goldman Sachs International for the period ended 31 December 2017, on 19 March 2018. A copy of the Report has been filed with the *Commission de Surveillance du Secteur Financier* (the "**CSSF**"). The Report is available free of charge at Goldman Sachs International, Zweigniederlassung Frankfurt, MesseTurm, Friedrich-Ebert-Anlage 49, 60308 Frankfurt am Main.

The information contained in the Registration Document shall be supplemented as follows:

*1. In the Registration Document "**APPENDIX II**" and "**APPENDIX III**" of the "**Table of Contents**" on page 4 shall be replaced by the following new "**APPENDIX II**":*

*2. In the Registration Document the information in the section "**A. Risk Factors relating to GSI**" on pages 6 et seqq. shall be replaced by the following information:*

"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 business and, as a consequence, may affect GSI`s ability to fulfil their obligations under the Securities. If GSI is not able to fulfil their obligations under the Securities investors in the Securities may lose some or all of the capital invested.

Risks relating to economic and market 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. 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 GDP (Gross Domestic Product) growth, regulatory and market conditions which result in transparent, liquid and efficient capital markets, low inflation, high business and investor confidence, stable geopolitical conditions, clear regulations and strong business earnings.

Unfavourable or uncertain economic and market conditions can be caused by: concerns about sovereign defaults; uncertainty concerning fiscal or monetary policy; the extent of and uncertainty about tax and other regulatory changes; declines in economic growth, business activity or investor or business confidence; 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; 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 communications, energy transmission or transportation networks or other geopolitical instability or uncertainty, such as corporate, political or other scandals that reduce investor confidence in capital markets; extreme weather events or other natural disasters or pandemics; or a combination of these or other factors.

The financial services industry and the securities markets have been materially and adversely affected in the past by significant declines in the values of nearly all asset classes and by a serious lack of liquidity. In addition, concerns about European sovereign debt risk and its impact on the European banking system, about the impact of Brexit, and about changes in interest rates and other market conditions or actual changes in interest rates and other market conditions, including market conditions in China, have resulted, at times, in significant volatility while negatively impacting 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, continues to negatively impact client activity, which adversely affects 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.

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. Although interest rates are still near historically low levels, financial institution returns in many countries have also been negatively impacted by increased funding costs due in part to the withdrawal of perceived government support of such institutions in the event of future financial crises. In addition, liquidity in the financial markets has also been negatively impacted as market participants and market practices and structures continue to adjust to new regulations.

The degree to which these and other changes resulting from the financial crisis will have a long-term impact on the profitability of financial institutions will depend on the implementation of recently adopted and new regulations, the manner in which markets, market participants and financial institutions adapt to these regulations, and the prevailing economic and financial market conditions. However, there is a significant risk that such changes will, at least in the near-term, continue to negatively impact the absolute level of revenues, profitability and return on equity of GSI and other financial institutions.

Risks relating to regulation

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 European Union ("**EU**"). More generally, but also in the U.S. as a subsidiary of the Goldman Sachs Group 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 may 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 could be fined or criminally sanctioned, prohibited from engaging in certain business activities, subject 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. Such limitations or conditions may limit business activities and negatively impact GSI’s profitability.

GSI is subject to EU legal and regulatory requirements, based on directly binding regulations of the EU and the implementation of EU directives by the UK. GSI currently benefits from non-discriminatory access to EU clients and infrastructure based on EU treaties and EU legislation, including cross-border “passporting” arrangements and specific arrangements for the establishment of EU branches. There is considerable uncertainty as to the regulatory regime that will be applicable in the UK post-Brexit and the regulatory framework that will govern transactions and business undertaken by GSI in the remaining EU countries.

In addition to the impact on the scope and profitability of GSI’s business activities, day-to-day compliance with laws and regulations, in particular those adopted since 2008, 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.

If there are new laws or regulations or changes in the enforcement of existing laws or regulations applicable to GSI’s businesses or those of GSI's clients, including capital, liquidity, leverage, long-term debt, loss absorbing capacity 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 (either based on size, activities, geography or other criteria) which may include GSI or The Goldman Sachs Group, Inc. ("**GSG**"), compliance with these new laws and regulations, or changes in the enforcement of existing laws or regulations, could adversely affect GSI's ability to compete effectively with other institutions that are not affected in the same way. In addition, regulation imposed on financial institutions or market participants generally, such as taxes on financial transactions, could adversely impact levels of market activity more broadly, and thus impact GSI's businesses.

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 such 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 EU and national financial legislators and regulators have proposed or adopted numerous market reforms that have impacted and may continue to impact GSI’s businesses. These include stricter capital and liquidity requirements (including proposed amendments to Capital Requirements Directive and Capital Requirements Regulation (collectively known as "**CRD IV**")), authorisations for regulators to impose position limits, the Markets in Financial Instruments Directive (as amended, Directive 2014/65/EU, "**MiFID II**"), restrictions on short selling and credit default swaps and market abuse regulations.

The implementation of higher capital requirements, the liquidity coverage ratio, the net stable funding ratio, requirements relating to long-term debt and total loss-absorbing capacity ("**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 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, such as the General Data Protection Regulation ("**GDPR**"), 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 obligation 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 such regulators and courts 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 adviser, investment adviser 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.

Risks related to market volatility

GSI's businesses have been and may be adversely affected by declining asset values. This is particularly true for those businesses in which 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 exposures have been effectively hedged.

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 such 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 may 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 the 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 to support the obligations of clients and counterparties in connection with client execution businesses. When the value of the assets posted as collateral declines 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 such collateral may, 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.

Risks related to liquidity

Liquidity is essential to GSI's businesses. GSI's liquidity could be impaired by an inability to access secured and/or unsecured debt markets, an inability to access funds from GSG or other affiliates, an inability to sell assets or redeem investments or 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 disruption or an operational problem that affects third parties or GSI or its affiliates or even by the perception amongst 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 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 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. In addition, 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.

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 and GSG'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. In addition, the credit spreads of GSI and/or GSG may be influenced by 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.

Regulatory changes relating to liquidity may also negatively impact GSI’s results of operations and competitive position. Recently, 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 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 new rules relating to minimum long-term debt requirements and TLAC, guidance on the treatment of brokered deposits and the 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 until implementation of post-financial crisis regulatory reform is complete.

Risks relating to resolution and recovery planning

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 investment. Furthermore, the suggestion that such powers were to be exercised could also have an adverse impact on the value of such investments.

Risks related to credit markets

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 from GSG, which funds itself on an unsecured basis by issuing long-term debt, by accepting deposits at its bank subsidiaries, by issuing hybrid financial instruments, or 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 and 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 such businesses.

Risks in connection with the concentration of risk

Concentration of risk increases the potential for significant losses in market-making, underwriting and investing activities. The number and size of such transactions may affect GSI's results of operations in a given period. Moreover, because of concentration of 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. A failure or downgrade of, or default by, such entity could negatively impact GSI's businesses, perhaps materially, and the systems by which GSI sets limits and monitors the level of its credit exposure to individual entities, industries and countries 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.

Risks related to credit quality

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 increase significantly in times of market stress and illiquidity.

Risks related to the composition of GSI's 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, unfavorable industry developments or market conditions affecting certain industries or markets may result in GSI's businesses underperforming relative to similar businesses of a competitor if its businesses have a higher concentration of clients in such industries or markets. For example, GSI's market-making businesses have a higher percentage of clients with actively managed assets than its competitors and such clients have been disproportionately affected by the low levels of volatility.

Correspondingly, favourable or simply less adverse developments or market conditions involving industries or markets in a business where GSI has a lower concentration of clients in such industry or market may also result 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 many of its peers and therefore GSI's competitors may benefit more from increased activity by corporate clients.

Risks related to derivative transactions

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 Resolution Stay Protocol (the "**ISDA Protocol**"), GSI may not be able to exercise 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. Various non-U.S. regulators have also proposed regulations contemplated by the ISDA Protocol, which might result in additional limitations on GSI's ability to exercise remedies against counterparties. The impact of the ISDA Protocol and these rules and regulations will depend on the development of market practices and structures.

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 ("**OTC**") derivatives, or a market shift toward standardised derivatives, could reduce the risk associated with such 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 increase credit exposure to such a platform.

Risks in connection with operational infrastructure

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 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 report 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 report timely, accurate and complete information. As reporting 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. It has been reported that there are some fundamental security flaws in computer chips found in many types of computing devices and phones. Addressing this issue could be costly and affect the performance of these businesses and systems, and 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 may be, or may become, exposed to risks related to distributed ledger technology through GSI's facilitation of clients’ activities involving financial products linked to distributed ledger technology, such as blockchain or cryptocurrencies, GSI's investments in companies that seek to develop platforms based on distributed ledger technology, and the use of distributed ledger technology by third-party vendors, clients, counterparties, clearing houses and other financial intermediaries.

In addition, GSI faces the risk of operational failure, 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 with respect to clients' systems.

Despite the resiliency plans and facilities that are in place, GSI's ability to conduct business may be adversely impacted by a disruption in the infrastructure that supports its businesses and the communities in which GSI is located. This may include a disruption involving electrical, satellite, undersea cable or other communications, internet, transportation or other services 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. GSI may not be able to effectively monitor or mitigate operational risks relating to its vendors' use of common service providers.

Risks related to cyber security

GSI is regularly the target of attempted cyber attacks, including denial-of-service attacks, and must continuously monitor and develop its systems to protect its technology infrastructure and data from misappropriation or corruption. The increasing migration of GSI's communication and other platforms from company provided devices to employee-owned devices presents additional risks of cyber attacks. 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 effects 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 foreign governments or are involved with organised crime or terrorist organisations. Third parties may also attempt to place individuals within GSI 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 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 and other events that could have a security impact. 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. If one or more of such events occur, this potentially could jeopardise GSI or its clients' or counterparties' confidential and other information processed and stored in, and transmitted through, GSI's computer systems and networks, or otherwise cause interruptions or malfunctions in GSI's, its clients', its counterparties' or third parties' operations, which could impact their ability to transact with GSI or otherwise result in legal or regulatory action, significant losses or reputational damage.

The increased use of mobile and cloud technologies can heighten these and other operational risks. GSI expects to expend significant additional resources on an ongoing basis to modify 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, and financial losses that are either not insured against or not fully covered through any insurance it maintains. 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.

Risks in connection with risk management

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, GSI may, in the course of its activities, 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, such as occurred during 2008 and early 2009, and to some extent since 2011, 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 can 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 or ineffective testing, 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 such 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.

Risks related to new business initiatives

GSI faces enhanced risks as new business initiatives lead it to 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 less sophisticated 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 these assets are being operated or held or in which GSI interacts with these counterparties.

Risks in connection with operating in multiple jurisdictions

In conducting GSI's businesses and maintaining and supporting its global operations, GSI is subject to risks of possible nationalisation, expropriation, price controls, capital controls, exchange controls 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 EU on certain individuals and companies in Russia. 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. 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 to comply with laws and regulations may subject GSI and its personnel not only to civil actions but also criminal actions. GSI is also subject to the enhanced risk that transactions it structures might not be legally enforceable in all cases.

The exit of the UK from the EU will likely change the arrangements by which UK firms are able to provide services into the EU which may materially adversely affect the manner in which GSI operates certain of its businesses in Europe and could require GSI to restructure certain of its operations. The outcome of the negotiations between the UK and the EU in connection with Brexit is highly uncertain. Such uncertainty may result in market volatility and may negatively impact the confidence of investors and clients. Additionally, depending on the outcome, Brexit could have a disproportionate effect on GSI's operations in the EU compared to some of GSI's competitors who have more extensive pre-existing operations in the EU outside of the UK.

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 USA PATRIOT Act of 2001 and 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, clients and customers, 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 runs the risk that employee misconduct could occur. This misconduct has included and may include in the future 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.

Risks related to conflicts of interest

A failure to appropriately identify and address potential conflicts of interest could adversely affect GSI's businesses. Due to the broad scope of the Goldman Sachs Group's businesses and client base, GSI regularly addresses potential conflicts of interest, including situations where services to a particular client or the Goldman Sachs Group's own investments or other interests conflict, or are perceived to conflict, with the interests of 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 the Goldman Sachs Group and situations where it may be a creditor of an entity with which the Goldman Sachs 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 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.

Risks related to competition

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 recently adopted regulations, imposed taxes, adopted compensation restrictions or otherwise put forward various proposals that have 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 assignments, GSI has experienced pressure to extend and price 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.

Risks related to changes in underliers

Certain of GSI's businesses and its funding may be adversely affected by changes in the reference rates, currencies, indexes, baskets, exchange-traded funds ("**ETF**") or other financial metrics (the underlier) to which the products offered by GSI or funding raised by GSI are linked. All of GSI's floating rate funding pays interest by reference to a rate, such as the London Interbank Offered Rate ("**LIBOR**") or Federal Funds. In addition, 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 similar rates or by reference to the underlier. In the event that the composition of the underlier is significantly changed, by reference to rules governing such underlier or otherwise, or the underlier ceases to exist (for example, in the event that LIBOR is discontinued, a country withdraws from the Euro or links its currency to or delinks its currency from another currency or benchmark, or an index or ETF sponsor materially alters the composition of an index or ETF), there may be uncertainty as to the calculation of the amounts to be paid to the lender, investor or counterparty, depending on the terms of the governing instrument.

Such changes in an underlier or underliers could result in GSI's hedges being ineffective or otherwise result in losses on a product or having to pay more or receive less on securities that GSI owns or has issued. In addition, such uncertainty could result in lengthy and costly litigation.

Risks related to personnel

GSI's businesses may be adversely affected if it is unable to hire and retain qualified employees. GSI's performance is largely dependent on the talents and efforts of highly skilled people; therefore, GSI's continued ability to compete effectively in its businesses, to manage its businesses effectively and to expand into new businesses and geographic areas depends on its ability to attract 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 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 Goldman Sachs 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. Recently, GSI has experienced increased competition in hiring and retaining employees to address the demands of new regulatory requirements and GSI’s technology initiatives. This is also the case in emerging and growth markets, where GSI is often competing for qualified employees with entities that have a significantly greater presence or more extensive experience in the region.

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 (the "**PRA**") and the Financial Conduct Authority (the "**FCA**"). As a large financial institution, GSI is subject to limitations on compensation practices (which may or may not affect competitors) by the PRA and the FCA and other regulators worldwide. These limitations, including any imposed by or as a result of future legislation or regulation, may require GSI to alter compensation practices in ways that could adversely affect its ability to attract and retain talented employees.

Risks related to legal liability

Substantial legal 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. From experience, legal claims by customers and clients increase in a market downturn and employment-related claims increase following periods of staff reduction. Additionally, governmental entities have been and are plaintiffs in certain of the legal proceedings in which GSI is involved, and it may face future 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. Violations of such laws and regulations could result in significant monetary penalties, severe restrictions on GSI's activities and damage to its reputation.

Risks in connection with unforeseen or catastrophic events

The occurrence of unforeseen or catastrophic events, including the emergence of a pandemic, or other widespread health emergency (or concerns over the possibility of such an emergency), terrorist attacks, extreme terrestrial or solar weather events or other natural disasters, could create economic and financial disruptions, and could lead to operational difficulties (including travel limitations) that could impair GSI's ability to manage its businesses and result in losses."

*3. In the Registration Document the information in subsection "**I. Statutory Auditors and Selected Financial Information**" of section "**D. Goldman Sachs International**" on pages 29 et seq. shall be replaced by the following information:*

"**1. Statutory Auditors**

The statutory financial statements of GSI for the periods ended 31 December 2017 and 31 December 2016 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.

2. Selected Financial Information

The selected financial information set out below has been extracted from (i) GSI's 2017 Financial Statements and (ii) GSI's 2016 Financial Statements, which have been audited by PricewaterhouseCoopers LLP and on which PricewaterhouseCoopers LLP issued an unqualified audit report.

GSI's 2017 Financial Statements have been prepared in accordance with FRS 101. GSI's 2016 Financial Statements have been prepared in accordance with FRS 101. The financial information presented below should be read in conjunction with the financial statements included in such documents, the notes thereto and report thereon.

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

	As at and for the year (audited)	
(*in USD millions*)	**1 January - 31 December 2017**	**1 January - 31 December 2016**
Operating Profit	2,389	2,280
Profit before taxation	2,091	1,943
Profit for the financial period	1,557	1,456

	As of (audited)	
(*in USD millions*)	**31 December 2017**	**31 December 2016**
Fixed Assets	210	140
Current Assets	939,863	934,129
Total Shareholder's funds	31,701	27,533

"

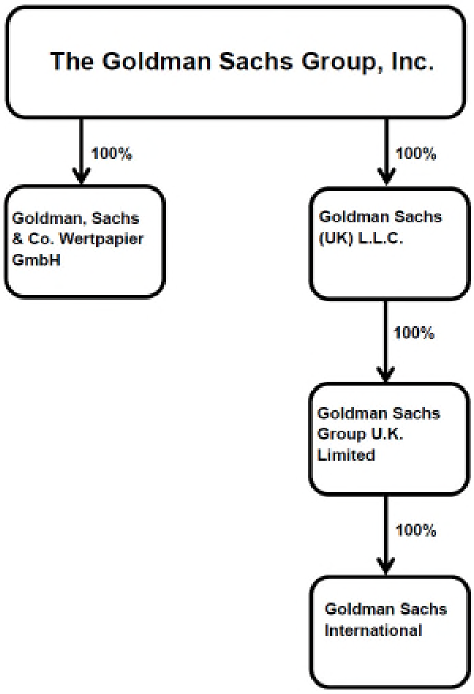
*4. In the Registration Document the information in the third paragraph in subsection "**II. History and Development**" of section "**D. Goldman Sachs International**" on page 30 shall be replaced by the following information:*

"There have been no principal investments made by GSI since the date of its last published financial statements. A description of GSI's principal future investments on which its management body has already made firm commitments may be found in Note 26 of the "Notes to Financial Statements" at page G-69 of GSI's 2017 Financial Statements."

*5. In the Registration Document the information in subsection "**III. Organisational Structure**" of section "**D. Goldman Sachs International**" on pages 31 et seq. shall be replaced by the following information:*

"Goldman Sachs Group UK Limited, a company incorporated under English law has a 100 per cent. shareholding in GSI. Goldman Sachs (UK) L.L.C. is established under the laws of the State of Delaware and holds 100 per cent. of the ordinary shares of Goldman Sachs Group UK Limited. The Goldman Sachs Group, Inc. is established in Delaware and has a 100 per cent. shareholding in Goldman Sachs (UK) L.L.C.

Holding structure of GSI



Note: The percentages given are for direct holdings of ordinary shares or equivalent."

*6. In the Registration Document the information in subsection "**IV. Trend Information**" of section "**D. Goldman Sachs International**" on page 32 shall be replaced by the following information:*

"There has been no material adverse change in the prospects of GSI since 31 December 2017 (date of its last audited financial statements)."

*7. In the Registration Document the table in subsection "**V. Management and Legal Representation – 1. Management of GSI**" of section "**D. Goldman Sachs International**" on pages 32 et seq. shall be replaced by the following table:*

"

Name	**Occupation**	**Business Address**
Jose M. D. Barroso	Investment Banker	Peterborough Court 133 Fleet Street London EC4A 2BB
Sally A. Boyle (appointment proposed on March 15, 2018, subject to regulatory approval)	Managing Director	Peterborough Court 133 Fleet Street London EC4A 2BB
Isabelle Ealet	Investment Banker	Peterborough Court 133 Fleet Street London EC4A 2BB
Lord Anthony S. Grabiner	Investment Banker	Peterborough Court

		133 Fleet Street London EC4A 2BB
Richard J. Gnodde	Investment Banker	Peterborough Court 133 Fleet Street London EC4A 2BB
Nigel Harman	Investment Banker	Peterborough Court 133 Fleet Street London EC4A 2BB
Susan S. Kilsby	Investment Banker	Peterborough Court 133 Fleet Street London EC4A 2BB
Dermot W. McDonogh	Investment Banker	Peterborough Court 133 Fleet Street London EC4A 2BB
Marius O. Winkelman	Investment Banker	Peterborough Court 133 Fleet Street London EC4A 2BB

"

*8. In the Registration Document the information in subsection "**VI. Financial information concerning GSI's assets and liabilities, financial position and profit and losses**" of section "**D. Goldman Sachs International**" on pages 34 et seq. shall be replaced by the following information:*

"**1. Historical financial information for the financial year 2016**

The Annual Report for the fiscal year ended 31 December 2016 of GSI ("**GSI's 2016 Annual Report**"), containing, in Part II, the Directors' Report and Audited Financial Statements of GSI for the period ended 31 December 2016 ("**GSI's 2016 Financial Statements**") can be found in Appendix I of the Registration Document (pages F-1 to F-91).

2. Historical financial information for the financial year 2017

The Annual Report for the fiscal year ended 31 December 2017 of GSI ("**GSI's 2017 Annual Report**"), containing, in Part II, the Directors' Report and Audited Financial Statements of GSI for the period ended 31 December 2017 ("**GSI's 2017 Financial Statements**") can be found in Appendix II of the Registration Document (pages G-1 to G-85).

3. Auditing of historical financial information

PricewaterhouseCoopers LLP audited (i) GSI's 2016 Financial Statements and (ii) GSI's 2017 Financial Statements and issued in each case an unqualified audit report.

4. Legal and arbitration proceedings

Save as disclosed in (i) "Legal Proceedings" of Note 22 to the Financial Statements (page F-76) of GSI's 2016 Annual Report and (ii) "Legal Proceedings" of Note 26 to the Financial Statements (pages G-69) of GSI's 2017 Financial Report there have been no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which GSI is aware) during the last 12 months before the date of this Registration Document which may have, or have had in the recent past, significant effects on GSI´s financial position or profitability.

5. Significant change in GSI's financial or trading position

There has been no significant change in the financial or trading position of GSI since 31 December 2017.

6. Statements in relation to prospects and financial or trading position

In this Registration Document, where GSI make statements that "there has been no material adverse change in the prospects" and "no significant change in the financial or trading position" of GSI, references in these statements to the "prospects" and "financial or trading position" of GSI is specifically to their respective ability to meet their full payment obligations under the Guarantee in a timely manner. Material information about GSI's respective financial condition and prospects is included in GSI's annual and interim reports, which are annexed to this Registration Document."

*9. In the Registration Document the information in subsection "**VIII. Additional Information about GSI**" of section "**D. Goldman Sachs International**" on page 38 shall be replaced by the following information:*

"**1. GSI's Regulatory Ratios**

Information relating to GSI's regulatory ratios can be found in the following document.

- the report on the Regulatory Ratios of Goldman Sachs International for the fiscal quarter ended 31 December 2017 ("**GSI's Regulatory Ratios, 31 December 2017**").

A copy of the GSI's Regulatory Ratios, 31 December 2017 has been filed with the CSSF in Luxembourg and are available on the website of the Luxembourg Stock Exchange at www.bourse.lu. The information in GSI's Regulatory Ratios, 31 December 2017 is incorporated by reference pursuant to Section 11 para. 1 sentence 1 no 1 of the German Securities Prospectus Act into this Registration Document.

2. Information about The Goldman Sachs Group, Inc.

GSI is an indirect wholly owned subsidiary of The Goldman Sachs Group, Inc. (the "**GSG**"). GSG files documents and reports with the US Securities and Exchange Commission (the "**SEC**"). With respect to further substantial information in respect of GSG (and its subsidiaries) reference pursuant to Section 11 para. 1 sentence 1 no 1 German Securities Prospectus Act is made to the following documents filed with the SEC (the "**SEC Documents**"), which supplement the information above:

- Report on Form 8-K dated 12 September 2017;
- Report on Form 8-K dated 28 December 2017."

*10. In the Registration Document in subsection "**IX. Documents on Display**" of section "**D. Goldman Sachs International**" on pages 38 et seq. shall be replaced as follows:*

"The documents referred to in the Registration Document relating to Goldman Sachs International and intended for publication may be obtained or inspected, respectively during normal business hours at Goldman Sachs International, Zweigniederlassung Frankfurt, MesseTurm, Friedrich-Ebert-Anlage 49, 60308 Frankfurt am Main.

During the validity of the Registration Document, in particular copies of the following documents may be inspected:

- the Articles of Association of Goldman Sachs International dated 20 February 2017;
- Report on Form 8-K dated 12 September 2017 of The Goldman Sachs Group, Inc.;
- Report on Form 8-K dated 28 December 2017 of The Goldman Sachs Group, Inc.;
- GSI's 2016 Annual Report; and
- GSI's 2017 Annual Report."

*11. In the Registration Document "**APPENDIX II**" and "**APPENDIX III**" shall be deleted and after "**APPENDIX I - Annual Report for the fiscal year ended 31 December 2016 of Goldman Sachs International**" the Annual Report for the fiscal year ended 31 December 2017 of Goldman Sachs International as laid out in the Annex of this Supplement is newly inserted as "**APPENDIX II**".*

Annex

APPENDIX II

Annual Report for the fiscal year ended 31 December 2017 of Goldman Sachs International

Introduction

Goldman Sachs International (GSI or the company) provides a wide range of financial services to clients located worldwide. The company also operates a number of branches and representative offices across Europe, the Middle East and Africa (EMEA) to provide financial services to clients in those regions.

The company's primary regulators are the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA).

The company's ultimate parent undertaking and controlling entity is The Goldman Sachs Group, Inc. (Group Inc.). Group Inc. is a bank holding company and a financial holding company regulated by the Board of Governors of the Federal Reserve System (Federal Reserve Board or FRB). In relation to the company, "group undertaking" means Group Inc. or any of its subsidiaries. Group Inc., together with its consolidated subsidiaries, form "GS Group". GS Group is a leading global investment banking, securities and investment management firm that provides a wide range of financial services to a substantial and diversified client base that includes corporations, financial institutions, governments and individuals. GS Group has a presence in EMEA through a number of subsidiaries, including GSI.

The company seeks to be the advisor of choice for its clients and a leading participant in global financial markets. As part of GS Group, the company also enters into transactions with affiliates in the normal course of business as part of its market-making activities and general operations. The company, consistent with GS Group, reports its activities in four business segments: Investment Banking; Institutional Client Services; Investing & Lending; and Investment Management.

The company strives to maintain a work environment that fosters professionalism, excellence, diversity, cooperation among employees and high standards of business ethics. The company recognises that it needs the most talented people to deliver outstanding results for clients. A diverse workforce in terms of gender, ethnicity, sexual orientation, background, culture and education ensures the development of better ideas, products and services. For further information regarding Goldman Sachs leadership, its people, culture and commitment to diversity see www.goldmansachs.com/who-we-are/.

References to "the financial statements" are to the directors' report and audited financial statements as presented in Part II of this annual report. All references to 2017 and 2016 refer to the years ended, or the dates, as the context requires, December 31, 2017 and December 31, 2016, respectively.

Unless otherwise stated, all amounts in this annual report are prepared in accordance with United Kingdom Generally Accepted Accounting Practices (U.K. GAAP). The company also prepares results under United States Generally Accepted Accounting Principles (U.S. GAAP), which are included in the consolidated financial statements of GS Group.

Certain disclosures required by U.K. GAAP in relation to the company's financial risk management and capital management have been presented alongside other risk management and regulatory information in the strategic report. Such disclosures are identified as audited. All other information in the strategic report is unaudited.

Executive Overview

Profit and Loss Account

The profit and loss account is set out on page 46 of this annual report. The company's profit for the financial year was $1.56 billion for 2017, an increase of 7% compared with 2016.

Net revenues were $6.51 billion for 2017, essentially unchanged compared with 2016, primarily due to significantly lower net revenues in Investing & Lending and slightly lower net revenues in Institutional Client Services. These decreases were partially offset by significantly higher net revenues in Investment Management and slightly higher net revenues in Investment Banking.

Administrative expenses were $4.12 billion for 2017, 4% lower than 2016, primarily reflecting a decrease in direct costs of employment. Direct costs of employment include the mark-to-market impact of share-based compensation. Excluding the mark-to-market impact of share-based compensation for both periods, administrative expenses were $3.98 billion for 2017, 5% higher than 2016.

See "Results of Operations" below for information about the company's net revenues, segment reporting and administrative expenses.

Capital Ratios

As of December 2017, the company's Common Equity Tier 1 ratio was 11.0% (under CRD IV as defined in "Equity Capital Management and Regulatory Capital — Regulatory Capital").

Balance Sheet

The balance sheet is set out on page 47 of this annual report. In the subsequent paragraphs, total assets are the sum of "Fixed assets", "Current assets" and "Pension surplus". Total liabilities are the sum of "Creditors: amounts falling due within one year", "Creditors: amounts falling due after more than one year" and "Provisions for liabilities".

As of December 2017, total assets were $940.39 billion, an increase of $6.07 billion from December 2016, reflecting increases in collateralised agreements of $20.22 billion, debtors of $4.36 billion, cash at bank and in hand of $3.84 billion, partially offset by a decrease in financial instruments owned of $22.68 billion. Collateralised agreements increased primarily due to changes in client activity. Debtors increased primarily due to an increase in cash collateral posted to counterparties. Cash at bank and in hand increased primarily due to an increase in cash deposits held as Global Core Liquid Assets (GCLA). Financial instruments owned decreased primarily due to a decrease in derivative instruments, principally as a result of a decrease in currencies and interest rates derivatives, partially offset by an increase in cash instruments.

As of December 2017, total liabilities were $908.69 billion, an increase of $1.90 billion from December 2016, reflecting an increase in collateralised financings of $27.26 billion, partially offset by a reduction in financial instruments sold, but not yet purchased of $23.99 billion. Collateralised financings increased primarily due to changes in client activity. Financial instruments sold, but not yet purchased decreased primarily due to a decrease in derivative instruments, principally as a result of a decrease in interest rates and currencies derivatives, partially offset by an increase in cash instruments.

As of December 2017, total shareholder's funds were $31.70 billion, an increase of $4.17 billion from December 2016, primarily reflecting the issuance of $5.80 billion of Additional Tier 1 notes (AT1 notes) and the company's profit for the financial year of $1.56 billion, partially offset by the payment of $3.00 billion of dividends.

Total level 3 financial assets were $4.04 billion and $5.15 billion as of December 2017 and December 2016, respectively. See Note 28 to the financial statements for further information about level 3 financial assets, including changes in level 3 financial assets and related fair value measurement.

Under U.S. GAAP, as of December 2017, total assets were $404.63 billion and total liabilities were $378.67 billion. The company's total assets and total liabilities under U.S. GAAP differ from those reported under U.K. GAAP primarily due to the company presenting derivative balances gross under U.K. GAAP if they are not net settled in the normal course of business, even where it has a legally enforceable right to offset those balances.

Future Outlook

The directors consider that the year-end financial position of the company was satisfactory. While no significant change in the principal business activities is currently expected, the directors continue to assess the impact on the company of the U.K.'s decision to leave the European Union (Brexit).

Business Environment

Global

During 2017, real gross domestic product (GDP) growth generally increased compared to 2016 in both advanced and emerging market economies. In advanced economies, real GDP growth was higher in the U.S., the Euro area and Japan, but decreased slightly in the U.K. In emerging markets, real GDP growth increased slightly in China, but decreased in India. Real GDP increased in Russia and Brazil compared with contractions in 2016. Broadly, global macroeconomic data remained strong throughout 2017, and volatility in equity, fixed income, currency and commodity markets was low. Major elections were held in France, the U.K., Germany and China, but none of these events resulted in significant volatility across markets. Major central banks continued to gradually tighten their stance on monetary policy, as the U.S. Federal Reserve increased its target interest rate three times and began the process of balance sheet normalisation. In investment banking, industry-wide announced and completed mergers and acquisitions transactions remained solid during 2017, although volumes declined compared with 2016. Industry-wide offerings in equity underwriting increased significantly compared with 2016, and industry-wide debt underwriting offerings remained strong, particularly in leveraged finance activity.

Europe

In the Euro area, real GDP increased by 2.5% in 2017, compared with an increase of 1.7% in 2016. Net exports improved, while growth in consumer spending and fixed investment slowed slightly. Measures of inflation remained subdued, prompting the European Central Bank (ECB) to announce an extension of its asset purchase programme in the fourth quarter of 2017, although the pace of its monthly asset purchases decreased from €60 billion to €30 billion beginning in January 2018. The ECB maintained its main refinancing operations rate at 0.00% and its deposit rate at (0.40%). The Euro appreciated by 14% against the U.S. dollar. Yields on 10-year government bonds in the Euro area generally increased during the year. In equity markets, the DAX Index, CAC 40 Index and Euro Stoxx 50 Index increased by 13%, 9% and 6%, respectively, during 2017. During 2017, the process of negotiating an arrangement for the withdrawal of the U.K. from the E.U. began, resulting in an agreement on certain issues in December as negotiations shifted to transitional arrangements. In the U.K., real GDP increased by 1.7% in 2017, compared with an increase of 1.9% in 2016. Inflation increased materially in 2017 prompting the Bank of England to raise the official bank rate by 25 basis points in November. The British pound appreciated by 10% against the U.S. dollar during 2017. Yields on 10-year government bonds in the U.K. decreased slightly during the year and, in equity markets, the FTSE 100 Index increased by 8% during 2017.

In investment banking, EMEA industry-wide announced and completed mergers and acquisitions transactions remained solid during 2017, although volumes declined compared with 2016. EMEA industry-wide offerings in equity underwriting increased significantly compared with 2016, and EMEA industry-wide debt underwriting offerings remained strong.

Results of Operations

Net Revenues

Net revenues include the net profit arising from transactions, with both third parties and affiliates, in securities, foreign exchange and other financial instruments, and fees and commissions. This is inclusive of associated interest and dividends. See “Segment Reporting” below for further details.

Segment Reporting

The table below presents the net revenues of the company’s segments.

	Year Ended December	
$ in millions	**2017**	2016
Investment Banking		
Financial Advisory	**$ 514**	$ 563
Underwriting	**662**	575
Total Investment Banking	**$1,176**	$1,138
Institutional Client Services		
Fixed Income, Currency and Commodities Client Execution	**$2,117**	$2,523
Equities	**2,365**	2,066
Total Institutional Client Services	**$4,482**	$4,589
Investing & Lending	**$ 318**	$ 500
Investment Management	**$ 532**	$ 322
Total net revenues	**$6,508**	$6,549

Investment Banking

Investment Banking consists of:

Financial Advisory. Includes strategic advisory engagements with respect to mergers and acquisitions, divestitures, corporate defence activities, restructurings, spin-offs, risk management and derivative transactions directly related to these client advisory engagements.

Underwriting. Includes equity and debt underwriting of public offerings and private placements, including local and cross-border transactions and acquisition financing, of a wide range of securities and other financial instruments, including loans, and derivative transactions directly related to these client underwriting activities.

2017 versus 2016. Net revenues in Investment Banking were $1.18 billion for 2017, 3% higher than 2016.

Net revenues in Financial Advisory were $514 million, 9% lower than 2016, reflecting a decrease in completed mergers and acquisitions transactions. Net revenues in Underwriting were $662 million, 15% higher than 2016, primarily due to higher net revenues in debt underwriting, reflecting an increase in EMEA industry-wide high-yield activity, partially offset by significantly lower net revenues from asset-backed activity. Net revenues in equity underwriting were higher compared with 2016.

As of December 2017, the company’s investment banking transaction backlog was higher compared with the backlog at the end of 2016, primarily due to significantly higher estimated net revenues from potential advisory transactions, reflecting an increase in mergers and acquisitions activity. Estimated net revenues from both potential equity underwriting transactions and debt underwriting transactions were also higher.

The company’s investment banking transaction backlog represents an estimate of future net revenues from investment banking transactions where the company believes that future revenue realisation is more likely than not. The company believes changes in its investment banking transaction backlog may be a useful indicator of client activity levels which, over the long term, impact net revenues.

Institutional Client Services

Institutional Client Services generates revenues in the following ways:

- In large, highly liquid markets, the company executes a high volume of transactions for clients;
- In less liquid markets, the company executes transactions for clients for spreads and fees that are generally somewhat larger than those charged in more liquid markets;
- The company also structures and executes transactions involving customised or tailor-made products that address clients’ risk exposures, investment objectives or other complex needs; and
- The company provides financing to its clients for their securities trading activities, as well as securities lending and other prime brokerage services.

Institutional Client Services consists of:

Fixed Income, Currency and Commodities Client Execution. Includes client execution activities related to making markets in both cash and derivative instruments for interest rate products, credit products, mortgages, currencies and commodities.

- **Interest Rate Products.** Government bonds (including inflation-linked securities) across maturities, other government-backed securities, securities sold under agreements to repurchase (repurchase agreements), and interest rate swaps, options and other derivatives.
- **Credit Products.** Investment-grade corporate securities, high-yield securities, credit derivatives, exchange-traded funds, bank and bridge loans, municipal securities, emerging market and distressed debt, and trade claims.
- **Mortgages.** Commercial mortgage-related securities, loans and derivatives, residential mortgage-related securities, loans and derivatives, and other asset-backed securities, loans and derivatives.
- **Currencies.** Currency options, spot/forwards and other derivatives on G-10 currencies and emerging-market products.
- **Commodities.** Commodity derivatives and, to a lesser extent, physical commodities, involving crude oil and petroleum products, natural gas, base, precious and other metals, electricity, coal, agricultural and other commodity products.

Equities. Includes client execution activities related to making markets in equity products and commissions and fees from executing and clearing institutional client transactions on major stock, options and futures exchanges worldwide, as well as over-the-counter (OTC) transactions. Equities also includes the securities services business, which provides financing, securities lending and other prime brokerage services to institutional clients, including hedge funds, mutual funds, pension funds and foundations, and generates revenues primarily in the form of interest rate spreads or fees.

The company's results are influenced by a combination of interconnected drivers, including (i) client activity levels and transactional bid/offer spreads (collectively, client activity), and (ii) changes in the fair value of its inventory, and interest income and interest expense related to the holding, hedging and funding of its inventory (collectively, market-making inventory changes). Due to the integrated nature of the company's market-making activities, disaggregation of net revenues into client activity and market-making inventory changes is judgemental and has inherent complexities and limitations.

2017 versus 2016. Net revenues in Institutional Client Services were $4.48 billion for 2017, 2% lower than 2016.

Net revenues in Fixed Income, Currency and Commodities Client Execution (FICC Client Execution) were $2.12 billion for 2017, 16% lower than 2016, due to significantly lower net revenues in commodities as well as lower net revenues in interest rate products and currencies, partially offset by higher net revenues in mortgages. Net revenues in credit products were essentially unchanged.

Net revenues in Equities were $2.37 billion for 2017, 14% higher than 2016, due to higher net revenues in equities client execution and securities services.

Investing & Lending

Investing & Lending includes direct investments made by the company, which are typically longer-term in nature, and net revenues associated with providing investing services to other GS Group entities.

2017 versus 2016. Net revenues in Investing & Lending were $318 million for 2017, 36% lower than 2016, primarily due to a loss of approximately $130 million on an intercompany derivative instrument. The derivative reflects the economic risk on a secured loan in a group undertaking.

Investment Management

Investment Management provides investment management and wealth advisory services, including portfolio management and financial counselling, and brokerage and other transaction services to high-net-worth individuals and families. Investment Management also includes net revenues associated with providing investing services to funds managed by GS Group.

2017 versus 2016. Net revenues in Investment Management were $532 million for 2017, 65% higher than 2016, reflecting higher management and other fees, primarily due to an increase in net revenues from providing investing services.

Geographic Data

See Note 5 to the financial statements for a summary of the company's net revenues by geographic region.

Administrative Expenses

Administrative expenses are primarily influenced by compensation (including the impact of the Group Inc. share price on share-based compensation), headcount and levels of business activity. Direct costs of employment include salaries, allowances, discretionary compensation, amortisation and mark-to-market of share-based compensation and other items such as benefits. Discretionary compensation is significantly impacted by, among other factors, the level of net revenues, overall financial performance, prevailing labour markets, business mix, the structure of share-based compensation programmes and the external environment.

The company undertook an initiative in the second quarter of 2017 to transfer approximately 1,700 employees, who were previously employed by or seconded to the company, to an affiliated group undertaking in the U.K. This initiative was undertaken as part of GS Group's 2017 resolution plan. These employees continue to serve the company in the same manner as prior to the transfer. As a result of this change, the company now incurs a service charge which is reported in management charges from/to group undertakings. Excluding the impact of this transfer, as of December 2017, total staff would have been slightly higher compared with December 2016.

The table below presents the company's administrative expenses and total staff (including employees, consultants and temporary staff).

	Year Ended December	
$ in millions	**2017**	2016
Direct costs of employment	**$2,452**	$2,974
Brokerage, clearing, exchange and distribution fees	**617**	568
Market development	**80**	61
Communications and technology	**97**	85
Depreciation and amortisation	**39**	7
Occupancy	**156**	161
Professional fees	**136**	110
Management charges from/to group undertakings	**245**	38
Other expenses	**297**	265
Total non-compensation expenses	**1,667**	1,295
Total administrative expenses	**$4,119**	$4,269
Total staff at period-end	**4,467**	5,903

In the table above:

- Direct costs of employment included a charge of $144 million for 2017 and a charge of $488 million for 2016, relating to the mark-to-market of share-based compensation.
- Management recharges from/to group undertakings included a charge of $636 million and a credit of $391 million for 2017, and a charge of $420 million and a credit of $382 million for 2016.

2017 versus 2016. Administrative expenses were $4.12 billion for 2017, 4% lower than 2016, primarily reflecting a decrease in direct costs of employment. Direct costs of employment include the mark-to-market impact of share-based compensation. Excluding the mark-to-market impact of share-based compensation for both periods, administrative expenses were $3.98 billion for 2017, 5% higher than 2016.

Interest Payable and Similar Expenses

Interest payable and similar expenses consists of interest on long-term subordinated loans from parent and group undertakings.

2017 versus 2016. Interest payable and similar expenses was $301 million for 2017, 13% lower than 2016, primarily due to a decrease in the average long-term subordinated loans balance as the company repaid $3.58 billion of long-term subordinated loans in the second quarter of 2017.

Tax on Profit

The effective tax rate for 2017 was 25.5%, which compares to the U.K. corporate tax rate applicable to the company of 27.25% for 2017. The effective tax rate represents the company's tax on profit divided by its profit before taxation.

Balance Sheet and Funding Sources

Balance Sheet Management

One of the company's risk management disciplines is its ability to manage the size and composition of its balance sheet. The company leverages the firmwide balance sheet management process performed at the GS Group level to manage these factors. While the asset base of Group Inc. and its subsidiaries changes due to client activity, market fluctuations and business opportunities, the size and composition of the balance sheet also reflects factors including (i) the overall risk tolerance of GS Group, (ii) the amount of equity capital held by GS Group and (iii) the funding profile of GS Group, among other factors. See "Equity Capital Management and Regulatory Capital — Equity Capital Management" for information about the company's equity capital management process.

In order to ensure appropriate risk management, the company seeks to maintain a sufficiently liquid balance sheet and leverages GS Group's processes to dynamically manage its assets and liabilities which include (i) balance sheet planning, (ii) balance sheet limits, (iii) monitoring of key metrics and (iv) scenario analyses.

Balance Sheet Planning. GS Group prepares a balance sheet plan that combines projected total assets and composition of assets with expected funding sources over a three-year time horizon. This plan is reviewed quarterly and may be adjusted in response to changing business needs or market conditions.

Balance Sheet Limits. The limits are set at levels which are close to actual operating levels, rather than at levels which reflect GS Group's maximum risk appetite, in order to ensure prompt escalation and discussion among business managers and managers in independent control and support functions on a routine basis. GS Group's Firmwide Finance Committee reviews and approves balance sheet limits on a quarterly basis.
In addition, GS Group's Risk Governance Committee sets aged inventory limits for certain financial instruments as a disincentive to hold inventory over longer periods of time. Compliance with limits is monitored on a daily basis by business risk managers, as well as managers in independent control and support functions.

Monitoring of Key Metrics. Key balance sheet metrics are monitored daily both by business and on a GS Group basis, including asset and liability size and composition, limit utilisation and risk measures. Assets are allocated to businesses and movements resulting from new business activity as well as market fluctuations are reviewed and analysed.

Scenario Analyses. GS Group conducts scenario analyses for Group Inc. and its subsidiaries to determine how it would manage the size and composition of the balance sheet. These scenarios cover short-term and long-term time horizons using various macroeconomic and GS Group-specific assumptions, based on a range of economic scenarios.

Funding Sources

The company's primary sources of funding are secured funding, intercompany unsecured borrowings and external unsecured borrowings. The company raises this funding through a number of different products, including:

- Repurchase agreements and securities loaned;
- Intercompany unsecured loans from Group Inc. and other affiliates;
- Debt securities issued, which includes notes, certificates, and warrants; and
- Other borrowings, which includes funded derivative products and transfers of assets accounted for as financings rather than sales.

The table below presents the company's secured funding, intercompany unsecured borrowings and external unsecured borrowings included in "Collateralised financings" and "Other creditors" in the balance sheet.

	As of December	
$ in millions	**2017**	2016
Secured funding	**$175,447**	$148,188
Intercompany unsecured borrowings	**43,152**	47,728
External unsecured borrowings	**23,316**	16,867
Total	**$241,915**	$212,783

The company generally distributes funding products through its own sales force and third-party distributors to a large, diverse creditor base in a variety of global markets. The company believes that its relationships with external creditors are critical to its liquidity. These creditors include banks, securities lenders, corporations, pension funds, insurance companies, mutual funds and individuals. The company has imposed various internal guidelines to monitor creditor concentration across its external funding programmes.

Secured Funding. The company funds a significant amount of inventory on a secured basis, with external counterparties, as well as with affiliates, including repurchase agreements, securities loaned and other secured financings. As of December 2017 and December 2016, secured funding represented as "Collateralised financings" in the balance sheet was $175.45 billion and $148.19 billion, respectively.

The company may also pledge its inventory as collateral for securities borrowed under a securities lending agreement or as collateral for derivative transactions. The company also uses its own inventory to cover transactions in which the company or its clients have sold securities that have not yet been purchased. Secured funding is less sensitive to changes in Group Inc. and/or the company's credit quality than unsecured funding, due to the posting of collateral to lenders. Nonetheless, the company continually analyses the refinancing risk of its secured funding activities, taking into account trade tenors, maturity profiles, counterparty concentrations, collateral eligibility and counterparty rollover probabilities. The company seeks to mitigate its refinancing risk by executing term trades with staggered maturities, diversifying counterparties, raising excess secured funding, and pre-funding residual risk through the GCLA.

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

A majority of the company's secured funding for securities not eligible for inclusion in the GCLA is executed through term repurchase agreements and securities loaned contracts. The company also raises secured funding through debt securities issued and other borrowings.

The weighted average maturity of the company's external secured funding included in "Collateralised financings" in the balance sheet, excluding funding that was collateralised by liquid government obligations, exceeded 120 days as of December 2017.

Intercompany Unsecured Borrowings. The company sources funding through intercompany unsecured borrowings from Goldman Sachs Funding LLC (Funding IHC), Group Inc. and other affiliates. As of December 2017 and December 2016, intercompany unsecured borrowings included in "Other creditors" in the balance sheet were $43.15 billion and $47.73 billion, respectively.

Funding IHC is a wholly-owned, direct subsidiary of Group Inc. that has been formed to facilitate the execution of GS Group's preferred resolution strategy. The majority of GS Group's unsecured funding is raised by Group Inc., which lends the necessary funds to Funding IHC and other subsidiaries, including GSI, to meet asset financing, liquidity and capital requirements. The benefits of this approach to subsidiary funding are enhanced control and greater flexibility to meet the funding requirements of the company and other subsidiaries. Intercompany unsecured borrowings also include other borrowings.

External Unsecured Borrowings. External unsecured borrowings include debt securities issued, other borrowings, bank loans and overdrafts. As of December 2017 and December 2016, external unsecured borrowings included in "Other creditors" in the balance sheet were $23.32 billion and $16.87 billion, respectively.

Equity Capital Management and Regulatory Capital

Capital adequacy is of critical importance to the company. The company has in place a comprehensive capital management policy that provides a framework, defines objectives and establishes guidelines to assist the company in maintaining the appropriate level and composition of capital in both business-as-usual and stressed conditions.

Equity Capital Management (Audited)

The company determines the appropriate level and composition of its equity capital by considering multiple factors including the company's current and future regulatory capital requirements, the results of the company's capital planning and stress testing process, resolution capital models and other factors such as rating agency guidelines, the business environment and conditions in the financial markets.

The company's capital planning and stress testing process incorporates internally designed stress tests and those required under the PRA's Internal Capital Adequacy Assessment Process (ICAAP). It is also designed to identify and measure material risks associated with business activities, including market risk, credit risk, operational risk and other risks. The company's goal is to hold sufficient capital to ensure that it remains adequately capitalised after experiencing a severe stress event. The company's assessment of capital adequacy is viewed in tandem with its assessment of liquidity adequacy and is integrated into its overall risk management structure, governance and policy framework.

In addition, as part of the company's comprehensive capital management policy, a contingency capital plan is maintained that provides a framework for analysing and responding to a perceived or actual capital deficiency, including, but not limited to, identification of drivers of a capital deficiency, as well as mitigants and potential actions. It outlines the appropriate communication procedures to follow during a crisis period, including internal dissemination of information as well as timely communication with external stakeholders.

Regulatory Capital (Audited)

The company is subject to the capital framework for E.U.-regulated financial institutions prescribed in the E.U. Fourth Capital Requirements Directive (CRD IV) and the E.U. Capital Requirements Regulation (CRR). These capital regulations are largely based on the Basel Committee on Banking Supervision's (Basel Committee) final capital framework for strengthening international capital standards (Basel III). The Basel Committee is the primary global standard setter for prudential bank regulation, and its member jurisdictions implement regulations based on its standards and guidelines.

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

Under CRD IV, the minimum CET1, Tier 1 capital and Total capital ratios (collectively the Pillar 1 capital requirements) are supplemented by:

- A capital conservation buffer, consisting entirely of capital that qualifies as CET1, began to phase in on January 1, 2016 and will continue to do so in increments of 0.625% per year until it reaches 2.5% of RWAs on January 1, 2019.
- A countercyclical capital buffer of up to 2.5% (and also consisting entirely of CET1) in order to counteract excessive credit growth. The buffer only applies to the company's exposures to certain types of counterparties based in jurisdictions which have announced a countercyclical buffer. Since these exposures are not currently material, the buffer adds less than 0.01% to the CET1 ratio and has an immaterial impact on the capital of the company. The countercyclical capital buffer applicable to the company could change in the future and, as a result, the company's minimum ratios could increase.
- Individual capital guidance under Pillar 2A (an additional amount to cover risks not adequately captured in Pillar 1). The PRA performs a periodic supervisory review of the company's ICAAP, which leads to a final determination by the PRA of individual capital guidance under Pillar 2A. This is a point in time assessment of the minimum amount of capital the PRA considers that a firm should hold.

The table below presents the company's minimum required capital ratios. These minimum capital ratios incorporate the Pillar 2A capital guidance received from the PRA and could change in the future.

	December 2017 Minimum Ratio	December 2016 Minimum Ratio
CET1 ratio	**7.2%**	6.5%
Tier 1 capital ratio	**9.1%**	8.5%
Total capital ratio	**11.8%**	11.2%

In addition to the Pillar 2A capital guidance, the PRA also defines forward looking capital guidance which represents the PRA's view of the capital that the company would require to absorb losses in stressed market conditions. This is known as Pillar 2B or the "PRA buffer" and is not reflected in the minimum ratios shown above. As the capital conservation buffer phases in, as described above, it will fully or partially replace the PRA buffer.

During 2017 and 2016, the company was in compliance with the capital requirements set by the PRA.

Regulatory Capital Ratios

The table below presents the company's capital ratios under CRD IV.

	As of December	
	2017	2016
CET1 ratio	**11.0%**	12.9%
Tier 1 capital ratio	**13.6%**	12.9%
Total capital ratio	**16.0%**	17.2%

Certain CRD IV rules are subject to final technical standards and clarifications, which will be issued by the European Banking Authority (EBA) and adopted by the European Commission and PRA. All capital, RWAs and estimated ratios are based on current interpretation, expectations and understanding of CRD IV and may evolve as its interpretation and application is discussed with the company's regulators.

Capital Resources (Audited)

The table below presents the company's capital components under CRD IV.

	As of December	
$ in millions	**2017**	2016
Called up share capital	**$ 582**	$ 582
Share premium account including capital reserves	**4,881**	4,881
Retained earnings	**20,727**	22,316
Accumulated other comprehensive income	**(289)**	(246)
Deductions	**(1,030)**	(1,080)
Common Equity Tier 1	**24,871**	26,453
Additional Tier 1 notes	**5,800**	–
Tier 1 capital	**$30,671**	$26,453
Tier 2 and Total capital		
Long-term subordinated loans	**$ 5,377**	$ 8,958
Deductions	**–**	(48)
Tier 2 capital	**5,377**	8,910
Total capital	**$36,048**	$35,363

In the table above:

- CET1 as of December 2017 decreased by $1.58 billion compared with December 2016, primarily due to the company paying dividends of $3.00 billion in the second quarter of 2017, partially offset by the company's profit for the financial year of $1.56 billion for 2017.
- Tier 1 capital as of December 2017 increased by $4.22 billion compared with December 2016, primarily due to the issuance of $5.80 billion of AT1 notes in the second quarter of 2017, partially offset by the reduction in CET1.
- Tier 2 capital as of December 2017 decreased by $3.53 billion compared with December 2016, primarily due to the company repaying $3.58 billion of long-term subordinated loans in the second quarter of 2017.

See Notes 19, 22 and 23 to the financial statements for further information.

Risk-Weighted Assets

The table below presents the components of RWAs within the company's regulatory capital ratios under CRD IV.

	As of December	
$ in millions	**2017**	2016
RWAs		
Credit RWAs	**$126,335**	$114,420
Market RWAs	**85,272**	77,367
Operational RWAs	**14,335**	13,305
Total	**$225,942**	$205,092

In the table above:

- Credit RWAs as of December 2017 increased by $11.92 billion compared with December 2016, primarily reflecting an increase in exposures in derivatives transactions and securities financing transactions.
- Market RWAs as of December 2017 increased by $7.91 billion compared with December 2016, primarily reflecting an increase in standardised risk as a result of changes in risk exposures.

Credit Risk. Credit RWAs are calculated based upon measures of exposure, which are then risk weighted. The exposure amount is generally based on the following:

- For on-balance-sheet assets, the carrying value; and
- For off-balance-sheet exposures, including commitments and guarantees, a credit equivalent exposure amount is calculated based on the notional amount of each exposure multiplied by a credit conversion factor.

Counterparty credit risk is a component of total credit risk, and includes credit exposure arising from derivatives, securities financing transactions and margin loans.

Market Risk. Trading book positions are subject to market risk capital requirements which are based either on predetermined levels set by regulators or on internal models. The market risk regulatory capital rules require that a firm obtains the prior written approval of its regulators before using any internal model to calculate its risk-based capital requirement.

RWAs for market risk are computed based on measures of exposures which include the following internal models: Value-at-Risk (VaR); Stressed VaR (SVaR); Incremental Risk; and the Comprehensive Risk Measure (for PRA purposes this is the All Price Risk Measure and is subject to a floor). See "Market Risk Management — Risk Measures" for information about VaR. In addition, Standardised Rules, in accordance with CRD IV, are used to compute RWAs for market risk for certain securitised and non-securitised positions by applying risk-weighting factors predetermined by regulators to positions after applicable netting is performed. RWAs for market risk are the sum of each of these measures multiplied by 12.5.

Operational Risk. The company's capital requirements for operational risk are currently calculated under the Standardised approach. The Standardised approach requires companies to divide their activities into eight defined business lines or categories. Each business line is assigned a beta factor which is applied to the three-year average revenues of that business line (with certain prescribed exceptions, such as extraordinary income). Expenses are not included in the calculation. The sum of the individual business line requirements is multiplied by 12.5 to derive the operational RWAs.

Concentration Risk. Under CRD IV, institutions are required to monitor and control their large exposures. The large exposure framework is designed to limit the risk of over-reliance on an individual counterparty or a group of connected counterparties. There is a general limit applied to all of the institution's exposures to a single counterparty or groups of connected counterparties, which is set at 25% of eligible capital. The framework includes reporting requirements, hard limits and additional concentration capital charges for trading book large exposures. As of December 2017 and December 2016, the company had no concentration risk capital requirements.

Leverage Ratio

The company is required to monitor and disclose its leverage ratio using the CRR's definition of exposure as amended by the European Commission Leverage Ratio Delegated Act. In November 2016, the European Commission proposed amendments to the CRR to implement a 3% minimum leverage ratio requirement for certain E.U. financial institutions, including the company. This leverage ratio compares CRR's definition of Tier 1 capital to a measure of leverage exposure, defined as the sum of certain assets plus certain off-balance-sheet exposures (which include a measure of derivatives, securities financing transactions, commitments and guarantees), less Tier 1 capital deductions. Any required minimum leverage ratio is expected to become effective for the company no earlier than January 1, 2021.

The table below presents the company's leverage ratio under the CRR.

	As of December	
$ in millions	**2017**	2016
Tier 1 capital	**$ 30,671**	$ 26,453
Leverage exposure	**$748,140**	$697,402
Leverage ratio	**4.1%**	3.8%

The leverage ratio as of December 2017 increased compared with December 2016, primarily due to an increase in the company's Tier 1 capital (see "Capital Resources" above for further information), partially offset by an increase in leverage exposure.

This leverage ratio is based on the company's current interpretation and understanding of this rule and may evolve as the interpretation and application of this rule is discussed with the company's regulators.

Regulatory Matters and Developments

The company's businesses are subject to significant and evolving regulation. Reforms have been adopted or are being considered by regulators and policy-makers worldwide. The expectation is that the principal areas of impact from regulatory reform for the company will be increased regulatory capital requirements and increased regulation and restriction on certain activities. However, given that many of the new and proposed rules are highly complex, the full impact of regulatory reform will not be known until the rules are implemented and market practices develop under the final E.U. and/or U.K. regulations.

As a result of Brexit, there is considerable uncertainty as to the regulatory regime that will be applicable in the U.K. and the regulatory framework that will govern transactions and business undertaken by the company in the remaining E.U. countries.

In addition, recent political developments have added additional uncertainty to the implementation, scope and timing of regulatory reforms, including potential deregulation in some areas.

Capital Ratios

In January 2016, the Basel Committee finalised a revised framework for calculating minimum capital requirements for market risk (known as the "Fundamental Review of the Trading Book" or "FRTB"), which is expected to increase market risk capital requirements for most banking organisations. In December 2017, the Basel Committee extended the implementation date for FRTB until January 1, 2022, noting that the extension would allow for a review of the calibration of the framework.

In December 2017, the Basel Committee also published standards that it described as the finalisation of the Basel III post-crisis regulatory reforms. These standards introduce an aggregate output floor comparing capital requirements under the Basel Committee's standardised and internally modelled approaches, and they also revise the Basel Committee's standardised and model-based approaches for credit risk, provide a new standardised approach for operational risk capital and revise the frameworks for credit valuation adjustment risk and the leverage ratio. The Basel Committee has proposed that national regulators implement these standards effective on January 1, 2022, with the output floor being phased in through January 1, 2027.

The Basel Committee's standards are not effective in any jurisdiction until rules implementing such standards have been implemented by the relevant regulators in such jurisdiction.

The impact of the latest Basel Committee developments on the company (including its RWAs and regulatory capital ratios) is subject to uncertainty until corresponding legislation is implemented in the E.U.

Resolution Plan

GS Group is required by the FRB and the Federal Deposit Insurance Corporation (FDIC) to submit a periodic plan that describes GS Group's strategy for its rapid and orderly resolution in the event of material financial distress or failure (resolution plan). GSI is considered to be a material operating entity for the purposes of the periodic resolution plan prepared by GS Group. GS Group submitted its 2017 resolution plan in June 2017. GSI submitted the 2017 GS Group resolution plan to the Bank of England in July 2017.

In December 2017, the FRB and the FDIC provided feedback on GS Group's 2017 resolution plan and determined that it satisfactorily addressed the shortcomings identified in the prior submissions. The FRB and the FDIC did not identify deficiencies in GS Group's 2017 resolution plan, but the FRB and the FDIC did note one shortcoming that must be addressed in the next resolution plan submission. The FRB and the FDIC have extended the next resolution plan filing deadline by one year to July 1, 2019.

Swaps and Derivatives Regulation

The company is subject to the margin rules for uncleared swaps and derivatives under the European Market Infrastructure Regulation and the U.S. Commodity Futures Trading Commission (CFTC) rules, as a registered "swap dealer". The margin rules for variation margin have become effective in March 2017, and those for initial margin will phase in through September 2020 depending on certain activity levels of the company and the relevant counterparty. Under the margin rules, inter-affiliate transactions are generally exempt from initial margin requirements.

The CFTC has adopted rules relating to cross-border regulation of swaps, and has proposed cross-border business conduct and registration rules. The CFTC has entered into agreements with certain non-U.S. regulators, including in the E.U., regarding the cross-border regulation of derivatives and the mutual recognition of cross-border clearing houses, and has approved substituted compliance with certain non-U.S. regulations, including E.U. regulations, related to certain business conduct requirements and margin rules. The full application of new derivatives rules across different regulatory jurisdictions has not yet occurred and the full impact will not be known until the rules are implemented and market practices and structures develop under such rules.

E.U. Market Reform

The Markets in Financial Instruments Regulation and Markets in Financial Instruments Directive (collectively, MiFID II), which became effective on January 3, 2018, includes extensive market structure reforms, such as the establishment of new trading venue categories for the purposes of discharging the obligation to trade OTC derivatives on a trading platform, and enhanced pre- and post-trade transparency covering a wider range of financial instruments. In equities, MiFID II introduced volume caps on non-transparent liquidity trading for trading venues, limited the use of broker-dealer crossing networks and created a new regime for systematic internalisers, which are investment firms that execute client transactions outside a trading venue.

Additional controls were introduced for algorithmic trading, high frequency trading and direct electronic access. Commodities trading firms are required to calculate their positions and adhere to specific limits. Other reforms introduce enhanced transaction reporting, the publication of best execution data by investment firms and trading venues, investor protection-related and organisational requirements, transparency on costs and charges of service to investors, changes to the way investment managers can pay for the receipt of investment research and mandatory unbundling for broker-dealers between execution and other major services.

Privacy Regulation

Effective May 25, 2018, the E.U. Data Protection Directive will be replaced by a more extensive General Data Protection Regulation (GDPR). Compared to the current directive, the GDPR will, among other things, increase compliance obligations, have a significant impact on the company's businesses' collection, processing and retention of personal data and reporting of data breaches, and provide for significantly increased penalties for non-compliance.

Principal Risks and Uncertainties

The company 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 the company's businesses.

Economic and Market 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. These conditions can change suddenly and negatively.

The company'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 GDP growth, regulatory and market conditions which result in transparent, liquid and efficient capital markets, low inflation, high business and investor confidence, stable geopolitical conditions, clear regulations and strong business earnings.

Unfavourable or uncertain economic and market conditions can be caused by: concerns about sovereign defaults; uncertainty concerning fiscal or monetary policy; the extent of and uncertainty about tax and other regulatory changes; declines in economic growth, business activity or investor or business confidence; 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; 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 communications, energy transmission or transportation networks or other geopolitical instability or uncertainty, such as corporate, political or other scandals that reduce investor confidence in capital markets; extreme weather events or other natural disasters or pandemics; or a combination of these or other factors.

The financial services industry and the securities markets have been materially and adversely affected in the past by significant declines in the values of nearly all asset classes and by a serious lack of liquidity. In addition, concerns about European sovereign debt risk and its impact on the European banking system, about the impact of Brexit, and about changes in interest rates and other market conditions or actual changes in interest rates and other market conditions, including market conditions in China, have resulted, at times, in significant volatility while negatively impacting 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, continues to negatively impact client activity, which adversely affects many of the company'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 the company's market-making businesses.

The company'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. Although interest rates are still near historically low levels, financial institution returns in many countries have also been negatively impacted by increased funding costs due in part to the withdrawal of perceived government support of such institutions in the event of future financial crises. In addition, liquidity in the financial markets has also been negatively impacted as market participants and market practices and structures continue to adjust to new regulations.

The degree to which these and other changes resulting from the financial crisis will have a long-term impact on the profitability of financial institutions will depend on the implementation of recently adopted and new regulations, the manner in which markets, market participants and financial institutions adapt to these regulations, and the prevailing economic and financial market conditions. However, there is a significant risk that such changes will, at least in the near-term, continue to negatively impact the absolute level of revenues, profitability and return on equity of the company and other financial institutions.

Regulation

As a participant in the financial services industry and a subsidiary of a systemically important financial institution, the company is subject to extensive regulation, principally in the U.K., and the E.U. more generally, but also in the U.S. as a subsidiary of GS Group and in certain other jurisdictions. The company 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, the company's activities may 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 the company's compliance with laws and regulations, the company or its employees could be fined or criminally sanctioned, prohibited from engaging in certain business activities, subject 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. Such limitations or conditions may limit business activities and negatively impact the company's profitability.

The company is subject to E.U. legal and regulatory requirements, based on directly binding regulations of the E.U. and the implementation of E.U. directives by the U.K. The company currently benefits from non-discriminatory access to E.U. clients and infrastructure based on E.U. treaties and E.U. legislation, including cross-border "passporting" arrangements and specific arrangements for the establishment of E.U. branches. There is considerable uncertainty as to the regulatory regime that will be applicable in the U.K. post-Brexit and the regulatory framework that will govern transactions and business undertaken by the company in the remaining E.U. countries.

In addition to the impact on the scope and profitability of the company's business activities, day-to-day compliance with laws and regulations, in particular those adopted since 2008, has involved and will continue to involve significant amounts of time, including that of the company's senior leaders and that of a large number of dedicated compliance and other reporting and operational personnel, all of which may negatively impact the company's profitability.

If there are new laws or regulations or changes in the enforcement of existing laws or regulations applicable to the company's businesses or those of the company's clients, including capital, liquidity, leverage, long-term debt, loss absorbing capacity and margin requirements, restrictions on other business practices, reporting requirements, requirements relating to the implementation of the E.U. Bank Recovery and Resolution Directive, tax burdens and compensation restrictions, that are imposed on a limited subset of financial institutions (either based on size, activities, geography or other criteria) which may include the company or Group Inc., 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 financial transactions, could adversely impact levels of market activity more broadly, and thus impact the company's businesses.

These developments could impact the company's profitability in the affected jurisdictions, or even make it uneconomic to continue to conduct all or certain businesses in such jurisdictions, or could result in the company 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 the company's funding costs or otherwise adversely affects its shareholder and creditors.

The E.U. and national financial legislators and regulators have proposed or adopted numerous market reforms that have impacted and may continue to impact the company's businesses. These include stricter capital and liquidity requirements (including proposed amendments to CRD IV and the CRR), authorisations for regulators to impose position limits, MiFID II, restrictions on short selling and credit default swaps and market abuse regulations.

The implementation of higher capital requirements, the liquidity coverage ratio, the net stable funding ratio, requirements relating to long-term debt and total loss-absorbing capacity (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 the company's profitability and competitive position, particularly if these requirements do not apply, or do not apply equally, to the company's competitors or are not implemented uniformly across jurisdictions.

The company 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 the company to liability and/or reputational damage. As new privacy-related laws and regulations, such as GDPR, are implemented, the time and resources needed for the company to comply with such laws and regulations, as well as the company's potential liability for non-compliance and reporting obligation in the case of data breaches, may significantly increase.

In addition, the company's businesses are increasingly subject to laws and regulations relating to surveillance, encryption and data on-shoring in the jurisdictions in which the company operates. Compliance with these laws and regulations may require the company to change its policies, procedures and technology for information security, which could, among other things, make the company 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 such regulators and courts 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 the company has fiduciary obligations in connection with acting as a financial adviser, investment adviser 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.

For information about regulatory developments, which are relevant to the company's businesses, see "Regulatory Matters and Developments".

Market Volatility

The company's businesses have been and may be adversely affected by declining asset values. This is particularly true for those businesses in which the company has net "long" positions, receives fees based on the value of assets managed, or receives or posts collateral. Many of the company'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 the company 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, the company invests in similar asset classes. Substantially all of the company'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 exposures have been effectively hedged.

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 such exposures and to the extent that this is done the hedge may be ineffective or may greatly reduce the company's ability to profit from increases in the values of the assets. Sudden declines and significant volatility in the prices of assets may 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 the ability to limit losses in such positions and the difficulty in valuing assets may negatively affect the company's capital, liquidity or leverage ratios, increase its funding costs and generally require maintaining additional capital.

In the company's exchange-based market-making activities, the company 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 the company and received to support the obligations of clients and counterparties in connection with client execution businesses. When the value of the assets posted as collateral declines 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 the company is the party providing collateral, this can increase costs and reduce profitability and if the company 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 the company forecloses on collateral, sudden declines in the value or liquidity of such collateral may, 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 the company, especially where there is a single type of collateral supporting the obligation. In addition, the company 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.

Liquidity

Liquidity is essential to the company's businesses. The company's liquidity could be impaired by an inability to access secured and/or unsecured debt markets, an inability to access funds from Group Inc. or other affiliates, an inability to sell assets or redeem investments or unforeseen outflows of cash or collateral. This situation may arise due to circumstances that the company may be unable to control, such as a general market disruption or an operational problem that affects third parties or the company or its affiliates or even by the perception amongst market participants that the company, or other market participants, are experiencing greater liquidity risk.

The company employs structured products to benefit its clients and hedge its own risks. The financial instruments that the company 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. The company's investing activities may lead to situations where the holdings from these activities represent a significant portion of specific markets, which could restrict liquidity for the company's positions.

Further, the company'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 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. In addition, financial institutions with which the company interacts may exercise set-off rights or the right to require additional collateral, including in difficult market conditions, which could further impair the company's liquidity.

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

GSI's and Group Inc.'s cost of obtaining long-term unsecured funding is directly related to both the credit spreads of GSI and Group Inc. Increases in the credit spreads of the company and/or Group Inc. 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 the company and/or Group Inc. are also influenced by market perceptions of its and/or Group Inc.'s creditworthiness. In addition, the credit spreads of the company and/or Group Inc. may be influenced by movements in the costs to purchasers of credit default swaps referenced to Group Inc.'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.

Regulatory changes relating to liquidity may also negatively impact the company's results of operations and competitive position. Recently, 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 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 new rules relating to minimum long-term debt requirements and TLAC, guidance on the treatment of brokered deposits and the 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 until implementation of post-financial crisis regulatory reform is complete.

Resolution and Recovery Planning

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 the company, such exercise would likely have a material adverse effect on the value of debt investments in the company, including a potential loss of some or all of such investment. Furthermore, the suggestion that such powers were to be exercised could also have an adverse impact on the value of such investments.

Credit Markets

Widening credit spreads for the company or Group Inc., as well as significant declines in the availability of credit, have in the past adversely affected the company'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 from Group Inc., which funds itself on an unsecured basis by issuing long-term debt, by accepting deposits at its bank subsidiaries, by issuing hybrid financial instruments, or by obtaining bank loans or lines of credit. The company 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 the company's available funding is limited or the company 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 and 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 the company's financial advisory and underwriting businesses.

The company'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 such businesses.

Concentration of Risk

Concentration of risk increases the potential for significant losses in market-making, underwriting, and investing activities. The number and size of such transactions may affect the company's results of operations in a given period. Moreover, because of concentration of risk, the company 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, the company 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 E.U. A failure or downgrade of, or default by, such entity could negatively impact the company's businesses, perhaps materially, and the systems by which the company sets limits and monitors the level of its credit exposure to individual entities, industries and countries 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 the company's concentration of risk with respect to these entities. While the company's activities expose it to many different industries, counterparties and countries, the company 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.

Credit Quality

The company 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 the company 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 the company.

The company 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 the company, including a deterioration in the value of collateral posted by third parties to secure their obligations to the company under derivatives contracts and loan agreements, could result in losses and/or adversely affect the company's ability to rehypothecate or otherwise use those securities or obligations for liquidity purposes.

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

Composition of Client Base

The company's client base is not the same as that of its major competitors. The company's businesses may have a higher or lower percentage of clients in certain industries or markets than some or all of its competitors. Therefore, unfavorable industry developments or market conditions affecting certain industries or markets may result in the company's businesses underperforming relative to similar businesses of a competitor if its businesses have a higher concentration of clients in such industries or markets. For example, the company's market-making businesses have a higher percentage of clients with actively managed assets than its competitors and such clients have been disproportionately affected by the low levels of volatility.

Correspondingly, favourable or simply less adverse developments or market conditions involving industries or markets in a business where the company has a lower concentration of clients in such industry or market may also result in the company underperforming relative to a similar business of a competitor that has a higher concentration of clients in such industry or market. For example, the company has a smaller corporate client base in its market-making businesses than many of its peers and therefore the company's competitors may benefit more from increased activity by corporate clients.

Derivative Transactions

The company 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 the company deliver to the counterparty the underlying security, loan or other obligation in order to receive payment. In a number of cases, the company 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 the company 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 the company.

As a signatory to the International Swaps and Derivatives Association Resolution Stay Protocol (the ISDA Protocol), the company may not be able to exercise remedies against counterparties and, as this new regime has not yet been tested, the company may suffer risks or losses that it would not have expected to suffer if it could immediately close out transactions upon a termination event. Various non-U.S. regulators have also proposed regulations contemplated by the ISDA Protocol, which might result in additional limitations on the company's ability to exercise remedies against counterparties. The impact of the ISDA Protocol and these rules and regulations will depend on the development of market practices and structures.

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, the company 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 the company'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 OTC derivatives, or a market shift toward standardised derivatives, could reduce the risk associated with such transactions, but under certain circumstances could also limit the company's ability to develop derivatives that best suit the needs of clients and to hedge its own risks, and could adversely affect the company's profitability and increase credit exposure to such a platform.

Operational Infrastructure

The company'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 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 the company's obligations to report transactions and other information to regulators, exchanges and investors. Compliance with these legal and reporting requirements can be challenging, and the company has been, and may in the future be, subject to regulatory fines and penalties for failing to report timely, accurate and complete information. As reporting 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 the company's employees and the operation of the company's systems and businesses and those of its clients and third-party service providers and vendors. It has been reported that there are some fundamental security flaws in computer chips found in many types of computing devices and phones. Addressing this issue could be costly and affect the performance of these businesses and systems, and 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. The company may be, or may become, exposed to risks related to distributed ledger technology through the company's facilitation of clients' activities involving financial products linked to distributed ledger technology, such as blockchain or cryptocurrencies, the company's investments in companies that seek to develop platforms based on distributed ledger technology, and the use of distributed ledger technology by third-party vendors, clients, counterparties, clearing houses and other financial intermediaries.

In addition, the company faces the risk of operational failure, 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, the company will increasingly face the risk of operational failure with respect to clients' systems.

Despite the resiliency plans and facilities that are in place, the company's ability to conduct business may be adversely impacted by a disruption in the infrastructure that supports its businesses and the communities in which the company is located. This may include a disruption involving electrical, satellite, undersea cable or other communications, internet, transportation or other services facilities used by the company, its employees or third parties with which the company conducts business, including cloud service providers. These disruptions may occur as a result of events that affect only the company'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 the company seeks to diversify its third-party vendors to increase its resiliency, the company is also exposed to the risk that a disruption or other information technology event at a common service provider to the company's vendors could impede their ability to provide products or services to the company. The company may not be able to effectively monitor or mitigate operational risks relating to its vendors' use of common service providers.

Cyber Security

The company is regularly the target of attempted cyber attacks, including denial-of-service attacks, and must continuously monitor and develop its systems to protect its technology infrastructure and data from misappropriation or corruption. The increasing migration of the company's communication and other platforms from company provided devices to employee-owned devices presents additional risks of cyber attacks. In addition, due to the interconnectivity with third-party vendors (and their respective service providers), central agents, exchanges, clearing houses and other financial institutions, the company could be adversely impacted if any of them is subject to a successful cyber attack or other information security event. These effects 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 the company's businesses.

Despite the company'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 foreign governments or are involved with organised crime or terrorist organisations. Third parties may also attempt to place individuals within the company or induce employees, clients or other users of the company's systems to disclose sensitive information or provide access to the company's data or that of its clients, and these types of risks may be difficult to detect or prevent.

Although the company takes protective measures 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 and other events that could have a security impact. Due to the complexity and interconnectedness of the company's systems, the process of enhancing protective measures can itself create a risk of systems disruptions and security issues. If one or more of such events occur, this potentially could jeopardise the company or its clients' or counterparties' confidential and other information processed and stored in, and transmitted through, the company's computer systems and networks, or otherwise cause interruptions or malfunctions in the company's, its clients', its counterparties' or third parties' operations, which could impact their ability to transact with the company or otherwise result in legal or regulatory action, significant losses or reputational damage.

The increased use of mobile and cloud technologies can heighten these and other operational risks. The company expects to expend significant additional resources on an ongoing basis to modify protective measures and to investigate and remediate vulnerabilities or other exposures, but these measures may be ineffective and the company may be subject to legal or regulatory action, and financial losses that are either not insured against or not fully covered through any insurance it maintains. Certain aspects of the security of such technologies are unpredictable or beyond the company's control, and the failure by mobile technology and cloud service providers to adequately safeguard their systems and prevent cyber attacks could disrupt the company'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.

The company routinely transmits and receives personal, confidential and proprietary information by email and other electronic means. The company 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.

Risk Management

The company 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. The company'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 the company 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, the company may, in the course of its activities, 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 the company 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, such as occurred during 2008 and early 2009, and to some extent since 2011, 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 the company's hedging strategies and have caused it to incur significant losses, and they may do so in the future. These changes in correlation can be exacerbated where other market participants are using risk or trading models with assumptions or algorithms that are similar to the company's. In these and other cases, it may be difficult to reduce the company'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 or ineffective testing, 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 the company 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, the company may not be able to reduce its positions and therefore reduce its risk associated with such positions. In addition, to the extent permitted by applicable law and regulation, the company 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 the company to control the risk exposures relating to these investments.

Prudent risk management, as well as regulatory restrictions, may cause the company 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.

New Business Initiatives

The company faces enhanced risks as new business initiatives lead it to transact with a broader array of clients and counterparties and expose it to new asset classes and new markets. A number of the company'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 the company's traditional client and counterparty base and expose it to new asset classes and new markets. For example, the company continues to transact business and invest in new regions, including a wide range of emerging and growth markets.

New business initiatives expose the company to new and enhanced risks, including risks associated with dealing with governmental entities, reputational concerns arising from dealing with less sophisticated 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 these assets are being operated or held or in which the company interacts with these counterparties.

Operating in Multiple Jurisdictions

In conducting the company's businesses and maintaining and supporting its global operations, the company is subject to risks of possible nationalisation, expropriation, price controls, capital controls, exchange controls 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 E.U. on certain individuals and companies in Russia. In many countries, the laws and regulations applicable to the securities and financial services industries and many of the transactions in which the company is involved are uncertain and evolving, and it may be difficult to determine the exact requirements of local laws in every market. Any determination by local regulators that the company 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 the company's businesses in that market but also on its reputation generally. Further, in some jurisdictions a failure to comply with laws and regulations may subject the company and its personnel not only to civil actions but also criminal actions. The company is also subject to the enhanced risk that transactions it structures might not be legally enforceable in all cases.

The exit of the U.K. from the E.U. will likely change the arrangements by which U.K. firms are able to provide services into the E.U. which may materially adversely affect the manner in which the company operates certain of its businesses in Europe and could require the company to restructure certain of its operations. The outcome of the negotiations between the U.K. and the E.U. in connection with Brexit is highly uncertain. Such uncertainty may result in market volatility and may negatively impact the confidence of investors and clients. Additionally, depending on the outcome, Brexit could have a disproportionate effect on the company's operations in the E.U. compared to some of the company's competitors who have more extensive pre-existing operations in the E.U. outside of the U.K.

While business and other practices throughout the world differ, the company 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 USA PATRIOT Act of 2001 and U.K. Bribery Act. While the company has invested and continues to invest significant resources in training and in compliance monitoring, the geographical diversity of its operations, employees, clients and customers, as well as the vendors and other third parties that the company deals with, greatly increases the risk that the company 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 the company runs the risk that employee misconduct could occur. This misconduct has included and may include in the future 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.

Conflicts of Interest

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

Extensive procedures and controls are in place that are designed to identify and address conflicts of interest, including those designed to prevent the improper sharing of information among businesses. However, appropriately identifying and dealing with conflicts of interest is complex and difficult, and the company's reputation, which is one of its most important assets, could be damaged and the willingness of clients to enter into transactions with the company may be 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.

Competition

To the extent the company 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 recently adopted regulations, imposed taxes, adopted compensation restrictions or otherwise put forward various proposals that have or may impact the company'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 the company's competitors, could impact its ability to compete effectively.

Pricing and other competitive pressures in the company'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 assignments, the company has experienced pressure to extend and price 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 the company 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 the company to large fines and settlements, and potentially significant penalties, including treble damages.

Changes in Underliers

Certain of the company's businesses and its funding may be adversely affected by changes in the reference rates, currencies, indexes, baskets, exchange-traded funds (ETFs) or other financial metrics (the underlier) to which the products offered by the company or funding raised by the company are linked. All of the company's floating rate funding pays interest by reference to a rate, such as the London Interbank Offered Rate (LIBOR) or Federal Funds. In addition, many of the products that the company 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 similar rates or by reference to the underlier. In the event that the composition of the underlier is significantly changed, by reference to rules governing such underlier or otherwise, or the underlier ceases to exist (for example, in the event that LIBOR is discontinued, a country withdraws from the Euro or links its currency to or delinks its currency from another currency or benchmark, or an index or ETF sponsor materially alters the composition of an index or ETF), there may be uncertainty as to the calculation of the amounts to be paid to the lender, investor or counterparty, depending on the terms of the governing instrument.

Such changes in an underlier or underliers could result in the company's hedges being ineffective or otherwise result in losses on a product or having to pay more or receive less on securities that the company owns or has issued. In addition, such uncertainty could result in lengthy and costly litigation.

Personnel

The company's businesses may be adversely affected if it is unable to hire and retain qualified employees. The company's performance is largely dependent on the talents and efforts of highly skilled people; therefore, the company'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 the company's ability to attract and retain such employees include 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 the company pays to its employees is paid in the form of year-end discretionary compensation, a significant portion of which is in the form of deferred equity-related awards, declines in the GS Group's profitability, or in the outlook for its future profitability, as well as regulatory limitations on compensation levels and terms, can negatively impact the company'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. Recently, the company has experienced increased competition in hiring and retaining employees to address the demands of new regulatory requirements and the company's technology initiatives. This is also the case in emerging and growth markets, where the company 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 the company's operations are located that affect taxes on the company's employees' income, or the amount or composition of compensation, may also adversely affect the company's ability to hire and retain qualified employees in those jurisdictions.

The company's compensation practices are subject to review by, and the standards of, the PRA and the FCA. As a large financial institution, the company is subject to limitations on compensation practices (which may or may not affect competitors) by the PRA and the FCA and other regulators worldwide. These limitations, including any imposed by or as a result of future legislation or regulation, may require the company to alter compensation practices in ways that could adversely affect its ability to attract and retain talented employees.

Legal Liability

Substantial legal liability or significant regulatory action against the company could have material adverse financial effects or cause significant reputational harm, which in turn could seriously harm business prospects. The company 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. The company 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 the company's businesses and operations. From experience, legal claims by customers and clients increase in a market downturn and employment-related claims increase following periods of staff reduction. Additionally, governmental entities have been and are plaintiffs in certain of the legal proceedings in which the company is involved, and it may face future 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.

The company is subject to laws and regulations worldwide, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, relating to corrupt and illegal payments to, and hiring practices with regard to, government officials and others. Violations of such laws and regulations could result in significant monetary penalties, severe restrictions on the company's activities and damage to its reputation.

Unforeseen or Catastrophic Events

The occurrence of unforeseen or catastrophic events, including the emergence of a pandemic, or other widespread health emergency (or concerns over the possibility of such an emergency), terrorist attacks, extreme terrestrial or solar weather events or other natural disasters, could create economic and financial disruptions, and could lead to operational difficulties (including travel limitations) that could impair the company's ability to manage its businesses and result in losses.

Risk Management

Risks are inherent in the company's businesses and include liquidity, market, credit, operational, model, legal, compliance, conduct, regulatory and reputational risks. For further information about the company's risk management processes, see "Overview and Structure of Risk Management" below. The company's risks include the risks across its risk categories, regions or global businesses, as well as those which have uncertain outcomes and have the potential to materially impact the company's financial results, its liquidity and its reputation. For further information about the company's areas of risk, see "Liquidity Risk Management", "Market Risk Management", "Credit Risk Management", "Operational Risk Management", "Model Risk Management" and "Principal Risks and Uncertainties".

Overview and Structure of Risk Management

Overview

The company believes that effective risk management is of primary importance to its success. The company has established an Enterprise Risk Management (ERM) framework that employs a comprehensive, integrated approach to risk management, and is designed to enable comprehensive risk management processes through which the risks associated with the company's business are identified, assessed, monitored and managed. Together with the company's board of directors, an extensive cross-divisional committee structure with representation from senior management of the company is the key to the risk management culture throughout the company. The company's risk management structure, consistent with GS Group, is built around three core components: governance; processes; and people.

Governance. Senior management in the company's revenue-producing units and independent control and support functions, lead and participate in risk-oriented committees. Independent control and support functions include Compliance, the Conflicts Resolution Group, Controllers, Credit Risk Management, Human Capital Management, Legal, Liquidity Risk Management and Analysis (Liquidity Risk Management), Market Risk Management and Analysis (Market Risk Management), Model Risk Management, Operations, Operational Risk Management and Analysis (Operational Risk Management), Tax, Technology and Treasury.

Processes. The company maintains various processes and procedures that are critical components of its risk management framework, including identifying, assessing, monitoring and limiting its risks. To effectively assess and monitor the company's risks, the company maintains a daily discipline of marking substantially all of its inventory to current market levels.

People. In both the revenue-producing units and the independent control and support functions, the experience of the company's professionals, and their understanding of the nuances and limitations of each risk measure, guide the company in assessing exposures and maintaining them within prudent levels.

Structure

Oversight of risk in the company is ultimately the responsibility of the company's board of directors, who oversee risk both directly and through various committees. A series of committees within the company with specific risk management mandates covering important aspects of the company's businesses also have oversight or decision-making responsibilities. The key committees with oversight of the company's activities are described below.

European Management Committee. The European Management Committee (EMC) oversees all of the company's activities in the region. It is chaired by the chief executive officer of the company and its membership includes senior managers from the revenue-producing divisions and independent control and support functions. The EMC reports to the company's board of directors.

GSI Board Audit Committee. The GSI Board Audit Committee assists the company's board of directors in the review of processes for ensuring the suitability and effectiveness of the systems and controls of the company in the region. This committee also has responsibility for overseeing the external audit arrangements and review of internal audit activities. Its membership includes non-executive directors of the company. The GSI Board Audit Committee reports to the company's board of directors.

GSI Board Risk Committee. The GSI Board Risk Committee is responsible for providing advice to the company's board of directors on the company's overall current and future risk appetite and assisting the company's board of directors in overseeing the implementation of that risk appetite and strategy by senior management. This includes reviewing and advising on the company's risk strategy and oversight of the capital, liquidity and funding position of the company. Its membership includes non-executive directors of the company. The GSI Board Risk Committee reports to the GSI board of directors.

GSI Risk Committee. The GSI Risk Committee is a management committee, which is responsible for the ongoing monitoring and control of all financial risks associated with the company's activities. This includes reviewing key financial and risk metrics, including but not limited to profit and loss, capital (including ICAAP), funding, liquidity, credit risk, market risk, operational risk, price verification and stress tests. The GSI Risk Committee approves market risk, credit risk, liquidity and regulatory capital limits. Its membership includes senior managers from the revenue-producing divisions and independent control and support functions. The GSI Risk Committee reports to the company's board of directors.

EMEA Conduct Risk Committee. The EMEA Conduct Risk Committee has oversight responsibility for conduct risk, business standards and practices. Its membership includes senior managers from the revenue-producing divisions and independent control and support functions. The EMEA Conduct Risk Committee reports to the EMC and to GS Group's Firmwide Client and Business Standards Committee.

GS Group Risk Governance

The comprehensive global risk governance framework in place at the GS Group level forms an integral part of the risk management process at the company. GS Group has established a series of committees with specific risk management mandates. Committees with oversight of matters relevant to the company include representation from company's senior management. The primary GS Group risk and oversight committees are described below.

Management Committee. The Management Committee oversees the global activities of GS Group, including GS Group's independent control and support functions. The committee consists of the most senior leaders of GS Group, and is chaired by GS Group's chief executive officer. The chief executive officer of the company is a member of this committee.

Firmwide Client and Business Standards Committee. The Firmwide Client and Business Standards Committee assesses and makes determinations regarding business standards and practices, reputational risk management, client relationships and client service, is chaired by one of GS Group's presidents and co-chief operating officers, who is appointed as chair by GS Group's chief executive officer, and reports to the Management Committee. Its membership includes representation from the company's senior management.

Firmwide Risk Committee. The Firmwide Risk Committee is globally responsible for the ongoing monitoring and management of GS Group's financial risks. The Firmwide Risk Committee approves GS Group's financial risk limits framework, metrics and methodologies, and reviews results of stress tests and scenario analyses. This committee is co-chaired by GS Group's chief financial officer and its chief risk officer (who are appointed as co-chairs by GS Group's chief executive officer), and reports to GS Group's Management Committee. Its membership includes representation from the company's senior management.

Firmwide Enterprise Risk Committee. The Firmwide Enterprise Risk Committee is responsible for the ongoing review, approval and monitoring of the ERM framework and for providing oversight of GS Group's aggregate financial and non-financial risks. This committee is co-chaired by one of GS Group's presidents and co-chief operating officers and its chief risk officer, who are appointed as co-chairs by GS Group's chief executive officer, and reports to GS Group's Management Committee. Its membership includes representation from the company's senior management.

Liquidity Risk Management

Overview (Audited)

Liquidity risk is the risk that the company will be unable to fund itself or meet its liquidity needs in the event of company-specific, broader industry, or market liquidity stress events. Liquidity is of critical importance to the company, as most of the failures of financial institutions have occurred in large part due to insufficient liquidity. Accordingly, the company has in place a comprehensive and conservative set of liquidity and funding policies. The principal objective is to be able to fund the company and to enable the core businesses to continue to serve clients and generate revenues, even under adverse circumstances.

Treasury has the primary responsibility for assessing, monitoring and managing liquidity and funding strategy. Treasury is independent of the revenue-producing units and reports to GS Group's chief financial officer.

GS Group's Liquidity Risk Management function is an independent risk management function responsible for control and oversight of GS Group's liquidity risk management framework, including stress testing and limit governance. Liquidity Risk Management is independent of the revenue-producing units and Treasury, and reports to GS Group's chief risk officer.

Liquidity Risk Management Principles (Audited)

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

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

The company holds more unencumbered securities and has larger debt balances than it would otherwise require. The company believes that its liquidity is stronger with greater balances of highly liquid unencumbered securities, even though it increases total assets and funding costs.

The company's GCLA is distributed across asset types, issuers and clearing agents to provide sufficient operating liquidity to ensure timely settlement in all major markets, even in a difficult funding environment.

Asset-Liability Management. The company's liquidity risk management policies are designed to ensure it has a sufficient amount of financing, even when funding markets experience persistent stress. The company manages maturities and diversity of funding across markets, products and counterparties, and seeks to maintain a diversified external funding profile with an appropriate tenor, taking into consideration the characteristics and liquidity profile of its assets.

The company's goal is to ensure it maintains sufficient liquidity to fund its assets and meet its contractual and contingent obligations in normal times as well as during periods of market stress. Through the dynamic balance sheet management process, actual and projected asset balances are used to determine secured and unsecured funding requirements. In a liquidity crisis, the company would first use its GCLA in order to avoid reliance on asset sales (other than its GCLA). However, the company recognises that orderly asset sales may be prudent or necessary in a severe or persistent liquidity crisis.

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

Liquidity Stress Tests

In order to determine the appropriate size of the company's GCLA, an internal liquidity model is used, referred to as the Modeled Liquidity Outflow, which captures and quantifies the company's liquidity risks. Other factors are considered including, but not limited to, an assessment of potential intraday liquidity needs through an additional internal liquidity model, referred to as the Intraday Liquidity Model, the results of the company's long-term stress testing models, resolution liquidity models and other applicable regulatory requirements and a qualitative assessment of the condition of the company, as well as the financial markets. The results of the Modeled Liquidity Outflow, the Intraday Liquidity Model and the long-term stress testing models are reported to senior management on a regular basis.

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

- Severely challenged market environments, including low consumer and corporate confidence, financial and political instability, adverse changes in market values, including potential declines in equity markets and widening of credit spreads; and
- A GS Group-specific crisis potentially triggered by material losses, reputational damage, litigation, executive departure, and/or a ratings downgrade.

The following are the critical modelling parameters of the Modeled Liquidity Outflow:

- Liquidity needs over a 30-day scenario;
- A two-notch downgrade of the long-term senior unsecured credit ratings of Group Inc. and its rated subsidiaries, including GSI;
- A combination of contractual outflows, such as upcoming maturities of unsecured debt, and contingent outflows (e.g., actions though not contractually required, may be deemed necessary in a crisis). The company assumes most contingent outflows will occur within the initial days and weeks of a crisis;
- No issuance of equity or unsecured debt; and
- No asset liquidation, other than the GCLA.

Intraday Liquidity Model. The company's Intraday Liquidity Model measures the company's intraday liquidity needs using a scenario analysis characterised by the same qualitative elements as the Modeled Liquidity Outflow. The model assesses the risk of increased intraday liquidity requirements during a scenario where access to sources of intraday liquidity may become constrained.

The following are key modelling elements of the Intraday Liquidity Model:

- Liquidity needs over a one-day settlement period;
- Delays in receipt of counterparty cash payments;
- A reduction in the availability of intraday credit lines at the company's third-party clearing agents; and
- Higher settlement volumes due to an increase in activity.

Long-Term Stress Testing. The company utilises a longer-term stress test to take a forward view on its liquidity position through a prolonged stress period in which the company experiences a severe liquidity stress and recovers in an environment that continues to be challenging.

The company also runs stress tests on a regular basis as part of its routine risk management processes and conducts tailored stress tests on an ad hoc or product-specific basis in response to market developments.

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

In addition, GS Group has established a triggers and alerts framework which is designed to provide the GS Group Board with information needed to make an informed decision on whether and when to commence bankruptcy proceedings for Group Inc.

Model Review and Validation

Treasury regularly refines the company's Modeled Liquidity Outflow, Intraday Liquidity Model and stress testing models to reflect changes in market or economic conditions and the company's business mix. Any changes, including model assumptions, are assessed and approved by GS Group's Liquidity Risk Management function.

GS Group's Model Risk Management is responsible for the independent review and validation of the company's liquidity models. See "Model Risk Management" for further information about the review and validation of these models.

Limits

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

The GSI Risk Committee approves the company's liquidity risk limits. Limits are reviewed frequently and amended, with required approvals, on a permanent and temporary basis, as appropriate, to reflect changing market or business conditions.

The company's liquidity risk limits are monitored by Treasury and GS Group's Liquidity Risk Management. Treasury is responsible for identifying and escalating, on a timely basis, instances where limits have been exceeded.

GCLA and Unencumbered Metrics

GCLA. Based on the results of the company's internal liquidity risk models described above, as well as consideration of other factors including, but not limited to, an assessment of the company's potential intraday liquidity needs and a qualitative assessment of the condition of the financial markets and the company, the company believes its liquidity position as of both December 2017 and December 2016 was appropriate. The company strictly limits its GCLA to a narrowly defined list of securities and cash because they are highly liquid, even in a difficult funding environment. The company does not include other potential sources of excess liquidity, such as less liquid unencumbered securities or committed credit facilities, in the GCLA.

The table below presents the average fair value of the company's GCLA by asset class.

	Average for the Year Ended December	
$ in millions	**2017**	2016
Overnight cash deposits	**$16,699**	$12,144
U.S. government obligations	**20,070**	25,222
U.K. government obligations	**8,729**	8,750
French government obligations	**5,150**	7,240
German government obligations	**6,008**	4,610
Japanese government obligations	**2,259**	2,208
Total	**$58,915**	$60,174

The minimum GCLA required is held by the company directly and is intended for use only by the company to meet its liquidity requirements, and is assumed not to be available to Group Inc. or Funding IHC. In addition to GCLA held in the company, GS Group holds a portion of global GCLA directly at Group Inc. or Funding IHC, which in some circumstances may be additionally provided to the company or other major subsidiaries.

Other Unencumbered Assets. In addition to its GCLA, the company has a significant amount of other unencumbered cash and financial instruments, including other government obligations, high-grade money market securities, corporate obligations, marginable equities, loans and cash deposits not included in its GCLA. The fair value of the company's other unencumbered assets averaged $28.45 billion and $25.68 billion for 2017 and 2016, respectively.

Liquidity Regulatory Framework

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

The LCR rule requires organisations to maintain an adequate ratio of eligible high-quality liquid assets to expected net cash outflows under an acute short-term liquidity stress scenario. The LCR rule issued by the European Commission became effective on October 1, 2015 and fully phased in on January 1, 2018, whereby certain financial institutions, including the company, are required to maintain a 100% minimum ratio. The company's average monthly LCR for the trailing twelve-month period ended December 2017 exceeded the minimum requirement.

The NSFR is designed to promote medium- and long-term stable funding of the assets and off-balance-sheet activities of banking organisations over a one-year time horizon. In November 2016, the European Commission proposed amendments to the CRR to implement the NSFR for certain E.U. financial institutions. The NSFR would become effective two years after the amendments are incorporated into the CRR. The European Commission has not released a final rule.

The implementation of these rules, and any amendments adopted by the applicable regulatory authorities, could impact the company's liquidity and funding requirements and practices in the future.

Credit Ratings

The company relies on the debt capital markets to fund a portion of its day-to-day operations and the cost and availability of debt financing is influenced by its credit rating and that of Group Inc. Credit ratings are also important when the company is competing in certain markets, such as OTC derivatives, and when it seeks to engage in longer-term transactions. See "Principal Risks and Uncertainties — Liquidity" for information about the risks associated with a reduction in the company's and/or Group Inc.'s credit rating.

The table below presents the unsecured credit ratings and outlook of the company and Group Inc. by Fitch, Inc. (Fitch), Moody's Investors Service (Moody's) and Standard & Poor's Ratings Services (S&P).

	As of December 2017		
	Fitch	**Moody's**	**S&P**
GSI			
Short-term debt	**F1**	**P-1**	**A-1**
Long-term debt	**A**	**A1**	**A+**
Ratings outlook	**Stable**	**Stable**	**Stable**
Group Inc.			
Short-term debt	**F1**	**P-2**	**A-2**
Long-term debt	**A**	**A3**	**BBB+**
Subordinated debt	**A-**	**Baa2**	**BBB-**
Trust preferred	**BBB-**	**Baa3**	**BB**
Preferred stock	**BB+**	**Ba1**	**BB**
Ratings outlook	**Stable**	**Stable**	**Stable**

On March 7, 2018, Moody's changed GSI's ratings outlook from stable to negative.

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

The table below presents the additional collateral or termination payments related to the company's net derivative liabilities under bilateral agreements that could have been called by counterparties in the event of a one-notch and two-notch downgrade in Group Inc.'s and/or the company's credit ratings.

	As of December	
$ in millions	**2017**	2016
Additional collateral or termination payments:		
One-notch downgrade	**$ 134**	$ 491
Two-notch downgrade	**$1,370**	$1,811

Cash Flows

As a financial institution, the company's cash flows are complex and bear little relation to the company's profitability and net assets. Consequently, the company believes that traditional cash flow analysis is less meaningful in evaluating its liquidity position than the liquidity and asset-liability management policies described above. Cash flow analysis may, however, be helpful in highlighting certain macro trends and strategic initiatives in the company's businesses.

The statements of cash flows are set out on page 49 of this annual report.

Year Ended December 2017. The company's cash and cash equivalents increased by $1.85 billion to $20.65 billion at the end of 2017. The company generated $3.52 billion in net cash from operating activities. The company used $1.57 billion in net cash for financing activities, primarily due to the repayment of $3.58 billion of long-term subordinated loans and the payment of $3.00 billion of dividends, partially offset by the issuance of $5.80 billion of AT1 notes.

Year Ended December 2016. The company's cash and cash equivalents increased by $7.90 billion to $16.88 billion at the end of 2016. The company generated $8.34 billion in net cash from operating activities.

Maturity of Financial Liabilities

See Note 28 to the financial statements for a maturity analysis of the company's financial liabilities.

Market Risk Management

Overview (Audited)

Market risk is the risk of loss in the value of the company's inventory, as well as certain other financial assets and financial liabilities, due to changes in market conditions. The company employs a variety of risk measures, each described in the respective sections below, to monitor market risk. Categories of market risk include the following:

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

Market Risk Management, which is independent of the revenue-producing units and reports to the GS Group chief risk officer, has primary responsibility for assessing, monitoring and managing market risk. Risks are monitored and controlled through strong oversight and independent control and support functions across the global businesses.

Managers in revenue-producing units and Market Risk Management discuss market information, positions and estimated risk and loss scenarios on an ongoing basis. Managers in revenue-producing units are accountable for managing risk within prescribed limits, both at the GS Group and the company level.

Market Risk Management Process (Audited)

The company manages market risk by diversifying exposures, controlling position sizes and establishing economic hedges in related securities or derivatives. This process includes:

- Accurate and timely exposure information incorporating multiple risk metrics;
- A dynamic limit setting framework; and
- Constant communication among revenue-producing units, risk managers and senior management.

The company's framework for managing market risk is consistent with, and part of, the GS Group framework, and results are analysed by business and in aggregate, at both the GS Group and the company level.

Risk Measures (Audited)

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

A variety of risk measures are used to estimate the size of potential losses for both moderate and more extreme market moves over both short-term and long-term time horizons. Primary risk measures are VaR, which is used for shorter-term periods, and stress tests. The company's risk report details key risks, drivers and changes for each business, and is distributed daily to senior management of both the revenue-producing units and independent control and support functions.

Value-at-Risk. VaR is the potential loss in value due to adverse market movements over a defined time horizon with a specified confidence level. A one-day time horizon with a 95% confidence level is typically employed. The VaR model is a single model that captures risks including interest rates, equity prices, currency rates and commodity prices. As such, VaR facilitates comparison across portfolios of different risk characteristics. VaR also captures the diversification of aggregated risk across the company.

There are inherent limitations to VaR and therefore a variety of risk measures are used in the market risk management process. Inherent limitations to VaR include:

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

When calculating VaR, historical simulations with full valuation of approximately 70,000 market factors are used. VaR is calculated at a position level based on simultaneously shocking the relevant market risk factors for that position. A sample from five years of historical data is taken to generate the scenarios for the VaR calculation. The historical data is weighted so that the relative importance of the data reduces over time. This gives greater importance to more recent observations and reflects current asset volatilities, which improves the accuracy of estimates of potential loss. As a result, even if positions included in VaR were unchanged, VaR would increase with increasing market volatility and vice versa.

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

The VaR measure does not include:

- Positions that are best measured and monitored using sensitivity measures; and
- The impact of changes in counterparty and GS Group's credit spreads on derivatives, as well as changes in GS Group's credit spreads on unsecured borrowings, which are designated at fair value through profit or loss.

The VaR model is applied consistently across GS Group, including the company. Daily backtesting of the VaR model is performed (i.e., comparing daily trading net revenues to the VaR measure calculated as of the prior business day) at the GS Group and company level and for each of GS Group's businesses.

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

Stress testing across GS Group and the company combines market, credit, operational and liquidity risks into a single combined scenario. These stress tests are primarily used to assess capital adequacy as part of the capital planning and stress testing process; however, it is also ensured that stress testing is integrated into the risk governance framework. This includes selecting appropriate scenarios to use for the capital planning and stress testing process.

Unlike VaR measures, which have an implied probability because they are calculated at a specified confidence level, there is generally no implied probability that GS Group's stress test scenarios will occur. Instead, stress tests are used to model both moderate and more extreme moves in underlying market factors. When estimating potential loss, it is generally assumed that positions cannot be reduced or hedged (although experience demonstrates that the company is generally able to do so).

Stress test scenarios are conducted on a regular basis as part of the routine risk management process and on an ad hoc basis in response to market events or concerns. Stress testing is an important part of the risk management process because it allows the company to quantify its exposure to tail risks, highlight potential loss concentrations, undertake risk/reward analysis, and assess and mitigate its risk positions.

Limits. Risk limits are used at various levels (including entity, business and product) to govern risk appetite by controlling the size of the company's exposures to market risk. Limits for the company are set based on VaR and on a range of stress tests relevant to the company's exposures. Limits are reviewed frequently and amended on a permanent or temporary basis to reflect changing market conditions, business conditions or tolerance for risk.

The GSI Board Risk Committee and the GSI Risk Committee sets market risk limits for the company at an entity, business and product level, consistent with the company's risk appetite.

The purpose of the company-wide limits is to assist senior management in controlling the overall risk profile. Sub-limits are set below the approved level of risk limits. Sub-limits set the desired maximum amount of exposure that may be managed by any particular business on a day-to-day basis without additional levels of senior management approval, effectively leaving day-to-day decisions to individual desk managers and traders. Accordingly, sub-limits are a management tool designed to ensure appropriate escalation rather than to establish maximum risk tolerance. Sub-limits also distribute risk among various businesses in a manner that is consistent with their level of activity and client demand, taking into account the relative performance of each area.

Market risk limits are monitored daily by Market Risk Management, which is responsible for identifying and escalating, on a timely basis, instances where limits have been exceeded.

When a risk limit has been exceeded (e.g., due to positional changes or changes in market conditions, such as increased volatilities or changes in correlations), it is escalated to senior managers in Market Risk Management and the appropriate risk committee. Such instances are remediated by an inventory reduction and/or a temporary or permanent increase to the risk limit.

Model Review and Validation

The VaR and stress testing models are regularly reviewed by Market Risk Management and enhanced in order to incorporate changes in the composition of positions included in market risk measures, as well as variations in market conditions. Prior to implementing significant changes to assumptions and/or models, Model Risk Management performs model validations. Significant changes to the VaR and stress testing models are reviewed with GS Group's chief risk officer and chief financial officer, as well as approved by GS Group's Firmwide Risk Committee and, where appropriate, the GSI Risk Committee.

See "Model Risk Management" for further information about the review and validation of these models.

Metrics (Audited)

The tables below present average daily VaR and period-end VaR, as well as the high and low VaR for the period. Diversification effect in the tables below represents the difference between total VaR and the sum of the VaRs for the four risk categories. This effect arises because the four market risk categories are not perfectly correlated.

The table below presents average daily VaR by risk category.

	Year Ended December	
$ in millions	**2017**	2016
Interest rates	**$ 22**	$ 25
Equity prices	**17**	17
Currency rates	**9**	10
Commodity prices	**2**	2
Diversification effect	**(22)**	(23)
Total	**$ 28**	$ 31

The company's average daily VaR decreased to $28 million for the year ended December 2017 from $31 million for the year ended December 2016, primarily due to a reduction in the interest rates category due to lower levels of volatility.

The table below presents period-end VaR by risk category.

	As of December	
$ in millions	**2017**	2016
Interest rates	**$ 20**	$ 23
Equity prices	**16**	16
Currency rates	**8**	8
Commodity prices	**1**	3
Diversification effect	**(17)**	(24)
Total	**$ 28**	$ 26

The company's period-end VaR increased to $28 million as of December 2017 from $26 million as of December 2016, primarily due to a decrease in the diversification effect, partially offset by a reduction in the interest rates category principally due to lower levels of volatility.

The table below presents high and low VaR by risk category.

	Year Ended December 2017		Year Ended December 2016	
$ in millions	**High**	**Low**	High	Low
Interest rates	**$30**	**$17**	$37	$20
Equity prices	**$26**	**$13**	$52	$13
Currency rates	**$18**	**$ 4**	$20	$ 5
Commodity prices	**$ 7**	**$ –**	$ 5	$ –

The high and low total VaR was $37 million and $23 million, respectively, for the year ended December 2017 and $59 million and $24 million, respectively, for the year ended December 2016.

Sensitivity Measures (Audited)

Certain portfolios and individual positions are not included in VaR because VaR is not the most appropriate risk measure for these positions.

10% Sensitivity Measures. The market risk for positions, accounted for at fair value, that are not included in VaR is determined by estimating the potential reduction in net revenues of a 10% decline in the value of these positions. The market risk of these positions was $21.9 million and $11.9 million as of December 2017 and December 2016, respectively.

Credit Risk Management

Overview (Audited)

Credit risk represents the potential for loss due to the default or deterioration in credit quality of a counterparty (e.g., an OTC derivatives counterparty or a borrower) or an issuer of securities or other instruments the company holds. The company's exposure to credit risk comes mostly from client transactions in OTC derivatives. Credit risk also comes from cash placed with banks, securities financing transactions (i.e., resale and repurchase agreements and securities borrowing and lending activities) and debtors. In addition, the company holds other positions that give rise to credit risk (e.g., bonds held in inventory) — these credit risks are captured as a component of market risk measures, which are monitored and managed by Market Risk Management, consistent with other inventory positions.

Credit Risk Management, which is independent of the revenue-producing units and reports to GS Group's chief risk officer, has primary responsibility for assessing, monitoring and managing credit risk. The company's framework for managing credit risk is consistent with the framework of GS Group established by GS Group's Risk Governance Committee and Firmwide Risk Committee.

Credit Risk Management Process (Audited)

Effective management of credit risk requires accurate and timely information, a high level of communication and knowledge of customers, countries, industries and products. The process for managing credit risk includes:

- Approving transactions and setting and communicating credit exposure limits;
- Monitoring compliance with established credit exposure limits;
- Assessing the likelihood that a counterparty will default on its payment obligations;
- Measuring the company's current and potential credit exposure and losses resulting from counterparty default;
- Reporting of credit exposures to senior management, the company's board of directors and regulators;
- Using credit risk mitigants, including collateral and hedging; and
- Communicating and collaborating with other independent control and support functions such as operations, legal and compliance.

As part of the risk assessment process, Credit Risk Management performs credit reviews, which include initial and ongoing analyses of the company's counterparties. A credit review is an independent analysis of the capacity and willingness of a counterparty to meet its financial obligations, resulting in an internal credit rating. The determination of internal credit ratings also incorporates assumptions with respect to the nature of and outlook for the counterparty's industry, and the economic environment. Senior personnel within Credit Risk Management, with expertise in specific industries, inspect and approve credit reviews and internal credit ratings.

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

Risk Measures and Limits

Credit risk is measured based on the potential loss in the event of non-payment by a counterparty using current and potential exposure. For derivatives and securities financing transactions, current exposure represents the amount presently owed to the company after taking into account applicable netting and collateral arrangements while potential exposure represents the company's estimate of the future exposure that could arise over the life of a transaction based on market movements within a specified confidence level. Potential exposure also takes into account netting and collateral arrangements.

Credit limits are used at various levels (e.g., counterparty, economic group, industry and country) to control the size and nature of the company's credit exposures and are reviewed regularly and revised to reflect changing risk appetites for a given counterparty or group of counterparties.

The GSI Board Risk Committee and the GSI Risk Committee approve credit risk limits at the company-wide, business and product level, consistent with the company's risk appetite. Furthermore, the GSI Risk Committee approves the framework that governs the setting of credit risk sub-limits at the company level, which is delegated to the GSI Credit Committee, and Credit Risk Management (through delegated authority from GS Group's Risk Governance Committee and the GSI Credit Committee).

Stress Tests

Regular stress tests are used to calculate the credit exposures, including potential concentrations that would result from applying shocks to counterparty credit ratings or credit risk factors (e.g., currency rates, interest rates, equity prices). These shocks include a wide range of moderate and more extreme market movements. Some of the stress tests include shocks to multiple risk factors, consistent with the occurrence of a severe market or economic event. Unlike potential exposure, which is calculated within a specified confidence level, with a stress test there is generally no assumed probability of these events occurring.

Stress tests are performed on a regular basis as part of the company's routine risk management processes and the company conducts tailored stress tests on an ad hoc basis in response to market developments. Stress tests are conducted jointly with the company's market and liquidity risk functions.

Model Review and Validation

The company's potential credit exposure and stress testing models, and any changes to such models or assumptions, are reviewed by Model Risk Management. See "Model Risk Management" for further information about the review and validation of these models.

Risk Mitigants

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

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

Credit Exposures (Audited)

The company's credit exposures are described further below.

Financial Instruments Owned. Financial instruments owned includes cash instruments and derivatives. In the table below cash instruments are included in the gross exposure; however, to the extent that they have been captured by market risk they are removed to arrive at net credit exposure. Derivatives are reported at fair value on a gross by counterparty basis in the company's financial statements unless it has a current legal right of set-off and also intends to settle on a net basis. OTC derivatives are risk managed using the risk processes, measures and limits described above.

Collateralised Agreements. The company bears credit risk related to collateralised agreements only to the extent that cash advanced to the counterparty exceeds the value of the collateral received. The company's credit exposure on these transactions is therefore significantly lower than the amounts recorded in the balance sheet, which represent fair values or contractual value before consideration of collateral received. The company also has credit exposure on collateralised financings, which are liabilities on its balance sheet, to the extent that the value of collateral pledged to the counterparty for these transactions exceeds the amount of cash or collateral received.

Debtors. The company is exposed to credit risk from its debtors through its amounts due from broker/dealers and customers; and amounts due from parent and group undertakings. These primarily consist of receivables related to cash collateral paid to counterparties and clearing organisations in respect of derivative financial instrument liabilities. Debtors also includes collateralised receivables related to customer securities transactions, which generally have minimal credit risk due to both the value of the collateral received and the short-term nature of these receivables.

Cash at Bank and in Hand. Cash at bank and in hand include both interest-bearing and non-interest-bearing deposits. To mitigate the risk of credit loss, the company places substantially all of its deposits with highly-rated banks and central banks.

The tables below present the company's gross credit exposure to financial assets and net credit exposure after taking account of assets captured by market risk in the company's risk management process, counterparty netting (i.e., the netting of financial assets and financial liabilities for a given counterparty when a legal right of set-off exists under an enforceable netting agreement), and cash and security collateral received and cash collateral posted under credit support agreements, which management considers when determining credit risk. This is presented by financial asset class and by credit rating equivalent (internally determined public rating agency equivalents).

In the tables below, cash collateral and security collateral are slightly higher than the amounts disclosed in Note 29 to the financial statements as the below disclosure includes additional cash and security collateral that management considers when determining credit risk.

$ in millions	Gross exposure	Assets captured by market risk	Counterparty netting	Cash collateral	Security collateral received	Net credit exposure
Financial Asset Class						
As of December 2017						
Financial instruments owned	**$640,264**	**$(70,293)**	**$(497,178)**	**$(37,649)**	**$ (14,723)**	**$20,421**
Collateralised agreements	**204,820**	**–**	**(83,213)**	**–**	**(117,782)**	**3,825**
Debtors	**73,378**	**–**	**(5,803)**	**(36,896)**	**(7,673)**	**23,006**
Cash at bank and in hand	**20,727**	**–**	**–**	**–**	**–**	**20,727**
Total	**$939,189**	**$(70,293)**	**$(586,194)**	**$(74,545)**	**$(140,178)**	**$67,979**
As of December 2016						
Financial instruments owned	$662,945	$(58,759)	$(525,887)	$(42,921)	$ (16,136)	$19,242
Collateralised agreements	184,600	–	(85,692)	–	(95,741)	3,167
Debtors	68,960	–	(3,531)	(37,476)	(4,864)	23,089
Cash at bank and in hand	16,888	–	–	–	–	16,888
Total	$933,393	$(58,759)	$(615,110)	$(80,397)	$(116,741)	$62,386

$ in millions	Gross exposure	Assets captured by market risk	Counterparty netting	Cash collateral	Security collateral received	Net credit exposure
Credit Rating Equivalent						
As of December 2017						
AAA/Aaa	**$ 19,282**	**$ –**	**$ (1,864)**	**$ (2,535)**	**$ (1,025)**	**$13,858**
AA/Aa2	**111,588**	**–**	**(44,356)**	**(16,676)**	**(32,436)**	**18,120**
A/A2	**601,039**	**–**	**(479,051)**	**(30,177)**	**(74,149)**	**17,662**
BBB/Baa2	**90,579**	**–**	**(47,942)**	**(17,230)**	**(15,764)**	**9,643**
BB/Ba2 or lower	**43,729**	**–**	**(12,920)**	**(7,895)**	**(16,532)**	**6,382**
Unrated	**72,972**	**(70,293)**	**(61)**	**(32)**	**(272)**	**2,314**
Total	**$939,189**	**$(70,293)**	**$(586,194)**	**$(74,545)**	**$(140,178)**	**$67,979**
As of December 2016						
AAA/Aaa	$ 14,117	$ –	$ (2,633)	$ (2,172)	$ (235)	$ 9,077
AA/Aa2	124,593	–	(56,064)	(23,156)	(26,761)	18,612
A/A2	603,808	–	(488,712)	(30,600)	(66,657)	17,839
BBB/Baa2	91,020	–	(56,285)	(16,746)	(9,573)	8,416
BB/Ba2 or lower	37,809	–	(11,315)	(7,709)	(12,966)	5,819
Unrated	62,046	(58,759)	(101)	(14)	(549)	2,623
Total	$933,393	$(58,759)	$(615,110)	$(80,397)	$(116,741)	$62,386

The unrated net credit exposure of $2.31 billion and $2.62 billion as of December 2017 and December 2016, respectively, relates to financial assets for which the company has not assigned an internally determined public rating agency equivalent.

In addition to credit risk on financial assets, the company also has credit exposure in respect of contingent and forward starting collateralised agreements. The company's gross credit exposure related to these activities is $58.76 billion and $43.60 billion as of December 2017 and December 2016, respectively. However, this will be mitigated by collateral of approximately $58.39 billion and $43.26 billion as of December 2017 and December 2016, respectively, if these commitments are fulfilled. As a result, the company's net credit exposure to these commitments was $368 million and $340 million as of December 2017 and December 2016, respectively.

As of both December 2017 and December 2016, financial assets past due or impaired were not material.

Credit Concentrations (Audited)

The company's concentrations to credit risk arise from its market making, client facilitation, investing, underwriting, lending and collateralised transactions, and cash management activities, and may be impacted by changes in economic, industry or political factors. These activities expose the company to many different industries and counterparties, and may also subject the company to a concentration of credit risk to a particular central bank, counterparty, borrower or issuer, including sovereign issuers, or to a particular clearing house or exchange. The company seeks to mitigate credit risk by actively monitoring exposures against limits on individual entities as well as countries and industries, and obtaining collateral from counterparties as deemed appropriate.

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

The table below presents the company's net credit exposure by industry and region.

	As of December	
$ in millions	**2017**	2016
Credit Exposure by Industry		
Funds	**$ 8,823**	$ 9,745
Financial Institutions	**30,424**	26,216
Sovereign	**22,623**	20,275
Natural Resources & Utilities	**1,675**	1,520
Diversified Industrials	**986**	1,419
Other (including Special Purpose Vehicles)	**3,448**	3,211
Total	**$67,979**	$62,386
Credit Exposure by Region		
EMEA	**$46,283**	$43,469
Americas	**15,258**	14,481
Asia	**6,438**	4,436
Total	**$67,979**	$62,386

Collateral obtained by the company related to derivative assets is principally cash and is held by the company or a third-party custodian. Collateral obtained by the company related to collateralised agreement transactions is primarily government and agency obligations and equities.

Operational Risk Management

Overview (Audited)

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

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

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

The company's framework for managing operational risk is fully integrated in GS Group's comprehensive control framework designed to provide a well-controlled environment to minimise operational risks. In the company, the EMEA Operational Risk Committee provides oversight of the ongoing development and implementation of operational risk policies, framework and methodologies, with oversight from the directors of the company, and monitors the effectiveness of operational risk management.

Operational Risk Management is a risk management function independent of revenue-producing units, reports to GS Group's chief risk officer, and is responsible for developing and implementing policies, methodologies and a formalised framework for operational risk management with the goal of maintaining the company's exposure to operational risk at levels that are within its risk appetite.

Operational Risk Management Process (Audited)

Managing operational risk requires timely and accurate information, as well as a strong control culture. Operational risk is managed through:

- Training, supervision and development of people;
- Active participation of senior management in identifying and mitigating key operational risks;
- Independent control and support functions that monitor operational risk on a daily basis, and implementation of extensive policies and procedures, and controls designed to prevent the occurrence of operational risk events;
- Proactive communication between revenue-producing units and independent control and support functions; and
- A network of systems to facilitate the collection of data used to analyse and assess operational risk exposure.

Top-down and bottom-up approaches are combined to manage and measure operational risk. From a top-down perspective, senior management assesses company-wide and business-level operational risk profiles. From a bottom-up perspective, revenue-producing units and independent control and support functions are responsible for risk identification and risk management on a day-to-day basis, including escalating operational risks to senior management.

The operational risk management framework is in part designed to comply with the operational risk measurement rules under Basel III and has evolved based on the changing needs of the company's businesses and regulatory guidance. The operational risk management framework consists of risk identification and assessment, risk measurement and risk monitoring and reporting.

Risk Identification and Assessment

The core of the operational risk management framework is risk identification and assessment. A comprehensive data collection process is in place, including policies and procedures, for operational risk events.

Policies are in place that require the revenue-producing units and independent control and support functions to report and escalate operational risk events. When operational risk events are identified, policies require that the events be documented and analysed to determine whether changes are required in the systems and/or processes to further mitigate the risk of future events.

In addition, systems capture internal operational risk event data, key metrics such as transaction volumes, and statistical information such as performance trends. An internally-developed operational risk management application is used to aggregate and organise this information. One of the company's key risk identification and assessment tools is an operational risk and control self-assessment process which is performed by managers from both revenue-producing units and independent control and support functions. This process consists of the identification and rating of operational risks, on a forward-looking basis, and the related controls. The results from this process are analysed to evaluate operational risk exposures and identify businesses, activities or products with heightened levels of operational risk.

Risk Measurement

The company's operational risk exposure is measured over a twelve-month time horizon using both statistical modelling and scenario analyses, which involve qualitative and quantitative assessments of internal and external operational risk event data, business environment and internal control factors for each of the company's businesses.

The results from these scenario analyses are used to monitor changes in operational risk and to determine business lines that may have heightened exposure to operational risk. These analyses ultimately are used in the determination of the appropriate level of operational risk capital to hold.

Risk Monitoring and Reporting

Changes in the operational risk profile of the company, including changes in business mix or jurisdictions in which the company operates, are evaluated by monitoring the factors noted above at the company level. The company has both preventive and detective internal controls, which are designed to reduce the frequency and severity of operational risk losses and the probability of operational risk events. The company monitors the results of assessments and independent internal audits of these internal controls.

Periodic operational risk reports are provided to senior management, the GSI Risk Committee and the company's board of directors. In addition, the company has established thresholds to monitor the impact of an operational risk event, including single loss events and cumulative losses over a twelve-month period, as well as escalation protocols. If incidents breach escalation thresholds, respective operational risk reports are provided to senior management and the GSI Board Risk Committee.

Model Review and Validation

The statistical models utilised by Operational Risk Management are subject to independent review and validation by Model Risk Management. See "Model Risk Management" for further information about the review and validation of these models.

Model Risk Management

Overview (Audited)

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

The company's framework for managing model risk is consistent with and part of GS Group's framework. GS Group's model risk management framework is managed through a governance structure and risk management controls, which encompass standards designed to ensure it maintains a comprehensive model inventory, including risk assessment and classification, sound model development practices, independent review and model-specific usage controls. GS Group's Firmwide Model Risk Control Committee oversees the model risk management framework. GS Group's Model Risk Management, which is independent of model developers, model owners and model users, reports to GS Group's chief risk officer, is responsible for identifying and reporting significant risks associated with models, and provides periodic updates to senior management, risk committees and GS Group's Risk Committee of the Board.

Model Review and Validation

GS Group's Model Risk Management consists of quantitative professionals who perform an independent review, validation and approval of the models. This review includes an analysis of the model documentation, independent testing, an assessment of the appropriateness of the methodology used, and verification of compliance with model development and implementation standards. GS Group's Model Risk Management reviews all existing models on an annual basis, and approves new models or significant changes to models prior to implementation. The model validation process incorporates a review of models and trade and risk parameters across a broad range of scenarios (including extreme conditions) in order to critically evaluate and verify the model's conceptual soundness, suitability of calculation techniques, accuracy, and sensitivity to input parameters and assumptions, as well as the scope of testing performed by the model developers.

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

Date of Authorisation of Issue

The strategic report was authorised for issue by the Board of Directors on March 15, 2018.

By order of the board
D. W. McDonogh
Director
March 15, 2018

Directors' Report

The directors present their report and the audited financial statements for the year ended December 2017.

Introduction

In accordance with section 414A of the Companies Act 2006, the directors have prepared a strategic report, which is included in Part I of this annual report and which contains a review of the company's businesses and a description of the principal risks and uncertainties facing the company. The directors have chosen to disclose the company's risk management objectives and policies, including exposures to market risk, credit risk and liquidity risk, and the future outlook of the company in the strategic report in accordance with section 414C(11) of the Companies Act 2006.

Dividends

The directors declared and paid an interim dividend of $500 million on June 27, 2017 and $2.50 billion on June 28, 2017. No dividends were paid in 2016.

Exchange Rate

The British pound/U.S. dollar exchange rate was £/$1.3524 and £/$1.2337 as of December 2017 and December 2016, respectively. The average rate for the year was £/$1.3020 and £/$1.3439 for 2017 and 2016, respectively.

Employment of Disabled Persons

Applications for employment by disabled persons are fully and fairly considered with regard to the aptitudes and abilities of each applicant. Efforts are made to enable any employees who become disabled during employment to continue their careers within GS Group. Training, career development and promotion of disabled persons are, to the extent possible, identical to that of other employees who are not disabled.

Charitable Contributions

The company made donations to charity of $25 million for both 2017 and 2016. This included donations of $22 million for both 2017 and 2016 to Goldman Sachs Gives (UK), a registered charity, for general charitable purposes in England and Wales.

Employee Involvement

It is company policy that there should be effective communication with all employees who, subject to practical and commercial considerations, should be consulted on and involved in decisions that affect their current jobs or future prospects. Employees share in performance-based incentive schemes.

Disclosure of Information to Auditors

In the case of each of the persons who are directors of the company at the date when this report was approved:

- So far as each of the directors is aware, there is no relevant audit information of which the company's auditors are unaware; and
- Each of the directors has taken all the steps that he/she ought to have taken as a director to make himself/herself aware of any relevant audit information and to establish that the company's auditors are aware of that information.

Independent Auditors

Prior to 1 October 2007, the company passed an elective resolution under section 386 of the Companies Act 1985 to dispense with the annual reappointment of auditors. PricewaterhouseCoopers LLP will, accordingly, continue in office as auditors of the company pursuant to section 487(2) of the Companies Act 2006 and paragraph 44 of Schedule 3 to the Companies Act 2006 (Commencement No. 3 Consequential Amendment, Transitional Provisions and Savings) Order 2007.

Directors' Report

Statement of Directors' Responsibilities

The directors are responsible for preparing the strategic report, the directors' report and the financial statements in accordance with applicable law and regulations. Company law requires the directors to prepare accounts for each financial period which give a true and fair view of the state of affairs of the company as at the end of the financial period and of the profit or loss of the company for that period. In preparing those accounts, the directors are required to:

- Select suitable accounting policies and then apply them consistently;
- Make judgements and estimates that are reasonable and prudent;
- State whether applicable accounting standards have been followed subject to any material departures disclosed and explained in the financial statements; and
- Prepare the accounts on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The directors are responsible for keeping adequate accounting records which disclose with reasonable accuracy at any time the financial position of the company and to enable them to ensure that the accounts comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the company and, hence, for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the company's financial statements on the Goldman Sachs website. Legislation in the U.K. governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Directors

The directors of the company who served throughout the year and to the date of this report, except where noted, were:

Name
J. M. D. Barroso, Chairman
S. A. Boyle (appointment proposed on March 15, 2018, subject to regulatory approval)
I. Ealet
R. J. Gnodde, Chief executive officer
Lord Grabiner QC
Lord Griffiths of Fforestfach (resigned on December 31, 2017)
N. Harman
S. S. Kilsby
D. W. McDonogh
M. O. Winkelman

No director had, at the year end, any interest requiring note herein.

Date of Authorisation of Issue

The financial statements were authorised for issue by the Board of Directors on March 15, 2018.

By order of the board
D. W. McDonogh
Director
March 15, 2018

Independent auditors' report to the members of Goldman Sachs International (unlimited company)

Report on the audit of the financial statements

Opinion

In our opinion, Goldman Sachs International's ("the company") financial statements:

- give a true and fair view of the state of the company's affairs as at December 31, 2017 and of its profit and cash flows for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report, which comprise: the Balance Sheet as at December 31, 2017; the Profit and Loss Account, the Statements of Comprehensive Income, the Statements of Cash Flows, the Statements of Changes in Equity for the year then ended; and the Notes to the Financial Statements, which include a description of the significant accounting policies and other explanatory information.

Certain required disclosures have been presented in the Strategic Report in the Annual Report rather than in the Notes to the Financial Statements. The disclosures identified as audited within the Strategic Report form an integral part of the financial statements.

Our opinion is consistent with our reporting to the Audit Committee.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the U.K., which includes the Financial Reporting Council's ("FRC") Ethical Standard as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

In accordance with the partner rotation rules of the FRC, a new Senior Statutory Auditor took responsibility for the 2017 audit.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the company.

Other than those disclosed in Note 6 'Administrative Expenses' to the financial statements, we have provided no other non-audit services to the company in the period from January 1, 2017 to December 31, 2017.

Our audit approach

Overview

Materiality	• Overall materiality: \$180 million (2016: \$170 million). • Based on: 0.5% of total regulatory capital resources.
Audit scope	• We perform a full scope audit of the financial statements of the company as a whole.
Key audit matter	• Valuation of derivative financial instruments held at fair value.

Independent auditors' report to the members of Goldman Sachs International (unlimited company)

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the directors made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

We gained an understanding of the legal and regulatory framework applicable to the company and the industry in which it operates, and considered the risk of acts by the company which were contrary to applicable laws and regulations, including fraud. We designed audit procedures to respond to the risk, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. We focused on laws and regulations that could give rise to a material misstatement in the company's financial statements, including but not limited to, the Companies Act 2006, the Financial Conduct Authority's Client Asset Sourcebook, and the Prudential Regulation Authority's regulations. Our tests included, but were not limited to, a review of the financial statement disclosures to underlying supporting documentation, review of correspondence with the regulators, review of correspondence with legal advisors, enquiries of management and review of internal audit reports in so far as they related to the financial statements. There are inherent limitations in the audit procedures described above and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it.

We did not identify any key audit matters relating to irregularities, including fraud. As in all of our audits, we also addressed the risk of management override of internal controls, including testing journals and evaluating whether there was evidence of bias by the directors that represented a risk of material misstatement due to fraud.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

Key audit matter	How our audit addressed the key audit matter
Valuation of derivative financial instruments held at fair value ***Refer to Note 28 'Financial Assets and Financial Liabilities' in the financial statements.*** In accordance with the accounting policies set out in Note 2 'Summary of Significant Accounting Policies' to the financial statements, derivative financial instruments are recorded in the balance sheet at fair value and changes in fair value are recorded in net revenues. The valuations of derivative financial instruments are produced by financial models using a variety of inputs. Most of the company's derivatives are traded in active markets and external observable inputs are available to support management's valuations. Such derivatives are classified as level 2 in the valuation hierarchy (see Note 28). The company also enters into complex and less liquid derivative financial instruments where a limited or no active market exists. In these instances, there is less observable evidence to support the valuations and hence there is greater estimation uncertainty. When one or more valuation inputs are unobservable and significant, the financial instrument is classified as level 3 in the valuation hierarchy. Total derivative financial assets and financial liabilities were $566.21 billion and $556.12 billion, respectively, at December 31, 2017, of which level 3 derivative financial assets and financial liabilities were $3.47 billion and $2.27 billion, respectively. The higher assessed risks of material misstatement relate to the valuation of derivative financial instruments where significant management judgement is required in the determination of fair value. This key audit matter relates to the valuation of such derivative financial instruments. We performed a risk assessment of the derivative financial instruments held by the company using our industry experience and knowledge of the company's business. We used this analysis to identify areas of significant management judgement and focus our testing. With respect to level 3 financial instruments, we focused on the valuation of certain credit and equity derivatives. Within credit derivatives this included the valuation of a portfolio of derivatives sensitive to secured funding spreads, the methodology for which involves a key judgement. We also focused our work on certain level 2 derivative financial instruments where, due to their size, nature or complexity, greater judgement is required in the determination of fair value, including appropriate valuation adjustments.	We understood and evaluated the design and tested the operational effectiveness of the controls over management's valuation of financial instruments. These controls included: • Validation of new and existing models by a specialist team within the risk function, as well as access and change management controls in respect of models in use. • The monthly price verification process performed by the controller's function using prices and model valuation inputs sourced from third parties. • Calculation and approval of key valuation adjustments. We noted no significant exceptions in the design or operating effectiveness of these controls and we determined we could rely on these controls for the purposes of our audit. We utilised internal valuation specialists to revalue a sample of derivative financial instruments across all levels using independent models and, to the extent available, independently sourced inputs. For samples where we utilised management's inputs to revalue the instrument, we assessed the reasonableness of the inputs used. We also tested external inputs used within management's price verification process and evaluated the appropriateness of the sources. Within level 3, we revalued a sample of credit derivatives, and evaluated management's methodology for determining secured funding spreads and tested inputs to external sources. We revalued a sample of equity derivatives and tested the key inputs such as correlation. From the evidence obtained, we found the assumptions and methodologies used to be appropriate. We evaluated the methodology and underlying assumptions used to determine material valuation adjustments. We tested a sample of valuation adjustments at the year end. We also tested collateral disputes, significant one-off revenues, and considered other events, where relevant, which could provide evidence about the appropriateness of management's valuations. Based on the work performed, we found management's judgements in relation to the valuation of derivative financial instruments to be supported by the evidence obtained. We performed testing to validate that management had allocated derivative financial instruments to the appropriate level (1, 2 or 3) within the fair value hierarchy in line with the established policy, and that the policy classifications were appropriate. We read and assessed the disclosures in Note 28 'Financial Assets and Financial Liabilities' regarding significant unobservable inputs and the fair value hierarchy and found them to be appropriate.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the company, the accounting processes and controls, and the industry in which it operates.

The company provides a wide range of financial services to clients located worldwide. The company also operates a number of branches and representative offices across Europe, the Middle East and Africa (EMEA) to provide financial services to clients in those regions. We consider that the company is a single audit component.

Traders based in overseas locations enter into transactions on behalf of the company. In these circumstances, certain internal controls relevant to financial reporting operate in those locations. In addition, there are a number of centralised functions operated by the ultimate parent company, The Goldman Sachs Group, Inc., in the U.S. or in group shared service centres in other locations which are relevant to the audit of the company. We determined the scope of the work required in each of these locations and we issued instructions to PwC network firms. We interacted regularly with the firms responsible for the work throughout the course of the audit. This included reviewing key working papers and discussing the results of work in higher risk areas of the audit. We concluded that the procedures performed on our behalf were sufficient for the purposes of issuing our opinion.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

Overall materiality	$180 million (2016: $170 million).
How we determined it	0.5% of total regulatory capital resources (2016: 0.5%) as set out on page 9 of the Annual Report.
Rationale for benchmark applied	The immediate and ultimate parent companies, management and the company's regulators are the primary users of the financial statements. The level of total regulatory capital resources is a key focus of these users.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above $9 million (2016: $8.5 million) as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which ISAs (UK) require us to report to you when:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the company's ability to continue as a going concern.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements (as defined earlier) and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, ISAs (UK) require us also to report certain opinions and matters as described below.

Independent auditors' report to the members of Goldman Sachs International (unlimited company)

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended December 31, 2017 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report.

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Statement of Directors' Responsibilities set out on page 40, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal controls as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the company's member as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the financial statements are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

We were appointed by the directors on September 22, 1988 to audit the financial statements for the period ended November 24, 1989 and subsequent financial periods. The period of total uninterrupted engagement is 29 years, covering the periods ended November 24, 1989 to December 31, 2017.

Jonathan Holloway (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
March 15, 2018

Profit and Loss Account

$ in millions	Note	Year Ended December 2017	2016
Net revenues	5	**$ 6,508**	$ 6,549
Administrative expenses	6	**(4,119)**	(4,269)
Operating profit		**2,389**	2,280
Interest payable and similar expenses	9	**(301)**	(346)
Net finance income	10	**3**	9
Profit before taxation		**2,091**	1,943
Tax on profit	12	**(534)**	(487)
Profit for the financial year		**$ 1,557**	$ 1,456

Net revenues and operating profit of the company are derived from continuing operations in the current and prior years.

Statements of Comprehensive Income

$ in millions	Note	Year Ended December 2017	2016
Profit for the financial year		**$ 1,557**	$ 1,456
Other comprehensive income			
Items that will not be reclassified subsequently to profit or loss			
Actuarial profit/(loss) relating to the pension scheme	10	**198**	(189)
Debt valuation adjustment	19	**(259)**	(182)
U.K. deferred tax attributable to the components of other comprehensive income	17	**16**	92
U.K. current tax attributable to the components of other comprehensive income		**2**	3
Other comprehensive loss for the financial year, net of tax		**(43)**	(276)
Total comprehensive income for the financial year		**$ 1,514**	$ 1,180

The accompanying notes are an integral part of these financial statements.

Balance Sheet

		As of December	
$ in millions	**Note**	**2017**	2016
Fixed assets	13	**$ 210**	$ 140
Current assets			
Financial instruments owned (includes **$24,178** and $20,110 pledged as collateral)	14	**640,264**	662,945
Collateralised agreements	15	**204,820**	184,600
Debtors	16	**74,052**	69,696
Cash at bank and in hand	24	**20,727**	16,888
		939,863	934,129
Creditors: amounts falling due within one year			
Financial instruments sold, but not yet purchased	14	**(589,922)**	(613,911)
Collateralised financings	18	**(158,069)**	(140,388)
Other creditors	19	**(103,584)**	(104,488)
		(851,575)	(858,787)
Net current assets		**88,288**	75,342
Total assets less current liabilities		**88,498**	75,482
Creditors: amounts falling due after more than one year			
Collateralised financings	18	**(17,378)**	(7,800)
Other creditors	19	**(39,730)**	(40,202)
		(57,108)	(48,002)
Provisions for liabilities	20	**(10)**	–
Net assets excluding pension surplus		**31,380**	27,480
Pension surplus	10	**321**	53
Net assets including pension surplus		**$ 31,701**	$ 27,533
Capital and reserves			
Called up share capital	21	**$ 582**	$ 582
Share premium account		**4,864**	4,864
Capital reserve (non-distributable)		**17**	17
Profit and loss account		**20,727**	22,316
Accumulated other comprehensive income		**(289)**	(246)
Other equity instruments	22	**5,800**	–
Total shareholder's funds		**$ 31,701**	$ 27,533

The financial statements were approved by the Board of Directors on March 15, 2018 and signed on its behalf by:

D. W. McDonogh
Director

The accompanying notes are an integral part of these financial statements.
Company number: 02263951

Statements of Changes in Equity

		Year Ended December	
$ in millions	**Note**	**2017**	2016
Called up share capital			
Beginning balance		**$ 582**	$ 582
Ending balance		**582**	582
Share premium account			
Beginning balance		**4,864**	4,864
Ending balance		**4,864**	4,864
Capital reserve (non-distributable)			
Beginning balance		**17**	17
Ending balance		**17**	17
Profit and loss account			
Beginning balance		**22,316**	20,860
Profit for the financial year		**1,557**	1,456
Interim dividends paid	23	**(3,000)**	–
Interest on Additional Tier 1 notes, net of tax	22	**(146)**	–
Share-based payments		**405**	497
Management recharge related to share-based payments		**(405)**	(497)
Ending balance		**20,727**	22,316
Accumulated other comprehensive income			
Beginning balance		**(246)**	30
Other comprehensive loss		**(43)**	(276)
Ending balance		**(289)**	(246)
Other equity instruments			
Beginning balance		**–**	–
Additional Tier 1 notes issued	22	**5,800**	–
Ending balance		**5,800**	–
Total shareholder's funds		**$31,701**	$27,533

The accompanying notes are an integral part of these financial statements.

Statements of Cash Flows

		Year Ended December	
$ in millions	**Note**	**2017**	2016
Cash flows from operating activities			
Cash generated from operations	25	**$ 3,928**	$ 8,745
Taxation received		**1**	23
Taxation paid		**(406)**	(428)
Net cash from operating activities		**3,523**	8,340
Cash flows from investing activities			
Capital expenditure for fixed assets		**(109)**	(135)
Net cash used in investing activities		**(109)**	(135)
Cash flows from financing activities			
Receipts from issuing Additional Tier 1 notes	22	**5,800**	–
Interim dividends paid	23	**(3,000)**	–
Repayment of long-term subordinated loans		**(3,581)**	–
Interest paid on Additional Tier 1 notes	22	**(201)**	–
Interest paid on long-term subordinated loans		**(587)**	(305)
Net cash used in financing activities		**(1,569)**	(305)
Net increase in cash and cash equivalents		**1,845**	7,900
Cash and cash equivalents, beginning balance		**16,881**	9,970
Foreign exchange gains/(losses) on cash and cash equivalents		**1,928**	(989)
Cash and cash equivalents, ending balance	24	**$20,654**	$16,881

The accompanying notes are an integral part of these financial statements.

Note 1.

General Information

The company is a private unlimited company and is incorporated and domiciled in England and Wales. The address of its registered office is Peterborough Court, 133 Fleet Street, London, EC4A 2BB, United Kingdom.

The company's immediate parent undertaking is Goldman Sachs Group UK Limited (GSG UK), a company incorporated and domiciled in England and Wales. GSG UK together with its consolidated subsidiaries form "GSG UK Group".

The ultimate controlling undertaking and the parent company of the smallest and largest group for which consolidated financial statements are prepared is The Goldman Sachs Group, Inc., a company incorporated in the United States of America. Copies of its consolidated financial statements, as well as certain regulatory filings, for example Quarterly Reports on Form 10-Q and the Annual Report on Form 10-K, that provide further information about GS Group and its business activities, can be obtained from Investor Relations, 200 West Street, New York, NY 10282, United States of America, GS Group's principal place of business, or at www.goldmansachs.com/shareholders/.

Basel III Pillar 3 Disclosures

The company is included in the consolidated Pillar 3 disclosures of GSG UK, as required by the CRR. GSG UK's 2017 Pillar 3 disclosures will be made available in conjunction with the publication of its consolidated financial information at www.goldmansachs.com/disclosures/.

Country-by-Country Reporting

The company is included in the consolidated country-by-country reporting disclosures of GSG UK, as required by the Capital Requirements (Country-by-Country Reporting) Regulations 2013. GSG UK's 2017 country-by-country disclosures will be made available by December 31, 2018 at www.goldmansachs.com/disclosures/.

Note 2.

Summary of Significant Accounting Policies

Basis of Preparation

The company prepares financial statements under U.K. GAAP. These financial statements have been prepared in accordance with FRS 101 'Reduced Disclosure Framework' (FRS 101).

These financial statements have been prepared on the going concern basis, under the historical cost convention (modified as explained in "Pension Arrangements" and "Financial Assets and Financial Liabilities" below), and in accordance with the Companies Act 2006.

The following exemptions from the disclosure requirements of International Financial Reporting Standards (IFRS) as adopted by the E.U. have been applied in the preparation of these financial statements in accordance with FRS 101:

- IFRS 2 'Share-based Payment' paragraph 45(b) and 46 to 52. These disclosures are provided in the consolidated financial statements of Group Inc.
- IAS 1 'Presentation of Financial Statements' paragraph 38 to present comparative information in respect of:
  - IAS 1 'Presentation of Financial Statements' paragraph 79(a)(iv); and
  - IAS 16 'Property, Plant and Equipment' paragraph 73(e).
- IAS 1 'Presentation of Financial Statements' paragraphs 10(f), 16, and 40A-D;
- IAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors' paragraphs 30 and 31;
- IAS 24 'Related Party Disclosures' paragraph 17; and
- IAS 24 'Related Party Disclosures' requirements to disclose transactions with companies also wholly owned within GS Group.

Consolidation

The company has elected not to prepare consolidated financial statements as permitted by section 402 of the Companies Act 2006 as its subsidiaries are not material for the purpose of giving a true and fair view.

These financial statements are individual financial statements.

Accounting Policies

Revenue Recognition. Net revenues have been disclosed instead of turnover as this reflects more meaningfully the nature and results of the company's activities. Net revenues includes the net profit arising from transactions, with both third parties and affiliates, in securities, foreign exchange and other financial instruments, and fees and commissions. This is inclusive of associated interest and dividends.

Financial Assets and Financial Liabilities Measured at Fair Value Through Profit or Loss

Financial assets and financial liabilities held for trading or designated at fair value through profit or loss are recognised at fair value with realised and unrealised gains and losses as well as associated interest and dividend income and expenses included in net revenues. Financial assets are marked to bid prices and financial liabilities are marked to offer prices. Fair value measurements do not include transaction costs. The company measures certain financial assets and financial liabilities as a portfolio (i.e. based on its net exposure to market and/or credit risks).

Non-derivative financial instruments owned and financial instruments sold, but not yet purchased (i.e., cash instruments) are recognised using settlement date accounting. See "Financial Assets and Financial Liabilities — Recognition and Derecognition" below for further details. Unrealised gains and losses related to the change in fair value of these instruments between trade date and settlement date are recognised within net revenues.

Investment Banking

Fees from financial advisory engagements and underwriting revenues are recognised in profit and loss when the relevant parties are contractually bound and as contract activity progresses unless the right to consideration does not arise until the occurrence of a critical event, in which case revenue is not recognised until that event has occurred.

Expenses associated with such engagements are deferred until the related revenue is recognised or the engagement is otherwise concluded. Expenses associated with financial advisory engagements are recognised in administrative expenses, net of client reimbursements. Underwriting revenues are presented net of related expenses.

Investment Management

Management fees are recognised on an accrual basis and are generally calculated as a percentage of a fund or a separately managed account's average net asset value. All management fees are recognised over the period that the related service is provided.

Incentive fees are calculated as a percentage of a fund's return or a percentage of a fund's excess return above a specified benchmark or other performance target. Incentive fees are recognised only when all material contingencies have been resolved.

Commissions and Fees

Revenue from commissions and fees from executing and clearing client transactions on stock, options and futures markets, as well as OTC transactions is recognised in net revenues on the day the trade is executed.

Operating Leases. The company has entered into operating lease arrangements as the lessee. Leased assets are not recognised in the balance sheet. Costs in respect of operating leases, adjusted for any incentives granted by the lessor, are charged on a straight-line basis over the lease term and included within administrative expenses in the profit and loss account.

Short-Term Employee Benefits. Short-term employee benefits, such as wages and salaries, are measured on an undiscounted basis and accrued as an expense over the period in which the employee renders the service to the company. Provision is made for discretionary year-end compensation whether to be paid in cash or share-based awards where, as a result of company policy and past practice, a constructive obligation exists at the balance sheet date.

Share-Based Payments. Group Inc. issues awards in the form of restricted stock units (RSUs) and stock options to the company's employees in exchange for employee services. Awards are classified as equity settled and hence the cost of share-based transactions with employees is measured based on the grant-date fair value of the award. Share-based awards that do not require future service (i.e., vested awards, including awards granted to retirement eligible employees) are expensed immediately. Share-based awards that require future service are amortised over the relevant service period. Expected forfeitures are included in determining share-based employee compensation expense.

Group Inc. generally issues new shares of common stock upon delivery of share-based awards. Cash dividend equivalents, unless prohibited by regulation, are generally paid on outstanding RSUs. The company has also entered into a chargeback agreement with Group Inc. under which it is committed to pay the grant-date fair value as well as subsequent movements in the fair value of those awards to Group Inc. at the time of delivery to its employees. As a result, the share-based payment transaction and chargeback agreement creates a total charge to the profit and loss account based on the grant-date fair value of the awards adjusted for subsequent movements in the fair value of those awards prior to delivery.

Dividends. Final equity dividends are recognised as a liability and deducted from equity in the period in which the dividends are approved by the company's shareholder. Interim equity dividends are recognised and deducted from equity when paid.

Pension Arrangements. The company is a sponsor of a defined contribution pension plan, and a hybrid pension plan for the benefit of certain employees. The hybrid pension plan has both a defined benefit section (the Plan) and a defined contribution section. These are accounted for as follows:

- For the defined contribution pension plan and the defined contribution section of the hybrid pension plan, the contributions payable for the year are charged to operating profit. Differences between contributions payable for the year and contributions actually paid are shown as either accruals or prepayments in the balance sheet.
- For the Plan, the amounts charged to operating profit are the current service costs, any past service costs, administration costs and any gains or losses on settlements and curtailments. These amounts are included in staff costs. The net interest is included in net finance income. Actuarial gains and losses are recognised immediately in other comprehensive income. Plan assets are measured at fair value and Plan liabilities are measured on an actuarial basis using the projected unit credit method and discounted at a rate equivalent to the current rate of return on a high-quality corporate bond of equivalent currency and term to the Plan liabilities. Full actuarial valuations are obtained at least triennially and updated at each balance sheet date. Any surplus or deficit of Plan assets over Plan liabilities is recognised in the balance sheet as an asset (surplus) or liability (deficit).

Fixed Assets.

Tangible Fixed Assets

Tangible fixed assets are stated at cost less accumulated depreciation and provision for impairment. Fixtures, fittings and equipment are depreciated on a straight-line basis over their estimated useful lives, which is between 3 to 7 years. Depreciation is included in administrative expenses.

Leasehold improvements are depreciated over the shorter of the useful economic life of the asset or the remaining life of the lease when the asset is brought into use. Depreciation policies are reviewed on an annual basis.

Intangible Fixed Assets

Intangible fixed assets are stated at cost less accumulated amortisation and provision for impairment. Subject to the recognition criteria in IAS 38 'Intangible Assets' being met, costs incurred during the year that are directly attributable to the development or improvement of new business application software are capitalised as assets in the course of construction. Assets in the course of construction are transferred to computer software once completed and ready for their intended use.

Computer software is amortised on a straight-line basis over its estimated useful life, which is three years. No amortisation is charged on assets in the course of construction. Amortisation is included in administrative expenses and the amortisation policies are reviewed on an annual basis.

Intangible fixed assets are tested for impairment whenever events or changes in circumstances suggest that an asset's or asset group's carrying value may not be fully recoverable.

Fixed Asset Investments

Fixed asset investments are stated at cost or amortised cost, as applicable, less provision for impairment. Amortisation is included in administrative expenses.

Cash at Bank and In Hand. This includes cash at bank and in hand and highly liquid overnight deposits held in the ordinary course of business.

Foreign Currencies. The company's financial statements are presented in U.S. dollars, which is also the company's functional currency.

Transactions denominated in foreign currencies are translated into U.S. dollars at rates of exchange ruling on the date the transaction occurred. Monetary assets and liabilities, and non-monetary assets and liabilities measured at fair value, denominated in foreign currencies are translated into U.S. dollars at rates of exchange ruling at the balance sheet date. Foreign exchange gains and losses are recognised in operating profit.

Financial Assets and Financial Liabilities.

Recognition and Derecognition

Non-derivative financial instruments owned and financial instruments sold, but not yet purchased (i.e., cash instruments) purchased or sold in regular way transactions are recognised and derecognised using settlement date accounting.

Other financial assets and financial liabilities are recognised when the company becomes party to the contractual provisions of the instrument. They are de-recognised when the contractual rights to the cash flows from the financial asset expire or if the company transfers the financial asset and substantially all the risk and rewards of ownership of that financial asset. A financial liability is derecognised only when it is extinguished (i.e., when the obligation specified in the contract is discharged or cancelled or expires).

Classification and Measurement

The company classifies its financial assets and financial liabilities into the below categories. The classification, which is determined at initial recognition, depends on the purpose for which they were acquired or originated.

- **Financial assets and financial liabilities classified as held for trading.** Financial assets and financial liabilities classified as held for trading include financial instruments owned and financial instruments sold, but not yet purchased. Financial instruments owned and financial instruments sold, but not yet purchased include cash instruments and derivative instruments. Both are initially recognised at fair value with transaction costs expensed in profit or loss. Such financial instruments are carried in the balance sheet at fair value and all subsequent gains or losses are recognised in net revenues.

  The directors are of the opinion that it would not be appropriate to classify them as current asset investments or to provide an analysis of such securities between those listed and unlisted.

- **Financial assets and financial liabilities designated at fair value through profit or loss.** The company designates certain of its other financial assets and financial liabilities at fair value through profit or loss. Financial assets and financial liabilities designated at fair value through profit or loss are initially recognised at fair value with transaction costs expensed in profit or loss. Such financial assets are measured in the balance sheet at fair value and all subsequent gains or losses are recognised in net revenues. Such financial liabilities are measured in the balance sheet at fair value, with changes in fair value attributable to own credit spreads (debt valuation adjustment or DVA) being recognised in other comprehensive income, if it does not create or enlarge an accounting mismatch, and the remaining changes in the fair value being recognised in net revenues. The primary reasons for designating such financial assets and financial liabilities at fair value through profit or loss are:

  - The group of financial assets, financial liabilities or both is managed and its performance evaluated on a fair value basis; and
  - To eliminate or significantly reduce a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognising the gains and losses on them on different bases.

  Financial assets and financial liabilities designated at fair value through profit or loss include:

  - Resale agreements and repurchase agreements;
  - Securities borrowed and loaned within FICC Client Execution;
  - Secured debt securities issued and other borrowings, which consist of hybrid financial instruments and transfers of assets accounted for as financings rather than sales;
  - Certain unsecured debt securities issued and other borrowings, which consist of hybrid financial instruments;
  - Certain other creditors, which consist of certain intercompany loans and prepaid commodity contracts; and
  - Certain debtors, which consist of transfers of assets accounted for as secured loans rather than purchases and prepaid commodity contracts.

  Hybrid financial instruments are instruments that contain bifurcatable embedded derivatives. If the company elects to bifurcate the embedded derivative from the associated debt, the derivative is accounted for at fair value and the host contract is accounted for at amortised cost, adjusted for the effective portion of any fair value hedges. If the company does not elect to bifurcate, the entire hybrid financial instrument is designated at fair value through profit or loss.

  These financial assets and financial liabilities designated at fair value are generally valued based on discounted cash flow techniques, which incorporate inputs with reasonable levels of price transparency, and are generally classified in level 2 because the inputs are observable. Valuation adjustments may be made for liquidity and for counterparty and GS Group's credit quality.

- **Loans and receivables; and financial liabilities measured at amortised cost.** Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They include certain collateralised agreements, substantially all debtors and cash at bank and in hand. Such financial assets are initially recognised at fair value plus transaction costs and subsequently measured at amortised cost using the effective interest method (see below). Finance revenue is recorded in net revenues.

  Financial liabilities measured at amortised cost include certain collateralised financings and the majority of other creditors. Such financial liabilities are initially recognised at fair value plus transactions costs and subsequently measured at amortised cost using the effective interest method (see below). Finance costs, including discounts allowed on issue, are recorded in net revenues with the exception of interest on long-term subordinated loans, which is recorded in interest payable and similar expenses.

The effective interest method is a method of calculating the amortised cost of a financial asset or a financial liability (or a group of financial assets or financial liabilities) and of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the company estimates cash flows considering all contractual terms of the financial asset or financial liability but does not consider future credit losses. The calculation includes all fees and points paid or received that are an integral part of the effective interest rate, transaction costs, and all other premiums or discounts.

The company assesses its loans and receivables at each balance sheet date for any objective evidence of impairment. If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the financial asset's carrying amount and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate. The amount of the loss is included within net revenues, if trading related, or in administrative expenses if non-trading related.

Classification of Financial Liabilities and Equity

Financial liabilities and equity instruments are classified according to the substance of the contractual arrangements. A financial liability is any liability that is a contractual obligation to deliver cash or another financial asset to another entity; or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the entity. An equity investment is any contract that evidences a residual interest in the assets of the entity after deducting all liabilities. Instruments are evaluated to determine if they contain both liability and equity components. The initial carrying amount of a compound financial instrument is allocated first to the liability component, measured at fair value, and the equity is assigned the residual amount.

Offsetting Financial Assets and Financial Liabilities

Financial assets and financial liabilities are offset and the net amount presented in the balance sheet where there is:

- Currently a legally enforceable right to set-off the recognised amounts; and
- Intent to settle on a net basis or to realise the asset and settle the liability simultaneously.

Where these conditions are not met, financial assets and financial liabilities are presented on a gross basis in the balance sheet.

Fair Value Measurement

See Note 28 for details about the fair value measurement of the company's financial assets and financial liabilities.

Hedge Accounting

The company applies hedge accounting for certain interest rate swaps used to manage the interest rate exposure of certain fixed-rate unsecured long-term and short-term borrowings. To qualify for hedge accounting, the derivative hedge must be highly effective at reducing the risk from the exposure being hedged. Additionally, the company must formally document the hedging relationship at inception and test the hedging relationship to ensure the derivative hedge continues to be highly effective over the life of the hedging relationship.

Collateralised Agreements and Collateralised Financings. Collateralised agreements include resale agreements and securities borrowed. Collateralised financings include repurchase agreements, securities loaned, secured debt securities issued and other borrowings. See "Classification and Measurement" above for details on the classification and measurement of these instruments. Collateral received or posted can be in the form of cash or securities. Cash collateral is recognised/derecognised when received/paid. Collateral posted by the company in the form of securities is not derecognised from the balance sheet, whilst collateral received in the form of securities is not recognised in the balance sheet. If collateral received is subsequently sold, the obligation to return the collateral and the cash received are recognised on balance sheet.

Current and Deferred Taxation. The tax expense for the period consists of current and deferred taxation. Tax is recognised in the profit and loss account, except to the extent it relates to items recognised in other comprehensive income.

Current tax is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the company operates and generates taxable income. Deferred tax is recognised in respect of all temporary differences that have originated, but not reversed at the balance sheet date, where transactions or events have occurred at that date that will result in an obligation to pay more tax or a right to pay less tax in the future with the following exceptions:

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

Deferred tax is recognised in the profit and loss account or directly in other comprehensive income according to where the associated gain or loss, to which the deferred tax is attributable, is recognised.

Provisions, Contingent Liabilities and Contingent Assets. Provisions are recognised in the financial statements when it is probable that an outflow of economic benefits will be required to settle a present (legal or constructive) obligation, which has arisen as a result of past events, and for which a reliable estimate can be made of the amount of the obligation. Legal obligations that may arise as a result of proposed new laws are recognised as obligations only when the legislation is virtually certain to be enacted as drafted.

A contingent liability is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the company or a present obligation that arises from past events but is not recognised because either an outflow of economic benefits is not probable or the amount of the obligation cannot be reliably measured.

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the company.

Contingent liabilities and contingent assets are not recognised in the financial statements. However, disclosure is made unless the probability of settlement is remote.

New Accounting Standards.

IFRS 9 'Financial Instruments'

In July 2014, the International Accounting Standards Board (IASB) issued IFRS 9 'Financial Instruments' (IFRS 9), which replaces IAS 39 'Financial Instruments: Recognition and Measurement' (IAS 39) for annual periods beginning on or after January 1, 2018. In November 2016, the E.U. endorsed IFRS 9.

Key changes as a result of the new standard include:

Classification and Measurement. IFRS 9 introduces a principles-based approach to the classification of financial assets, resulting in the following categories: fair value through profit or loss; fair value through other comprehensive income; and amortised cost.

IFRS 9 requires debt assets to be classified based on a combination of the company's business models and the nature of the assets' cash flows. Whilst the company expects to reclassify certain financial assets from fair value through profit or loss to amortised cost and vice-versa, it does not expect there to be a significant change in the carrying value of these financial assets on the date of adoption.

Accounting for financial liabilities remains largely unchanged from IAS 39, except for the requirements related to changes in the fair value of financial liabilities attributable to own credit spreads (debt valuation adjustment or DVA). The company early adopted the DVA requirements, effective from January 2016.

Impairment. IFRS 9 changes the impairment methodology for applicable financial assets, replacing the incurred loss model of IAS 39 with a forward-looking expected credit loss (ECL) approach.

The company is required to assess expected losses based on the probability of default in the next twelve months, unless there has been a significant increase in credit risk since origination, in which case, the expected loss is based on the probability of default over the life of the asset.

The company has developed and tested an impairment model that complies with the key requirements of IFRS 9. The expected credit losses generated from the model as of December 2017 are negligible, consistent with the incurred losses currently recorded under IAS 39.

Hedge Accounting. IFRS 9 allows entities to continue with the hedge accounting requirements under IAS 39 even when other elements of IFRS 9 became mandatory on January 1, 2018. Based on the company's analysis, the impact from adopting hedge accounting under IFRS 9 would be insignificant and it has decided to continue to apply hedge accounting under IAS 39.

IFRS 15 ‘Revenue from Contracts with Customers’

In May 2014, the IASB issued IFRS 15 ‘Revenue from Contracts with Customers’. This standard, as amended, provides comprehensive guidance on the recognition of revenue from customers arising from the transfer of goods and services, guidance on accounting for certain contract costs, and new disclosures.

The standard became effective for the company in January 2018, and was implemented under the cumulative effect transition approach. As a result of adopting this standard, the company will delay recognition of non-refundable and milestone payments on financial advisory assignments until the assignments are completed. The implementation of this standard did not have a significant impact on the company’s balance sheet, statements of comprehensive income or its statements of cash flows on the date of adoption.

The company will also prospectively change the presentation of certain costs from a net presentation within net revenues to a gross basis. Whilst this presentational change will not change the company’s operating profit, it is expected to increase the company’s net revenues and administrative expenses, in comparison to the company’s current presentation.

Note 3.

Presentation Changes

The company has changed the presentation of its borrowings as follows:

- Certain borrowings have been reclassified from creditors: amounts falling due within one year to creditors: amounts falling due after more than one year, based on their contractual maturity in accordance with the provisions of Schedule 10 of SI 2008/410; and
- Secured borrowings previously included within other creditors have been reclassified to collateralised financings, which better reflects the inherent nature of the balances.

As a result, the following balances as of December 2016 have been reclassified in order to align to the current period presentation:

- Other creditors falling due within one year decreased by $6.44 billion;
- Collateralised financings falling due within one year increased by $2.74 billion;
- Collateralised financings falling due after more than one year increased by $1.57 billion; and
- Other creditors falling due after more than one year increased by $2.13 billion.

In addition, as of December 2016, $9.00 billion of borrowings, representing funded derivative products and transfers of assets accounted for as financings rather than sales, have been reclassified from debt securities issued to other borrowings in order to align to the current period presentation.

Comparatives in Notes 18, 19, 25, 28 and 29 have been updated to conform to the current period presentation.

Note 4.

Critical Accounting Estimates and Judgements

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the amounts recognised in these financial statements. The nature of estimation means that actual outcomes could differ from those estimates. The following judgements have had the most significant effect on amounts recognised in the financial statements:

Fair Value Measurement

Certain of the company’s financial assets and financial liabilities include significant unobservable inputs (i.e., level 3). See Note 28 for information about the carrying value, valuation techniques and significant inputs of these instruments.

Litigation and Regulatory Proceedings

The company estimates and provides for potential losses that may arise out of litigation and regulatory proceedings to the extent that such losses are probable and can be reasonably estimated. Significant judgement is required in making these estimates and the company’s final liabilities may ultimately be materially different. See Notes 20 and 26 for further information about the company’s provisions for liabilities and legal proceedings that the company is involved in, respectively.

Defined Benefit Pension

The cost of the Plan and the value of the Plan liabilities are determined using actuarial valuations. This involves making assumptions about discount rates, future salary increases, mortality rates and future pension increases. Due to the complexity of the valuation, such estimates are subject to significant uncertainty. See Note 10 for further information about the company’s Plan.

Note 5.

Segment Reporting

The company reports its activities in the following four business segments: Investment Banking; Institutional Client Services; Investing & Lending; and Investment Management. See "Results of Operations — Segment Reporting" in Part I of this annual report for a description of the company's segments.

Basis of Preparation

In reporting segments, certain of the company's business lines have been aggregated where they have similar economic characteristics and are similar in each of the following areas: (i) the nature of the services they provide; (ii) their methods of distribution; (iii) the types of clients they serve; and (iv) the regulatory environments in which they operate.

The cost drivers of the company taken as a whole, compensation, headcount and levels of business activity, are broadly similar in each of the company's business segments. Direct costs of employment in the company's segments reflect, among other factors, the overall performance of the company as well as the performance of individual businesses. Consequently, operating profit margins in one segment of the company's business may be significantly affected by the performance of the company's other business segments.

The company allocates assets (including allocations of GCLA and cash, secured client financing and other assets), revenues and expenses among the four business segments. Due to the integrated nature of these segments, estimates and judgements are made in allocating certain assets, revenues and expenses. The allocation process is based on the manner in which management currently views the performance of the segments. Transactions between segments are based on specific criteria or approximate third-party rates. Total administrative expenses includes charitable contributions and mark-to-market of share-based compensation that have not been allocated to individual business segments.

In addition to transactions entered into with third parties, the company also enters into transactions with affiliates in the normal course of business as part of market-making activities and general operations. Revenues are allocated to, and received from, such affiliates for these transactions.

Management believes that the information below provides a reasonable representation of each segment's contribution to net revenues, operating profit and total assets. Operating profit has only been presented for the company's significant segments, which are Investment Banking and Institutional Client Services.

The segment information presented in "Segment Net Revenues" and "Segment Operating Profit" below is prepared according to the following methodologies:

- Revenue and expenses directly associated with each segment are included in determining operating profit.
- Net revenues in the company's segments include allocations of interest income and interest expense to specific securities and other positions in relation to the cash generated by, or funding requirements of, such underlying positions with the exception of interest on long-term subordinated loans, which is presented in interest payable and similar expenses (see Note 9). Net interest is included in segment net revenues as it is consistent with the way in which management assesses segment performance.
- Overhead expenses not directly allocable to specific segments are allocated ratably based on direct segment expenses.

Segment Net Revenues

The table below presents the net revenues of the company's segments.

	Year Ended December	
$ in millions	**2017**	2016
Investment Banking		
Financial Advisory	**$ 514**	$ 563
Underwriting	**662**	575
Total Investment Banking	**$1,176**	$1,138
Institutional Client Services		
FICC Client Execution	**$2,117**	$2,523
Equities	**2,365**	2,066
Total Institutional Client Services	**$4,482**	$4,589
Investing & Lending	**$ 318**	$ 500
Investment Management	**$ 532**	$ 322
Total net revenues	**$6,508**	$6,549

Substantially all interest income and interest expense recognised within net revenues is attributable to Institutional Client Services.

See Note 28 for further information about the items of income, expense, gains or losses related to the company's financial assets and financial liabilities that are presented within net revenues.

Segment Operating Profit

The table below presents the operating profit of the company's significant segments.

	Year Ended December	
$ in millions	**2017**	2016
Investment Banking		
Net revenues	**$ 1,176**	$ 1,138
Administrative expenses	**(748)**	(712)
Operating profit	**$ 428**	$ 426
Institutional Client Services		
Net revenues	**$ 4,482**	$ 4,589
Administrative expenses	**(2,627)**	(2,502)
Operating profit	**$ 1,855**	$ 2,087
Total net revenues	**$ 6,508**	$ 6,549
Total administrative expenses	**(4,119)**	(4,269)
Total operating profit	**$ 2,389**	$ 2,280

In the table above:

- Total net revenues included net revenues of $850 million and $822 million for 2017 and 2016, respectively, related to Investing & Lending and Investment Management.
- Total administrative expenses included administrative expenses of $575 million and $542 million for 2017 and 2016, respectively, related to Investing & Lending and Investment Management segments, and certain overhead expenses that have not been allocated to the company's segments of $169 million and $513 million for 2017 and 2016, respectively, representing mark-to-market of share-based compensation and charitable contributions.

Segment Assets

Substantially all of the company's assets are attributable to Institutional Client Services.

Geographic Information

Due to the highly integrated nature of international financial markets, the company manages its businesses based on the profitability of the enterprise as a whole. The methodology for allocating profitability to geographic regions is dependent on estimates and management judgement.

Geographic results are generally allocated as follows:

- Investment Banking: location of the client, investment banking team and underlying risk.
- Institutional Client Services: location of the market-making desk and the primary market for the underlying security.
- Investing & Lending: location of the investing and lending team.
- Investment Management: location of the investment management team.

The table below presents the total net revenues of the company by geographic region allocated based on the methodology referred to above.

	Year Ended December	
$ in millions	**2017**	2016
Net revenues		
EMEA	**$4,897**	$5,013
Americas	**1,185**	920
Asia	**426**	616
Total net revenues	**$6,508**	$6,549

Note 6.

Administrative Expenses

The table below presents the company's administrative expenses.

	Year Ended December	
$ in millions	**2017**	2016
Direct costs of employment	**$2,452**	$2,974
Brokerage, clearing, exchange and distribution fees	**617**	568
Market development	**80**	61
Communications and technology	**97**	85
Depreciation and amortisation	**39**	7
Occupancy	**156**	161
Professional fees	**136**	110
Management charges from/to group undertakings	**245**	38
Other expenses	**297**	265
Total non-compensation expenses	**1,667**	1,295
Total administrative expenses	**$4,119**	$4,269

In the table above:

- Occupancy expenses included net operating lease rentals for land and buildings of $72 million and $80 million for 2017 and 2016, respectively.
- Management charges from/to group undertakings includes service charges relating to operational and administrative support, and management services received from and provided to group undertakings. This included a charge of $636 million and a credit of $391 million for 2017, and a charge of $420 million and a credit of $382 million for 2016.
- Other expenses include miscellaneous taxes and charitable contributions.

The table below presents the fees payable to the company's auditors, which are included within professional fees.

	Year Ended December	
$ in millions	**2017**	2016
Fees for the company's audit	**$4.1**	$4.7
Audit related assurance services	**2.0**	1.0
Other assurance services	**0.1**	0.1
Taxation compliance services	**0.2**	1.4
Other non-audit services	**0.1**	0.9
Total fees for non-audit services	**2.4**	3.4
Total	**$6.5**	$8.1

Note 7.

Directors' Emoluments

The table below presents the company's directors' emoluments.

$ in millions	Year Ended December 2017	2016
Aggregate emoluments	**$6**	$7
Company pension contributions to money purchase schemes	**–**	–
Total directors' emoluments	**$6**	$7

The table below presents emoluments for the highest paid director.

$ in millions	Year Ended December 2017	2016
Aggregate emoluments	**$3**	$3
Company pension contributions to money purchase schemes	**–**	–
Accrued annual pension at end of year	**–**	–

In accordance with the Companies Act 2006, directors' emoluments above represent the proportion of total emoluments paid or payable in respect of qualifying services only. This total only includes the value of cash and benefits in kind, and does not include the value of equity awards in accordance with the provisions of Schedule 5 of SI 2008/410. Directors also receive emoluments for non-qualifying services which are not required to be disclosed.

Three directors were members of a defined contribution scheme. Three directors, including the highest paid director, have received or are due to receive Group Inc. shares in respect of long-term incentive schemes during the year. One director, who was the highest paid director, has exercised stock options during the year.

The aggregate emoluments of the six non-executive directors who were members of the board of directors for all or part of the year ended December 2017 was approximately $1.7 million. Certain non-executive directors received or will receive additional ongoing fees in respect of advisory services provided during the year, the aggregate amount of which is approximately $2.6 million.

Note 8.

Staff Costs

The table below presents the company's average monthly number of staff (employees including directors, consultants and temporary staff).

Number	Average for the Year Ended December 2017	2016
Employees including directors		
Investment Banking	**714**	739
Institutional Client Services	**1,449**	1,383
Investing & Lending	**149**	169
Investment Management	**563**	624
Support Functions	**1,451**	2,801
Sub-total	**4,326**	5,716
Consultants and temporary staff	**362**	409
Total average number of staff	**4,688**	6,125

The company has the use of the services of a number of individuals who are employed by affiliated entities and seconded to the company, and who are included in the disclosure of headcount and related staff costs.

The decrease in the average number of support functions staff was mainly due to the company transferring approximately 1,700 employees, who were previously employed by or seconded to the company, to an affiliated group undertaking in the U.K. These employees continue to serve the company in the same manner as prior to the transfer. In addition, as a result of this change, the company now incurs a service charge which is reported in "Management charges from/to group undertakings" in Note 6.

Total headcount was 4,467 and 5,903 as of December 2017 and December 2016, respectively.

The table below presents employment costs incurred by the company, including those relating to directors.

$ in millions	Year Ended December 2017	2016
Aggregate gross wages and salaries	**$2,106**	$2,567
Employer's National Insurance Contributions	**278**	329
Pension costs, employer contributions to:		
Defined contribution plan and defined contribution section of the hybrid pension plan	**67**	69
Defined benefit section of the hybrid pension plan	**1**	9
Total direct costs of employment	**$2,452**	$2,974

In the table above:

- Total direct costs of employment included a charge of $144 million for 2017 and a charge of $488 million for 2016, relating to the mark-to-market of share-based compensation.
- Total direct costs of employment also include costs related to consultants and temporary staff.

Note 9.

Interest Payable and Similar Expenses

Interest payable and similar expenses consists of interest on long-term subordinated loans from parent and group undertakings of $301 million and $346 million for 2017 and 2016, respectively. See Note 19 for further details.

Note 10.

Pension Arrangements

The company sponsors a pension plan with a hybrid structure, having both a defined benefit section (the Plan) and a defined contribution section. The Plan provides retirement benefits on the basis of members' final salary, with a normal retirement age of 65 for most members. The Plan is funded, with the assets of the scheme held separately from those of the company, in separate trustee-administered funds.

The Plan was closed to new entrants with effect from April 1, 2008, and was replaced by a defined contribution plan. As of March 31, 2016, the Plan was closed to future benefit accruals for existing participants.

The Plan operates under trust law and is managed and administrated by the Goldman Sachs UK Retirement Plan Trustee Limited (the Trustee) on behalf of the members in accordance with the terms of the Trust Deed and Rules and relevant legislation. The Plan's assets are held by the trust.

A full actuarial valuation of the Plan was carried out by a qualified independent actuary as of July 31, 2017 using the projected unit credit method and updated to December 31, 2017. As of December 2017, the Plan liabilities consist of 97% in respect of future beneficiaries and 3% in respect of current beneficiaries.

Risks of the Plan

The main risks of the Plan are:

- **Funding Shortfall.** Additional contributions will be required if the investment returns are not sufficient to pay for benefits. The level of equity returns will be a key determinant of overall investment return; the investment portfolio is also subject to a range of other risks typical of the asset classes held, in particular interest rate risk and inflation risk on bonds.
- **Asset Volatility.** A consequence of the Plan's investment strategy, with a significant proportion of the assets invested in equities and other return-seeking assets is that the difference between Plan assets and Plan liabilities may be volatile.
- **Plan Liabilities Sensitivity.** Plan liabilities are sensitive to the assumptions made about future inflation and life expectancy. It is also sensitive to the discount rate, which depends on market yields on sterling-denominated high-quality corporate bonds.

Financial Assumptions

The table below presents the significant financial assumptions used to determine the present value of the defined benefit obligation.

	Year Ended December	
% per annum	**2017**	2016
Discount rate	**2.40**	2.55
Rate of increase in salaries	**4.00**	4.00
Rate of price inflation – RPI	**3.35**	3.45
Rate of price inflation – CPI	**2.35**	2.45
Rate of increase in pensions in payments (post-November 30, 1996 accrual)	**3.15**	3.25
Rate of increase in pensions in deferment (post-November 30, 1996 accrual)	**2.35**	2.45
Rate of increase in pensions in deferment (post-April 5, 2009 accrual)	**2.35**	2.45

Mortality Assumptions

The table below presents the mortality assumptions used to determine the present value of the defined benefit obligation. The mortality assumptions adopted for 2017 were the "S1 series all pensioner light" base table with allowance for future improvements from 2002 onwards in line with the CMI 2016 core projections with a long-term rate of improvement of 1.25% per annum.

	Year Ended December	
Years	**2017**	2016
Life expectancy at 65 for a member currently 65		
Males	**23.6**	24.0
Females	**24.7**	25.4
Life expectancy at 65 for a member currently 45		
Males	**25.0**	25.4
Females	**26.2**	26.9

Defined Benefit Cost

The table below presents the defined benefit cost/(gain) related to the Plan recognised in the company's profit and loss account and in other comprehensive income.

	Year Ended December	
$ in millions	**2017**	2016
Profit and loss account		
Current service cost	**$ –**	$ 9
Administration costs	**1**	–
Net finance income	**(3)**	(9)
Total credited to the profit and loss account	**(2)**	–
Other comprehensive income		
Return on Plan assets greater than discount rate	**(184)**	(611)
Actuarial loss/(gain) – liability experience	**5**	(16)
Actuarial loss – financial assumptions	**48**	816
Actuarial gain – demographic assumptions	**(67)**	–
Total loss/(gain) recognised in other comprehensive income	**(198)**	189
Total defined benefit cost/(gain)	**$(200)**	$ 189

Reconciliation of Pension Surplus

The table below presents a reconciliation of Plan assets, Plan liabilities and the net pension surplus.

$ in millions	Plan Assets	Plan Liabilities	Net Pension Surplus
Year Ended December 2017			
As of January 1	**$2,159**	**$(2,106)**	**$ 53**
Current service cost	**–**	**–**	**–**
Administration cost	**–**	**(1)**	**(1)**
Net finance income	**59**	**(56)**	**3**
Return on Plan assets greater than discount rate	**184**	**–**	**184**
Actuarial gain/(loss) – liability experience	**–**	**(5)**	**(5)**
Actuarial loss – financial assumptions	**–**	**(48)**	**(48)**
Actuarial gain – demographic assumptions	**–**	**67**	**67**
Employer contributions	**50**	**–**	**50**
Benefits paid	**(12)**	**12**	**–**
Foreign exchange gain/(loss)	**223**	**(205)**	**18**
As of December 31	**$2,663**	**$(2,342)**	**$ 321**
Year Ended December 2016			
As of January 1	$1,837	$(1,576)	$ 261
Current service cost	–	(9)	(9)
Administration cost	–	–	–
Net finance income	64	(55)	9
Return on Plan assets greater than discount rate	611	–	611
Actuarial gain/(loss) – liability experience	–	16	16
Actuarial loss – financial assumptions	–	(816)	(816)
Actuarial gain – demographic assumptions	–	–	–
Employer contributions	8	–	8
Benefits paid	(7)	7	–
Foreign exchange gain/(loss)	(354)	327	(27)
As of December 31	$2,159	$(2,106)	$ 53

Fair Value of Plan Assets

The Plan Trustees have a long-term asset allocation strategy to invest 50% of assets in return seeking investments (such as equities) and 50% in liability matching assets (such as Gilts). The Plan has a hedging programme investing in swaps and other derivatives in order to reduce the exposure to changes in interest rates and inflation. The table below presents the fair value of Plan assets.

$ in millions	Quoted	Unquoted	Total
As of December 2017			
Equities	**$1,042**	**$ –**	**$1,042**
Gilts	**638**	**–**	**638**
Swaps	**–**	**615**	**615**
Cash and cash equivalents	**133**	**–**	**133**
Other	**172**	**63**	**235**
Total	**$1,985**	**$678**	**$2,663**
As of December 2016			
Equities	$ 740	$ –	$ 740
Gilts	600	–	600
Swaps	–	518	518
Cash and cash equivalents	104	–	104
Other	134	63	197
Total	$1,578	$581	$2,159

Sensitivity Analysis

The table below presents a sensitivity analysis of Plan liabilities for each significant actuarial assumption. The sensitivities are based on a change in each assumption while holding all other assumptions constant.

There are inherent limitations in this analysis, as such idiosyncratic movements are unlikely to occur. The methodology used to calculate the sensitivities are consistent across the two periods presented in the table below.

	Impact to Plan Liabilities			
	Increase in assumption		Decrease in assumption	
	$ in millions	*%*	*$ in millions*	*%*
As of December 2017				
0.25% change in discount rate	**$(192)**	**(8.2)**	**$ 209**	**8.9**
0.25% change in price inflation	**171**	**7.3**	**(172)**	**(7.3)**
1 year change in life expectancy	**104**	**4.4**	**(103)**	**(4.4)**
As of December 2016				
0.25% change in discount rate	$(177)	(8.4)	$ 193	9.2
0.25% change in price inflation	137	6.5	(149)	(7.1)
1 year change in life expectancy	84	4.0	(81)	(3.8)

Nature of Future Cash Flows

Since the Plan's closure to future accruals from March 31, 2016, the company has ceased to make regular contributions into the Plan but will continue to assess the funding requirements of the Plan with the Trustees on a periodic basis.

On a triennial basis, a formal funding valuation of the Plan is performed for the Trustees to assess the funding needs of the Plan. This valuation differs from the actuarial valuation required for accounting purposes due to the use of different assumptions.

The most recent funding valuation was performed by a qualified independent actuary as of December 31, 2015, which indicated that the Plan was in a funding deficit of £66.3 million. As of December 31, 2016, the company agreed with the Trustees to contribute £73.3 million to the Plan, in two instalments. The first instalment of £40.0 million ($50 million) was made in January 2017, and the second instalment of £33.3 million ($45 million) was made in January 2018. Had the second instalment been made prior to December 31, 2017, the net pension surplus recognised on the company's balance sheet would have been $366 million.

The company expects $20 million of benefits to be paid out of the Plan to members in 2018.

The weighted average duration of Plan liabilities was 35 years as of December 2017.

Note 11.

Share-Based Payments

Stock Incentive Plan

Group Inc. sponsors a stock incentive plan, The Goldman Sachs Amended and Restated Stock Incentive Plan (2015) (2015 SIP), which provides for, amongst others, grants of RSUs, restricted stock, dividend equivalent rights and incentive stock options.

The company recorded share-based compensation in respect of the amortisation of granted equity awards, net of forfeitures, of $405 million and $497 million for 2017 and 2016, respectively. The corresponding credit to equity has been transferred to liabilities as a result of the terms of the chargeback agreement with Group Inc. under which the company is committed to pay to Group Inc. the grant-date fair value as well as subsequent movements in the fair value of those awards to Group Inc. at the time of delivery to its employees.

Restricted Stock Units

Group Inc. grants RSUs to the company's employees under the 2015 SIP, which are generally valued based on the closing price of the underlying shares on the date of grant after taking into account a liquidity discount for any applicable post-vesting and delivery transfer restrictions. RSUs generally vest and underlying shares of common stock deliver (net of required withholding tax) as outlined in the applicable award agreements. Employee award agreements generally provide that vesting is accelerated in certain circumstances, such as on retirement, death, disability and conflicted employment. Delivery of the underlying shares of common stock is conditioned on the grantees satisfying certain vesting and other requirements outlined in the award agreements.

Stock Options

Stock options generally vest as outlined in the applicable stock option agreement. In general, options expire on the tenth anniversary of the grant date, although they may be subject to earlier termination or cancellation under certain circumstances in accordance with the terms of the applicable stock option agreement and The Goldman Sachs Amended and Restated Stock Incentive Plan in effect at the time of grant.

The table below presents options outstanding. All outstanding options as of December 2017 were granted in 2008.

Exercise Price	Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Life *(years)*
As of December 2017			
$ 75.00 - $ 89.99	**625,556**	**$ 78.78**	**1.00**
$ 90.00 - $194.99	**–**	**–**	**–**
$195.00 - $209.99	**–**	**–**	**–**
Total outstanding	**625,556**	**$ 78.78**	**1.00**
As of December 2016			
$ 75.00 - $ 89.99	1,109,309	$ 78.78	2.00
$ 90.00 - $194.99	–	–	–
$195.00 - $209.99	436,951	204.16	0.92
Total outstanding	1,546,260	$114.21	1.69

For those options exercised during the year, the weighted average share price at the date of exercise was $239.34 and $194.04 for 2017 and 2016, respectively.

Note 12.

Tax on Profit

The table below presents the company's analysis of tax on profit.

	Year Ended December	
$ in millions	**2017**	2016
Current tax		
U.K. corporation tax	**$267**	$431
Adjustments in respect of prior periods	**(25)**	(4)
Overseas taxation	**147**	103
Total current tax	**389**	530
Deferred tax		
Origination and reversal of temporary differences	**119**	(46)
Effect of decreased U.K. corporate tax rates	**–**	3
Adjustments in respect of prior periods	**26**	–
Total deferred tax	**145**	(43)
Total tax on profit	**$534**	$487

The table below presents a reconciliation between tax on profit and the amount calculated by applying the weighted average rate of U.K. corporation tax applicable to the company for the year of 27.25% (2016: 28.0%) to the profit before taxation.

	Year Ended December	
$ in millions	**2017**	2016
Profit before taxation	**$2,091**	$1,943
Profit multiplied by U.K. corporate tax rate of 27.25% (2016: 28.0%)	**570**	544
Changes in recognition and measurement of deferred tax assets	**8**	9
Permanent differences	**2**	(30)
Tax losses surrendered from group undertakings for nil consideration	**(50)**	(22)
Effect of higher taxes on overseas earnings	**5**	–
Exchange differences and other	**(2)**	(13)
Adjustments in respect of prior periods	**1**	(4)
Effect of decreased U.K. corporate tax rates	**–**	3
Total tax on profit	**$ 534**	$ 487

Note 13.

Fixed Assets

The table below presents the company's fixed assets.

	As of December	
$ in millions	**2017**	2016
Tangible fixed assets	**$ 27**	$ 34
Intangible fixed assets	**182**	105
Fixed asset investments	**1**	1
Total fixed assets	**$210**	$140

Tangible Fixed Assets

The table below presents the movements in tangible fixed assets during the year.

$ in millions	Leasehold improvements	Fixtures, fittings and equipment	Total
Cost			
As of January 1	$52	$10	$62
Additions	**2**	**1**	**3**
Disposals	**–**	**(1)**	**(1)**
As of December 31	**54**	**10**	**64**
Accumulated depreciation			
As of January 1	22	6	28
Charge for the year (see Note 6)	**9**	**1**	**10**
Disposals	**–**	**(1)**	**(1)**
As of December 31	**31**	**6**	**37**
Net book value			
As of December 2017	**$23**	**$ 4**	**$27**
As of December 2016	$30	$ 4	$34

Intangible Fixed Assets

The table below presents the movements in intangible fixed assets during the year.

$ in millions	Computer software	Assets in the course of construction	Total
Cost			
As of January 1	$ 24	$ 84	$108
Additions/Transfers	**90**	**17**	**107**
Disposals	**(1)**	**–**	**(1)**
As of December 31	**113**	**101**	**214**
Accumulated amortisation			
As of January 1	3	–	3
Charge for the year (see Note 6)	**29**	**–**	**29**
As of December 31	**32**	**–**	**32**
Net book value			
As of December 2017	**$ 81**	**$101**	**$182**
As of December 2016	$ 21	$ 84	$105

Fixed Asset Investments

Fixed asset investments include investments other than loans of $1 million as of both December 2017 and December 2016 and shares in subsidiary undertakings of $nil as of both December 2017 and December 2016.

The table below presents the subsidiary over which the company exercised control as of December 2017.

Name of company	Country of incorporation	Holding and proportion of voting rights	Class of shares held	Number held	Nature of business
Goldman Sachs (Cayman) Limited	Cayman Islands	100%	Ordinary shares	250	Financial services

The registered office address of Goldman Sachs (Cayman) Limited is the offices of Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.

The company has interests in a number of special purpose entities and capital guaranteed funds which do not meet the definition of a legal subsidiary, but give rise to the risks and rewards that are, in substance, no different than if they were legal subsidiaries. The activities of these special purpose entities and the capital guaranteed funds consist of the issuance of loan notes under the terms of a repackaging programme. These special purposes entities and capital guaranteed funds are consolidated in the financial statements of Group Inc.

Note 14.

Financial Instruments Owned and Financial Instruments Sold, But Not Yet Purchased

Financial instruments owned and financial instruments sold, but not yet purchased consist of financial instruments and investments within the operating activities of the company. Financial instruments owned includes financial instruments owned pledged as collateral. See Note 28 for further information.

The table below presents the company’s financial instruments owned.

	As of December	
$ in millions	**2017**	2016
Cash instruments		
Money market instruments	**$ 434**	$ 211
Government and agency obligations	**21,095**	18,459
Mortgage and other asset-backed loans and securities	**641**	704
Corporate loans and debt securities and other debt obligations	**15,535**	12,356
Equity securities	**35,944**	31,513
Commodities	**406**	103
Total cash instruments	**74,055**	63,346
Derivative instruments		
Interest rates	**356,901**	371,881
Credit	**30,158**	34,059
Currencies	**108,600**	127,290
Commodities	**11,222**	9,813
Equities	**59,328**	56,556
Total derivative instruments	**566,209**	599,599
Total financial instruments owned	**$640,264**	$662,945

The table below presents the company’s financial instruments sold, but not yet purchased.

	As of December	
$ in millions	**2017**	2016
Cash instruments		
Government and agency obligations	**$ 13,055**	$ 10,099
Corporate loans and debt securities and other debt obligations	**2,406**	2,129
Equity securities	**18,335**	14,701
Commodities	**3**	7
Total cash instruments	**33,799**	26,936
Derivative instruments		
Interest rates	**348,980**	365,628
Credit	**28,106**	31,501
Currencies	**110,955**	126,877
Commodities	**11,218**	9,795
Equities	**56,864**	53,174
Total derivative instruments	**556,123**	586,975
Total financial instruments sold, but not yet purchased	**$589,922**	$613,911

In the tables above, equity securities includes public and private equities, exchange-traded funds and convertible debentures.

Note 15.

Collateralised Agreements

The table below presents the company's collateralised agreements.

	As of December	
$ in millions	**2017**	2016
Resale agreements	**$122,539**	$120,005
Securities borrowed	**82,281**	64,595
Total collateralised agreements	**$204,820**	$184,600

In the table above:

- Total collateralised agreements included amounts due from group undertakings of $119.51 billion and $121.45 billion as of December 2017 and December 2016, respectively.
- Total collateralised agreements included balances due in more than one year of $522 million and $433 million as of December 2017 and December 2016, respectively.

Note 16.

Debtors

The table below presents the company's debtors balances. All debtors are due within one year of the balance sheet date, unless noted below.

	As of December	
$ in millions	**2017**	2016
Amounts due from broker/dealers and customers	**$62,988**	$57,290
Amounts due from parent and group undertakings	**10,386**	11,574
Deferred tax (see Note 17)	**575**	704
Other debtors	**34**	44
Prepayments and accrued income	**69**	84
Total debtors	**$74,052**	$69,696

In the table above:

- Amounts due from broker/dealers and customers included balances due in more than one year relating to prepaid commodity contracts of $44 million and $276 million as of December 2017 and December 2016, respectively.
- Total debtors included financial assets of $73.38 billion and $68.96 billion as of December 2017 and December 2016, respectively, and non-financial assets of $674 million and $736 million as of December 2017 and December 2016, respectively.

Note 17.

Deferred Tax

The table below presents the components of the company's deferred tax asset.

	As of December	
$ in millions	**2017**	2016
Timing differences related to fixed assets	**$ (41)**	$ –
Post-retirement benefits	**(72)**	(13)
Deferred compensation	**577**	672
Debt valuation adjustment	**111**	45
Total deferred tax	**$575**	$704

In the table above, deferred compensation is mainly in respect of share-based compensation.

The table below presents changes in each component of the company's deferred tax asset.

	As of December	
$ in millions	**2017**	2016
Timing differences related to fixed assets		
As of January 1	**$ –**	$ 3
Transfer to the profit and loss account	**(41)**	(3)
As of December 31	**$ (41)**	$ –
Post-retirement benefits		
As of January 1	**$ (13)**	$ (68)
Transfer to the profit and loss account	**(9)**	8
Transfer to other comprehensive income	**(50)**	47
As of December 31	**$ (72)**	$ (13)
Deferred compensation		
As of January 1	**$ 672**	$634
Transfer to the profit and loss account	**(95)**	38
As of December 31	**$ 577**	$672
Debt valuation adjustment		
As of January 1	**$ 45**	$ –
Transfer to other comprehensive income	**66**	45
As of December 31	**$ 111**	$ 45
Total		
As of January 1	**$ 704**	$569
Transfer to the profit and loss account (see Note 12)	**(145)**	43
Transfer to other comprehensive income	**16**	92
As of December 31	**$ 575**	$704

Note 18.

Collateralised Financings

The table below presents the company's collateralised financings.

	As of December	
$ in millions	**2017**	2016
Amounts falling due within one year		
Repurchase agreements	**$ 98,892**	$ 84,581
Securities loaned	**56,038**	53,060
Debt securities issued	**1,253**	1,115
Other borrowings	**1,886**	1,632
Total	**$158,069**	$140,388
Amounts falling due after more than one year		
Repurchase agreements	**$ 11,226**	$ 5,734
Securities loaned	**2,063**	499
Debt securities issued	**405**	159
Other borrowings	**3,684**	1,408
Total	**$ 17,378**	$ 7,800
Total collateralised financings	**$175,447**	$148,188

In the table above:

- Repurchase agreements falling due after more than one year included instruments that are repayable in more than five years of $83 million and $75 million as of December 2017 and December 2016, respectively, which had maturities falling due in 2030.
- Debt securities issued and other borrowings falling due after more than one year included instruments that are repayable in more than five years of $1.30 billion and $427 million as of December 2017 and December 2016, respectively. As of December 2017, these instruments have maturities falling due between 2026 and 2030. Payments on these instruments are typically referenced to underlying financial assets, which are predominately interest rates, equities and credit-related.
- Total collateralised financings included amounts due to group undertakings of $120.36 billion and $99.38 billion as of December 2017 and December 2016, respectively, of which $116.40 billion and $98.34 billion as of December 2017 and December 2016, respectively, are due within one year.
- Debt securities issued and other borrowings are secured by securities which have been pledged as collateral. This pledged collateral is either recognised within "Financial instruments owned" or sourced through collateralised agreements.

Note 19.

Other Creditors

The table below presents the company's other creditors.

	As of December	
$ in millions	**2017**	2016
Amounts falling due within one year		
Unsecured borrowings	**$ 27,544**	$ 25,469
Amounts due to broker/dealers and customers	**57,675**	54,071
Amounts due to parent and group undertaking:		
Other unsecured creditors	**16,210**	22,517
Share-based compensation	**702**	918
Corporation tax payable	**66**	203
Other taxes and social security costs	**301**	231
Other creditors and accruals	**1,086**	1,079
Total	**$103,584**	$104,488
Amounts falling due after more than one year		
Unsecured borrowings	**$ 38,924**	$ 39,126
Amounts due to parent and group undertakings:		
Other unsecured creditors	**44**	276
Share-based compensation	**697**	745
Other creditors	**65**	55
Total	**$ 39,730**	$ 40,202
Total other creditors	**$143,314**	$144,690

In the table above, amounts falling due within one year included financial liabilities of $103.22 billion and $104.05 billion as of December 2017 and December 2016, respectively, and non-financial liabilities of $367 million and $434 million as of December 2017 and December 2016, respectively. All amounts falling due after more than one year are financial liabilities as of both December 2017 and December 2016.

Unsecured Borrowings

The table below presents the company's unsecured borrowings.

	As of December	
$ in millions	**2017**	2016
Intercompany		
Loans	**$20,276**	$18,922
Other borrowings	**779**	1,220
Short-term intercompany unsecured borrowings	**21,055**	20,142
Loans	**14,920**	16,882
Subordinated loans	**5,377**	8,958
Other borrowings	**1,800**	1,746
Long-term intercompany unsecured borrowings	**22,097**	27,586
Total intercompany unsecured borrowings	**$43,152**	$47,728
External		
Bank loans	**$ –**	$ 164
Overdrafts	**73**	7
Debt securities issued	**5,329**	2,533
Other borrowings	**1,087**	2,623
Short-term external unsecured borrowings	**6,489**	5,327
Bank loans	**170**	–
Debt securities issued	**16,411**	11,174
Other borrowings	**246**	366
Long-term external unsecured borrowings	**16,827**	11,540
Total external unsecured borrowings	**$23,316**	$16,867
Total unsecured borrowings	**$66,468**	$64,595

In the table above:

- Debt securities issued and other borrowings falling due after more than one year included instruments that are repayable in more than five years of $9.46 billion and $6.53 billion as of December 2017 and December 2016, respectively. As of December 2017, these instruments have maturities falling due between 2023 and 2057. Payments on these instruments are typically referenced to underlying financial assets, which are predominately interest rates and equities-related.
- Intercompany loans falling due after more than one year included loans that are repayable in more than five years. As of December 2017, the company had variable rate loans of $1.21 billion with maturities falling due between February 8, 2023 and December 22, 2027. As of December 2016, the company had a variable rate loan of $211 million with a maturity of June 13, 2026.

Debt Valuation Adjustment

The company calculates the fair value of debt securities issued that are designated at fair value through profit or loss by discounting future cash flows at a rate which incorporates GS Group's credit spreads.

The table below presents details about the net DVA losses on such financial liabilities.

	Year Ended December	
$ in millions	**2017**	2016
DVA	**$259**	$182

In the table above, DVA is included in "Debt valuation adjustment" in other comprehensive income.

Long-Term Subordinated Loans

Long-term subordinated loans consist of long-term subordinated loans from parent and group undertakings, which are unsecured and carry interest at a margin over the U.S. Federal Reserve's Federal Funds rate. The margin is reset on a periodic basis to reflect changes in GS Group's weighted average cost of debt. Long-term subordinated loans constitute regulatory capital as approved by the PRA, subject to any regulatory capital deductions, and are repayable subject to PRA approval.

As of December 2017, long-term subordinated loans of $5.38 billion are repayable between December 26, 2024 and September 9, 2025. As of December 2016, long-term subordinated loans of $8.70 billion were repayable between December 14, 2021 and April 29, 2025 and long-term subordinated loans of $255 million were repayable upon giving or receiving at least 5 year's notice to or from the group undertaking. During the second quarter of 2017, the company repaid $3.58 billion of long-term subordinated loans with the agreement of the lenders.

Liabilities From Financing Activities

Liabilities from financing activities consist of the company's long-term subordinated loans and associated accrued interest. See the "Statements of Cash Flows" for movements in the company's long-term subordinated loans. Accrued interest on the company's long-term subordinated loans for the year ended December 2017 decreased by $286 million, due to payments of $587 million, partially offset by interest accrued of $301 million. Accrued interest on the company's long-term subordinated loans for the year ended December 2016 increased by $41 million, due to interest accrued of $346 million, partially offset by payments of $305 million.

Note 20.

Provisions for Liabilities

The table below presents the company's provisions for liabilities, which are in respect of certain legal claims made against the company.

$ in millions	**2017**
As of January 1	**$ –**
Charge to the profit and loss account	**10**
As of December 31	**$10**

Further details relating to the provisions have not been disclosed as permitted by IAS 37 'Provisions, Contingent Liabilities and Contingent Assets', on the grounds that it would be seriously prejudicial to do so.

Note 21.

Share Capital

The table below presents the company's share capital.

Allotted, called up and fully paid	**Ordinary shares of $1 each**	***$ in millions***
As of January 1, 2017	581,964,161	$582
As of December 31, 2017	**581,964,161**	**$582**

Note 22.

Other Equity Instruments

In June 2017, the company issued 5,800 unsecured AT1 notes of $1 million each to GSG UK for a total consideration of $5.80 billion. The AT1 notes have no fixed maturity date, are not callable and carry a non-cumulative fixed interest rate of 8.55% per annum, which is payable at the company's discretion subject to certain solvency and regulatory conditions.

The AT1 notes will be irrevocably written-down in the event that the CET1 ratio of the company or the GSG UK Group falls below 7%. In addition, the company may, at any time after August 2037, elect at its discretion to convert all the AT1 notes into fully paid ordinary shares.

The company paid interest of $201 million on the AT1 notes on November 20, 2017 after assessing the applicable solvency and regulatory conditions. The amount recognised in shareholder's funds for 2017 was $146 million, net of tax.

Note 23.

Dividends

The directors declared and paid interim dividends of $500 million on June 27, 2017 and $2.50 billion on June 28, 2017 to GSG UK, representing $0.86 per share and $4.30 per share, respectively. No dividends were paid in 2016.

Note 24.

Cash and Cash Equivalents

The table below presents the company's cash and cash equivalents for the purpose of the statements of cash flows.

	As of December	
$ in millions	**2017**	2016
Cash at bank and in hand	**$20,727**	$16,888
Overdrafts (see Note 19)	**(73)**	(7)
Total cash and cash equivalents	**$20,654**	$16,881

In the table above, cash at bank and in hand included cash that is not available for use by the company of $3.20 billion and $1.70 billion as of December 2017 and December 2016, respectively.

Note 25.

Reconciliation of Cash Flows From Operating Activities

The table below presents the company's reconciliation of cash flows from operating activities.

	Year Ended December	
$ in millions	**2017**	2016
Profit before taxation	**$ 2,091**	$ 1,943
Adjustments for		
Depreciation and amortisation (see Notes 6 and 13)	**39**	7
Credit for defined benefit plan (see Note 10)	**(2)**	–
Foreign exchange losses/(gains)	**(1,938)**	992
Share-based compensation expense	**574**	870
Provisions for liabilities	**10**	–
Interest payable and similar expenses (see Note 9)	**301**	346
Cash generated before changes in operating assets and liabilities	**1,075**	4,158
Changes in operating assets		
Decrease/(increase) in financial instruments owned	**22,681**	(46,891)
Increase in collateralised agreements	**(20,220)**	(20,897)
Increase in debtors	**(4,505)**	(9,062)
Changes in operating assets	**(2,044)**	(76,850)
Changes in operating liabilities		
Increase/(decrease) in financial instruments sold, but not yet purchased	**(23,989)**	58,257
Increase in collateralised financings	**27,259**	24,043
Increase/(decrease) in other creditors	**1,677**	(855)
Changes in operating liabilities	**4,947**	81,445
Contributions paid to defined benefit plan (see Note 10)	**(50)**	(8)
Cash generated from operations	**$ 3,928**	$ 8,745

Cash generated from operations included interest paid of $2.57 billion and $2.05 billion for 2017 and 2016, respectively, and interest received of $3.14 billion and $1.83 billion for 2017 and 2016, respectively.

Note 26.

Financial Commitments and Contingencies

Commitments and Contingencies

The table below presents the company's commitments and contingencies.

	As of December	
$ in millions	**2017**	2016
Contingent and forward starting collateralised agreements	**$58,756**	$43,599
Forward starting collateralised financings	**20,511**	11,806
Other	**3,691**	3,993
Total	**$82,958**	$59,398

Contingent and forward starting collateralised agreements includes resale and securities borrowing agreements, and forward starting collateralised financings includes repurchase and secured lending agreements that settle at a future date, generally within three business days.

The company also enters into commitments to provide contingent financing to its clients and counterparties through resale agreements. The company's funding of these commitments depends on the satisfaction of all contractual conditions to the resale agreement and these commitments can expire unused.

Other commitments primarily relate to collateral commitments and commitments to extend credit.

In addition, there are registered charges on the company's assets which have arisen in the ordinary course of business.

Leases

The company leases certain buildings under long-term non-cancellable lease agreements. Under these lease agreements, which are subject to renegotiation at various intervals specified in the leases, the company pays all insurance, maintenance and repairs of these properties. The table below presents total future minimum rental payments under non-cancellable operating leases for each of the following periods.

	As of December	
$ in millions	**2017**	2016
Less than one year	**$ 89**	$ 82
Between one and five years	**177**	229
Over five years	**5**	–
Total	**$271**	$311

Total future minimum sublease payments expected to be received under non-cancellable subleases as of December 2017 and December 2016 were $36 million and $46 million, respectively.

Legal Proceedings

The company is involved in a number of judicial, regulatory and arbitration proceedings (including those described below) concerning matters arising in connection with the conduct of the company's business, however it is not practicable to reliably estimate an impact, if any, of these proceedings.

Interest Rate Swap Antitrust Litigation. The company is among the defendants named in a putative antitrust class action relating to the trading of interest rate swaps, filed in November 2015 and consolidated in the U.S. District Court for the Southern District of New York. The company is also among the defendants named in an antitrust action relating to the trading of interest rate swaps filed in the U.S. District Court for the Southern District of New York in April 2016 by two operators of swap execution facilities and certain of their affiliates. These actions have been consolidated for pretrial proceedings. The second consolidated amended complaint in both actions, filed on December 9, 2016, generally asserts claims under federal antitrust law and state common law in connection with an alleged conspiracy among the defendants to preclude exchange trading of interest rate swaps. The complaint in the individual action also asserts claims under state antitrust law. The complaints seek declaratory and injunctive relief, as well as treble damages in an unspecified amount. Defendants moved to dismiss both actions on January 20, 2017. On July 28, 2017, the district court issued a decision dismissing the state common law claims asserted by the plaintiffs in the individual action and otherwise limiting the antitrust claims in both actions and the state common law claim in the putative class action to the period from 2013 to 2016.

Credit Default Swap Antitrust Litigation. The company is among the defendants named in an antitrust action relating to the trading of credit default swaps filed in the U.S. District Court for the Southern District of New York on June 8, 2017 by the operator of a swap execution facility and certain of its affiliates. The complaint generally asserts claims under federal and state antitrust laws and state common law in connection with an alleged conspiracy among the defendants to preclude trading of credit default swaps on the plaintiffs' swap execution facility. The complaint seeks declaratory and injunctive relief, as well as treble damages in an unspecified amount. Defendants moved to dismiss on September 11, 2017.

Commodities-Related Litigation. The company is among the defendants named in putative class actions relating to trading in platinum and palladium, filed beginning on November 25, 2014 and most recently amended on May 15, 2017, in the U.S. District Court for the Southern District of New York. The amended complaint generally alleges that the defendants violated federal antitrust laws and the Commodity Exchange Act in connection with an alleged conspiracy to manipulate a benchmark for physical platinum and palladium prices and seek declaratory and injunctive relief, as well as treble damages in an unspecified amount. Defendants moved to dismiss the third consolidated amended complaint on July 21, 2017.

1Malaysia Development Berhad (1MDB)-Related Matters. GS Group has received subpoenas and requests for documents and information from various governmental and regulatory bodies and self-regulatory organisations as part of investigations and reviews relating to financing transactions and other matters involving 1MDB, a sovereign wealth fund in Malaysia. GS Group is cooperating with all such governmental and regulatory investigations and reviews.

Regulatory Investigations and Reviews and Related Litigation. Group Inc. and certain of its affiliates, including the company, are subject to a number of other investigations and reviews by, and in some cases have received subpoenas and requests for documents and information from, various governmental and regulatory bodies and self-regulatory organisations and litigation relating to various matters relating to GS Group's businesses and operations, including:

- The 2008 financial crisis;
- The public offering process;
- Investment management and financial advisory services;
- Conflicts of interest;
- Transactions involving government-related financings and other matters;
- The offering, auction, sales, trading and clearance of corporate and government securities, currencies, commodities and other financial products and related sales and other communications and activities, as well as GS Group's supervision and controls relating to such activities, including compliance with short sale rules, algorithmic, high-frequency and quantitative trading, futures trading, options trading, when-issued trading, transaction reporting, technology systems and controls, securities lending practices, trading and clearance of credit derivative instruments and interest rate swaps, commodities activities and metals storage, private placement practices, allocations of and trading in securities, and trading activities and communications in connection with the establishment of benchmark rates, such as currency rates;
- Compliance with the U.K. Bribery Act and the U.S. Foreign Corrupt Practices Act;
- Hiring and compensation practices;
- System of risk management and controls; and
- Insider trading, the potential misuse and dissemination of material non-public information regarding corporate and governmental developments and the effectiveness of insider trading controls and information barriers.

In addition, investigations, reviews and litigation involving the company's affiliates and such affiliates' businesses and operations, including various matters referred to above but also other matters, may have an impact on the company's businesses and operations.

Note 27.

Financial Risk Management and Capital Management

Certain disclosures in relation to the company's financial risk management and capital management have been presented alongside other risk management and regulatory information in Part I of this annual report and are identified as audited, where relevant.

Note 28.

Financial Assets and Financial Liabilities

Financial Assets and Financial Liabilities by Category

The tables below present the carrying value of the company's financial assets and financial liabilities by category.

	Financial Assets			
$ in millions	Held for trading	Designated at fair value	Loans and receivables	Total
As of December 2017				
Financial instruments owned	**$640,264**	**$ –**	**$ –**	**$640,264**
Collateralised agreements	**–**	**140,360**	**64,460**	**204,820**
Debtors	**–**	**653**	**72,725**	**73,378**
Cash at bank and in hand	**–**	**–**	**20,727**	**20,727**
Total financial assets	**$640,264**	**$141,013**	**$157,912**	**$939,189**
As of December 2016				
Financial instruments owned	$662,945	$ –	$ –	$662,945
Collateralised agreements	–	139,732	44,868	184,600
Debtors	–	1,432	67,528	68,960
Cash at bank and in hand	–	–	16,888	16,888
Total financial assets	$662,945	$141,164	$129,284	$933,393

	Financial Liabilities			
$ in millions	Held for trading	Designated at fair value	Amortised cost	Total
As of December 2017				
Amounts falling due within one year				
Financial instruments sold, but not yet purchased	**$589,922**	**$ –**	**$ –**	**$589,922**
Collateralised financings	**–**	**113,947**	**44,122**	**158,069**
Other creditors	**–**	**7,784**	**95,433**	**103,217**
Total	**589,922**	**121,731**	**139,555**	**851,208**
Amounts falling due after more than one year				
Collateralised financings	**–**	**17,378**	**–**	**17,378**
Other creditors	**–**	**21,046**	**18,684**	**39,730**
Total	**–**	**38,424**	**18,684**	**57,108**
Total financial liabilities	**$589,922**	**$160,155**	**$158,239**	**$908,316**
As of December 2016				
Amounts falling due within one year				
Financial instruments sold, but not yet purchased	$613,911	$ –	$ –	$613,911
Collateralised financings	–	99,174	41,214	140,388
Other creditors	–	7,099	96,955	104,054
Total	613,911	106,273	138,169	858,353
Amounts falling due after more than one year				
Collateralised financings	–	7,801	–	7,801
Other creditors	–	21,535	18,666	40,201
Total	–	29,336	18,666	48,002
Total financial liabilities	$613,911	$135,609	$156,835	$906,355

In the table above, financial instruments owned held for trading included $38 million and $37 million as of December 2017 and December 2016, respectively, of derivative instruments designated as hedges.

Fair Value Hierarchy

The fair value of a financial instrument is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Financial assets are marked to bid prices and financial liabilities are marked to offer prices. Fair value measurements do not include transaction costs. The company measures certain financial assets and financial liabilities as a portfolio (i.e., based on its net exposure to market and/or credit risks).

U.K. GAAP has a three-level fair value hierarchy for disclosure of fair value measurements. The fair value hierarchy prioritises inputs to the valuation techniques used to measure fair value, giving the highest priority to level 1 inputs and the lowest priority to level 3 inputs. A financial asset or financial liability's level in the fair value hierarchy is based on the lowest level of input that is significant to its fair value measurement.

The fair value hierarchy is as follows:

Level 1. Inputs are unadjusted quoted prices in active markets to which the company had access at the measurement date for identical, unrestricted assets or liabilities.

Level 2. Inputs to valuation techniques are observable, either directly or indirectly.

Level 3. One or more inputs to valuation techniques are significant and unobservable.

The fair values for substantially all of the company's financial assets and financial liabilities that are fair valued on a recurring basis are based on observable prices and inputs and are classified in levels 1 and 2 of the fair value hierarchy. Certain level 2 and level 3 financial assets and financial liabilities may require appropriate valuation adjustments that a market participant would require to arrive at fair value for factors such as counterparty and the company's and GS Group's credit quality, funding risk, transfer restrictions, liquidity and bid/offer spreads. Valuation adjustments are generally based on market evidence.

Valuation Techniques and Significant Inputs

Cash Instruments. Cash instruments include government and agency obligations, corporate loans and debt securities and other debt obligations, equity securities, and other non-derivative financial instruments owned and financial instruments sold, but not yet purchased. Valuation techniques and significant inputs for each level of the fair value hierarchy include:

Level 1 Cash Instruments

Level 1 cash instruments are valued using quoted prices for identical unrestricted instruments in active markets. The company defines active markets for equity instruments based on the average daily trading volume both in absolute terms and relative to the market capitalisation for the instrument. The company defines active markets for debt instruments based on both the average daily trading volume and the number of days with trading activity.

Level 2 Cash Instruments

Level 2 cash instruments can be verified to quoted prices, recent trading activity for identical or similar instruments, broker or dealer quotations or alternative pricing sources with reasonable levels of price transparency. Consideration is given to the nature of the quotations (e.g., indicative or firm) and the relationship of recent market activity to the prices provided from alternative pricing sources.

Valuation adjustments are typically made to level 2 cash instruments (i) if the cash instrument is subject to transfer restrictions and/or (ii) for other premiums and liquidity discounts that a market participant would require to arrive at fair value. Valuation adjustments are generally based on market evidence.

Level 3 Cash Instruments

Level 3 cash instruments have one or more significant valuation inputs that are not observable. Absent evidence to the contrary, level 3 cash instruments are initially valued at transaction price, which is considered to be the best initial estimate of fair value. Subsequently, the company uses other methodologies to determine fair value, which vary based on the type of instrument. Valuation inputs and assumptions are changed when corroborated by substantive observable evidence, including values realised on sales of financial assets.

Valuation techniques of level 3 cash instruments vary by instrument, but are generally based on discounted cash flow techniques. The valuation techniques and the nature of significant inputs used to determine the fair values of each type of level 3 cash instrument are described below:

- **Mortgages and Other Asset-Backed Loans and Securities.** Significant inputs are generally determined based on relative value analyses and include:
  - Transaction prices in both the underlying collateral and instruments with the same or similar underlying collateral;
  - Market yields implied by transactions of similar or related assets;
  - Current performance of the borrower or loan collateral and recovery assumptions if a default occurs; and
  - Timing of expected future cash flows (duration) which, in certain cases, may incorporate the impact of other unobservable inputs (e.g., prepayment speeds).
- **Corporate Obligations and Other Cash Instruments.** Corporate obligations and other cash instruments includes corporate loans and debt securities and other debt obligations and government and agency obligations. Significant inputs are generally determined based on relative value analyses, which incorporate comparisons both to prices of credit default swaps that reference the same or similar underlying instrument or entity and to other debt instruments for the same issuer for which observable prices or broker quotations are available. Significant inputs include:
  - Market yields implied by transactions of similar or related assets;
  - Current levels and changes in market indices such as the iTraxx and CDX, and LCDX (indices that track the performance of corporate credit and loans, respectively);
  - Current performance of the borrower or loan collateral and recovery assumptions if a default occurs; and
  - Maturity and coupon profile of the instrument.
- **Equity Securities.** Equity securities includes private equity securities and convertible debentures. Recent third-party completed or pending transactions (e.g., merger proposals, tender offers, debt restructurings) are considered to be the best evidence for any change in fair value. When these are not available, the following valuation methodologies are used, as appropriate:
  - Industry multiples and public comparables;
  - Transactions in similar instruments; and
  - Discounted cash flow techniques.

Derivative Instruments. Derivatives may be traded on an exchange (exchange-traded) or they may be privately negotiated contracts, which are usually referred to as OTC derivatives. Certain of the company's OTC derivatives are cleared and settled through central clearing counterparties (OTC-cleared), while others are bilateral contracts between two counterparties (bilateral OTC).

The company's level 2 and level 3 derivatives are valued using derivative pricing models (e.g., discounted cash flow models, correlation models, and models that incorporate option pricing methodologies, such as Monte Carlo simulations). Price transparency of derivatives can generally be characterised by product type, as described below.

- **Interest Rate.** In general, the key inputs used to value interest rate derivatives are transparent, even for most long-dated contracts. Interest rate swaps and options denominated in the currencies of leading industrialised nations are characterised by high trading volumes and tight bid/offer spreads. Interest rate derivatives that reference indices, such as an inflation index, or the shape of the yield curve (e.g., 10-year swap rate vs. 2-year swap rate) are more complex, but the key inputs are generally observable.

- **Credit.** Price transparency for credit default swaps, including both single names and baskets of credits, varies by market and underlying reference entity or obligation. Credit default swaps that reference indices, large corporates and major sovereigns generally exhibit the most price transparency. For credit default swaps with other underliers, price transparency varies based on credit rating, the cost of borrowing the underlying reference obligations, and the availability of the underlying reference obligations for delivery upon the default of the issuer. Credit default swaps that reference loans, asset-backed securities and emerging market debt instruments tend to have less price transparency than those that reference corporate bonds. In addition, more complex credit derivatives, such as those sensitive to the correlation between two or more underlying reference obligations or to secured funding spreads, generally have less price transparency.

- **Currency.** Prices for currency derivatives based on the exchange rates of leading industrialised nations, including those with longer tenors, are generally transparent. The primary difference between the price transparency of developed and emerging market currency derivatives is that emerging markets tend to be observable for contracts with shorter tenors.

- **Equity.** Price transparency for equity derivatives varies by market and underlier. Options on indices and the common stock of corporates included in major equity indices exhibit the most price transparency. Equity derivatives generally have observable market prices, except for contracts with long tenors or reference prices that differ significantly from current market prices. More complex equity derivatives, such as those sensitive to the correlation between two or more individual stocks, generally have less price transparency.

Liquidity is essential to observability of all product types. If transaction volumes decline, previously transparent prices and other inputs may become unobservable. Conversely, even highly structured products may at times have trading volumes large enough to provide observability of prices and other inputs.

Level 1 Derivatives

Level 1 derivatives include short-term contracts for future delivery of securities when the underlying security is a level 1 instrument, and exchange-traded derivatives if they are actively traded and are valued at their quoted market price.

Level 2 Derivatives

Level 2 derivatives include OTC derivatives for which all significant valuation inputs are corroborated by market evidence and exchange-traded derivatives that are not actively traded and/or that are valued using models that calibrate to market-clearing levels of OTC derivatives. In evaluating the significance of a valuation input, the company considers, among other factors, a portfolio's net risk exposure to that input.

The selection of a particular model to value a derivative depends on the contractual terms of and specific risks inherent in the instrument, as well as the availability of pricing information in the market. For derivatives that trade in liquid markets, model selection does not involve significant management judgement because outputs of models can be calibrated to market-clearing levels.

Valuation models require a variety of inputs, such as contractual terms, market prices, yield curves, discount rates (including those derived from interest rates on collateral received and posted as specified in credit support agreements for collateralised derivatives), credit curves, measures of volatility and correlations of such inputs. Significant inputs to the valuations of level 2 derivatives can be verified to market transactions, broker or dealer quotations or other alternative pricing sources with reasonable levels of price transparency. Consideration is given to the nature of the quotations (e.g., indicative or firm) and the relationship of recent market activity to the prices provided from alternative pricing sources.

Level 3 Derivatives

Level 3 derivatives are valued using models which utilise observable level 1 and/or level 2 inputs, as well as unobservable level 3 inputs. Unobservable inputs include certain correlations, illiquid credit and secured funding spreads, recovery rates and certain equity and interest rate volatilities.

Subsequent to the initial valuation of a level 3 derivative, the company updates the level 1 and level 2 inputs to reflect observable market changes and any resulting gains and losses are recorded in level 3. Level 3 inputs are changed when corroborated by evidence such as similar market transactions, third-party pricing services and/or broker or dealer quotations or other empirical market data. In circumstances where the company cannot verify the model value by reference to market transactions, it is possible that a different valuation model could produce a materially different estimate of fair value. See below for further information about significant unobservable inputs used in the valuation of level 3 derivatives.

Where there is a difference between the initial transaction price and the fair value calculated by internal models, a gain or loss is recognised after initial recognition only to the extent that it arises from a change in a factor (including time) that market participants would consider in setting a price.

Valuation Adjustments

Valuation adjustments are integral to determining the fair value of derivative portfolios and are used to adjust the mid-market valuations produced by derivative pricing models to the appropriate exit price valuation. These adjustments incorporate bid/offer spreads, the cost of liquidity, credit valuation adjustments and funding valuation adjustments, which account for the credit and funding risk inherent in the uncollateralised portion of derivative portfolios. The company also makes funding valuation adjustments to collateralised derivatives where the terms of the agreement do not permit the company to deliver or repledge collateral received. Market-based inputs are generally used when calibrating valuation adjustments to market-clearing levels.

In addition, for derivatives that include significant unobservable inputs, the company makes model or exit price adjustments to account for the valuation uncertainty present in the transaction.

Other Financial Assets and Financial Liabilities. Valuation techniques and significant inputs of other financial assets and financial liabilities include:

- **Resale and Repurchase Agreements and Securities Borrowed and Loaned.** The significant inputs to the valuation of resale and repurchase agreements and securities borrowed and loaned are funding spreads, the amount and timing of expected future cash flows and interest rates.
- **Debtors.** Debtors measured at fair value primarily consist of secured lending and prepaid commodity contracts. The significant inputs to the valuation of such receivables are commodity prices, interest rates, the amount and timing of expected future cash flows and funding spreads.
- **Other Secured Financings.** The significant inputs to the valuation of secured debt securities issued and other borrowings measured at fair value are the amount and timing of expected future cash flows, interest rates, funding spreads, the fair value of the collateral delivered by the company (which is determined using the amount and timing of expected future cash flows, market prices, market yields and recovery assumptions) and the frequency of additional collateral calls.
- **Other Creditors.** The significant inputs to the valuation of unsecured other creditors measured at fair value are the amount and timing of expected future cash flows, interest rates, the credit spreads of GS Group, as well as commodity prices in the case of prepaid commodity contracts. The inputs used to value the embedded derivative component of hybrid financial instruments are consistent with the inputs used to value the company’s other derivative instruments.

Fair Value of Financial Assets and Financial Liabilities by Level

The tables below present, by level within the fair value hierarchy, financial assets and financial liabilities measured at fair value on a recurring basis.

	Financial Assets and Financial Liabilities at Fair Value as of December 2017			
$ in millions	**Level 1**	**Level 2**	**Level 3**	**Total**
Financial Assets				
Cash instruments	**$51,047**	**$ 22,437**	**$ 571**	**$ 74,055**
Derivative instruments	**5**	**562,731**	**3,473**	**566,209**
Financial instruments owned	**51,052**	**585,168**	**4,044**	**640,264**
Collateralised agreements	**–**	**140,360**	**–**	**140,360**
Debtors	**–**	**653**	**–**	**653**
Total financial assets	**$51,052**	**$726,181**	**$ 4,044**	**$781,277**
Financial Liabilities				
Amounts falling due within one year				
Cash instruments	**$30,201**	**$ 3,588**	**$ 10**	**$ 33,799**
Derivative instruments	**22**	**553,830**	**2,271**	**556,123**
Financial instruments sold, but not yet purchased	**30,223**	**557,418**	**2,281**	**589,922**
Collateralised financings	**–**	**113,314**	**633**	**113,947**
Other creditors	**–**	**5,896**	**1,888**	**7,784**
Total	**30,223**	**676,628**	**4,802**	**711,653**
Amounts falling due after more than one year				
Collateralised financings	**–**	**17,369**	**9**	**17,378**
Other creditors	**–**	**15,050**	**5,996**	**21,046**
Total	**–**	**32,419**	**6,005**	**38,424**
Total financial liabilities	**$30,223**	**$709,047**	**$10,807**	**$750,077**
Net derivative instruments	**$ (17)**	**$ 8,901**	**$ 1,202**	**$ 10,086**

	Financial Assets and Financial Liabilities at Fair Value as of December 2016			
$ in millions	Level 1	Level 2	Level 3	Total
Financial Assets				
Cash instruments	$43,678	$ 18,633	$ 1,035	$ 63,346
Derivative instruments	47	595,435	4,117	599,599
Financial instruments owned	43,725	614,068	5,152	662,945
Collateralised agreements	–	139,732	–	139,732
Debtors	–	1,432	–	1,432
Total financial assets	$43,725	$755,232	$ 5,152	$804,109
Financial Liabilities				
Amounts falling due within one year				
Cash instruments	$23,837	$ 3,095	$ 4	$ 26,936
Derivative instruments	34	584,717	2,224	586,975
Financial instruments sold, but not yet purchased	23,871	587,812	2,228	613,911
Collateralised financings	–	98,638	536	99,174
Other creditors	–	6,080	1,019	7,099
Total	23,871	692,530	3,783	720,184
Amounts falling due after more than one year				
Collateralised financings	–	7,801	–	7,801
Other creditors	–	15,690	5,845	21,535
Total	–	23,491	5,845	29,336
Total financial liabilities	$23,871	$716,021	$ 9,628	$749,520
Net derivative instruments	$ 13	$ 10,718	$ 1,893	$ 12,624

Significant Unobservable Inputs Used in Level 3 Fair Value Measurements

Cash Instruments. As of December 2017 and December 2016, the company had level 3 cash instrument assets of $571 million and $1.04 billion, respectively. Level 3 cash instrument liabilities were not material. The table below presents the amount of level 3 cash instruments assets, and ranges and weighted averages of significant unobservable inputs used to value the company's level 3 cash instrument assets.

	Level 3 Cash Instruments Assets and Range of Significant Unobservable Inputs (Weighted Average) as of December	
$ in millions	**2017**	2016
Mortgages and other asset-backed loans and securities		
Level 3 assets	**$144**	$336
Yield	**2.3% to 19.4% (6.9%)**	0.8% to 20.0% (7.1%)
Recovery rate	**37.9% to 89.0% (76.9%)**	35.0% to 97.5% (76.5%)
Duration (years)	**0.7 to 14.0 (4.2)**	0.8 to 16.1 (4.7)
Corporate obligations and other cash instruments		
Level 3 assets	**$365**	$500
Yield	**3.6% to 13.9% (7.1%)**	2.6% to 14.1% (6.3%)
Recovery rate	**0.0% to 74.0% (44.5%)**	0.0% to 70.0% (45.1%)
Duration (years)	**0.5 to 5.4 (2.3)**	1.9 to 15.7 (3.4)
Equity securities		
Level 3 assets	**$62**	$199
Multiples	**3.0x to 3.0x (3.0x)**	0.9x to 5.5x (1.6x)

In the table above:

- Ranges represent the significant unobservable inputs that were used in the valuation of each type of cash instrument.
- Weighted averages are calculated by weighting each input by the relative fair value of the cash instruments.
- The ranges and weighted averages of these inputs are not representative of the appropriate inputs to use when calculating the fair value of any one cash instrument. For example, the highest yield for mortgages and other asset-backed loans and securities is appropriate for valuing a specific mortgage but may not be appropriate for valuing any other mortgages. Accordingly, the ranges of inputs do not represent uncertainty in, or possible ranges of, fair value measurements of the company's level 3 cash instruments.
- Increases in yield or duration used in the valuation of the company's level 3 cash instruments would result in a lower fair value measurement, while increases in recovery rate or multiples would result in a higher fair value measurement. Due to the distinctive nature of each of the company's level 3 cash instruments, the interrelationship of inputs is not necessarily uniform within each product type.
- Mortgages and other asset-backed loans and securities and corporate obligations and other cash instruments are valued using discounted cash flows, and equity securities are valued using market comparables and discounted cash flows.

- Equity securities include private equities and convertible debentures.
- The fair value of any one instrument may be determined using multiple valuation techniques. For example, market comparables and discounted cash flows may be used together to determine fair value. Therefore, the level 3 balance encompasses both of these techniques.

Derivative Instruments. As of December 2017 and December 2016, the company had net level 3 derivative instruments of $1.20 billion and $1.89 billion, respectively. The table below presents the amount of net level 3 derivative instruments, and ranges, averages and medians of significant unobservable inputs used to value the company's interest rates, credit and equities derivative instruments. As of December 2017 and December 2016, the company had net level 3 financial instruments relating to currencies and commodities derivatives of $(110) million and $(205) million, respectively, for which the range of significant unobservable inputs has not been disclosed as the amounts are not material.

	Net Level 3 Derivative Instruments and Range of Significant Unobservable Inputs (Average/Median) as of December	
$ in millions	**2017**	2016
Interest rates	**$51**	$21
Correlation	**79% to 95% (87%/87%)**	75% to 95% (82%/81%)
Volatility (bps)	**75 to 138 (107/107)**	73 to 104 (89/89)
Credit	**$1,794**	$2,313
Correlation	**28% to 84% (61%/60%)**	35% to 91% (65%/68%)
Credit spreads (bps)	**1 to 505 (87/56)**	2 to 993 (148/100)
Upfront credit points	**2 to 55 (36/53)**	0 to 96 (21/8)
Recovery rates	**22% to 73% (70%/73%)**	1% to 83% (54%/70%)
Equities	**$(533)**	$(236)
Correlation	**(36)% to 94% (53%/65%)**	(39)% to 87% (42%/45%)
Volatility	**4% to 63% (20%/20%)**	5% to 63% (23%/22%)

In the table above:

- Net derivative assets are shown as positive amounts and net derivative liabilities are shown as negative amounts.
- Ranges represent the significant unobservable inputs that were used in the valuation of each type of derivative.
- Averages represent the arithmetic average of the inputs and are not weighted by the relative fair value or notional of the respective financial instruments. An average greater than the median indicates that the majority of inputs are below the average.
- The ranges, averages and medians of these inputs are not representative of the appropriate inputs to use when calculating the fair value of any one derivative. For example, the highest correlation for credit derivatives is appropriate for valuing a specific credit derivative but may not be appropriate for valuing any other credit derivative. Accordingly, the ranges of inputs do not represent uncertainty in, or possible ranges of, fair value measurements of the company's level 3 derivatives.
- Interest rates and equities derivatives are valued using option pricing models, and credit derivatives are valued using option pricing, correlation and discounted cash flow models.
- The fair value of any one instrument may be determined using multiple valuation techniques. For example, option pricing models and discounted cash flows models are typically used together to determine fair value. Therefore, the level 3 balance encompasses both of these techniques.
- Correlation within equities includes cross-product correlation.

Range of Significant Unobservable Inputs

The following is information about the ranges of significant unobservable inputs used to value the company's level 3 derivative instruments:

- **Correlation.** Ranges for correlation cover a variety of underliers both within one product type (e.g., equity index and equity single stock names) and across product types (e.g., correlation of an equity and a currency), as well as across regions.
- **Volatility.** Ranges for volatility cover numerous underliers across a variety of markets, maturities and strike prices. For example, volatility of equity indices is generally lower than volatility of single stocks.
- **Credit spreads, upfront credit points and recovery rates.** The ranges for credit spreads, upfront credit points and recovery rates cover a variety of underliers (index and single names), regions, sectors, maturities and credit qualities (high-yield and investment-grade) and also includes secured funding spreads. The broad range of this population gives rise to the width of the ranges of significant unobservable inputs.

Sensitivity of Fair Value Measurement to Changes in Significant Unobservable Inputs

The following is a description of the directional sensitivity of the company's level 3 fair value measurements to changes in significant unobservable inputs, in isolation:

- **Correlation.** In general, for contracts where the holder benefits from the consistent directional performance of the underlying asset or index prices (e.g., interest rates, credit spreads, foreign exchange rates, inflation rates and equity prices), an increase in correlation results in a higher fair value measurement.
- **Volatility.** In general, for purchased options, an increase in volatility results in a higher fair value measurement.
- **Credit spreads, upfront credit points and recovery rates.** In general, the fair value of purchased credit protection increases as credit spreads or upfront credit points increase or recovery rates decrease, and the fair value of secured funding capacity increases as secured funding spreads increase. Credit spreads, upfront credit points and recovery rates are strongly related to distinctive risk factors of the underlying reference obligations, which include reference entity-specific factors such as leverage, volatility and industry, market-based risk factors, such as borrowing costs or liquidity of the underlying reference obligation, and macroeconomic conditions.

Due to the distinctive nature of each of the company's level 3 derivatives, the interrelationship of inputs is not necessarily uniform within each product type.

Other Financial Assets and Financial Liabilities. Significant unobservable inputs of other financial assets and financial liabilities include:

- **Resale and Repurchase Agreements and Securities Borrowed and Loaned.** As of both December 2017 and December 2016, the company had no level 3 resale agreements, securities borrowed or securities loaned. As of both December 2017 and December 2016, the company's level 3 repurchase agreements were not material.
- **Debtors.** As of both December 2017 and December 2016, the company's level 3 debtors were nil.
- **Other Secured Financings.** As of both December 2017 and December 2016, the significant unobservable inputs used to value the company's level 3 other secured financings are incorporated into the company's derivative instruments and cash instruments disclosures related to unobservable inputs. See "Cash Instruments" and "Derivative Instruments" above.
- **Other Creditors.** As of both December 2017 and December 2016, the significant unobservable inputs used to value the company's level 3 other creditors are incorporated into the company's derivative instruments and cash instruments disclosures related to unobservable inputs. See "Cash Instruments" and "Derivative Instruments" above.

Transfers Between Level 1 and Level 2 of the Fair Value Hierarchy

During 2017 and 2016, there were no significant transfers between level 1 and level 2 financial assets and financial liabilities measured at fair value on a recurring basis.

Fair Value Financial Assets and Financial Liabilities Valued Using Techniques That Incorporate Unobservable Inputs

The fair value of financial assets and financial liabilities may be determined in whole or part using a valuation technique based on assumptions that are not supported by prices from observable current market transactions in the same instrument or based on available observable market data and changing these assumptions will change the resultant estimate of fair value. The potential impact of using reasonable possible alternative assumptions for the valuations, including significant unobservable inputs, has been quantified as of December 2017 and December 2016, as approximately $259 million and $220 million, respectively, for favourable changes, and $230 million and $294 million, respectively, for unfavourable changes. In determining reasonably possible alternative unfavourable assumptions, a detailed business and position level review has been performed to identify and quantify instances where potential uncertainty exists. This has taken into account the positions' fair value as compared to the range of available market information. In December 2017 and December 2016, the impact for favourable changes was primarily driven by changes in the assumptions around secured funding spreads and valuation adjustments in equity and fixed income derivatives, and the impact for unfavourable changes was primarily driven by changes in the assumptions around secured funding spreads, volatility and correlation inputs.

The table below presents the amounts not recognised in the profit and loss account relating to the difference between the fair value of financial instruments held for trading at initial recognition (the transaction price) and the amounts determined at initial recognition using the valuation techniques (day 1 P&L).

	Year Ended December	
$ in millions	**2017**	2016
As of January 1	**$149**	$139
New transactions	**92**	90
Amounts recognised in the profit and loss account during the period	**(80)**	(80)
As of December 31	**$161**	$149

Level 3 Rollforward

The table below presents a summary of the changes in fair value for all level 3 financial assets and financial liabilities measured at fair value on a recurring basis.

	Year Ended December	
$ in millions	**2017**	2016
Total financial assets		
Beginning balance	**$ 5,152**	$ 6,041
Gains	**594**	1,052
Purchases	**383**	394
Sales	**(520)**	(351)
Settlements	**(1,223)**	(1,727)
Transfers into level 3	**188**	641
Transfers out of level 3	**(530)**	(898)
Ending balance	**$ 4,044**	$ 5,152
Total financial liabilities		
Beginning balance	**$ (9,628)**	$(8,401)
Losses	**(1,439)**	(377)
Purchases	**6**	14
Sales	**(5,285)**	(5,697)
Settlements	**4,483**	4,087
Transfers into level 3	**(39)**	(640)
Transfers out of level 3	**1,095**	1,386
Ending balance	**$(10,807)**	$(9,628)

In the table above:

- If a financial asset or financial liability was transferred into level 3 during a reporting period, its entire gain or loss for the period is included in level 3. For level 3 financial assets, increases are shown as positive amounts, while decreases are shown as negative amounts. For level 3 financial liabilities, increases are shown as negative amounts, while decreases are shown as positive amounts.

- Transfers between levels are recognised at the beginning of the reporting period in which they occur. Accordingly, the tables do not include gains or losses for level 3 financial assets and financial liabilities that were transferred out of level 3 prior to the end of the period.

- Level 3 financial assets and financial liabilities are frequently economically hedged with level 1 and level 2 financial assets and financial liabilities. Accordingly, level 3 gains or losses that are reported for a particular class of financial asset or financial liability can be partially offset by gains or losses attributable to level 1 or level 2 in the same class of financial asset or financial liability or gains or losses attributable to level 1, level 2 or level 3 in a different class of financial asset or financial liability. As a result, gains or losses included in the level 3 rollforward do not necessarily represent the overall impact on the company's results of operations, liquidity or capital resources.

- The net gains on level 3 financial assets for 2017 and 2016 are reported in "Net revenues" in the profit and loss account.

- The net losses on level 3 financial liabilities of $1.44 billion for 2017 included losses of $1.34 billion reported in "Net revenues" in the profit and loss account and losses of $100 million reported in "Debt valuation adjustment" in the statements of comprehensive income. The net losses on level 3 financial liabilities of $377 million for 2016 included losses of $288 million reported in "Net revenues" in the profit and loss account and losses of $89 million reported in "Debt valuation adjustment" in the statements of comprehensive income.

The table below disaggregates, by the balance sheet line items, the information for financial liabilities included in the summary table above. The information for financial assets included in the summary table above has not been disaggregated as it solely relates to "Financial instruments owned" in the balance sheet.

	Year Ended December	
$ in millions	**2017**	2016
Financial instruments sold, but not yet purchased		
Beginning balance	**$(2,228)**	$(2,727)
Losses	**(653)**	(446)
Purchases	**6**	14
Sales	**(237)**	(201)
Settlements	**465**	892
Transfers into level 3	**(18)**	(155)
Transfers out of level 3	**384**	395
Ending balance	**$(2,281)**	$(2,228)
Collateralised financings		
Beginning balance	**$ (536)**	$ (133)
Gains/(losses)	**(26)**	22
Sales	**(147)**	(375)
Settlements	**67**	37
Transfers into level 3	**–**	(87)
Ending balance	**$ (642)**	$ (536)
Other creditors		
Beginning balance	**$(6,864)**	$(5,541)
Gains/(losses)	**(760)**	47
Sales	**(4,901)**	(5,121)
Settlements	**3,951**	3,158
Transfers into level 3	**(21)**	(398)
Transfers out of level 3	**711**	991
Ending balance	**$(7,884)**	$(6,864)

Transfers Between Level 2 and Level 3 of the Fair Value Hierarchy

Year Ended December 2017. Transfers into level 3 primarily reflected transfers of certain credit products from level 2, principally due to reduced transparency of certain credit spread and yield inputs as a result of lack of market evidence.

Transfers out of level 3 primarily reflected transfers of certain credit products to level 2 principally due to increased transparency of certain spread and yield inputs and transfers of certain equity products to level 2, principally due to increased transparency of certain equity volatility and correlation inputs. The increased transparency was a result of an increase in the availability of market evidence.

Year Ended December 2016. Transfers into level 3 primarily reflected transfers of certain credit derivatives from level 2, principally due to unobservable credit spread and yield inputs becoming significant to the valuation of these instruments and the transfers of certain equity derivatives from level 2, principally due to unobservable volatility and correlation inputs becoming significant to the valuation of these derivatives.

Transfers out of level 3 primarily reflected transfers of certain credit derivatives to level 2, principally due to unobservable credit spread inputs no longer being significant to the net risk of certain portfolios, transfer of certain equity derivatives to level 2, principally due to unobservable volatility and correlation inputs no longer being significant to the net risk of certain portfolios and transfer of certain interest rate derivatives to level 2, due to unobservable long dated interest rate bases becoming observable.

Fair Value of Financial Assets and Financial Liabilities Not Measured at Fair Value

As of December 2017 and December 2016, the company had $157.91 billion and $129.28 billion, respectively, of current financial assets and $139.56 billion and $138.17 billion, respectively, of current financial liabilities that are not measured at fair value. Given the short-term nature of these instruments, their carrying amounts in the balance sheet are a reasonable approximation of fair value.

As of December 2017 and December 2016, the company had $18.68 billion and $18.67 billion, respectively, of financial liabilities that are due after more than one year that are not measured at fair value which predominantly relate to long-term intercompany borrowings. The interest rates of these borrowings are variable in nature and approximate prevailing market interest rates for instruments with similar terms and characteristics. As such, their carrying amounts in the balance sheet are a reasonable approximation of fair value.

Items of Income, Expense, Gains or Losses

The table below presents the items of income, expense, gains or losses related to the company's financial assets and financial liabilities that are presented within net revenues.

	Year Ended December	
$ in millions	**2017**	2016
Non-interest income	**$6,312**	$6,477
Interest income		
Interest income from external counterparties	**1,971**	1,521
Interest income from parent and group undertakings	**1,054**	607
Total interest income	**3,025**	2,128
Interest expense		
Interest expense from external counterparties	**950**	1,016
Interest expense from parent and group undertakings	**1,879**	1,040
Total interest expense	**2,829**	2,056
Net interest income	**196**	72
Total net revenues	**$6,508**	$6,549

In the table above:

- Non-interest income included commissions and fees income of $578 million and $619 million for 2017 and 2016, respectively. This is recognised in Institutional Client Services and Investment Management.
- Non-interest income included net losses of $2.44 billion and $495 million for 2017 and 2016, respectively, in relation to the company's financial assets and financial liabilities designated at fair value through profit or loss. This is recognised in Institutional Client Services. The remaining net revenues within Institutional Client Services predominately relate to net gains from financial assets and financial liabilities held for trading.

Maturity of Financial Liabilities

The table below presents the cash flows of the company's financial liabilities by contractual maturity including interest that will accrue, except for financial instruments sold, but not yet purchased. Financial instruments sold, but not yet purchased are classified as trading/on demand. Financial liabilities, with the exception of those that are held for trading or designated at fair value through profit and loss, are disclosed at their undiscounted cash flows.

The fair values of financial liabilities held for trading and financial liabilities designated at fair value through profit and loss have been disclosed as this is consistent with the values used in the liquidity risk management of these instruments. Liquidity risk on derivatives is mitigated through master netting agreements and cash collateral arrangements.

	Financial Liabilities						
$ in millions	Trading/ on demand	Less than one month	More than one month but less than three months	More than three months but less than one year	More than one year but less than five years	Greater than five years	Total
As of December 2017							
Amounts falling due within one year							
Financial instruments sold, but not yet purchased	**$589,922**	**$ –**	**$ –**	**$ –**	**$ –**	**$ –**	**$589,922**
Collateralised financings	**91,724**	**30,915**	**19,306**	**16,134**	**–**	**–**	**158,079**
Other creditors	**76,361**	**2,768**	**1,186**	**23,139**	**–**	**–**	**103,454**
Total	**758,007**	**33,683**	**20,492**	**39,273**	**–**	**–**	**851,455**
Amounts falling due after more than one year							
Collateralised financings	**–**	**–**	**–**	**–**	**15,999**	**1,379**	**17,378**
Other creditors	**–**	**2**	**72**	**438**	**24,895**	**17,012**	**42,419**
Total	**–**	**2**	**72**	**438**	**40,894**	**18,391**	**59,797**
Total – on-balance-sheet	**758,007**	**33,685**	**20,564**	**39,711**	**40,894**	**18,391**	**911,252**
Contingent and forward starting collateralised agreements	**882**	**57,863**	**10**	**1**	**–**	**–**	**58,756**
Operating leases	**–**	**7**	**15**	**67**	**177**	**5**	**271**
Other	**3,392**	**–**	**299**	**–**	**–**	**–**	**3,691**
Total – off-balance-sheet	**4,274**	**57,870**	**324**	**68**	**177**	**5**	**62,718**
Total financial liabilities	**$762,281**	**$91,555**	**$20,888**	**$39,779**	**$41,071**	**$18,396**	**$973,970**
As of December 2016							
Amounts falling due within one year							
Financial instruments sold, but not yet purchased	$613,911	$ –	$ –	$ –	$ –	$ –	$613,911
Collateralised financings	86,819	27,178	14,019	12,372	–	–	140,388
Other creditors	80,535	2,749	1,562	19,378	–	–	104,224
Total	781,265	29,927	15,581	31,750	–	–	858,523
Amounts falling due after more than one year							
Collateralised financings	–	–	2	9	7,298	502	7,811
Other creditors	–	2	5	18	31,260	11,552	42,837
Total	–	2	7	27	38,558	12,054	50,648
Total – on-balance-sheet	781,265	29,929	15,588	31,777	38,558	12,054	909,171
Contingent and forward starting collateralised agreements	844	42,261	–	494	–	–	43,599
Operating leases	–	7	14	61	229	–	311
Other	3,993	–	–	–	–	–	3,993
Total – off-balance-sheet	4,837	42,268	14	555	229	–	47,903
Total financial liabilities	$786,102	$72,197	$15,602	$32,332	$38,787	$12,054	$957,074

Collateral Received and Pledged

The company receives cash and securities (e.g., government and agency obligations, corporate debt securities, equity securities) as collateral, primarily in connection with resale agreements, securities borrowed, derivative transactions and customer margin loans. The company obtains cash and securities as collateral on an upfront or contingent basis for derivative instruments and collateralised agreements to reduce its credit exposure to individual counterparties.

In many cases, the company is permitted to deliver or repledge financial instruments received as collateral when entering into repurchase agreements and securities lending agreements, primarily in connection with secured client financing activity. The company is also permitted to deliver or repledge these financial instruments in connection with other secured financings, collateralising derivative transactions and meeting company or customer settlement requirements.

The table below presents financial instruments received as collateral that were available to be delivered, or repledged and were delivered or repledged by the company.

	As of December	
$ in millions	**2017**	2016
Collateral available to be delivered or repledged	**$491,634**	$420,321
Collateral that was delivered or repledged	**$444,650**	$367,705

The company also pledges certain financial instruments owned in connection with repurchase agreements, securities lending agreements and other secured financings to counterparties who may or may not have the right to deliver or repledge.

The table below presents information about assets pledged.

	As of December	
$ in millions	**2017**	2016
Financial instruments owned pledged to counterparties that:		
Had the right to deliver or repledge	**$24,178**	$20,110
Did not have the right to deliver or repledge	**$23,358**	$21,563

The company has received cash collateral, mainly in respect of financial instruments owned, of $59.10 billion and $60.94 billion as of December 2017 and December 2016, respectively, and posted cash collateral, mainly in respect of financial instruments sold, but not yet purchased, of $50.07 billion and $47.37 billion as of December 2017 and December 2016, respectively.

In addition to repurchase agreements and securities lending transactions, the company funds certain assets through the use of other secured financings and pledges financial instruments as collateral in these transactions. These other secured financings consist of liabilities related to special purpose entities, transfers of financial assets that are accounted for as financings rather than sales and other structured financing arrangements. Other secured financings include arrangements that are non-recourse.

Hedge Accounting

The company designates certain interest rate swaps as fair value hedges of certain fixed-rate unsecured long-term and short-term debt. These interest rate swaps hedge changes in fair value attributable to the relevant benchmark interest rate (e.g., LIBOR), effectively converting fixed rate obligations into floating rate obligations.

The company applies a statistical method that utilises regression analysis when assessing the effectiveness of its fair value hedging relationships in achieving offsetting changes in the fair values of the hedging instrument and the risk being hedged (i.e., interest rate risk). An interest rate swap is considered highly effective in offsetting changes in fair value attributable to changes in the hedged risk when the regression analysis results in a coefficient of determination of 80% or greater and a slope between 80% and 125%.

For qualifying fair value hedges, gains or losses on derivatives and the change in fair value of the hedged item attributable to the hedged risk are included in net revenues. When a derivative is no longer designated as a hedge, any remaining difference between the carrying value and par value of the hedged item is amortised over the remaining life of the hedged item using the effective interest method.

The table below presents the gains/(losses) from interest rate derivatives accounted for as hedges, the related hedged borrowings and the hedge ineffectiveness on these derivatives.

	Year Ended December	
$ in millions	**2017**	2016
Interest rate hedges	**$(35)**	$ 7
Hedged borrowings	**16**	(7)
Hedge ineffectiveness	**$(19)**	$ –

The table below presents the gross fair value of asset and liability derivative instruments designated as hedges.

	As of December 2017		As of December 2016	
$ in millions	**Derivative Assets**	**Derivative Liabilities**	Derivative Assets	Derivative Liabilities
Total	**$38**	**$ –**	$128	$29

Unconsolidated Structured Entities

The company has interests in structured entities that it does not control (unconsolidated structured entities), which primarily includes: senior and subordinated debt in residential and commercial mortgage-backed and corporate debt and other asset-backed securitisation entities; derivatives and guarantees.

Structured entities generally finance the purchase of assets by issuing debt securities that are either collateralised by or indexed to the assets held by the structured entity. The debt securities issued by a structured entity may include tranches of varying levels of subordination. The company's involvement with structured entities primarily includes securitisation of financial assets.

In certain instances, the company provides guarantees, including derivative guarantees, to unconsolidated structured entities or holders of interests in unconsolidated structured entities.

The table below presents a summary of the unconsolidated structured entities in which the company holds interests. The company's maximum exposure to loss is mainly a result of derivatives, commitments and guarantees, for which the maximum exposure to loss is the notional amount, which does not represent anticipated losses and also has not been reduced by unrealised losses already recorded. As a result, the maximum exposure to loss exceeds liabilities recorded for derivatives, commitments and guarantees, provided to unconsolidated structured entities.

	As of December	
$ in millions	**2017**	2016
Assets in structured entities	**$7,643**	$7,513
Carrying value of interests - assets	**$ 538**	$ 511
Carrying value of interests - liabilities	**$ (34)**	$ (31)
Maximum exposure to loss	**$4,119**	$4,523

The carrying values of the company's interests are included in the balance sheet in "Financial instruments owned" or "Financial instruments sold, but not yet purchased".

Transferred Assets

Assets Continued to be Recognised in Full. During the year, the company transferred certain financial assets where the transfers failed to meet the derecognition criteria, as contained in IAS 39, and as a result of which the company continues to recognise these assets in full in the balance sheet.

The company transfers assets owned to counterparties in the ordinary course of business to collateralise repurchase agreements and other securities lending transactions. In these transactions the transferred assets continue to be recognised by the company for accounting purposes because the transactions require the financial instruments to be repurchased at maturity of the agreement and the company remains exposed to the price, credit and interest rate risk of these instruments. When the company receives cash proceeds from the transfer of the asset, a financial liability is recognised in respect of the consideration received and recorded within "Collateralised financings". When the company receives non cash collateral (in the form of securities) no liability is initially recognised. If collateral received is subsequently sold, the obligation to return the collateral is recognised as a liability within "Financial instruments sold, but not yet purchased".

In addition to repurchase agreements and securities lending agreements, the company obtains funding through the use of other arrangements that fail to meet the derecognition criteria. For example, sales of securities with related derivatives, such as total return swaps, through which the company retains substantially all of the risk and reward of the transferred assets. A financial liability is recognised in such cases for the proceeds received.

Other financial assets transferred that continue to be recognised on balance sheet for accounting purposes relate to pledges of securities as collateral, primarily for derivative transactions. The obligations under such derivatives are recorded in "Financial instruments sold, but not yet purchased".

The table below presents financial assets which have been transferred but which remain on balance sheet for accounting purposes. The carrying amount of the associated financial liabilities generally approximate the carrying amount of the assets transferred.

	As of December	
$ in millions	**2017**	2016
Government and agency obligations	**$14,629**	14,803
Corporate loans and debt securities and other debt obligations	**5,766**	4,254
Equity securities	**27,141**	22,616
Total	**$47,536**	$41,673

Derecognised Assets With Ongoing Exposure. The company has continuing involvement in the form of derivative transactions and guarantees with certain unconsolidated structured entities to which the company had transferred financial assets. These derivatives may be credit-linked to the asset transferred and result in the company retaining specific risks in the transferred asset or require the company to make payments to the structured entity to compensate losses on the asset if certain contingent events occur.

In addition, the company transfers financial assets to securitisation vehicles. The company generally receives cash in exchange for the transferred assets but may have continuing involvement with the transferred assets, including ownership of beneficial interests in the securitised financial assets, primarily in the form of debt instruments. The company may also purchase senior or subordinated securities issued by securitisation vehicles in connection with secondary market-making activities.

Where the company's continuing involvement in transferred assets is through derivatives or guarantees, the maximum exposure to loss is the notional amounts of the derivative or guarantee. For retained or purchased interests in securitised assets, the company's risk of loss is limited to the fair value of these interests. In all cases these retained interests are carried at fair value.

The company accounts for assets pending transfer at fair value and therefore does not typically recognise significant gains or losses upon the transfer of assets. The company does not have continuing involvement that could require the company to repurchase derecognised financial assets.

The tables below present information about the company's exposure through continuing involvement and the gains or losses related to those transactions.

$ in millions	Carrying Amount	Maximum Exposure to Loss
As of December 2017		
Assets		
Cash instruments	**$ 10**	**$ 21**
Derivative instruments	**85**	**902**
Financial instruments owned	**95**	**923**
Total	**$ 95**	**$923**
Liabilities		
Derivatives instruments	**$ (2)**	**$112**
Financial instruments sold, but not yet purchased	**(2)**	**112**
Total	**$ (2)**	**$112**
As of December 2016		
Assets		
Cash instruments	$ 13	$ 23
Derivative instruments	63	890
Financial instruments owned	76	913
Total	$ 76	$913
Liabilities		
Derivatives instruments	$ (2)	$ 99
Financial instruments sold, but not yet purchased	(2)	99
Total	$ (2)	$ 99

$ in millions	Income/ (Expense) in the year	Cumulative Income/ (Expense)
As of December 2017		
Assets		
Cash instruments	**$ 1**	**$132**
Derivative instruments	**1**	**124**
Financial instruments owned	**2**	**256**
Total	**$ 2**	**$256**
Liabilities		
Derivatives instruments	**$ –**	**$ (35)**
Financial instruments sold, but not yet purchased	**–**	**(35)**
Other creditors	**–**	**(1)**
Total	**$ –**	**$ (36)**
As of December 2016		
Assets		
Cash instruments	$ 11	$131
Derivative instruments	(27)	123
Financial instruments owned	(16)	254
Total	$(16)	$254
Liabilities		
Derivatives instruments	$ (3)	$ (35)
Financial instruments sold, but not yet purchased	(3)	(35)
Other creditors	–	(1)
Total	$ (3)	$ (36)

Note 29.

Offsetting of Financial Assets and Financial Liabilities

The tables below present the company's financial assets and financial liabilities that are subject to enforceable netting agreements and offsetting. Amounts are only offset in the balance sheet when the company currently has a legally enforceable right to set-off the recognised amounts and an intention either to settle on a net basis, or to realise the asset and settle the liability simultaneously. In the tables below:

- Gross amounts exclude the effects of both counterparty netting and collateral, and therefore are not representative of the company's economic exposure.
- Amounts not offset in the balance sheet include counterparty netting (i.e., the netting of financial assets and financial liabilities for a given counterparty when a legal right of setoff exists under an enforceable netting agreement), and cash and security collateral received and posted under enforceable credit support agreements, that do not meet the criteria for offsetting under U.K. GAAP.
- Where the company has received or posted collateral under credit support agreements, but has not yet determined whether such agreements are enforceable, the related collateral has not been included in the amounts not offset in the balance sheet.
- Gross amounts included derivative assets and derivative liabilities of $5.69 billion and $6.27 billion, respectively, as of December 2017, and derivative assets and derivative liabilities of $6.94 billion and $6.82 billion, respectively, as of December 2016, which are not subject to an enforceable netting agreement or are subject to a netting agreement that the company has not yet determined to be enforceable.
- Substantially all resale agreements and securities borrowed within collateralised agreements and repurchase agreements and securities loaned within collateralised financings are subject to enforceable netting agreements as of December 2017 and December 2016.

	As of December 2017						
				Amounts not offset in the balance sheet			
$ in millions	Gross amounts	Amounts offset in the balance sheet	Net amount presented in the balance sheet	Counterparty netting	Cash collateral	Security collateral	Net amount
Financial Assets							
Cash instruments	**$ 17,333**	**$ (13,570)**	**$ 3,763**	**$ (523)**	**$ (368)**	**$ (2,230)**	**$ 642**
Derivative instruments	**580,749**	**(14,540)**	**566,209**	**(496,655)**	**(37,222)**	**(12,206)**	**20,126**
Financial instruments owned	**598,082**	**(28,110)**	**569,972**	**(497,178)**	**(37,590)**	**(14,436)**	**20,768**
Collateralised agreements	**267,424**	**(62,604)**	**204,820**	**(83,213)**	**–**	**(117,657)**	**3,950**
Debtors	**68,567**	**(9,013)**	**59,554**	**(5,803)**	**(36,896)**	**(7,673)**	**9,182**
Financial assets subject to enforceable netting agreements	**934,073**	**(99,727)**	**834,346**	**(586,194)**	**(74,486)**	**(139,766)**	**33,900**
Financial assets not subject to enforceable netting agreements	**104,843**	**–**	**104,843**	**–**	**–**	**–**	**104,843**
Total financial assets	**$1,038,916**	**$(99,727)**	**$939,189**	**$(586,194)**	**$(74,486)**	**$(139,766)**	**$138,743**
Financial Liabilities							
Amounts falling due within one year							
Cash instruments	**$ 768**	**$ (718)**	**$ 50**	**$ –**	**$ –**	**$ –**	**$ 50**
Derivative instruments	**570,661**	**(14,538)**	**556,123**	**(496,609)**	**(35,821)**	**(6,833)**	**16,860**
Financial instruments sold, but not yet purchased	**571,429**	**(15,256)**	**556,173**	**(496,609)**	**(35,821)**	**(6,833)**	**16,910**
Collateralised financings	**227,069**	**(71,560)**	**155,509**	**(81,610)**	**(440)**	**(70,660)**	**2,799**
Other creditors	**70,730**	**(3,482)**	**67,248**	**(6,250)**	**(37,699)**	**–**	**23,299**
Total	**869,228**	**(90,298)**	**778,930**	**(584,469)**	**(73,960)**	**(77,493)**	**43,008**
Amounts falling due after more than one year							
Collateralised financings	**22,294**	**(7,553)**	**14,741**	**(1,646)**	**(446)**	**(11,679)**	**970**
Other creditors	**3,720**	**(1,876)**	**1,844**	**(79)**	**(80)**	**–**	**1,685**
Total	**26,014**	**(9,429)**	**16,585**	**(1,725)**	**(526)**	**(11,679)**	**2,655**
Financial liabilities subject to enforceable netting agreements	**895,242**	**(99,727)**	**795,515**	**(586,194)**	**(74,486)**	**(89,172)**	**45,663**
Financial liabilities not subject to enforceable netting agreements	**112,801**	**–**	**112,801**	**–**	**–**	**–**	**112,801**
Total financial liabilities	**$1,008,043**	**$(99,727)**	**$908,316**	**$(586,194)**	**$(74,486)**	**$ (89,172)**	**$158,464**

	As of December 2016						
				Amounts not offset in the balance sheet			
$ in millions	Gross amounts	Amounts offset in the balance sheet	Net amount presented in the balance sheet	Counterparty netting	Cash collateral	Security collateral	Net amount
Financial Assets							
Cash instruments	$ 16,948	$ (12,361)	$ 4,587	$ (1,120)	$ (42)	$ (2,919)	$ 506
Derivative instruments	661,959	(62,360)	599,599	(524,767)	(42,870)	(12,425)	19,537
Financial instruments owned	678,907	(74,721)	604,186	(525,887)	(42,912)	(15,344)	20,043
Collateralised agreements	232,912	(48,312)	184,600	(85,692)	–	(95,557)	3,351
Debtors	58,632	(6,162)	52,470	(3,531)	(37,476)	(4,864)	6,599
Financial assets subject to enforceable netting agreements	970,451	(129,195)	841,256	(615,110)	(80,388)	(115,765)	29,993
Financial assets not subject to enforceable netting agreements	92,137	–	92,137	–	–	–	92,137
Total financial assets	$1,062,588	$(129,195)	$933,393	$(615,110)	$(80,388)	$(115,765)	$122,130
Financial Liabilities							
Amounts falling due within one year							
Cash instruments	$ 1,740	$ (1,686)	$ 54	$ –	$ –	$ –	$ 54
Derivative instruments	648,143	(61,168)	586,975	(525,614)	(35,845)	(8,941)	16,575
Financial instruments sold, but not yet purchased	649,883	(62,854)	587,029	(525,614)	(35,845)	(8,941)	16,629
Collateralised financings	188,865	(53,155)	135,710	(85,159)	–	(49,504)	1,047
Other creditors	73,372	(4,609)	68,763	(3,265)	(43,582)	–	21,916
Total	912,120	(120,618)	791,502	(614,038)	(79,427)	(58,445)	39,592
Amounts falling due after more than one year							
Collateralised financings	14,237	(6,742)	7,495	(1,060)	(475)	(5,412)	548
Other creditors	3,959	(1,835)	2,124	(12)	(486)	–	1,626
Total	18,196	(8,577)	9,619	(1,072)	(961)	(5,412)	2,174
Financial liabilities subject to enforceable netting agreements	930,316	(129,195)	801,121	(615,110)	(80,388)	(63,857)	41,766
Financial liabilities not subject to enforceable netting agreements	105,234	–	105,234	–	–	–	105,234
Total financial liabilities	$1,035,550	$(129,195)	$906,355	$(615,110)	$(80,388)	$ (63,857)	$147,000

During 2017, pursuant to a rule change at a clearing organisation and to an election under the rules of another clearing organisation, transactions with such clearing organisations are considered settled each day. The impact of reflecting transactions with these two clearing organisations as settled would have been a reduction in both gross assets and liabilities as of December 2016 of $57.01 billion, and a corresponding decrease in amounts offset in the balance sheet, counterparty netting and cash collateral netting, with no impact to the net amount in the table above.

The Supplement, the Registration Document and the Report are available free of charge at the offices of Goldman Sachs International, Zweigniederlassung Frankfurt, MesseTurm, Friedrich-Ebert-Anlage 49, 60308 Frankfurt am Main and furthermore are available on the website www.gs.de/service/wertpapierprospekte.

Pursuant to article 16 para. 3 of the German Securities Prospectus Act, investors who have already agreed to purchase or subscribe for securities offered under the Prospectus before this Supplement has been published shall have the right, exercisable within a time period of two working days after the publication of this Supplement, to withdraw their acceptances, provided that the new factor, mistake or inaccuracy arose before the final closing of the offer to the public and the delivery of the securities. No grounds must be stated for the withdrawal, which must be made in text form. The timely dispatch of the withdrawal is sufficient to comply with the deadline.

Addressee of a withdrawal is Goldman Sachs International, Zweigniederlassung Frankfurt, MesseTurm, Friedrich-Ebert-Anlage 49, 60308 Frankfurt am Main.