



Goldman Sachs Group UK Limited

# Pillar 3 Disclosures

For the year ended December 31, 2017

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## Introduction

### Overview

The Goldman Sachs Group, Inc. (Group Inc. or parent company), a Delaware corporation, together with its consolidated subsidiaries (collectively, the firm), 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. Goldman Sachs Group UK Limited (GSGUKL) is a wholly owned subsidiary of Group Inc.. When we use the terms “Goldman Sachs” and “the firm”, we mean Group Inc. and its consolidated subsidiaries and when we use the terms “GSGUK”, “we”, “us” and “our”, we mean GSGUKL and its consolidated subsidiaries.

The Board of Governors of the Federal Reserve System (Federal Reserve Board) is the primary regulator of Group Inc., a bank holding company under the Bank Holding Company Act of 1956 (BHC Act) and a financial holding company under amendments to the BHC Act. As a bank holding company, the firm is subject to consolidated regulatory capital requirements which are calculated in accordance with the revised risk-based capital and leverage regulations of the Federal Reserve Board, subject to certain transitional provisions.

GSGUK is supervised on a consolidated basis by the Prudential Regulation Authority (PRA) and as such is subject to minimum capital adequacy standards. Certain subsidiaries of GSGUK are regulated by the Financial Conduct Authority (FCA) and the PRA and are subject to minimum capital adequacy standards also on a standalone basis.

The risk-based capital requirements are expressed as capital ratios that compare measures of regulatory capital to Risk-Weighted Assets (RWAs). Failure to comply with these requirements could result in restrictions being imposed by our regulators. GSGUK’s capital levels are also subject to qualitative judgements by our regulators about components of capital, risk weightings and other factors.

For information on Group Inc.’s financial statements and regulatory capital ratios, please refer to the firm’s most recent Quarterly Pillar 3 Disclosures, Quarterly Report on Form 10-Q and Annual Report on Form 10-K. References to the “2017 Form 10-K” are to the firm’s Annual Report on Form 10-K for the year ended December 31, 2017. All references to December 2017 refer to the periods ended, or the date December 31, 2017, as the context requires.

The GSGUK consolidated regulatory capital requirement has been calculated in accordance with the E.U. Fourth Capital Requirements Directive (CRD IV) and the E.U. Capital Requirements Regulation (CRR), which came into effect on January 1, 2014. These regulations are largely based on the Basel Committee’s final capital framework for strengthening international capital standards (Basel III), which is structured around three pillars: Pillar 1 “minimum capital requirements”, Pillar 2 “supervisory review process” and Pillar 3 “market discipline”. Certain provisions of CRD IV are directly applicable in the UK and certain provisions have been implemented in the PRA and FCA Rulebooks.

These Pillar 3 disclosures have been published in conjunction with consolidated financial information for GSGUK for the year ended December 31, 2017 and set out the qualitative and quantitative disclosures required by Part 8 of the CRR within CRD IV, as supplemented by the PRA and FCA Rulebooks in relation to GSGUK and in accordance with the European Banking Authority’s revised guidelines on disclosure requirements under Part 8 of the CRR published in December 2016 and effective from December 31, 2017.

The annual consolidated financial information for GSGUK can be accessed via the following link:

<http://www.goldmansachs.com/disclosures/index.html>

Measures of exposures and other metrics disclosed in this report may not be based on U.K. Generally Accepted Accounting Practices (U.K. GAAP), may not be directly comparable to measures reported in GSGUK’s consolidated financial information, and may not be comparable to similar measures used by other companies. These disclosures are not required to be, and have not been, audited by our independent auditors.

Information in the 2017 Form 10-K under the headings of “Critical Accounting Policies”, “Equity Capital Management and Regulatory Capital” and “Risk Management - Overview and Structure of Risk Management” in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” is also applicable to GSGUK as integrated subsidiaries of Group Inc. The 2017 Form 10-K can be accessed via the following link:

<http://www.goldmansachs.com/investor-relations/financials/current/10k/2017-10-k.pdf>

**Pillar 3 Disclosures****Basis of Consolidation**

GSGUKL is the holding company for a group that provides a wide range of financial services to clients located worldwide. The company's functional currency is US dollars and these disclosures are prepared in that currency.

The following UK-regulated subsidiaries are included in the regulatory consolidation:

- Goldman Sachs International (GSI)
- Goldman Sachs International Bank (GSIB)
- Goldman Sachs Asset Management International (GSAMI)
- Goldman Sachs Asset Management Global Services Limited
- Goldman Sachs MB Services Limited

The scope of consolidation for regulatory capital purposes is consistent with the U.K. GAAP consolidation.

CRD IV requires material subsidiaries to make certain capital disclosures on an individual or subconsolidated basis. For GSGUK these are GSI and GSIB. GSI is the firm's broker dealer in the Europe, Middle East and Africa (EMEA) region and its risk profile is materially the same as GSGUK. GSIB is GSGUK's deposit-taking subsidiary. Risk management policies and procedures are applied consistently to GSI, GSIB and to GSGUK as a whole. The remaining entities have minimal balance sheet activity and have not been determined material subsidiaries for the purposes of these disclosures.

**Restrictions on the Transfer of Funds or Regulatory Capital within the Firm**

Group Inc. is a holding company and, therefore, utilises dividends, distributions and other payments from its subsidiaries to fund dividend payments and other payments on its obligations, including debt obligations. Regulatory capital requirements as well as provisions of applicable law and regulations restrict Group Inc.'s ability to withdraw capital from its regulated subsidiaries. Within GSGUK, capital is provided by GSGUKL to subsidiary entities. Capital is considered transferable to other entities within the GSGUK Group without any significant restriction except to the extent it is required for regulatory purposes.

For information about restrictions on the transfer of funds within Group Inc. and its subsidiaries, see "Note 20. Regulation and Capital Adequacy" in Part II, Item 8 "Financial Statements and Supplementary Data" and "Risk Management - Liquidity Risk Management" and "Equity Capital Management and Regulatory Capital" in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the firm's 2017 Form 10-K.

**Definition of Risk-Weighted Assets**

The risk weights that are used in the calculation of RWAs reflect an assessment of the riskiness of our assets and exposures. These risk weights are based on either predetermined levels set by regulators or on internal models which are subject to various qualitative and quantitative parameters that are subject to approval by our regulators. The relationship between available capital and capital requirements can be expressed in the form of a ratio, and capital requirements are arrived at by dividing RWAs by 12.5. In this document, minimum capital ratios set out in Table 1 are expressed including the impact of additional buffers.

**Pillar 3 Disclosures****Fair Value**

The inventory amounts reflected on our consolidated balance sheet as “Financial instruments owned” and “Financial instruments sold, but not yet purchased” as well as certain other financial assets and financial liabilities, are accounted for at fair value (i.e., marked-to-market), with related gains or losses generally recognised in our consolidated profit and loss account and, therefore, in capital. 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. The use of fair value to measure financial instruments is fundamental to risk management practices and is our most critical accounting policy. The daily discipline of marking substantially all of our inventory to current market levels is an effective tool for assessing and managing risk and provides transparent and realistic insight into our financial exposures. The use of fair value is an important aspect to consider when evaluating our capital base and our capital ratios; it is also a factor used to determine the classification of positions into the banking book and trading book.

For additional information regarding the determination of fair value under the United States generally accepted accounting principles (US GAAP) and controls over valuation of inventory, see “Note 3. Significant Accounting Policies” and “Note 5. Fair Value Measurements” in Part II, Item 8 “Financial Statements and Supplementary Data” and “Critical Accounting Policies – Fair Value” in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the firm’s 2017 Form 10-K.

For additional information regarding the determination of fair value under U.K. GAAP and controls over valuation of inventory, please refer to “Note 2. Summary of Significant Accounting Policies” in GSGUK’s consolidated financial information.

GSGUK has documented policies and maintains systems and controls for the calculation of Prudent Valuation Adjustment (PVA) as required by the Commission Delegated Regulation (EU) No. 2016/101. PVA represents the excess of valuation adjustments required to achieve prudent value, over any adjustment applied in the firm’s fair value that addresses the same source of valuation uncertainty. For a valuation input where the range of plausible values is created from mid prices, Prudent Value represents the point within the range where the firm is 90% confident that the mid value which could be achieved in exiting the valuation exposure would be at that price or

better. The Firm’s methodology addresses fair value uncertainties arising from a number of sources; market price uncertainty, close-out costs, model risk, unearned credit spreads, investing and funding cost, concentrated positions, future administrative costs, early termination and operational risk. Methodologies utilised by our independent control functions to calculate PVA are aligned with, and use the same external data sources as, those used when carrying out price verification of fair value.

**Banking Book / Trading Book Classification**

In order to determine the appropriate regulatory capital treatment for our exposures, positions must be first classified into either “banking book” or “trading book”. Positions are classified as banking book unless they qualify to be classified as trading book.

Banking book positions may be accounted for at amortised cost, fair value or in accordance with the equity method; they are not generally positions arising from client servicing and market making, positions intended to be resold in the short term, or positions intended to benefit from actual or expected short-term price differences between buying and selling prices or from other price or interest rate variations<sup>1</sup>. Banking book positions are subject to credit risk regulatory capital requirements. Credit risk represents the potential for loss due to the default or deterioration in credit quality of a counterparty (e.g., an Over-The-Counter (OTC) derivatives counterparty or a borrower) or an issuer of securities or other instruments we hold. See “Credit Risk Management” for additional details.

Trading book positions generally meet the following criteria: they are assets or liabilities that are accounted for at fair value; they are risk managed using a Value-at-Risk (VaR) internal model; they are held as part of our market-making and underwriting businesses and are intended to be resold in the short term, or positions intended to benefit from actual or expected short-term price differences between buying and selling prices or from other price or interest rate variations<sup>1</sup>. Trading book positions are subject to market risk regulatory capital requirements, as are foreign exchange and commodity positions, whether or not they meet the other criteria for classification as trading book positions. Market risk is the risk of loss in the value of our inventory due to changes in market prices. See “Market Risk Management” section for further details. Some trading book positions, such as derivatives, are also subject to counterparty credit risk regulatory capital requirements.

<sup>1</sup> As defined in point (85) of Article 4(1) in CRD IV.

## Risk Management

### Overview

Risks are inherent in the firm's businesses and include liquidity, market, credit, operational, model, legal, compliance, regulatory and reputational risks. Effective risk management plays a key role in the overall success of the firm and of GSGUK. Accordingly, the firm has established an Enterprise Risk Management (ERM) framework that employs an integrated approach to risk management, and is designed to enable comprehensive risk management processes through which we monitor, evaluate and manage the risks we assume in conducting our activities. The following section covers our risk management framework which is built around three core components: governance, processes and people.

### Governance

Risk management governance starts with our Board, which plays an important role in reviewing and approving risk management policies and practices, both directly and through its committees. At our most senior levels, our leaders are experienced risk managers, with a sophisticated and detailed understanding of the risks we take. Senior management in the company's revenue-producing units and independent control and support functions lead and participate in risk-oriented committees.

We maintain strong communication about risk and we have a culture of collaboration in decision-making among the revenue-producing units, independent control and support functions, committees and senior management. While our revenue-producing units are responsible for management of their risk, we dedicate extensive resources to independent control and support functions in order to ensure a strong oversight structure and an appropriate segregation of duties. Independent control and support functions include Compliance, 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. We regularly reinforce our strong culture of escalation and accountability across all divisions and functions.

### Processes

We maintain 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 our risks, we maintain a daily discipline of marking substantially all of our inventory to current market levels. We do so because we believe this discipline is one of the most effective tools for assessing and managing risk and that it provides transparent and realistic insight into our financial exposures. We also apply a rigorous framework of limits to control risk across transactions, products, businesses and markets. See "Credit Risk Management", "Market Risk Management" and "Liquidity Risk Management" for further information about our risk limits.

### People

Even the best technology serves only as a tool for helping to make informed decisions about the risks we are taking. Ultimately, effective risk management requires our people to interpret our risk data on an ongoing and timely basis and adjust risk positions accordingly. 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.

We reinforce a culture of effective risk management in our training and development programs as well as the way we evaluate performance, and recognize and reward our people. Our training and development programs, including certain sessions led by our most senior leaders, are focused on the importance of risk management, client relationships and reputational excellence. As part of our annual performance review process, we assess reputational excellence including how an employee exercises good risk management and reputational judgement. Our review and reward processes are designed to communicate and reinforce to our professionals the link between behaviour and how people are recognized, the need to focus on our clients and our reputation, and the need to always act in accordance with the highest standards of the firm.

## Pillar 3 Disclosures

### Structure

The oversight of risk is ultimately the responsibility of the Boards of Directors, who oversee risk both directly and through delegation to various committees. A series of committees within our significant subsidiaries with specific risk management mandates covering important aspects of each entity's businesses also have oversight or decision-making responsibilities.

In addition, independent control and support functions, which report to the chief executive officer, the chief operating officer, the chief financial officer, or the chief risk officer, are responsible for the day-to-day oversight or monitoring of risk, as described in greater detail in the following sections. Internal Audit, which reports to the Audit Committee of the Board, and includes professionals with a broad range of audit and industry experience, including risk management expertise, is responsible for independently assessing and validating key controls within the risk management framework. The key committees with oversight of our activities are described below.

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

**GSI and GSIB Board Audit Committees.** The GSI and GSIB Board Audit Committees assist the Boards of Directors in the review of processes for ensuring the suitability and effectiveness of the systems and controls in the region. The committees also have responsibility for overseeing the external audit arrangements and review of internal audit activities. Their membership includes non-executive directors of GSI and GSIB. The Board Audit Committees report to the GSI and GSIB Boards.

**GSI and GSIB Board Risk Committees.** The GSI and GSIB Board Risk Committees are responsible for providing advice to the GSI and GSIB Boards of Directors on the overall current and future risk appetite and assisting the boards of directors in overseeing the implementation of that risk appetite and strategy by senior management. This includes reviewing and advising on each company's risk strategy and oversight of the capital, liquidity and funding position. Their membership includes non-executive directors of GSI and GSIB. The Board Risk Committees report to the GSI and GSIB Boards.

**GSI and GSIB Risk Committees.** The GSI and GSIB Risk

Committees are management committees, which are responsible for the on-going monitoring and control of all financial risks associated with the activities of each entity. This includes reviewing key financial and risk metrics, including but not limited to profit and loss, capital (including the Internal Capital Adequacy Assessment Process), funding, liquidity, credit risk, market risk, operational risk, price verification and stress tests. The GSI and GSIB Risk Committees approve market risk, credit risk, liquidity and regulatory capital limits. Their membership includes senior managers from the revenue-producing divisions and independent control and support functions. The Risk Committees report to the GSI and GSIB Boards.

**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.

### Risk Profile and Strategy

In the normal course of activities in serving clients, we commit capital, engage in derivative transactions, and otherwise incur risk as an inherent part of our business. However, we endeavour not to undertake risk in form or amount that could potentially and materially impair our capital and liquidity position or the ability to generate revenues, even in a stressed environment. Where possible we employ mitigants and hedges, such as collateral, netting derivatives and other controls, in order to manage such risks within our risk appetite levels.

GSGUKL's principal subsidiaries, GSI and GSIB, have their own Boards of Directors and their own Board Risk Committees, with the responsibility of assisting each Board in overseeing the implementation of the companies' risk appetite and strategy. Each committee held four scheduled meetings in 2017.

The companies' overall risk appetite is established through an assessment of opportunities relative to potential loss, and is calibrated to GSI and GSIB's respective capital, liquidity and earnings capability. The primary means of evaluating loss-taking capacity is through the ICAAP. The key aspects of risk management documented through the ICAAP process also form part of GSGUK's day-to-day decision making culture.

**Pillar 3 Disclosures**

The Risk Appetite Statement (RAS) of GSI and GSIB complements the firm's RAS, and articulates the risk philosophy, the identification of risks generated by its business activities, as well as the tolerance and limits set in order to manage effectively those risks. Consistent with this objective, we pay particular attention to evaluating risks that are concentrated, correlated, illiquid, or have other adverse characteristics. The intention is to mitigate or eliminate these risks, limiting them to such an extent that they could not, individually or collectively, materially and adversely affect the companies. GSI and GSIB, regularly review risk exposure and risk appetite, and take into consideration the key external constituencies, in particular their clients, shareholders, creditors, rating agencies, and regulators. The long-term success of our business model is directly linked to the preservation of strong relationships with each of these key constituents.

The Boards of Directors of both GSI and GSIB, as well as their respective Board Risk Committees, are actively engaged in reviewing and approving our overall risk appetite, as well as in reviewing the risk profile. Risk appetite statements are reviewed in the first instance by the respective Board Risk Committees and finally, are endorsed by the Boards annually. The Board Risk Committees also approve any amendment to the risk appetite statements outside of the annual approval process. The Boards of Directors receive quarterly updates on risk as well as ad-hoc updates, as appropriate.

The consideration of risk appetite and the underlying risk management framework ensures that GSGUK's businesses are congruent with our strategy under both normal and stressed environments. We believe that the risk management framework and the associated risk policies, procedures and systems in place are comprehensive and effective with regard to our profile and strategy. The framework is evaluated on an ongoing basis and subject to independent internal audit assessments to ensure our risk management arrangements remain effective.

**Risk Measurement**

On a day-to-day basis risk measurement plays an important role in articulating the risk appetite of the firm and GSGUK and in managing the risk profile as expressed in the risk appetite statements. Risk may be monitored against firmwide, product, divisional or business level thresholds or against a combination of such attributes. We measure risk using a suite of metrics, as relevant to each type of risk, including stress metrics to calculate the potential loss from a wide range of scenarios and sensitivity analysis. These risks are tracked systematically and they are monitored and reported to the relevant senior management Committees and Board on a regular basis.

A number of specialist committees and governance bodies sit within the broader risk management framework with responsibilities for the monitoring of specific risks against limits or tolerances and the escalation of any breaches. Specific governance bodies are in place for the management of credit, market, liquidity, model and operational risk.

The firm's risk management framework, which relies on oversight from the Board of Directors, operates independently of revenue producing divisions and other non-revenue producing units such as compliance, finance, legal, internal audit and operations.

For an overview of the firm's risk management framework, including Board governance, processes and committee structure, see "Risk Management – Overview and Structure of Risk Management" in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the firm's 2017 Form 10-K.

**Pillar 3 Disclosures****Capital Framework**

For CRD IV regulatory purposes, a company's total available capital has the following components:

- Common Equity Tier 1 capital (CET1), which is comprised of common shareholders' equity, after giving effect to deductions for disallowed items and other adjustments;
- Tier 1 capital which is comprised of CET1 capital and other qualifying capital instruments; and
- Tier 2 capital, which is comprised of Tier 1 capital and includes long term qualifying subordinated debt.

Certain components of our regulatory capital are subject to regulatory limits and restrictions under CRD IV. In general, to qualify as Tier 1 or Tier 2 capital, an instrument must be fully paid and unsecured. A qualifying Tier 1 or Tier 2 capital instrument must also be subordinated to all senior indebtedness of the organisation.

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% (consisting entirely of CET1) in order to counteract excessive credit growth. The buffer only applies to GSGUK's exposures to certain types of counterparties based in jurisdictions which have announced and implemented a countercyclical buffer. These exposures are not currently material for GSGUK; the buffer adds less than 0.01% to its minimum capital ratio. Further information on the buffer can be found in Table 42 and Table 43.
- 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 GSI's and GSIB's Internal Capital Adequacy Assessment Process (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.

**Minimum Regulatory Capital Ratios**

The risk-based capital requirements are expressed as capital ratios that compare measures of regulatory capital to RWAs. The 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.

The following table presents GSGUK's minimum required ratios as of December 2017.

**Table 1: Minimum Regulatory Capital Ratios**

	<b>December 2017 Minimum ratio<sup>1, 2</sup></b>
CET1 ratio	<b>7.2%</b>
Tier 1 capital ratio	<b>9.1%</b>
Total capital ratio	<b>11.8%</b>

1. Includes the phase-in of the capital conservation buffer and countercyclical capital buffer described above.
2. These minimum ratios also incorporate the Pillar 2A capital guidance received from the PRA and could change in the future.

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 GSGUK 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 in Table 1 above. As the capital conservation buffer phases in, as described above, it will fully or partially replace the PRA buffer.

**Compliance with Capital Requirements**

As of December 31, 2017, all of GSGUK's regulated subsidiaries had capital levels in excess of their minimum regulatory capital requirements.

## Pillar 3 Disclosures

## Regulatory Capital

## Overview

The following table presents a breakdown of GSGUK's capital ratios under CRD IV as of December 31, 2017, including those for our significant subsidiaries GSI and GSIB.

Table 2: Regulatory Capital Ratios

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
CET1 Capital	\$ 29,488	\$ 24,871	\$ 2,848
Tier 1 Capital	35,288	30,671	2,848
Tier 2 Capital	6,503	5,377	826
<b>Total Capital</b>	<b>\$ 41,791</b>	<b>\$ 36,048</b>	<b>\$ 3,674</b>
<b>RWAs</b>	<b>\$ 243,510</b>	<b>\$ 225,942</b>	<b>\$ 12,547</b>
<b>CET1 Ratio</b>	<b>12.1%</b>	<b>11.0%</b>	<b>22.7%</b>
<b>Tier 1 Capital Ratio</b>	<b>14.5%</b>	<b>13.6%</b>	<b>22.7%</b>
<b>Total Capital Ratio</b>	<b>17.2%</b>	<b>16.0%</b>	<b>29.3%</b>

## Capital Structure

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 our regulators.

Assets that are deducted from capital in computing the numerator of the capital ratios are excluded from the computation of RWAs in the denominator of the ratios. The following tables contain information on the components of our regulatory capital structure based on CRD IV, as implemented by the PRA. The capital resources of GSGUK are based on audited, consolidated non-statutory financial information and those of GSI and GSIB are based on audited statutory financial statements.

Table 3: Regulatory Capital Resources

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
Ordinary Share Capital	\$ 2,135	\$ 582	\$ 63
Share Premium Account Including Reserves	388	4,881	2,094
Audited Retained Earnings	28,193	20,438	877
<b>CET1 Capital Before Deductions</b>	<b>\$ 30,716</b>	<b>\$ 25,901</b>	<b>\$ 3,034</b>
Net Pension Assets	(321)	(321)	-
CVA and DVA	210	207	3
Prudent Valuation Adjustments	(347)	(270)	(5)
Expected Loss Deduction and Loan Loss Provision	(394)	(420)	(34)
Other Adjustments	(190)	(40) <sup>2</sup>	(150) <sup>1</sup>
Intangibles	(186)	(186)	-
<b>CET1 Capital After Deductions</b>	<b>\$ 29,488</b>	<b>\$ 24,871</b>	<b>\$ 2,848</b>
<b>Additional Tier 1 capital</b>	<b>5,800</b>	<b>5,800</b>	<b>-</b>
<b>Tier 1 Capital After Deductions</b>	<b>\$ 35,288</b>	<b>\$ 30,671</b>	<b>\$ 2,848</b>
Tier 2 Capital Before Deductions <sup>3</sup>	6,503	5,377	826
Other Adjustments	-	-	-
<b>Tier 2 Capital After Deductions</b>	<b>\$ 6,503</b>	<b>\$ 5,377</b>	<b>\$ 826</b>
<b>Total Capital Resources</b>	<b>\$ 41,791</b>	<b>\$ 36,048</b>	<b>\$ 3,674</b>

1. Other Adjustments within CET1 capital of GSIB primarily represent the excess capital attributed to certain branch operations.
2. Other Adjustments within CET1 capital of GSI primarily represents regulatory adjustments for foreseeable charges and dividends.
3. Tier 2 Capital represents subordinated debt with an original term to maturity of five years or greater. The outstanding amount of subordinated debt qualifying for Tier 2 Capital is reduced, or discounted, upon reaching a remaining maturity of five years.

A further breakdown of the deductions from regulatory capital can be found in Table 41. We set out below a reconciliation between the capital resources of each entity and their respective balance sheets.

Table 4: Reconciliation to Balance Sheet

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
Total Shareholders' Funds per Balance Sheet	\$ 30,716	\$ 25,901	\$ 3,034
Regulatory deductions	(1,228)	(1,030)	(186)
Additional Tier 1 Capital	5,800	5,800	0
Tier 2 Capital After Deductions	6,503	5,377	826
<b>Total Capital Resources</b>	<b>\$ 41,791</b>	<b>\$ 36,048</b>	<b>\$ 3,674</b>

**Pillar 3 Disclosures****Risk-Weighted Assets**

CRD IV RWAs are calculated based on measures of credit risk, market risk and operational risk. The table below presents a summary of the RWA components used to calculate GSGUK's, GSI's and GSIB's consolidated regulatory capital ratios.

**Table 5: Overview of RWAs****GSGUK***\$ in millions*

	RWAs		Minimum capital requirements
	December 2017	September 2017	
1 Credit risk (excluding CCR)	\$ 29,480	\$ 27,470	\$ 2,358
2 Of which the standardised approach	5,996	8,881	480
4 Of which the advanced IRB (AIRB) approach	22,041	17,280	1,763
5 Of which equity IRB under the simple risk-weighted approach or the IMA	1,443	1,309	115
6 CCR	\$ 106,088	\$ 108,773	\$ 8,487
7 Of which mark to market	9,739	10,168	779
9 Of which the standardised approach	24	34	2
10 Of which internal model method (IMM)	74,025	73,425	5,922
11 Of which risk exposure amount for contributions to the default fund of a CCP	782	875	63
12 Of which CVA VaR	21,518	24,271	1,721
13 Settlement risk	\$ 2,054	\$ 1,598	\$ 164
14 Securitisation exposures in the banking book (after the cap)	\$ 452	\$ 448	\$ 36
15 Of which IRB approach	452	448	36
19 Market risk	\$ 89,957	\$ 99,276	\$ 7,197
20 Of which the standardised approach	38,549	38,553	3,084
21 Of which IMA	51,408	60,723	4,113
22 Large exposures	-	-	-
23 Operational risk	\$ 15,479	\$ 15,479	\$ 1,238
24 Of which basic indicator approach	-	-	-
25 Of which standardised approach	15,479	15,479	1,238
29 Total	\$ 243,510	\$ 253,044	\$ 19,481

**Pillar 3 Disclosures****GSI**

\$ in millions

	RWAs		Minimum capital requirements
	December 2017	September 2017	
1 Credit risk (excluding CCR)	\$ 18,667	\$ 17,037	\$ 1,493
2 Of which the standardised approach	1,877	2,678	150
4 Of which the advanced IRB (AIRB) approach	15,347	13,050	1,228
5 Of which equity IRB under the simple risk-weighted approach or the IMA	1,443	1,309	115
6 CCR	\$ 105,601	\$ 108,490	\$ 8,448
7 Of which mark to market	9,565	10,168	765
9 Of which the standardised approach	-	-	-
10 Of which internal model method (IMM)	73,782	73,216	5,902
11 Of which risk exposure amount for contributions to the default fund of a CCP	782	875	63
12 Of which CVA VaR	21,472	24,231	1,718
13 Settlement risk	\$ 2,052	\$ 1,594	\$ 164
14 Securitisation exposures in the banking book (after the cap)	\$ 15	\$ 15	\$ 1
15 Of which IRB approach	15	15	1
19 Market risk	\$ 85,272	\$ 91,658	\$ 6,822
20 Of which the standardised approach	38,203	37,246	3,056
21 Of which IMA	47,069	54,412	3,766
22 Large exposures	-	-	-
23 Operational risk	\$ 14,335	\$ 14,335	\$ 1,147
24 Of which basic indicator approach	-	-	-
25 Of which standardised approach	14,335	14,335	1,147
29 Total	\$ 225,942	\$ 233,129	\$ 18,075

**GSIB**

\$ in millions

	RWAs		Minimum capital requirements
	December 2017	September 2017	
1 Credit risk (excluding CCR)	\$ 6,698	\$ 4,232	\$ 536
2 Of which the standardised approach	4	2	0
4 Of which the advanced IRB (AIRB) approach	6,694	4,230	536
5 Of which equity IRB under the simple risk-weighted approach or the IMA	0	0	0
6 CCR	\$ 464	\$ 249	\$ 37
7 Of which mark to market	174	-	14
9 Of which the standardised approach	-	-	-
10 Of which internal model method (IMM)	243	209	20
11 Of which risk exposure amount for contributions to the default fund of a CCP	-	-	-
12 Of which CVA VaR	46	40	3
13 Settlement risk	\$ 2	\$ 4	\$ 0
14 Securitisation exposures in the banking book (after the cap)	\$ 437	\$ 433	\$ 35
15 Of which IRB approach	437	433	35
19 Market risk	\$ 4,587	\$ 6,574	\$ 367
20 Of which the standardised approach	247	263	20
21 Of which IMA	4,340	6,311	347
22 Large exposures	-	-	-
23 Operational risk	\$ 360	\$ 360	\$ 29
24 Of which basic indicator approach	360	360	29
25 Of which standardised approach	-	-	-
29 Total	\$ 12,547	\$ 11,852	\$ 1,004

## Credit Risk Management

### Overview

Credit risk represents the potential for loss due to the default or deterioration in credit quality of a counterparty (e.g. an OTC derivatives counterparty or a borrower) or an issuer of securities or other instruments we hold. Our exposure to credit risk comes mostly from client transactions in OTC derivatives and loans and lending commitments. Credit risk also comes from cash placed with banks, securities financing transactions (i.e., resale and repurchase agreements and securities borrowing and lending activities) and debtors from brokers, dealers, clearing organisations, customers and counterparties.

Credit Risk Management, which is independent of the revenue-producing units and reports to the firm's chief risk officer, has primary responsibility for assessing, monitoring and managing credit risk. The Firmwide Risk Committee and the firm's Risk Governance Committee (through delegated authority from The Firmwide Risk Committee) establish and review credit policies and parameters. In addition, we hold other positions that give rise to credit risk (e.g., bonds held in our 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. We also enter into derivatives to manage market risk exposures. Such derivatives also give rise to credit risk which is monitored and managed by Credit Risk Management.

### Credit Risk Management Process

Effective management of credit risk requires accurate and timely information, a high level of communication and knowledge of customers, countries, industries and products. The firm's 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 current and potential credit exposure and losses resulting from counterparty defaults;
- Reporting of credit exposures to senior management, the firm's Board 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 firm's counterparties. For substantially all credit exposures, the core of the process is an annual counterparty credit review. 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 firm's risk assessment process may also include, where applicable, reviewing certain key metrics, such as delinquency status, collateral values, credit scores and other risk factors.

The firm's 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 the firm's aggregate credit risk by product, internal credit rating, industry, country and region.

### Credit Risk Measures and Limits

The firm measures credit risk based on the potential loss in an 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 after taking into account applicable netting and collateral arrangements while potential exposure represents the firm'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. For loans and lending commitments, the primary measure of credit risk is a function of the notional amount of the position.

## Pillar 3 Disclosures

Credit limits are used at various levels (counterparty, economic group, industry, country) to control the size of the company's credit exposures. Limits for counterparties and economic groups are reviewed regularly and revised to reflect changing risk appetites for a given counterparty or group of counterparties. Limits for industries and countries are based on our risk tolerance and are designed to allow for regular monitoring, review, escalation and management of credit risk concentrations. For GS Group, the Risk Committee of the Board and the Risk Governance Committee (through delegated authority from GS Group's Firmwide Risk Committee) approve credit risk limits at the GS Group, business and product levels. The GSI and GSIB Risk Committees approve the framework that governs the setting of credit risk limits at the entity level, and delegate responsibility for the ongoing execution and monitoring to the GSI credit Committee and GSIB chief credit officer respectively. Credit Risk Management sets credit limits for individual counterparties, economic groups, industries and countries. Policies authorised by GS Group's Firmwide Risk Committee and Risk Governance Committee prescribe the level of formal approval required for GS Group to assume credit exposure to a counterparty across all product areas, taking into account any applicable netting provisions, collateral or other credit risk mitigants.

### Credit Exposures

For information on the firm's credit exposures, including the gross fair value, netting benefits and current exposure of the firm's derivative exposures and the firm's securities financing transactions, see "Note 7. Derivatives and Hedging Activities" and "Note 10. Collateralized Agreements and Financings" in Part II, Item 8 "Financial Statements and Supplementary Data" and "Risk Management - Credit Risk Management" in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the firm's 2017 Form 10-K.

### Credit Risk and Counterparty Credit Risk RWAs

Credit RWAs are calculated based upon measures of credit exposure which are then risk weighted. Below is a description of the methodology used to calculate RWAs for Wholesale exposures, which generally include credit exposures to corporates, sovereigns or government entities (other than securitisation or equity exposures, which are covered in later sections). GSGUK has regulatory permission from the PRA to compute risk weights in accordance with the Advanced Internal Ratings Based (AIRB) approach which utilises internal assessments of each counterparty's creditworthiness.

As such, the Credit Risk exposure that does not qualify for the AIRB approach but is instead calculated under the standardised approach, for which nominated external credit assessment institutions (ECAI) ratings are potentially eligible to be used is immaterial. The exposure classes under the standardised approach include corporates, private equity and real estate for which external ratings are generally unavailable, unrated or private corporates. These exposures represent less than 5% of the total Credit Risk exposures.

**Exposure at Default (EAD).** For on-balance-sheet assets, such as receivables and cash, the EAD is generally based on the carrying value. For the calculation of EAD for off-balance-sheet exposures, including commitments and guarantees, a credit equivalent exposure amount is calculated based on the notional amount of each transaction multiplied by a credit conversion factor in accordance with Article 166 of CRD IV.

For the measurement of counterparty credit exposure on OTC, cleared and listed derivative and securities financing transactions, GSGUK has regulatory permission from the PRA to use the Internal Model Method (IMM). GSGUK uses IMM for substantially all of the counterparty credit risk arising from OTC derivatives, exchange-traded derivatives and securities financing transactions. The models estimate Expected Exposures (EE) at various points in the future using risk factor simulations. The model parameters are derived from historical data using the most recent three-year period. The models also estimate the Effective Expected Positive Exposure (EEPE) over the first year of the portfolio, which is the time-weighted average of non-declining positive credit exposure over the EE simulation. EAD is calculated by multiplying the EEPE by a standard regulatory alpha factor of 1.4.

The EAD detailed in the following tables represents the exposures used in computing capital requirements and is not a directly comparable metric to balance sheet amounts presented in the consolidated financial information of GSGUK for the year ended December 31, 2017 due to differences in measurement methodology, counterparty netting and collateral offsets used.

As GSGUK calculates the majority of its counterparty credit exposure under the IMM, the impacts of netting and collateral are integral to the calculation of the exposure. The exposures disclosed below are presented on a net and collateralised basis where there is a legally enforceable netting and collateral opinion. They do not include the effect of any credit protection purchased on counterparties.

## Pillar 3 Disclosures

**Advanced IRB Approach.** RWAs are calculated by multiplying EAD by the counterparty's risk weight. In accordance with the Advanced IRB approach, risk-weights are a function of the counterparty's Probability of Default (PD), Loss Given Default (LGD) and the maturity of the trade or portfolio of trades, where:

- PD is an estimate of the probability that an obligor will default over a one-year horizon. For the majority of Wholesale exposures, the PD is assigned using an approach where quantitative factors are combined with a qualitative assessment to determine internal credit rating grades. For each internal credit rating grade, over 5 years of historical empirical data is used to calculate a long run average annual PD which is assigned to each counterparty with that credit rating grade.

Internal credit rating grades each have external public rating agency equivalents. The scale that is employed for internal credit ratings corresponds to that used by the major rating agencies and the internal credit ratings, while arrived at independently of public ratings, are assigned using definitions of each rating grade that are consistent with the definitions used by the major rating agencies for their equivalent credit rating grades.

As a result, default data published by the major rating agencies for obligors with public ratings can be mapped to counterparties with equivalent internal credit ratings for quantification and validation of risk parameters.

- LGD is an estimate of the economic loss rate if a default occurs during economic downturn conditions. For Wholesale exposures, the LGD is determined using recognised vendor models, and, where applicable and enforceable, the LGD parameter incorporates the benefit of security status.
- The definition of maturity depends on the nature of the exposure. For OTC, cleared and listed derivatives, maturity is an average time measure weighted by credit exposure (based on EE and EEPE) as required by applicable capital regulation. For securities financing transactions, maturity represents the notional weighted average number of days to maturity. Maturity is floored at one year and capped at five years except where the rules allow a maturity of less than one year to be used as long as certain criteria are met.

The following three tables present the methods used to calculate Counterparty Credit Risk RWAs and main parameters used within each method for GSGUK, GSI and GSIB as of December 31, 2017.

**Table 6: Analysis of CCR exposure by approach**

**GSGUK**

\$ in millions

As of December 2017

	Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWAs
1 Mark to market		\$ 6,015	\$ 8,059			\$ 10,499	\$ 9,735
3 Standardised approach		\$ 24			1.00	\$ 24	\$ 24
4 IMM (for derivatives and SFTs)				\$ 83,468	1.40	\$ 116,855	\$ 73,742
5 Of which securities financing transactions				28,044	1.40	39,261	13,499
6 Of which derivatives and long settlement transactions				55,424	1.40	77,594	60,243
11 Total							\$ 83,501

**GSI**

\$ in millions

As of December 2017

	Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWAs
1 Mark to market		\$ 5,906	\$ 8,056			\$ 10,387	\$ 9,560
3 Standardised approach		-			-	-	-
4 IMM (for derivatives and SFTs)				\$ 83,322	1.40	\$ 116,651	\$ 73,499
5 Of which securities financing transactions				28,044	1.40	39,261	13,499
6 Of which derivatives and long settlement transactions				55,278	1.40	77,390	60,000
11 Total							\$ 83,060

## Pillar 3 Disclosures

## GSIB

As of December 2017

\$ in millions

	Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWAs
1	Mark to market	\$ 109	\$ 2			\$ 111	\$ 174
3	Standardised approach	-			-	-	-
4	IMM (for derivatives and SFTs)			\$ 146	1.40	\$ 204	\$ 243
5	Of which securities financing transactions			-	1.40	-	-
6	Of which derivatives and long settlement transactions			146	1.40	204	243
11	<b>Total</b>						<b>\$ 417</b>

The following table presents GSGUK, GSI and GSIB's EAD after credit risk mitigation and RWAs on exposures to CCPs as of December 31, 2017.

Table 7: Exposures to CCPs

\$ in millions

As of December 2017

	EAD post CRM			RWAs		
	GSGUK	GSI	GSIB	GSGUK	GSI	GSIB
1	<b>Exposures to QCCPs (total)</b>			\$1,069	\$1,069	-
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which					
3	1,084	1,084	-	22	22	-
4	1,886	1,886	-	38	38	-
5	461	461	-	9	9	-
6	(iv) Netting sets where cross-product netting has been approved					
7	-	-	-	-	-	-
8	7,806	7,806	-	218	218	-
9	782	782	-	749	749	-
10	Alternative calculation of own funds requirements for exposures					
11	<b>Exposures to non-QCCPs (total)</b>			-	-	-
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which					
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	(iv) Netting sets where cross-product netting has been approved					
17	-	-	-	-	-	-
18	Non-segregated initial margin					
19	-	-	-	-	-	-
20	Unfunded default fund contributions					

The following table presents GSGUK, GSI and GSIB's exposures subject to CVA capital charges and corresponding RWAs as of December 31, 2017.

Table 8: CVA VaR capital charge

\$ in millions

As of December 2017

	Exposure value			RWAs		
	GSGUK	GSI	GSIB	GSGUK	GSI	GSIB
1	\$ 71,702	\$ 71,418	\$ 284	\$ 21,518	\$ 21,472	\$ 46
2	(i) VaR component (including the 3x multiplier)					
3	-	-	-	3,418	3,400	18
3	(ii) SVaR component (including the 3x multiplier)					
5	-	-	-	18,100	18,072	28
5	\$ 71,702	\$ 71,418	\$ 284	\$ 21,518	\$ 21,472	\$ 46

## Pillar 3 Disclosures

The following table presents a quarterly flow statement of the RWAs and Capital requirements under the IMM for GSGUK, GSI and GSIB as of December 31, 2017.

**Table 9: RWA flow statements of CCR exposures under the IMM**

	As of December 2017					
	RWA amounts			Capital requirements		
	GSGUK	GSI	GSIB	GSGUK	GSI	GSIB
<b>1 RWAs as at the end of the previous reporting period</b>	<b>\$ 73,425</b>	<b>\$ 73,216</b>	<b>\$ 209</b>	<b>\$ 5,874</b>	<b>\$ 5,857</b>	<b>\$ 17</b>
2 Asset size	1,135	1,104	31	91	89	2
3 Credit quality of counterparties	(491)	(494)	3	(40)	(40)	0
7 Foreign exchange movements	448	446	2	36	36	0
8 Other	(492)	(490)	(2)	(39)	(39)	(0)
<b>9 RWAs as at the end of the current reporting period</b>	<b>\$ 74,025</b>	<b>\$ 73,782</b>	<b>\$ 243</b>	<b>\$ 5,922</b>	<b>\$ 5,903</b>	<b>\$ 19</b>

The following table presents GSGUK, GSI and GSIB total and average amount of net balance sheet Credit Risk exposures over the twelve month period by exposure class as of December 31, 2017.

**Table 10: Total and average net amount of exposures**

	As of December 2017					
	GSGUK		GSI		GSIB	
	Net value of exposures at the end of the period	Average net exposures over the period	Net value of exposures at the end of the period	Average net exposures over the period	Net value of exposures at the end of the period	Average net exposures over the period
1 Central governments or central banks	\$ 17,075	\$ 22,332	\$ 14,017	\$ 19,647	\$ 3,059	\$ 2,685
2 Institutions	7,918	7,765	7,641	7,499	276	266
3 Corporates	26,045	22,936	15,028	14,077	11,017	8,859
14 Equity	390	380	390	380	0	0
14a Items representing securitisation positions	670	642	7	7	663	635
14b Non-credit obligation assets	37	61	36	57	1	4
15 <b>Total IRB approach</b>	<b>\$ 52,135</b>	<b>\$ 54,117</b>	<b>\$ 37,119</b>	<b>\$ 41,667</b>	<b>\$ 15,016</b>	<b>\$ 12,449</b>
16 Central governments or central banks	9	5	-	-	-	-
21 Institutions	814	693	-	-	-	-
22 Corporates	1,125	1,745	407	957	4	4
28 Exposures in default	180	210	180	210	-	-
29 Items associated with particularly high risk	1,733	1,288	-	-	-	-
33 Equity exposures	172	798	-	-	-	-
34 Other exposures	957	1,005	499	608	-	-
35 <b>Total standardised approach</b>	<b>\$ 4,990</b>	<b>\$ 5,744</b>	<b>\$ 1,086</b>	<b>\$ 1,775</b>	<b>\$ 4</b>	<b>\$ 4</b>
36 <b>Total</b>	<b>\$ 57,125</b>	<b>\$ 59,859</b>	<b>\$ 38,206</b>	<b>\$ 43,442</b>	<b>\$ 15,020</b>	<b>\$ 12,453</b>

The following table presents a quarterly flow statement of the RWAs and Capital requirements under the IRB approach for GSGUK, GSI and GSIB as of December 31, 2017.

**Table 11: RWA flow statements of credit risk exposures under the IRB approach**

	As of December 2017					
	RWA amounts			Capital requirements		
	GSGUK	GSI	GSIB	GSGUK	GSI	GSIB
<b>1 RWAs as at the end of the previous reporting period</b>	<b>\$ 17,280</b>	<b>\$ 13,050</b>	<b>\$ 4,230</b>	<b>\$ 1,382</b>	<b>\$ 1,044</b>	<b>\$ 338</b>
2 Asset size	4,691	2,254	2,437	375	180	195
3 Credit quality of counterparties	67	46	21	5	3	2
7 Foreign exchange movements	119	55	64	10	5	5
8 Other	(116)	(58)	(58)	(9)	(4)	(5)
<b>9 RWAs as at the end of the current reporting period</b>	<b>\$ 22,041</b>	<b>\$ 15,347</b>	<b>\$ 6,694</b>	<b>\$ 1,763</b>	<b>\$ 1,228</b>	<b>\$ 535</b>

**Pillar 3 Disclosures****Governance and Validation of Risk Parameters**

Committees within Credit Risk Management that ultimately report to the firm's chief credit risk officer or the Credit Policy Committee oversee the approaches and methodologies for quantifying PD, LGD, and EAD.

To assess the performance of the PD parameters used, on an annual basis the firm performs a benchmarking and validation exercise which includes comparisons of realised annual default rates to the expected annual default rates for each credit rating band and comparisons of the internal realised long-term average default rates to the empirical long-term average default rates assigned to each credit rating band. For the year ended December 2017, as well as in previous annual periods, the PDs used for regulatory capital calculations were higher (i.e., more conservative) than the firm's actual internal realised default rate.

During the year ended December 2017, the total number of counterparty defaults remained low, representing less than 0.5% of all counterparties, and such defaults primarily occurred within loans and lending commitments. Estimated losses associated with counterparty defaults were not material.

To assess the performance of LGD parameters used, on an annual basis the firm compares recovery rates following counterparty defaults to the recovery rates based on LGD parameters assigned to the corresponding exposures prior to default. While the actual realised recovery on each defaulted exposure varies due to transaction and other situation-specific factors, on average, recovery rates remain higher than those implied by the LGD parameters used in regulatory capital calculations.

The performance of each IMM model used to quantify EAD is assessed quarterly via backtesting procedures, performed by comparing the predicted and realised exposure of a set of representative trades and portfolios at certain horizons. The firm's models are monitored and enhanced in response to backtesting.

Models used for regulatory capital are subject to independent review and validation by Model Risk Management. For further information, see "Model Risk Management".

**Credit Risk Mitigation**

To reduce credit exposures on derivatives and securities financing transactions, the firm may enter into master netting agreements or similar arrangements (collectively, netting agreements) with counterparties that permit the firm to offset receivables and payables with such counterparties. A netting agreement is a contract with a counterparty that permits net settlement of multiple transactions with that counterparty, including upon the exercise of termination rights by a non-defaulting party. Upon exercise of such termination rights, all transactions governed by the netting agreement are terminated and a net settlement amount is calculated.

We may also reduce credit risk with counterparties by entering into agreements that enable us to receive and post cash and securities collateral with respect to our derivatives and securities financing transactions, subject to the terms of the related credit support agreements or similar arrangements (collectively, credit support agreements). An enforceable credit support agreement grants the non-defaulting party exercising termination provisions the right to liquidate collateral and apply the proceeds to any amounts owed. In order to assess enforceability of our right to setoff under credit support agreements, we evaluate various factors, including applicable bankruptcy laws, local statutes and regulatory provisions in the jurisdiction of the parties to the agreement. The collateral we hold consists primarily of cash and securities of high quality government bonds (mainly US and EU), subject to haircuts as deemed appropriate by the Credit Risk Management function. The function performs ongoing collateral monitoring, to ensure the firm maintains an appropriate level of diversification of collateral, and distribution of collateral quality.

Our collateral is managed by an independent control function within the Operations Division. This function is responsible for reviewing exposure calculations, making margin calls with relevant counterparties, and ensuring subsequent settlement of collateral movements. We monitor the fair value of the collateral on a daily basis to ensure that our credit exposures are appropriately collateralised.

For additional information about the firm's derivatives (including collateral and the impact of the amount of collateral required in the event of a ratings downgrade), see "Note 7. Derivatives and Hedging Activities" in Part II, Item 8 "Financial Statements and Supplementary Data" in the firm's 2017 Form 10-K. See "Note 10. Collateralized Agreements and Financings" in Part II, Item 8 "Financial Statements and Supplementary Data" in the firm's 2017 Form 10-K for further information about collateralised

**Pillar 3 Disclosures**

agreements and financings.

For loans and lending commitments, depending on the credit quality of the borrower and other characteristics of the transaction, we employ a variety of potential risk mitigants. Risk mitigants include: collateral provisions, guarantees, covenants, structural seniority of the bank loan claims and, for certain lending commitments, provisions in the legal documentation that allow us to adjust loan amounts, pricing, structure and other terms as market conditions change. The

type and structure of risk mitigants employed can significantly influence the degree of credit risk involved in a loan or lending commitment.

When we do not have sufficient visibility into a counterparty's financial strength or when we believe a counterparty requires support from its parent, we may obtain third-party guarantees of the counterparty's obligations. We may also mitigate our credit risk using credit derivatives or participation agreements.

The following three tables presents GSGUK, GSI and GSIB net carrying values of credit risk exposures secured by different CRM techniques as of December 31, 2017.

**Table 12: CRM techniques****GSGUK**

\$ in millions

As of December 2017

	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1 Total loans	\$ 6,970	\$ 3,346	\$ 2,833	\$ 5	\$ 508
2 Total debt securities	2,008	-	-	-	-
<b>3 Total exposures</b>	<b>\$ 8,978</b>	<b>\$ 3,346</b>	<b>\$ 2,833</b>	<b>\$ 5</b>	<b>\$ 508</b>
4 Of which defaulted	200	-	-	-	-

**GSI**

\$ in millions

As of December 2017

	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1 Total loans	\$ 67	-	-	-	-
2 Total debt securities	865	-	-	-	-
<b>3 Total exposures</b>	<b>\$ 932</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
4 Of which defaulted	180	-	-	-	-

**GSIB**

\$ in millions

As of December 2017

	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1 Total loans	\$ 6,815	\$ 3,346	\$ 2,833	\$ 5	\$ 508
2 Total debt securities	621	-	-	-	-
<b>3 Total exposures</b>	<b>\$ 7,436</b>	<b>\$ 3,346</b>	<b>\$ 2,833</b>	<b>\$ 5</b>	<b>\$ 508</b>
4 Of which defaulted	20	-	-	-	-

The following table presents the impact of credit derivatives on the RWAs under the IRB approach for GSGUK, GSI and GSIB based on exposure class.

**Table 13: IRB approach - Effect on the RWAs of credit derivatives used as CRM techniques**

\$ in millions

As of December 2017

	Pre-Credit Derivatives RWAs			Actual RWAs		
	GSGUK	GSI	GSIB	GSGUK	GSI	GSIB
1						
2 <b>Exposures under AIRB</b>						
3 Central governments and central banks	\$ 1,297	\$ 1,083	\$ 214	\$ 1,297	\$ 1,083	\$ 214
4 Institutions	5,250	5,142	108	5,330	5,142	188
7 Corporates – Other	18,648	9,087	9,561	15,378	9,087	6,291
13 Equity IRB	1,443	1,443	0	1,443	1,443	0
14 Other Non-Credit obligation assets	36	35	1	36	35	1
15 <b>Total</b>	<b>\$ 26,674</b>	<b>\$ 16,790</b>	<b>\$ 9,884</b>	<b>\$ 23,484</b>	<b>\$ 16,790</b>	<b>\$ 6,694</b>

**Pillar 3 Disclosures****Credit Derivatives**

We enter into credit derivative transactions primarily to facilitate client activity and to manage the credit risk associated with market-making, including to hedge counterparty exposures arising from OTC derivatives (intermediation activities).

We also use credit derivatives to hedge counterparty exposure associated with investing and lending activities. Some of these hedges qualify as credit risk mitigants for regulatory capital purposes using the PD and LGD substitution approach (and subject to the regulatory haircuts for maturity and currency mismatch where applicable).

The following table presents GSGUK, GSI and GSIB exposure to credit derivatives based on notional and fair values as of December 31, 2017.

**Table 14: Credit derivatives exposures**

	As of December 2017								
	Credit derivative hedges								
	Protection bought			Protection sold			Other credit derivatives		
	GSGUK	GSI	GSIB	GSGUK	GSI	GSIB	GSGUK	GSI	GSIB
<b>Notionals</b>									
Index Credit Default Swaps	\$ 282,147	\$ 282,147	-	\$ 279,266	\$ 279,266	-	-	-	-
Total Return swaps	6,494	6,494	-	70	70	-	-	-	-
Other Credit Default Swaps	378,767	378,132	635	365,793	365,659	134	-	-	-
Other Credit Derivatives	-	-	-	-	-	-	234,622	234,487	135
<b>Total notionals</b>	<b>\$ 667,408</b>	<b>\$ 666,773</b>	<b>\$ 635</b>	<b>\$ 645,129</b>	<b>\$ 644,996</b>	<b>\$ 134</b>	<b>\$ 234,622</b>	<b>\$ 234,487</b>	<b>\$ 135</b>
<b>Fair values</b>									
<i>Positive fair value (asset)</i>	\$ 10,846	\$ 10,838	\$ 8	\$ 15,473	\$ 15,468	\$ 5	\$ 4,684	\$ 4,684	-
<i>Negative fair value (liability)</i>	\$16,943	\$16,913	\$30	\$8,700	\$8,617	\$83	\$3,459	\$3,458	\$1

Where the aggregate notional of credit derivative hedges is less than the notional loan exposure to the obligor, the substitution approach is only employed for the percentage of loan exposure covered by eligible credit derivatives.

For further information regarding the firm's credit derivative transactions, see "Note 7. Derivatives and Hedging Activities" in Part II, Item 8 "Financial Statements and Supplementary Data" in the firm's 2017 Form 10-K.

For information regarding credit risk concentrations, see "Note 26. Credit Concentrations" in Part II, Item 8 "Financial Statements and Supplementary Data" in the firm's 2017 Form 10-K.

**Pillar 3 Disclosures****Wrong-way Risk**

We seek to minimise exposures where there is an adverse correlation between the credit quality of our counterparty and the exposure to the same counterparty, which is known as “wrong-way risk”. Wrong-way risk is commonly categorised into two types: specific wrong-way risk and general wrong-way risk. We categorise exposure as specific wrong-way risk when our counterparty and the issuer of the reference asset of the transaction are the same entity or are affiliates, or if the collateral supporting a transaction is issued by the counterparty or its affiliates. General wrong-way risk arises when there is a significant positive correlation between the probability of default of a counterparty and general market risk factors affecting the exposure to that counterparty. We have procedures in place to actively monitor and control specific and general wrong-way risk, beginning at the inception of a transaction and continuing through its life, including assessing the level of risk through stress tests. We ensure that material wrong-way risk is mitigated using collateral agreements or increases to initial margin, where appropriate.

**Credit Valuation Adjustment Risk-Weighted Assets**

RWAs for CVA address the risk of losses related to changes in counterparty credit risk arising from market-based credit spreads and from the EE of OTC derivatives with those counterparties. We calculate RWAs for CVA primarily using the Advanced CVA approach set out in CRD IV, which permits the use of regulator approved VaR models. Consistent with our Regulatory VaR calculation (see “Market Risk Management” for further details), the CVA RWAs are calculated at a 99% confidence level over a 10-day time horizon.

The CVA RWAs also include a Stressed CVA component, which is also calculated at a 99% confidence level over a 10-day horizon using both a stressed VaR period and stressed EEs. The CVA VaR model estimates the impact on our credit valuation adjustments from simulated changes to our counterparties’ credit spreads. It reflects eligible CVA hedges (as defined in CRD IV), but it excludes those hedges that, although used for risk-management purposes, are ineligible for inclusion in the regulatory CVA VaR model. Examples of such excluded hedges are interest rate hedges, or those that do not reference the specific exposures they are intended to mitigate, but are nevertheless highly correlated to the underlying credit risk.

**Other Credit Risk-Weighted Assets**

Credit RWAs also include the following components:

**Cleared Transactions**

RWAs for cleared transactions and default fund contributions (defined as payments made by clearing members to central clearing agencies pursuant to mutualised loss arrangements) are calculated based on specific rules within CRD IV. A majority of our exposures on centrally cleared transactions are to counterparties that are considered to be Qualifying Central Counterparties (QCCPs) in accordance with the European Market Infrastructure Regulation (EMIR). CRD IV includes a transitional rule which allows all CCPs applying for authorisation or recognition under EMIR to be treated as QCCPs. The European Commission has adopted an implementing act that extended the transitional phase to December 15, 2018. Such exposures arise from OTC derivatives, exchange-traded derivatives, securities financing transactions and long settlement transactions and are required to be risk weighted at either 2% or 4% based on the specified criteria.

**Retail Exposures**

As of December 31, 2017, we did not have any retail exposures (defined as residential mortgage exposures, qualifying revolving exposures, or other retail exposures that are managed as part of a segment of exposures with homogeneous risk characteristics, not on an individual exposure basis).

**Other Assets**

Other assets primarily include property, leasehold improvements and equipment, deferred tax assets, and assets for which there is no defined capital methodology or that are not material. RWAs for other assets are generally based on the carrying value plus a percentage of the notional amount of off-balance-sheet exposures, and are typically risk weighted at 100%.

**Pillar 3 Disclosures****Equity Exposures in the Banking Book**

The firm makes direct investments in public and private equity securities; it also makes investments, through funds that it manages (some of which are consolidated), in debt securities and loans, public and private equity securities and real estate entities. These investments are typically longer-term in nature and are primarily held for capital appreciation purposes; they are therefore classified for regulatory capital purposes as banking book equity investments. The firm also makes commitments to invest, primarily in private equity, real estate and other assets. Such commitments are made both directly and through funds that the firm raises and manages. Equity exposures held in GSGUK's banking book are included in the Credit RWAs within row 5 of Table 5 and were not material as of December 31, 2017.

**Past due exposures, impaired exposures and impairment provisions**

Payments aged more than a threshold of 90 days on any material credit obligation to the company, 180 days on residential mortgage obligations or 120 days on other retail obligations are considered past due.

An exposure is considered impaired when it is probable that the borrower will be unable to pay all amounts due according to the contractual terms of the loan agreement. The firm's definition of unlikeliness to pay includes the distressed restructuring of an obligation, including bank loan obligations, that results in deferred or reduced payment

to GS, whether or not counterparty is in bankruptcy, insolvency or local jurisdictional equivalent.

There are no instances for GSGUK, GSI or GSIB where past-due exposures are not considered to be impaired.

The allowance for impairment is determined using various risk factors, including industry default and loss data, current macroeconomic indicators, borrower's capacity to meet its financial obligations, borrower's country of risk, loan seniority and collateral type. In addition, for loans backed by real estate, risk factors include loan to value ratio, debt service ratio and home price index. The firm also records an allowance for losses on lending commitments that are held for investment and accounted for on an accrual basis. Such allowance is determined using the same methodology as the allowance for impairment, while also taking into consideration the probability of drawdowns or funding, and is included in other liabilities and accrued expenses. Additionally, loans are charged off against the impairment provision when deemed to be uncollectible.

**Allowance for Losses on Loans and Lending Commitments**

For information on the firm's impaired loans and loans on non-accrual status, and allowance for losses on loans and lending commitments, see "Note 9. Loans Receivable" in Part II, Item 8 "Financial Statements and Supplementary Data" in the firm's 2017 Form 10-K.

## Securitisations

### Overview

CRD IV defines certain activities as securitisation transactions which attract capital requirements under the “Securitisation Framework.” Under CRD IV rules, a securitisation is defined as a transaction or scheme, whereby the credit risk associated with an exposure or pool of exposures is tranching, having both of the following characteristics:

- Payments in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures; and
- The subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme.

The rules also distinguish between traditional and synthetic securitisations, the primary difference being that a traditional securitisation involves the transfer of assets from a bank’s balance sheet into a securitisation vehicle, whereas a synthetic securitisation involves the transfer of credit risk through credit derivatives or guarantees.

Within the GSGUK group, we securitise commercial mortgages, loans and other types of financial assets by selling these assets to securitisation vehicles (e.g., trusts and special purpose vehicles). GSGUK acts as underwriter of the beneficial interests that are sold to investors.

Beneficial interests issued by securitisation entities are debt or equity securities that give the investors rights to receive all or portions of specified cash inflows to a securitisation vehicle and include senior and subordinated interests in principal, interest and/or other cash inflows. The proceeds from the sale of beneficial interests are used to pay the transferor for the financial assets sold to the securitisation vehicle or to purchase securities which serve as collateral.

A portion of our positions that meet the regulatory definition of a securitisation are classified in our trading book, and capital requirements for these positions are calculated under the market risk capital rules. However, we also have certain banking book positions that meet the regulatory definition of a securitisation.

### Banking Book Activity

Securitisation exposures classified in the banking book were immaterial as of December 31, 2017. The small amount of securitisation exposures in the banking book within the GSGUK group that meet the regulatory definition of a securitisation fall into the following categories:

- **Warehouse Financing and Lending.** We provide financing to clients who warehouse financial assets. These arrangements are secured by the warehoused assets, primarily consisting of corporate loans and commercial mortgage loans.
- **Other.** We have certain other banking book securitisation activities such as holding securities issued by securitisation vehicles.

By engaging in the banking book securitisation activities noted above, we are primarily exposed to credit risk and to the performance of the underlying assets.

### Trading Book Activity

Our securitisation exposures classified as trading book comprise mortgage-backed securities (MBS) and other asset-backed securities (ABS), derivatives referencing MBS or ABS, or derivatives referencing indices of MBS or ABS, which are held in inventory. The population also includes credit correlation positions, which are discussed in the “Comprehensive Risk” section of the “Market Risk Management” chapter.

The primary risks included in beneficial interests and other interests from our involvement with securitisation vehicles are the performance of the underlying collateral, the position of our investment in the capital structure of the securitisation vehicle and the market yield for the security. These interests are accounted for at fair value and are incorporated into the overall risk management approach for financial instruments. For a detailed discussion of the firm’s risk management process and practices, see “Risk Management – Market Risk Management” and “Risk Management – Credit Risk Management” in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the firm’s 2017 Form 10-K.

**Pillar 3 Disclosures****Calculation of Risk-Weighted Assets**

Under the Ratings Based Approach (RBA), the risk weighted exposure amount of a rated securitisation position or resecuritisation position is calculated by applying to the exposure value a risk weight that depends on the associated external credit rating. The External Credit Assessment Institutions (ECAIs) used are Standard & Poor's Ratings Services (S&P), Moody's Investors Service (Moody's) and Fitch, Inc. (Fitch) for all types of exposures.

The RWAs for trading book securitisation positions are calculated by multiplying the exposure amount by the specific risk-weighting factors assigned and then multiplying by the specified regulatory factor of 1.06. The exposure amount is defined as the carrying value for securities, or the market value of the effective notional of the instrument or indices underlying derivative positions. The securitisation capital requirements are capped at the maximum loss that could be incurred on any given transaction.

RWAs for banking book securitisation exposures (including counterparty credit risk exposures that arise from trading book derivative positions) are calculated using the RBA capped at the maximum amount that could be lost on the position.

The tables below show our securitisation exposures in the trading book by type of exposure and risk weight band as of December 31, 2017.

**Table 15: Securitisation Exposures by Type**

	<i>\$ in millions</i>		
	<b>As of December 2017</b>		
	<b>On-balance- sheet Exposures</b>	<b>Off-balance- sheet Exposures</b>	<b>Total Exposure Amount</b>
	<b>Traditional</b>	<b>Synthetic</b>	
Residential mortgages	436	1,089	1,525
Commercial mortgages	165	-	165
Corporates	-	1,845	1,845
Asset-backed and other	379	1,278	1,657
<b>GSGUK Total</b>	<b>980</b>	<b>4,212</b>	<b>5,192</b>

**Table 16: Securitisation Exposures and Related RWAs by Risk Weight Bands**

	<i>\$ in millions</i>		
	<b>As of December 2017</b>		
	<b>Ratings Based Approach (RBA)</b>		
	<b>Long Exposure Amount</b>	<b>Short Exposure Amount</b>	<b>Total RWAs</b>
0% - 25%	2,096	816	623
26% - 100%	764	238	705
101% - 250%	27	-	106
251% - 650%	92	-	459
651% - 1,250%	421	738	5,898
<b>GSGUK Total</b>	<b>3,400</b>	<b>1,792</b>	<b>7,791</b>

We account for a securitisation as a sale when we have relinquished control over the transferred assets. Prior to securitisation, we account for assets pending transfer at fair value and therefore do not typically recognise significant gains or losses upon the transfer of assets. GSGUK did not, as of December 31, 2017 have material assets held with the intent to securitise.

## Market Risk Management

### Overview

Market risk is the risk of loss in the value of inventory, as well as certain other financial assets and financial liabilities, due to changes in market conditions. 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, mortgage 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, petroleum products, natural gas, electricity, and precious and base metals.

Market Risk Management, which is independent of the revenue-producing units and reports to the firm's chief risk officer, has primary responsibility for assessing, monitoring and managing market risk. The firm monitors and controls risks through strong firmwide oversight and independent control and support functions across 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. These managers have in-depth knowledge of their positions, markets and the instruments available to hedge their exposures.

### Market Risk Management Process

The firm 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.

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 product, business and firmwide levels. For additional information regarding the firm's market risk measures and risk limits, see "Risk Management – Market Risk Management" in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the firm's 2017 Form 10-K.

### Market Risk-Weighted Assets

Trading book positions are subject to market risk capital requirements which are designed to cover the risk of loss in value of these positions due to changes in market conditions. These capital requirements are determined either by applying prescribed risk weighting factors, or they are based on internal models which are subject to various qualitative and quantitative parameters. The CRD IV market risk capital rules require that a firm obtains prior written permission from its regulators before using any internal model to calculate its risk-based capital requirement. As our permission applies to GSI and GSIB individually, we calculate model-based requirements for each of those entities separately and sum those to calculate GSGUK's requirements. RWAs for market risk are calculated based on measures of exposure which include the following internal models: Value-at-Risk (VaR), Stressed VaR (SVaR), Incremental Risk Charge (IRC), and Comprehensive Risk Measure (CRM), which for PRA purposes is called the All Price Risk Measure (APRM) and is subject to a floor. In addition, Standardised Rules, in accordance with Title IV of Part Three of 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.

**Pillar 3 Disclosures****Regulatory VaR**

VaR is the potential loss in value of inventory positions, as well as certain other financial assets and financial liabilities, due to adverse market movements over a defined time horizon with a specified confidence level. The VaR model 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 at the firmwide level.

For both risk management purposes (positions subject to VaR limits) and regulatory capital calculations we use a single VaR model. However, VaR used for regulatory capital requirements (Regulatory VaR) differs from risk management VaR due to different time horizons and confidence levels (10-day and 99% for Regulatory VaR vs. one-day and 95% for risk management VaR), as well as differences in the scope of positions on which VaR is calculated. The 10-day VaR is based on scaling the 1-day VaR by the square root of 10.

VaR is calculated daily using historical simulations with full valuation of approximately 70,000 market factors, capturing both general and specific market risk. VaR is calculated at a positional level based on simultaneously shocking the relevant market risk factors for that position. We sample from five years of historical data to generate the scenarios for our VaR calculation. The historical data is weighted so that the relative importance of data reduces over time. This gives greater importance to more recent observations and reflects current asset volatilities.

In accordance with the CRD IV market risk regulatory capital requirements, we evaluate the accuracy of our VaR model through daily backtesting. The results of the backtesting determine the size of the VaR multiplier used to compute RWAs.

Table 17 presents our period end, maximum, minimum and average daily GSGUK, GSI and GSIB 99% 10-day Regulatory VaR over the third and fourth quarter of 2017.

**Stressed VaR**

SVaR is the potential loss in value of inventory positions, as well as certain other financial assets and financial liabilities, during a period of significant market stress. SVaR is based on a full valuation at a 99% confidence level over a 10-day time horizon using market data inputs from a continuous 12-month period of stress. The 10-day SVaR is calculated as the 1-day SVaR scaled by the square root of 10. We identify the stressed period by comparing VaR using market data inputs from different historical periods.

Table 17 presents our period end, maximum, minimum and average weekly GSGUK, GSI and GSIB 99% 10-day SVaR over the third and fourth quarter of 2017.

**Incremental Risk**

Incremental risk is the potential loss in value of non-securitised inventory positions due to the default or credit migration of issuers of financial instruments over a one-year time horizon. As required by the CRD IV market risk regulatory capital rules, this measure is calculated at a 99.9% confidence level over a one-year time horizon. It uses a multi-factor model assuming a constant level of risk. When assessing the risk, we take into account market and issuer-specific concentration, credit quality, liquidity horizons and correlation of default and migration risk. The liquidity horizon is calculated based upon the size of exposures and the speed at which we can reduce risk by hedging or unwinding positions, given our experience during a historical stress period, and is subject to the prescribed regulatory minimum. Our average liquidity horizon as of December 31, 2017 was 3.6 months.

Table 17 presents our period end, maximum, minimum and average of the weekly GSGUK, GSI and GSIB Incremental Risk measure over the third and fourth quarter of 2017.

**Comprehensive Risk**

Comprehensive risk is the potential loss in value, due to price risk and defaults, within our credit correlation positions. A credit correlation position is defined as a securitisation position for which all or substantially all of the value of the underlying exposures is based on the credit quality of a single company for which a two-way market exists, or indices based on such exposures for which a two-way market exists, or hedges of these positions (which are typically not securitisation positions).

## Pillar 3 Disclosures

As required under the CRD IV market risk capital rules, the Comprehensive Risk Measure comprises a model-based measure, which is subject to a floor based on the minimum capital requirement of 8% of RWA calculated under the standard rules for the portfolio. The model-based measure is calculated at a 99.9% confidence level over a one-year time horizon applying a constant level of risk. The model comprehensively covers price risks including nonlinear price effects and takes into account contractual structure of cash flows, the effect of multiple defaults, credit spread risk, volatility of implied correlation, recovery rate volatility and basis risk. The liquidity horizon is based upon our experience during a historical stress period, subject to the prescribed regulatory minimum.

As of December 2017, we had credit correlation positions, subject to the Comprehensive Risk Measure, with a fair value under US GAAP of \$272 million in net liabilities and under UK GAAP of \$318 million in net assets and \$454 million in net liabilities.

Table 17 presents the period end, maximum, minimum and average of the GSGUK, GSI and GSIB Comprehensive Risk

Measure for the over the third and fourth quarter of 2017.

**Table 17: IMA values for trading portfolios**

\$ in millions		As of December 2017		
		GSGUK	GSI	GSIB
<b>VaR (10 day 99%)</b>				
1	Maximum value	189	181	43
2	Average value	146	137	10
3	Minimum value	113	102	4
4	Period end	154	145	9
<b>SVaR (10 day 99%)</b>				
5	Maximum value	774	721	60
6	Average value	596	554	42
7	Minimum value	417	376	27
8	Period end	544	487	57
<b>IRC (99.9%)</b>				
9	Maximum value	1,239	1,027	346
10	Average value	1,066	909	157
11	Minimum value	894	771	59
12	Period end	1,049	971	78
<b>Comprehensive risk capital charge (99.9%)</b>				
13	Maximum value	155	155	-
14	Average value	84	84	-
15	Minimum value	58	58	-
16	Period end	155	155	-

**Table 18: Market risk under the IMA**

The table below presents the capital requirements and RWA under the IMA for Market Risk as of December 31, 2017.

\$ in millions

		RWAs			Capital Requirements		
		GSGUK	GSI	GSIB	GSGUK	GSI	GSIB
<b>1</b>	<b>VaR (higher of values a and b)</b>	\$ 5,903	\$ 5,576	\$ 327	\$ 472	\$ 446	\$ 26
(a)	Previous day's VaR (Article 365(1) of the CRR (VaRt-1))				154	145	9
(b)	Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 of the CRR				472	446	26
<b>2</b>	<b>SVaR (higher of values a and b)</b>	\$ 20,160	\$ 18,485	\$ 1,675	\$ 1,613	\$ 1,479	\$ 134
(a)	Latest SVaR (Article 365(2) of the CRR (SVaRt-1))				544	487	57
(b)	Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x multiplication factor (ms) (Article 366 of the CRR)				1,613	1,479	134
<b>3</b>	<b>IRC (higher of values a and b)</b>	\$ 13,951	\$ 12,138	\$ 1,812	\$ 1,116	\$ 971	\$ 145
(a)	Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR)				1,049	971	78
(b)	Average of the IRC number over the preceding 12 weeks				1,116	942	145
<b>4</b>	<b>Comprehensive risk measure (higher of values a, b and c)</b>	\$ 1,934	\$ 1,934	-	\$ 155	\$ 155	-
(a)	Most recent risk number for the correlation trading portfolio (Article 377 of the CRR)				155	155	-
(b)	Average of the risk number for the correlation trading portfolio over the preceding 12 weeks				96	96	-
(c)	8% of the own funds requirement in the standardised approach on the most recent risk number for the correlation trading portfolio (Article 338(4) of the CRR)				80	80	-
<b>5</b>	<b>Other</b>	\$ 9,461	\$ 8,936	\$ 525	\$ 757	\$ 715	\$ 42
<b>6</b>	<b>Total</b>	\$ 51,409	\$ 47,069	\$ 4,339	\$ 4,113	\$ 3,766	\$ 347

## Pillar 3 Disclosures

Table 19: RWA flow statements of market risk exposures under the IMA

## GSGUK

\$ in millions

As of December 2017

	VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWAs	Total capital requirements
<b>1 RWAs at previous quarter end</b>	\$ 5,033	\$ 23,332	\$ 13,391	\$ 1,307	\$ 15,750	\$ 58,813	\$ 4,705
<i>1a Regulatory adjustment</i>	(3,161)	(14,944)	(837)	0	(11,296)	(18,942)	(1,515)
<b>1b RWAs at the previous quarter-end</b>	\$ 1,872	\$ 8,388	\$ 12,554	\$ 1,307	\$ 4,454	\$ 28,575	\$ 2,286
<b>2 Movement in risk levels</b>	76	(1,778)	547	627	338	(190)	(16)
<b>3 Model updates/changes</b>	13	191	13	0	(34)	182	15
<b>8a RWAs at the end of the reporting period</b>	\$ 1,961	\$ 6,800	\$ 13,113	\$ 1,934	\$ 4,758	\$ 28,566	\$ 2,285
<i>8b Regulatory adjustment</i>	3,942	13,360	838	0	4,703	22,843	1,827
<b>8 RWAs at the end of the reporting period</b>	\$ 5,903	\$ 20,160	\$ 13,951	\$ 1,934	\$ 9,461	\$ 51,409	\$ 4,113

## GSI

\$ in millions

As of December 2017

	VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWAs	Total capital requirements
<b>1 RWAs at previous quarter end</b>	\$ 4,706	\$ 21,657	\$ 11,579	\$ 1,307	\$ 15,163	\$ 54,412	\$ 4,353
<i>1a Regulatory adjustment</i>	(2,954)	(13,982)	0	0	(10,875)	(27,811)	(2,225)
<b>1b RWAs at the previous quarter-end</b>	\$ 1,752	\$ 7,675	\$ 11,579	\$ 1,307	\$ 4,288	\$ 26,601	\$ 2,128
<b>2 Movement in risk levels</b>	76	(1,781)	547	627	334	(197)	(16)
<b>3 Model updates/changes</b>	13	194	13	0	(34)	185	15
<b>8a RWAs at the end of the reporting period</b>	\$ 1,841	\$ 6,088	\$ 12,138	\$ 1,934	\$ 4,588	\$ 26,589	\$ 2,127
<i>8b Regulatory adjustment</i>	3,735	12,397	0	0	4,348	20,480	1,638
<b>8 RWAs at the end of the reporting period</b>	\$ 5,576	\$ 18,485	\$ 12,138	\$ 1,934	\$ 8,936	\$ 47,069	\$ 3,766

## GSIB

\$ in millions

As of December 2017

	VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWAs	Total capital requirements
<b>1 RWAs at previous quarter end</b>	\$ 327	\$ 1,675	\$ 1,813	-	\$ 588	\$ 4,403	\$ 352
<i>1a Regulatory adjustment</i>	(207)	(962)	(838)	0	(421)	(2,428)	(194)
<b>1b RWAs at the previous quarter-end</b>	\$ 120	\$ 713	\$ 975	-	\$ 167	\$ 1,975	\$ 158
<b>2 Movement in risk levels</b>	0	3	0	0	4	7	0
<b>3 Model updates/changes</b>	0	(3)	0	0	0	(3)	0
<b>8a RWAs at the end of the reporting period</b>	\$ 120	\$ 713	\$ 975	-	\$ 171	\$ 1,979	\$ 158
<i>8b Regulatory adjustment</i>	207	962	837	0	354	2,360	189
<b>8 RWAs at the end of the reporting period</b>	\$ 327	\$ 1,675	\$ 1,812	-	\$ 525	\$ 4,339	\$ 347

**Pillar 3 Disclosures**

**Model Review and Validation**

The models discussed above, which are used to determine Regulatory VaR, SVaR, Incremental risk and Comprehensive risk, are subject to independent review and validation by Model Risk Management. For more information, see “Model Risk Management.”

These models are regularly reviewed 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 our assumptions and/or models, Model Risk Management performs model validations. Significant changes to models are reviewed with the firm’s chief risk officer and chief financial officer, and approved by the Firmwide Risk Committee.

**Regulatory VaR Backtesting Results**

As required by the CRD IV market risk capital rules, we validate the accuracy of our Regulatory VaR models by backtesting the output of such models against daily loss results. The number of exceptions (that is, the number of overshootings based on comparing the higher of positional or actual losses to the corresponding 99% one-day Regulatory VaR) over the most recent 250 business days is used to determine the size of the VaR multiplier, which could increase from a minimum of three to a maximum of four, depending on the number of exceptions.

As defined in the CRD IV market risk capital rules, hypothetical net revenues for any given day represent the impact of that day’s price variation on the value of positions held at the close of business the previous day. As a consequence, these results exclude certain revenues associated with market-making businesses, such as bid/offer net revenues, which by their nature are more likely than not to be positive. In addition, hypothetical net revenues used in our Regulatory VaR backtesting relate only to positions which are included in Regulatory VaR and, as noted above, differ from positions included in our risk management VaR. This measure of hypothetical net revenues is used to evaluate the performance of the Regulatory VaR model and is not comparable to our actual daily trading net revenues. See “Risk Management — Market Risk Management” in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the firm’s 2017 Form 10-K.

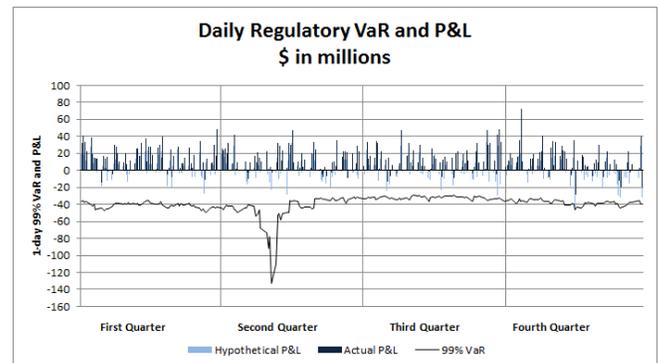
GSI hypothetical or actual losses observed on a single day

did not exceed our 99% one-day Regulatory VaR during the year ending December 2017 and there was no change in the VaR multiplier used to calculate GSI Market RWAs. GSIB hypothetical losses observed on a single day exceeded our GSIB 99% one-day Regulatory VaR, driven by large moves in European sovereign bonds. GSIB actual losses observed on a single day did not exceed our 99% one-day Regulatory VaR during the year ending December 2017. There was no change to the VaR multiplier used to calculate GSIB Market RWAs. Note that, although a one-day time horizon is used for backtesting purposes, a 10-day time horizon is used, as described earlier, to determine RWAs associated with Regulatory VaR.

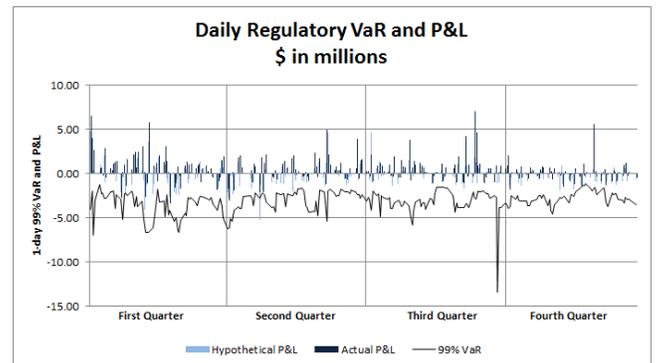
The tables below present our 99% one-day Regulatory VaR and hypothetical and actual PnL during the previous 12 months.

**Table 20: Comparison of VaR estimates with gains/losses**

**GSI**



**GSIB**



The table below summarizes the number of reported excesses for GSI and GSIB for the previous 12 months.

	Multiplier	Number of reported excesses	
		Hypothetical	Actual
<b>2017 Backtesting</b>			
GSI	3.00	0	0
GSIB	3.00	1	0

**Pillar 3 Disclosures****Stress Testing**

Stress testing is a method of determining the effect of various hypothetical stress scenarios on the firm and GSI and GSIB individually. We use stress testing to examine risks of specific portfolios as well as the potential impact of significant risk exposures across GSI and GSIB. We use a variety of stress testing techniques to calculate the potential loss from a wide range of market moves on our portfolios, including sensitivity analysis, scenario analysis and firmwide stress tests.

For a detailed description of the firm's stress testing practices, see "Risk Management – Market Risk Management – Market Risk Management Process – Stress Testing" in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the firm's 2017 10-K.

The table below presents the components of own funds requirements under the standardised approach as of December 31, 2017.

**Table 21: Market risk under the standardised approach**

		As of December 2017					
		RWAs			Capital Requirements		
		GSGUK	GSI	GSIB	GSGUK	GSI	GSIB
<i>\$ in millions</i>							
<b>Outright products</b>							
1	Interest rate risk (general and specific)	\$ 16,473	\$ 16,473	-	\$ 1,319	\$ 1,319	-
2	Equity risk (general and specific)	5,293	5,293	-	423	423	-
3	Foreign exchange risk	4,889	4,626	247	391	370	20
4	Commodity risk	786	703	-	63	56	-
4a	Collective investment undertakings	2,887	2,887	-	231	231	-
<b>Options</b>							
5	Simplified approach	430	430	-	34	34	-
8	Securitisation (specific risk)	7,791	7,791	-	623	623	-
<b>9</b>	<b>Total</b>	<b>\$ 38,549</b>	<b>\$ 38,203</b>	<b>\$ 247</b>	<b>\$ 3,084</b>	<b>\$ 3,056</b>	<b>\$ 20</b>

## Operational Risk Management

### Overview

Operational risk is the risk of an adverse outcome resulting from inadequate or failed internal processes, people, systems or from external events. The firm's 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 firm maintains a comprehensive control framework designed to provide a well-controlled environment to minimise operational risks. 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 firm, and monitors the effectiveness of operational risk management.

Operational Risk Management is a risk management function independent of our revenue-producing units, reports to the firm'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 our exposure to operational risk at levels that are within our risk appetite.

### Operational Risk Management Process

Managing operational risk requires timely and accurate information as well as a strong control culture. The firm seeks to manage its operational risk 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.

The firm combines top-down and bottom-up approaches to manage and measure operational risk. From a top-down perspective, senior management assesses firmwide 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 firm's operational risk management framework is in part designed to comply with the operational risk measurement rules under the Capital Framework and has evolved based on the changing needs of its businesses and regulatory guidance. The operational risk management framework consists of risk identification and assessment, risk measurement and risk monitoring and reporting.

**Pillar 3 Disclosures****Risk Identification and Assessment**

The core of the firm's operational risk management framework is risk identification and assessment. The firm has a comprehensive data collection process, including firmwide policies and procedures, for operational risk events.

The firm has established policies that require revenue-producing units and independent control and support functions to report and escalate operational risk events. When operational risk events are identified, the 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, the firmwide systems capture internal operational risk event data, key metrics such as transaction volumes, and statistical information such as performance trends. The firm use an internally developed operational risk management application to aggregate and organise this information. One of our 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 firm measures operational risk exposure over a twelve-month time horizon using both statistical modelling and scenario analyses, which involves qualitative and quantitative assessments of internal and external operational risk event data, business environment and internal control factors for each of our 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**

The firm evaluates changes in the operational risk profile of businesses, including changes in business mix or jurisdictions in which the firm operates, by monitoring the factors noted above. The firm 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 firm monitors the results of assessments and independent internal audits of these internal controls.

Periodic operational risk reports are provided to senior management, the GSI and GSIB Risk Committees and our Boards of Directors. In addition, we have 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 and GSIB Board Risk Committees

**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.

**Capital Requirements**

The consolidated operational risk capital requirements for GSGUK are currently calculated under the Standardised Approach in accordance with CRD IV. GSI also follows this method. GSIB applies the Basic Indicator Approach in accordance with CRD IV.

**Table 22: Operational Risk Capital Requirement**

<i>\$ in millions</i>	As of December 2017		
	GSGUK	GSI	GSIB
Standardised Approach	\$ 1,238	\$ 1,147	-
Basic Indicator Approach	-	-	\$ 29

## Model Risk Management

### Overview

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

The firm's model risk management framework is managed through a governance structure and risk management controls, which encompass standards designed to ensure we maintain a comprehensive model inventory, including risk assessment and classification, sound model development practices, independent review and model-specific usage controls. The Firmwide Model Risk Control Committee oversees the model risk management framework. Model Risk Management, which is independent of model developers, model owners and model users, reports to the firm'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 the Risk Committee of the GS Board. GSGUK's framework for managing model risk is consistent with and part of GS Group's framework.

## Model Review and Validation

Model Risk Management consists of quantitative professionals who perform an independent review, validation and approval of the firm's 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. 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, including the reasonableness of model assumptions, and suitability for intended use;
- The testing strategy utilised by the model developers to ensure that the models function as intended;
- The suitability of the calculation techniques incorporated in the model;
- The model's accuracy in reflecting the characteristics of the related product and its significant risks;
- The model's consistency with models for similar products; and
- The model's sensitivity to input parameters and assumptions.

For more information regarding the use of models within these areas, see "Critical Accounting Policies – Fair Value – Review of Valuation Models," "Risk Management – Liquidity Risk Management," "Risk Management – Market Risk Management," "Risk Management – Credit Risk Management" and "Risk Management – Operational Risk Management" in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the firm's 2017 Form 10-K and "Credit Risk Management," "Market Risk Management," and "Operational Risk Management" in this document

## Interest Rate Sensitivity

### Interest Rate Risk in the Trading Book

Our exposure to interest rate risk in our trading book arises mostly from inventory held to support client market-making activities. This inventory is accounted for at fair value and its interest rate risk is monitored as a component of Market risk. For additional information regarding interest rate risk, see “Risk Management – Market Risk Management” in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the firm’s 2017 Form 10-K.

### Interest Rate Risk in the Banking Book

Our exposure to interest rate risk in our banking book activities arises from differences in interest earned or paid as interest rates change, due to the reset characteristics of our assets and liabilities. Apart from our fixed-rate debt, a significant portion of both our assets and liabilities reset frequently in relation to interest rates, therefore limiting our exposure to interest rate risk. Consequently, our banking book activities have immaterial exposure to movements in interest rates.

For further information regarding asset-liability management, see “Risk Management – Liquidity Risk Management” in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the firm’s 2017 Form 10-K.

## Asset Encumbrance

### Overview

Asset encumbrance refers to the pledging or use of an asset as a means to secure, collateralise or credit-enhance any on-balance-sheet or off-balance-sheet transaction from which it cannot be freely withdrawn. The majority of our encumbrance is driven by secured financing activities, which include transactions in repo, securities lending, facilitation of short positions (customer and firm) and collateral swaps. The remaining encumbrance is driven by derivatives trading. Asset encumbrance is an integral part of GSGUK’s liquidity, funding and collateral management process.

The tables in this section identify components of our encumbered and unencumbered assets for the year ended December 31, 2017. All numbers in the tables are based on UK GAAP and median values are computed over the preceding 12 months. This disclosure is being made in accordance with the format required by EBA Guidelines EBA/GL/2014/03 on the disclosure of encumbered and unencumbered assets.

**Table 23: Total On-Balance-Sheet Assets**

<i>\$ in millions</i>	Carrying Amount of Encumbered Assets	Fair Value of Encumbered Assets	Carrying Amount of Unencumbered assets	Fair Value of Unencumbered Assets
Assets of the Reporting Institution <sup>1</sup>	\$ 102,413	N/a <sup>2</sup>	\$ 838,420	N/a <sup>2</sup>

**Table 24: Components of On-Balance-Sheet Assets**

<i>\$ in millions</i>	Carrying Amount of Encumbered Assets	Fair Value of Encumbered Assets	Carrying Amount of Unencumbered assets	Fair Value of Unencumbered Assets
Equity Instruments <sup>3</sup>	\$ 26,542	\$ 26,542	\$ 11,584	\$ 11,584
Debt Securities <sup>3</sup>	22,185	22,185	11,980	11,980
Other Assets	2,911 <sup>4</sup>	N/a <sup>2</sup>	588,307 <sup>5</sup>	N/a <sup>2</sup>

- The figures in Table 24 are a subset of Assets of the Reporting Institution in Table 23
- Cells are marked N/a to indicate those components which are not reportable under EBA Guidelines
- Fair value is the same as carrying value for Equity Instruments and Debt Securities
- Encumbered Other Assets includes on-balance-sheet cash that has been segregated under the FCA’s Client Assets Sourcebook (CASS)
- The majority of unencumbered Other Assets relate to derivative instruments

**Pillar 3 Disclosures**

The firm receives securities collateral in respect of securities purchased under agreement to resell, secured borrowings, margin loans and derivatives. The tables below break down securities collateral received into the portion which has been treated as encumbered and the portion which is available for encumbrance.

**Table 25: Total Collateral Received**

<i>\$ in millions</i>	<b>Fair Value of Encumbered Collateral Received or Own Debt Securities Issued</b>	<b>Fair Value of Collateral Received or Own Debt Securities Issued Available for Encumbrance</b>
Collateral Received by the Reporting Institution <sup>1,2</sup>	<b>\$ 384,877</b>	<b>\$ 66,292</b>

**Table 26: Components of Collateral Received**

<i>\$ in millions</i>	<b>Fair Value of Encumbered Collateral Received or Own Debt Securities Issued</b>	<b>Fair Value of Collateral Received or Own Debt Securities Issued Available for Encumbrance</b>
Equity Instruments	<b>\$ 121,010</b>	<b>\$ 9,265</b>
Debt Securities	<b>261,734</b>	<b>56,843</b>
Other Collateral Received	-	<b>160</b>
Own Debt Securities Issued other than Own Covered Bonds or ABSs	-	-

- The figures shown in Table 26 are a subset of Collateral Received by the Reporting Institution in Table 25
- Collateral Received by the Reporting Institution does not include cash collateral which is included as an on-balance-sheet asset in Tables 23 and 24

The table below shows the extent to which liabilities have been matched to encumbered assets.

**Table 27: Encumbered assets/collateral received and associated liabilities**

<i>\$ in millions</i>	<b>Matching Liabilities, Contingent Liabilities or Securities Lent<sup>2</sup></b>	<b>Assets, Collateral Received and Own Debt Securities Issued other than Covered Bonds and ABSs Encumbered</b>
Carrying amount of selected financial liabilities <sup>1</sup>	<b>\$ 670,352</b>	<b>\$ 268,252</b>

- Selected financial liabilities include derivatives, securities sold under agreement to repurchase and stock loans
- There may be a mismatch between liabilities and encumbered assets and collateral received driven by the GAAP presentation of derivatives

**Asset Encumbrance Commentary**

We view GSGUK's level of asset encumbrance as being higher than the level of asset encumbrance implied in the preceding tables due to differences in GAAP presentation of derivatives and encumbrance methodology. In this disclosure, derivative instruments are reported in accordance with UK GAAP. In addition, total assets include collateralised lending where the receivable is reported as a balance sheet asset in Tables 23 and 24 and the underlying collateral received is reported in Tables 25 and 26 resulting in double counting of these assets. Due to these differences, GSGUK's actual level of asset encumbrance is higher than the ratio of encumbered assets to total assets implied from the tables above.

GSGUK primarily adopts standard collateral agreements and collateralises based on industry standard contractual agreements (mostly Credit Support Annexes (CSA) and Global Master Repurchase Agreements (GMRAs)). The rights and obligations on collateral posted to counterparties for derivatives are dependent on the counterparty and the nature and jurisdiction of the CSA. Derivative liabilities are collateralised primarily using G10 currencies and government bonds.

## Liquidity Risk Management

### Overview

GSGUK and its major subsidiaries are subject to the liquidity requirements as set out in the European Commission Delegated Regulation 2015/61 (Liquidity Coverage Ratio (LCR) Delegated Act) and other applicable guidelines as set by the PRA. When we use the term “liquidity standards”, we refer to the aforementioned regulations. The liquidity standards set forth minimum liquidity levels designed to ensure that credit institutions and investment firms maintain an adequate amount of liquid assets to withstand a 30 calendar-day stress scenario.

This information is designed to satisfy the disclosure of liquidity risk management under Article 435 of Regulation (EU) No 575/2013. The EBA guidelines on LCR disclosure (EBA/GL/2017/01) require firms to disclose, on an annual basis, the average monthly LCR for the trailing twelve-months, as well as quantitative and qualitative information on certain components of a firm’s LCR. This information should be read in conjunction with Group Inc.’s most recent Annual Report on Form 10-K for the year ended December 31, 2017.

### Liquidity Management

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

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

For information about Group Inc.’s internal Liquidity Risk Management and Analysis framework, see “Risk Management – Liquidity Risk Management” in Part I, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the firm’s Annual Report on Form 10-K.

The Treasury function of the firm has the primary responsibility for assessing, monitoring and managing liquidity and funding strategy. Treasury is independent of the revenue-producing units and reports to the chief financial officer.

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

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

Based on the results of our internal liquidity risk models, as well as consideration of other factors including, but not limited to, an assessment of our potential intraday liquidity needs and a qualitative assessment of the condition of the financial markets and GSGUK, we believe that our liquidity position as of December 31, 2017 was appropriate.

### Compliance with Liquidity Requirements

The PRA guidelines require that a firm maintains LCR that is no less than 80% until December 2016, increasing to 90% on January 1, 2017 and 100% on January 1, 2018 onwards. In addition, the PRA may require a firm to hold additional liquidity for risks not covered in the LCR Delegated Act, referred to as Pillar 2 risks. A firm’s HQLA is expected to be available for use to address liquidity needs in a time of stress, which could result in a firm’s LCR dropping below the applicable requirement. The liquidity standards also set forth a supervisory framework for addressing LCR shortfalls that is intended to enable supervisors to monitor and respond appropriately to the unique circumstances that give rise to a firm’s LCR shortfall.

This information is based on our current interpretation and understanding of the liquidity standards and the EBA guidelines on LCR Disclosure and may evolve as we discuss the interpretation and application of these rules with our regulators. Table 34 (lines 1 through 23) presents GSGUK’s LCR in the format provided in the EBA guidelines on LCR Disclosure. Tables 28 through 33 present a supplemental breakdown of GSGUK’s LCR components. Tables 35 and 36 present simplified disclosure templates for GSI and GSIB, respectively.

## Liquidity Coverage Ratio

The liquidity standards require a firm to maintain an amount of high-quality liquid assets (HQLA) sufficient to meet stressed net cash outflows (NCOs) over a prospective 30 calendar-day period. The LCR is calculated as the ratio of HQLA to NCOs.

The table below summarises our trailing twelve month average monthly LCR for the period ended December 31, 2017.

**Table 28: Liquidity Coverage Ratio**

<i>\$ in millions</i>	<b>Twelve Months Ended December 2017</b>
	<b>Average Weighted</b>
Total high-quality liquid assets	<b>\$69,362</b>
Net cash outflows	<b>\$37,562</b>
Liquidity coverage ratio <sup>1</sup>	<b>186%</b>

1. The ratio reported in this row is calculated as average of the monthly LCR's for the trailing twelve-months and may not equal the calculation of ratio using component amounts reported in "Total high-quality liquid assets" and "Net cash outflows".

In the table above, the average weighted Total HQLA balance reflects the application of haircuts prescribed in the liquidity standards as described in the HQLA section.

The average weighted Total HQLA held by GSGUK is expected to meet the liquidity requirements set out in the LCR Delegated Act as well as the additional requirements set by the PRA to cover Pillar 2 risks.

GSGUK's average monthly LCR for the trailing twelve-month period ended December 2017 was 186%. The NCOs are largely comprised of prospective outflows related to GSGUK's secured and unsecured funding, derivative positions and unfunded commitments. We expect business-as-usual fluctuations in our client activity, business mix and overall market environment to affect our average LCR on an ongoing basis.

See "High-Quality Liquid Assets" and "Net Cash Outflows" for further information about GSGUK's LCR.

## High-Quality Liquid Assets

Total HQLA represents unencumbered, high-quality liquid assets held by a firm. The liquidity standards define HQLA in three asset categories: Level 1, Level 2A and Level 2B, and applies haircuts and limits to certain asset categories.

Level 1 assets are considered the most liquid and are eligible for inclusion in a firm's HQLA amount without a haircut or limit. Level 2A and 2B assets are considered less liquid than Level 1 assets and are subject to additional

adjustments as prescribed in the liquidity standards. In addition, the sum of Level 2A and 2B assets cannot comprise more than 40% of a firm's HQLA amount, and Level 2B assets cannot comprise more than 15% of a firm's HQLA amount.

Table 28 presents a summary of the weighted average Total HQLA held by GSGUK, calculated in accordance with the liquidity standards.

Our HQLA substantially comprises of Level 1 assets and is diversified across our major operating currencies. Our HQLA is also substantially similar in composition to our GCLA.

For information about Group Inc.'s GCLA, see "Risk Management – Liquidity Risk Management" in Part I, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the firm's Annual Report on Form 10-K.

## Net Cash Outflows

### Overview

The liquidity standards define NCOs as the net of cash outflows and inflows during a prospective stress period of 30 calendar days. NCOs are calculated by applying prescribed outflow and inflow rates to certain assets, liabilities and off-balance-sheet arrangements. These outflow and inflow rates reflect a specific standardised stress scenario to a firm's funding sources, contractual obligations and assets over the prospective stress period, as prescribed by the liquidity standards. Due to the inherently uncertain and variable nature of stress events, a firm's actual cash outflows and inflows in a realised liquidity stress event may differ, possibly materially, from those reflected in a firm's NCOs.

To capture outflows and inflows that would occur within a 30 calendar-day period, the liquidity standards require that a firm's NCOs calculation reflects outflows and inflows based on the contractual maturity of certain assets, liabilities and off-balance-sheet arrangements. To determine the maturity date of outflows, the liquidity standards account for any option that could accelerate the maturity date of an instrument or the date of a transaction. Where contractual maturity is not applicable, the liquidity standards also set forth stressed outflow assumptions. In addition, the liquidity standards require a firm to recognise contractual outflows within a 30 calendar-day period that are not otherwise described in the liquidity standards and do not recognise inflows not specified in the liquidity standards. The inflows included in the NCOs calculation are subject to a cap of 75% of a firm's calculated outflows.

Table 28 above presents a summary of GSGUK's NCOs, calculated in accordance with the liquidity standards.

**Pillar 3 Disclosures**

More details on each of the material components of our NCOs, including a description of the applicable sections of the liquidity standards, are described below.

In the tables referenced in the remainder of this section, unweighted balances reflect certain GSGUK's assets, liabilities and off-balance-sheet arrangements captured in the liquidity standards. Weighted balances reflect the application of prescribed outflow and inflow rates to these unweighted balances.

**Unsecured and Secured Financing****Overview**

Our primary sources of funding are unsecured long-term and short-term borrowings (including funding from Group Inc. and affiliates), deposits and secured financings. We seek to maintain broad and diversified funding sources globally across products, programs, markets, currencies and creditors to avoid funding concentrations.

For information about Group Inc.'s funding sources, see "Balance Sheet and Funding Sources" in Part I, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the firm's Annual Report on Form 10-K.

**Unsecured Net Cash Outflows**

GSGUK's unsecured funding is comprised of a number of different products, including:

- Debt securities issued, which includes notes, certificates, and warrants; and
- Demand and time deposits from retail, small business and wholesale customers

GSGUK's unsecured debt and deposits are a source of funding for inventory, lending activity and other assets, including a portion of our liquid assets.

The liquidity standards require that the NCOs calculation reflects a firm's upcoming maturities of unsecured long-term debt and other unsecured funding products during a 30 calendar-day period, assuming no rollover of debt that matures.

The liquidity standards also prescribe outflows related to a partial loss of retail, small business and wholesale deposits.

Inflows from deposits placed with agent banks and lending activity are included as part of "Inflows from fully performing exposures" (see Table 29).

The table below presents a summary of GSGUK's NCOs related to our unsecured borrowing and lending activity,

calculated in accordance with the liquidity standards.

**Table 29: Unsecured Net Cash Outflows**

<i>\$ in millions</i>	<b>Twelve Months Ended December 2017</b>	
	<b>Average Unweight</b>	<b>Average Weighted</b>
<b>Outflows</b>		
Retail deposits and deposits from small business customers, of which:		
Stable deposits	<b>\$ 1,724</b>	<b>\$ 287</b>
Less stable deposits	<b>136</b>	<b>7</b>
Unsecured wholesale funding, of which:	<b>1,588</b>	<b>280</b>
Non-operational deposits	<b>17,091</b>	<b>16,042</b>
Unsecured debt	<b>1,583</b>	<b>1,583</b>
<b>Inflows</b>		
Inflows from fully performing exposures	<b>3,245</b>	<b>2,674</b>
<b>Net unsecured cash outflows/(inflows)<sup>1</sup></b>	<b>\$17,153</b>	<b>\$13,655</b>

1. Net unsecured cash outflows/(inflows) reflects the subtraction of the inflow amounts from the outflow amounts shown in the table above and is included for illustrative purposes.

**Secured Net Cash Outflows**

GSGUK funds a significant amount of inventory on a secured basis, including repurchase agreements, securities loaned and other secured financings. In addition, we provide financing to our clients for their securities trading activities, as well as securities lending and other prime brokerage services.

The liquidity standards considers outflows and inflows related to secured funding and securities services together as part of "Secured wholesale funding" and "Secured lending" (see Table 30).

Specifically, under the liquidity standards, secured funding transactions include repurchase agreements, collateralised deposits, securities lending transactions and other secured wholesale funding arrangements. Secured lending transactions, as defined under the liquidity standards, include reverse repurchase transactions, margin loans, securities borrowing transactions and secured loans.

The standardised stress scenario prescribed in the liquidity standards applies outflow and inflow rates between 0-100% to secured funding and lending transactions. Specific outflow and inflow rates are based on factors such as the quality of the underlying collateral, as well as the type, tenor, and counterparty of a transaction.

The table below presents a summary of GSGUK's NCOs related to our secured funding and lending activity, calculated in accordance with the liquidity standards.

## Pillar 3 Disclosures

Table 30: Secured Net Cash Outflows

\$ in millions	Twelve Months Ended December 2017	
	Average Unweighte	Average Weighted
<b>Outflows</b>		
Secured wholesale funding		\$ 38,348
<b>Inflows</b>		
Secured lending	299,665	70,922
<b>Net secured cash outflows/(inflows)<sup>1</sup></b>		<b>\$(32,574)</b>

1. Net secured cash outflows/(inflows) reflects the subtraction of the inflow amounts from the outflow amount shown in the table above and is included for illustrative purposes.

## Derivatives

### Overview

Derivatives are instruments that derive their value from underlying asset prices, indices, reference rates and other inputs, or a combination of these factors. Derivatives may be traded on an exchange or they may be privately negotiated contracts, which are usually referred to as OTC derivatives. Certain OTC derivatives are cleared and settled through central clearing counterparties, while others are bilateral contracts between two counterparties.

- **Market-Making.** As a market maker, GSGUK enters into derivative transactions to provide liquidity to clients and to facilitate the transfer and hedging of their risks. In this role, we typically act as principal and are required to commit capital to provide execution, and maintain inventory in response to, or in anticipation of, client demand
- **Risk Management.** GSGUK also enters into derivatives to actively manage risk exposures that arise from its market-making and investing and lending activities in derivative and cash instruments. Our holdings and exposures are hedged, in many cases, on either a portfolio or risk-specific basis, as opposed to an instrument-by-instrument basis.

We enter into various types of derivatives, including futures, forwards, swaps and options.

For information about Group Inc.'s derivative exposures and hedging activities, see Note 7 "Derivatives and Hedging Activities" in Part II, Item 8 "Financial Statements and Supplementary Data" in the firm's Annual Report on Form 10-K.

### Derivative Net Cash Outflows

The liquidity standards require that derivative NCOs reflect outflows and inflows resulting from contractual settlements related to derivative transactions occurring over a 30 calendar-day period. These outflows and inflows can generally be netted at a counterparty level if subject to a valid qualifying master netting agreement. In addition, the liquidity standards require that NCOs reflect certain contingent outflows related to a firm's derivative positions that may arise during a 30 calendar-day stress scenario, including:

- Incremental collateral required as a result of a change in a firm's financial condition;
- Legal right of substitution of collateral posted to a firm for less liquid or non-HQLA collateral;
- Collateral required as a result of market movements. The liquidity standards require that a firm reflect in its NCOs calculation the absolute value of the largest net cumulative collateral outflow or inflow in a 30 calendar-day period over the last two years; and
- Excess collateral greater than the current collateral requirement under the governing contract that a firm may be contractually required to return to counterparty

In the table below, "Outflows related to derivative exposures and other collateral requirements" reflects contractual derivative settlements, as well as contingent derivative outflows, calculated in accordance with the liquidity standards. Inflows from contractual derivative settlements are reflected in "Other cash inflows" in Table 33. The liquidity standards do not recognise contingent derivative inflows.

The table below presents a summary of the GSGUK's derivative NCOs, calculated in accordance with the liquidity standards.

Table 31: Derivative Net Cash Outflows

\$ in millions	Twelve Months Ended December 2017	
	Average Unweighted	Average Weighted
<b>Outflows related to derivative exposures and other collateral requirements</b>	<b>\$24,130</b>	<b>\$21,767</b>

## Unfunded Commitments

### Overview

GSGUK extends commercial lending commitments to mainly investment-grade and non-investment-grade corporate borrowers. Commitments to investment-grade corporate borrowers are principally used for operating liquidity and general corporate purposes. We also extend lending commitments in connection with contingent acquisition financing and other types of corporate lending as well as commercial real estate financing. Commitments that are extended for contingent acquisition financing are often intended to be short-term in nature, as borrowers often seek to replace them with other funding sources.

### Unfunded Commitments Net Cash Outflows

The liquidity standards apply outflow rates to the undrawn portion of committed credit and liquidity facilities that a firm has extended based on counterparty type and purpose. The undrawn portion is defined as the amount of the facility that could be drawn upon within 30 calendar days under the governing agreement, less the fair value of any liquid assets that serve as collateral, after recognising the applicable haircut for those assets. Commitments extended to non-financial sector corporates are prescribed an outflow rate of 10-30%, insurance sector entities an outflow rate of 40-100%, credit institutions an outflow rate of 40% and all others an outflow rate of 100%.

The table below presents a summary of GSGUK's NCOs related to our unfunded commitments, calculated in accordance with the liquidity standards.

**Table 32: Unfunded Commitments Net Cash Outflows**

<i>\$ in millions</i>	Months Ended December 2017	
	Average Unweighted	Average Weighted
<b>Credit and liquidity facilities</b>	<b>\$6,033</b>	<b>\$1,847</b>

### Other Net Cash Outflows

The table below presents a summary of GSGUK's other cash outflows and inflows, including, but not limited to, overnight and term funding from Group Inc. and affiliates, derivative inflows, unsettled inventory balances, loans of collateral to effect customer short sales and other prime brokerage services.

**Table 33: Other Net Cash Outflows**

<i>\$ in millions</i>	Twelve Months Ended December 2017	
	Average Unweighted	Average Weighted
<b>Outflows</b>		
Other contractual obligations	\$ 104,735	\$ 27,505
Other contingent funding obligations	39,801	28,644
<b>Inflows</b>		
Other cash inflows	23,677	23,640
<b>Net other cash outflows/(inflows)<sup>1</sup></b>	<b>\$120,859</b>	<b>\$ 32,509</b>

1. Net other cash outflows/(inflows) reflects the subtraction of the inflow amounts from the outflow amounts shown in the table above and is included for illustrative purposes.

## Pillar 3 Disclosures

Table 34: GSGUK Liquidity Coverage Ratio Summary

Scope of consolidation (SOLO)	Total Unweighted Value				Total Weighted Value			
Currency and units (\$ in millions)								
Period ended	March 2017	June 2017	September 2017	December 2017	March 2017	June 2017	September 2017	December 2017
Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
<b>HIGH-QUALITY LIQUID ASSETS</b>								
1 Total high-quality liquid assets (HQLA)					70,301	70,187	70,117	69,362
<b>CASH – OUTFLOWS</b>								
2 Retail deposits and deposits from small business customers, of which:	1,640	1,693	1,724	1,724	239	258	275	287
3 Stable deposits	113	119	127	136	6	6	6	7
4 Less stable deposits	1,527	1,574	1,597	1,588	233	252	269	280
5 Unsecured wholesale funding	19,261	19,237	19,225	18,674	16,736	16,642	16,553	16,042
6 Operational deposits (all counterparties) and deposits in networks of cooperative banks	0	0	0	0	0	0	0	0
7 Non-operational deposits (all counterparties)	17,766	17,698	17,603	17,091	15,241	15,103	14,931	14,459
8 Unsecured debt	1,495	1,539	1,622	1,583	1,495	1,539	1,622	1,583
9 Secured wholesale funding					40,848	39,824	39,263	38,348
10 Additional requirements <sup>1</sup>	26,825	28,102	29,332	30,163	19,983	21,387	22,904	23,614
11 Outflows related to derivative exposures and other collateral requirements	21,223	22,497	23,801	24,130	18,275	19,684	21,158	21,767
12 Outflows related to loss of funding on debt products	0	0	0	0	0	0	0	0
13 Credit and liquidity facilities	5,602	5,605	5,531	6,033	1,708	1,703	1,746	1,847
14 Other contractual funding obligations	90,067	92,774	98,518	104,735	31,698	29,577	27,929	27,505
15 Other contingent funding obligations	34,336	36,051	38,072	39,801	26,612	27,122	27,960	28,644
16 <b>TOTAL CASH OUTFLOWS</b>					136,116	134,810	134,884	134,440
<b>CASH – INFLOWS</b>								
17 Secured lending (eg reverse repos)	275,283	278,805	289,131	299,666	59,525	62,118	66,517	70,921
18 Inflows from fully performing exposures	2,945	3,057	3,117	3,245	2,900	3,014	2,867	2,674
19 Other cash inflows	30,202	27,687	25,502	23,677	30,202	27,688	25,502	23,640
(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)	0	0	0	0	0	0	0	0
EU-19b (Excess inflows from a related specialised credit institution)	0	0	0	0	0	0	0	0
20 <b>TOTAL CASH INFLOWS</b>	308,430	309,549	317,750	326,588	92,627	92,820	94,886	97,235
EU-20a Fully exempt inflows	0	0	0	0	0	0	0	0
EU-20b Inflows Subject to 90% Cap	0	0	0	0	0	0	0	0
EU-20c Inflows Subject to 75% Cap	308,430	309,549	317,750	326,588	92,627	92,820	94,886	97,235
<b>TOTAL ADJUSTED VALUE</b>								
21 LIQUIDITY BUFFER <sup>2</sup>					70,301	70,187	70,117	69,362
22 <b>TOTAL NET CASH OUTFLOWS<sup>2</sup></b>					43,489	41,990	39,997	37,562
23 <b>LIQUIDITY COVERAGE RATIO (%)<sup>3</sup></b>					163%	169%	176%	186%

<sup>1</sup> "Additional requirements" include collateral requirement as a result of market movements calculated as per the Historical Look Back Approach starting February, 2017, in accordance with the European Commission Delegated Regulation (EU) 2017/208

<sup>2</sup> The amounts reported in these rows may not equal the calculation of those amounts using component amounts reported in rows 1-20 due to technical factors such as the application of the Level 2 liquid asset caps and the total inflow cap

<sup>3</sup> The ratios reported in this row are calculated as average of the monthly LCR's for the trailing twelve-months and may not equal the calculation of ratios using component amounts reported in rows 21 and 22

**Pillar 3 Disclosures****Table 35: GSI Liquidity Coverage Ratio Summary**

Scope of consolidation (Solo)	Total Weighted Value			
Currency and units (\$ in millions)				
Period ended	March 2017	June 2017	September 2017	December 2017
Number of data points used in the calculation of averages	12	12	12	12
LIQUIDITY BUFFER	61,093	60,296	59,977	59,330
TOTAL NET CASH OUTFLOWS	39,274	37,681	35,853	33,930
LIQUIDITY COVERAGE RATIO (%) <sup>1</sup>	157%	161%	168%	176%

<sup>1</sup> The ratios reported in this row are calculated as average of the monthly LCR's for the trailing twelve-months and may not equal the calculation of ratios using component amounts reported in rows 21 and 22

**Table 36: GSIB Liquidity Coverage Ratio Summary**

Scope of consolidation (Solo)	Total Weighted Value			
Currency and units (\$ in millions)				
Period ended	March 2017	June 2017	September 2017	December 2017
Number of data points used in the calculation of averages	12	12	12	12
LIQUIDITY BUFFER	9,208	9,891	10,140	10,032
TOTAL NET CASH OUTFLOWS	5,235	5,598	5,740	5,698
LIQUIDITY COVERAGE RATIO (%) <sup>1</sup>	175%	175%	176%	175%

<sup>1</sup> The ratios reported in this row are calculated as average of the monthly LCR's for the trailing twelve-months and may not equal the calculation of ratios using component amounts reported in rows 21 and 22

## Pillar 3 Disclosures

## Leverage Ratio

GSGUK 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 GSGUK. 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. This leverage ratio is based on our current interpretation and understanding of this rule and

may evolve as the interpretation and application of this rule is discussed with our regulators.

Table 37: Leverage Ratio

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
Tier 1 Capital	\$ 35,288	\$ 30,671	\$ 2,834
Leverage Ratio Exposure	\$ 779,732	\$ 748,140	\$ 31,294
<b>Leverage Ratio</b>	<b>4.5%</b>	<b>4.1%</b>	<b>9.1%</b>

The following tables present further information on the leverage ratio. Table 38 reconciles the exposure measure to the balance sheets of GSGUK, GSI and GSIB. Table 39 breaks down the exposures from on-balance sheet assets by trading and banking book. Table 40 gives further details on the adjustments and drivers of the leverage ratio.

Table 38: Summary Reconciliation of Accounting Assets and Leverage Ratio Exposures

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
<b>Total assets as per balance sheet</b>	<b>\$958,146</b>	<b>\$940,394</b>	<b>\$54,447</b>
Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-	-	-
Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013 "CRR"	-	-	-
Adjustments for derivative financial instruments <sup>1</sup>	(213,234)	(210,207)	(1,536)
Adjustments for securities financing transactions <sup>1</sup>	25,168	25,509	-
Adjustment for off-balance sheet items <sup>1</sup>	10,561	6,245	4,317
Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013 <sup>1</sup>	-	(10,108)	(25,476)
Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation (EU) No 575/2013	-	-	-
Other adjustments	(909)	(3,693)	(458)
<b>Total leverage ratio exposure</b>	<b>\$779,732</b>	<b>\$748,140</b>	<b>\$31,294</b>

1. Differences between the accounting values recognised as assets on the balance sheet and the leverage ratio exposure values. A further breakdown of these amounts can be found in Table 40.

Table 39: On-Balance Sheet Exposures

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
<b>Total on-balance sheet exposures<sup>1</sup> (excluding derivatives, SFTs, and exempted exposures), of which:</b>	<b>\$139,357</b>	<b>\$124,615</b>	<b>\$13,874</b>
<b>Trading book exposures</b>	<b>\$100,886</b>	<b>\$95,944</b>	<b>\$7,975</b>
<b>Banking book exposures, of which:</b>	<b>\$38,471</b>	<b>\$28,671</b>	<b>\$5,899</b>
Covered bonds	-	-	-
Exposures treated as sovereigns	17,086	14,018	3,058
Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	-	-	-
Institutions	8,778	7,769	196
Secured by mortgages of immovable properties	-	-	-
Retail exposures	-	-	-
Corporate	8,465	5,772	1,979
Exposures in default	192	180	12
Other exposures	3,950	932	654

## Pillar 3 Disclosures

Table 40: Leverage Ratio Common Disclosure

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
<b>On-balance sheet exposures (excluding derivatives and SFTs)</b>			
On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	\$173,205	\$158,882	\$15,119
Asset amounts deducted in determining Tier 1 capital	(993)	(894)	(99)
<b>Total on-balance sheet exposures<sup>1</sup> (excluding derivatives, SFTs and fiduciary assets)</b>	<b>\$172,212</b>	<b>\$157,988</b>	<b>\$15,020</b>
<b>Derivative exposures</b>			
Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	33,293	33,254	222
Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	304,193	306,375	756
Exposure determined under Original Exposure Method	-	-	-
Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	-	-	-
Deductions of receivables assets for cash variation margin provided in derivatives transactions	(32,971)	(32,871)	(100)
Exempted CCP leg of client-cleared trade exposures	(4,806)	(4,806)	-
Adjusted effective notional amount of written credit derivatives	743,666	743,666	-
Adjusted effective notional offsets and add-on deductions for written credit derivatives	(689,595)	(689,595)	-
<b>Total derivative exposures</b>	<b>\$353,780</b>	<b>\$356,023</b>	<b>\$878</b>
<b>Securities financing transaction exposures</b>			
Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	280,615	278,016	36,910
Netted amounts of cash payables and cash receivables of gross SFT assets	(62,604)	(62,604)	-
Counterparty credit risk exposure for SFT assets	25,168	25,509	-
Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation (EU) No 575/2013	-	-	-
Agent transaction exposures	-	-	-
Exempted CCP leg of client-cleared SFT exposure	-	-	-
<b>Total securities financing transaction exposures</b>	<b>\$243,179</b>	<b>\$240,921</b>	<b>\$36,910</b>
<b>Other off-balance sheet exposures</b>			
Off-balance sheet exposures at gross notional amount	72,189	62,447	9,742
Adjustments for conversion to credit equivalent amounts	(61,628)	(56,202)	(5,425)
<b>Other off-balance sheet exposures</b>	<b>\$10,561</b>	<b>\$6,245</b>	<b>\$4,317</b>
<b>Exempted exposures in accordance with CRR Article 429 (7) and (14) (on and off balance sheet)</b>			
Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet)	-	(13,037)	(25,831)
Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet)	-	-	-
<b>Capital and total exposures</b>			
Tier 1 capital	35,288	30,671	2,834
<b>Total leverage ratio exposures</b>	<b>\$779,732</b>	<b>\$748,140</b>	<b>\$31,294</b>
<b>Leverage ratio</b>			
Leverage ratio	4.5%	4.1%	9.1%
<b>Choice on transitional arrangements and amount of derecognised fiduciary items</b>			
Choice on transitional arrangements for the definition of the capital measure	-	-	-
Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) No 575/2013	-	-	-

<sup>1</sup>The On Balance Sheet Exposures in Table 40 include cash collateral posted on derivative which is excluded from Table 39 in accordance with the European Commission Implementing Regulation (EU) 2016/200

**Factors impacting the Leverage Ratio**

The leverage ratio has increased over the year from 4.3% on December 31, 2016 to 4.5% on December 31, 2017. This was primarily due to an increase in the company's Tier 1 capital, partially offset by an increase in leverage exposure.

**Risk of Excessive Leverage**

The risk of excessive leverage is the risk resulting from a vulnerability due to leverage or contingent leverage that may require unintended corrective measures to our business plan, including distressed selling of assets which might result in losses or in valuation adjustments to our remaining assets.

The GSI and GSIB Asset and Liability Committees (GSI and GSIB ALCOs) are the primary governance committees for the management of the UK material subsidiaries' balance sheets. The GSI and GSIB ALCOs are delegated specific responsibility by the GSI and GSIB Risk Committees for maintaining leverage ratios in accordance with the levels expressed in each entity's risk appetite statement.

We monitor the leverage ratio as calculated above and have processes in place to dynamically manage our assets and liabilities. These processes include:

- Monthly leverage ratio monitoring is conducted for GSGUK, GSI and GSIB. Leverage ratio monitoring thresholds have been established for GSI and GSIB and reported to the respective ALCOs, CROs, CFOs, CEOs, Risk Committees and Boards depending on size of movement.
- Quarterly leverage ratio planning which combines our projected leverage ratio assets (on- and off-balance sheet) and Tier 1 capital of GSGUK, GSI and GSIB.
- Potential new transactions which could have a material impact on GSGUK's capital and/or leverage position are escalated to and approved by Controllers, Corporate Treasury and other managers from independent control and support functions.

**Capital Adequacy****Overview**

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

We determine the appropriate level and composition of capital by considering multiple factors including current and future consolidated regulatory capital requirements, our Internal Capital Adequacy Assessment Process (ICAAP), results of stress tests, resolution capital models and other factors such as rating agency guidelines, subsidiary capital requirements, the business environment and conditions in the financial markets. We maintain a capital plan which projects sources and uses of capital given a range of business environments, and a contingency capital plan which provides a framework for analysing and responding to an actual or perceived capital shortfall.

**Internal Capital Adequacy Assessment Process**

We perform an ICAAP with the objective of ensuring that GSGUK is appropriately capitalised relative to the risks in our business. The ICAAP is a comprehensive assessment of the risks to which we are exposed and covers both the risks for which we consider capital to be an appropriate mitigant, and those for which we consider mitigants other than capital to be appropriate.

As part of our ICAAP, we perform an internal risk-based capital assessment. We evaluate capital adequacy based on the result of our internal risk-based capital assessment and our regulatory capital ratios, supplemented with the results of stress tests. Stress testing is an integral component of our ICAAP. It is designed to measure our estimated performance under various stressed market conditions and assists us in analysing whether GSGUK holds an appropriate amount of capital relative to the risks of our businesses. Our goal is to hold sufficient capital to ensure we remain adequately capitalised after experiencing a severe stress event. Our assessment of capital adequacy is viewed in tandem with our assessment of liquidity adequacy and is integrated into the overall risk management structure, governance and policy framework of the firm. For further details please refer to the 'Risk Management' pages in this document.

## Pillar 3 Disclosures

## Own Funds Transitional Template

The table below presents further information on the detailed capital position of GSGUK, GSI and GSIB, in accordance with the format prescribed by the Commission Implementing Regulation (EU) No 1423/2013.

The amounts shown in this template reflect components of regulatory capital under both a transitional and fully loaded basis.

Table 41: Own funds disclosure

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
Capital instruments and the related share premium accounts	\$ 2,523	\$ 5,463	\$ 2,157
Paid up capital instruments	2,135	582	63
Share premium	388	4,881	2,094
Retained earnings	28,326	20,727	880
Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	(133)	(289)	(3)
<b>Common Equity Tier 1 (CET1) capital before regulatory adjustments</b>	<b>\$ 30,716</b>	<b>\$ 25,901</b>	<b>\$ 3,034</b>
Additional value adjustments	(347)	(270)	(5)
Intangible assets (net of related tax liability)	(186)	(186)	-
Negative amounts resulting from the calculation of expected loss amounts	(394)	(420)	(34)
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	210	207	3
Deferred tax assets	(50)	-	(50)
Defined-benefit pension fund assets	(321)	(321)	-
Non qualifying CET1 capital instruments <sup>1</sup>	(140)	(40)	(100)
<b>Total regulatory adjustments to Common equity Tier 1 (CET1)</b>	<b>\$ (1,228)</b>	<b>\$ (1,030)</b>	<b>\$ (186)</b>
<b>Common Equity Tier 1 (CET1) capital</b>	<b>\$ 29,488</b>	<b>\$ 24,871</b>	<b>\$ 2,848</b>
<b>Additional Tier 1 (AT1) capital</b>	<b>5,800</b>	<b>5,800</b>	<b>-</b>
<b>Tier 1 capital (T1 = CET1 + AT1)</b>	<b>\$ 35,288</b>	<b>\$ 30,671</b>	<b>\$ 2,848</b>
Capital instruments and the related share premium accounts	5,828	5,377	826
Qualifying own funds instruments included in consolidated T2 capital issued by subsidiaries and held by third parties	675	-	-
Of which: Instruments issued by subsidiaries subject to phase out	-	-	-
Non qualifying T2 capital instruments	-	-	-
<b>Tier 2 (T2) capital before regulatory adjustments</b>	<b>\$ 6,503</b>	<b>\$ 5,377</b>	<b>\$ 826</b>
<b>Tier 2 (T2) capital</b>	<b>\$ 6,503</b>	<b>\$ 5,377</b>	<b>\$ 826</b>
<b>Total capital (TC = T1 + T2)</b>	<b>\$ 41,791</b>	<b>\$ 36,048</b>	<b>\$ 3,674</b>
<b>Total risk weighted assets</b>	<b>\$ 243,510</b>	<b>\$ 225,942</b>	<b>\$ 12,547</b>
Common Equity Tier 1 (as a percentage of risk exposure amount)	12.1%	11.0%	22.7%
Tier 1 (as a percentage of risk exposure amount)	14.5%	13.6%	22.7%
Total capital (as a percentage of risk exposure amount)	17.2%	16.0%	29.3%
Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)	5.76%	5.76%	5.77%
Of which: Capital conservation buffer requirement	1.25%	1.25%	1.25%
Of which: Counter cyclical buffer requirement	0.01%	0.01%	0.02%
Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	7.6%	6.5%	16.4%
Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	\$ 2,293	\$ 2,063	-
Direct and indirect holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	-	-

1. Contains the excess capital attributed to certain branch operations for GSIB and regulatory adjustments for foreseeable charges and dividends in GSI .

## Pillar 3 Disclosures

## Countercyclical Capital Buffer Template

The following tables present information on the impact of the countercyclical capital buffer as prescribed under CRR 440 which came into force from January 1, 2017.

Table 42: Countercyclical capital buffer

\$ in millions	As of December 2017		
	GSGUK	GSI	GSIB
Total risk exposure amount	19,481	18,075	1,004
Countercyclical buffer rate	0.01%	0.01%	0.02%
Countercyclical buffer requirement	2	2	-

The geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer is broken down in Table 43.

As of December 31, 2017 the Financial Policy Committee (FPC) had recognised exposures of U.K. institutions from Norway, Sweden, Hong Kong, Czech Republic, Iceland and Slovakia as implemented in the calculation of this buffer. These are shown as separate rows below with their respective contributions to own funds requirements for GSGUK, GSI and GSIB.

Table 43: Geographical distribution of credit exposures relevant for the calculation of the buffer

Breakdown by Country	\$ in millions												As of December 2017	
	General credit exposures		Trading book exposure <sup>1</sup>		Securitisation exposure		Own funds requirements			Total	Own funds requirement weights	Counter-cyclical capital buffer rate		
	Exposure value for SA	Exposure value for IRB	Sum of long and short position of trading book	Value of trading book exposure for internal models	Exposure value for SA	Exposure value for IRB	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitisation exposures					
Norway	-	250	16	147	-	-	18	6	-	24	0.1%	2.00%		
Sweden	-	482	43	850	-	-	20	7	-	27	0.1%	2.00%		
Hong Kong	-	221	32	1,905	-	-	16	21	-	37	0.2%	1.25%		
Czech Republic	-	70	-	168	-	-	10	4	-	14	0.1%	0.50%		
Iceland	-	14	1	68	-	-	1	12	-	13	0.1%	1.25%		
Slovakia	-	5	-	4	-	-	0	-	-	0	0.0%	0.50%		
<b>GSGUK Total</b>	-	<b>\$1,042</b>	<b>\$92</b>	<b>\$3,142</b>	-	-	<b>\$65</b>	<b>\$50</b>	-	<b>\$115</b>		<b>0.01%</b>		
Norway	-	238	16	147	-	-	15	6	-	21	0.1%	2.00%		
Sweden	-	467	43	850	-	-	17	7	-	24	0.1%	2.00%		
Hong Kong	-	219	32	1,905	-	-	15	21	-	36	0.2%	1.25%		
Czech Republic	-	31	-	168	-	-	1	4	-	5	0.0%	0.50%		
Iceland	-	14	1	68	-	-	1	12	-	13	0.1%	1.25%		
Slovakia	-	5	-	-	-	-	0	-	-	0	0.0%	0.50%		
<b>GSI Total</b>	-	<b>\$974</b>	<b>\$92</b>	<b>\$3,138</b>	-	-	<b>\$49</b>	<b>\$50</b>	-	<b>\$99</b>		<b>0.01%</b>		
Norway	-	12	-	-	-	-	3	-	-	3	0.3%	2.00%		
Sweden	-	14	-	-	-	-	3	-	-	3	0.3%	2.00%		
Hong Kong	-	2	-	-	-	-	0	-	-	-	0.0%	1.25%		
Czech Republic	-	39	-	-	-	-	9	-	-	9	0.9%	0.50%		
Iceland	-	-	-	-	-	-	0	0	-	-	0.0%	1.25%		
Slovakia	-	-	-	3	-	-	0	-	-	-	0.0%	0.50%		
<b>GSIB Total</b>	-	<b>\$67</b>	-	<b>\$3</b>	-	-	<b>\$15</b>	-	-	<b>\$15</b>		<b>0.02%</b>		

1. The value of trading book exposures for both internal models and standard approach has been reported on a gross basis in line with the reporting requirements however does not form the basis for the capital calculation.

## Capital Instruments

GSGUKL has issued 213,468,400,601 ordinary A class shares at a par value of \$0.01 for a total value of \$2,134,684,006. GSI and GSIB have issued ordinary A class shares only to GSGUKL and are 100% wholly owned subsidiaries of GSGUKL. Neither GSGUKL, GSI nor GSIB has any other share classes in issue at this time. All other accounting shareholders' funds relates to share premium of the A class shares in issue, retained earnings and reserves. These items satisfy the conditions laid out under Article 26 of the CRR and are recognised as CET1 capital.

Both GSGUKL and GSI have \$5.8billion of Additional Tier 1 (AT1) notes in issue which meet the definition of an Additional Tier 1 instrument under Article 52 of CRD IV as of December 31, 2017. Subordinated liabilities rank junior to senior obligations and generally count towards the capital base of GSGUK. Capital securities may be called and redeemed by the issuing entity, subject to notification and consent of the PRA.

During 2017, the UK group executed a capital restructure involving the following elements:

- On June 27 2017, GSGUKL issued \$3.0 billion of AT1 notes and \$0.3 billion of preferred shares to a fellow group undertaking, and utilised the proceeds to subscribe for \$3.3 billion of AT1 notes in GSI. The company also received a dividend of \$0.5 billion from GSI.
- On June 28 2017, GSGUKL underwent a capital reduction of \$2.8 billion (share capital was reduced from 493,468,400,601 ordinary shares of \$0.01 each (total \$4.9 billion) to 213,468,400,601 ordinary shares of \$0.01 each (total \$2.1 billion). Subsequently, the company paid an interim distribution of \$2.8 billion to a fellow group undertaking and issued \$2.8 billion of AT1 notes to a fellow group undertaking. The company also received a dividend of \$2.5 billion from GSI and utilised the proceeds to subscribe for \$2.5 billion of AT1 notes in GSI.

On May 18 2017, GSGUKL received a dividend of \$0.1 billion from subsidiary undertaking GSAMI.

The following tables summarise the capital instruments issued by GSGUKL, GSI and GSIB. The terms of the Tier 2 instruments have been amended, where required, to meet the eligibility requirements of CRD IV under Articles 62-64.

## Pillar 3 Disclosures

Table 44: GSGUKL Capital instruments' main features template

\$ in millions						As of December 2017
Issuer	GSGUKL	GSGUKL	GSGUKL	GSGUKL	GSGUKL	GSGUKL
Unique Identifier (e.g. CUSIP, ISIN, or Bloomberg identifier for private placement)	N/A	N/A	N/A	N/A	N/A	N/A
Governing law(s) of the instrument	UK	UK	UK	UK	UK	UK
Transitional CRR rules	CET1	Tier 2	Tier 2	Additional Tier 1	Tier 2	Tier 2
Post-transitional CRR rules	CET1	Tier 2	Tier 2	Additional Tier 1	Tier 2	Tier 2
Eligible at solo/(sub-) consolidated/solo&(sub-) consolidated	Consolidated	Consolidated	Consolidated	Consolidated	Consolidated	Consolidated
Instrument type	Ordinary Shares	Subordinated Debt	Subordinated Debt	Deeply Subordinated Undated Additional Tier 1 Notes	Preference Shares	
Amount recognised in regulatory capital	2,135	450	5,078	5,800	300	
Nominal amount of instrument	2,135	450	5,078	3,000; 2,800	300	
Issue Price	2,135	450	5,078	\$1,000,000 per Note	\$1.00 per Preference Share	
Redemption Price	2,135	450	5,078	\$1,000,000 per Note	\$1.00 per Preference Share	
Accounting Classification	Shareholders' Equity	Amortised Cost	Amortised Cost	Shareholders' Equity	Amortised Cost	
Original date of issuance <sup>1</sup>	Aug 20, 2013	Mar 20, 2013	Aug 1, 2005	June 27, 2017; June 28, 2017	June 27, 2017	
Perpetual or dated	Perpetual	Dated	Dated	Perpetual	Perpetual	
Original maturity date	No maturity	Dec 26, 2022	Dec 14, 2021	No maturity	No maturity	
Issuer call subject to prior supervisory approval	N/A	Yes	Yes	No	Yes	
Option call date, contingent call dates and redemption amount	N/A	No	No	N/A	June 28, 2023	
Subsequent call dates, if applicable	N/A	N/A	N/A	N/A	Daily	
Fixed or floating dividend / coupon	N/A	Floating	Floating	Fixed	Floating	
Coupon rate and any related index <sup>2</sup>	N/A	CoF + LTDS + 100bps	CoF + LTDS + 100bps	8.55 per cent.	LIBOR + 3.77 per cent.	
Existence of a dividend stopper	No	No	No	No	No	
Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully Discretionary	Mandatory	Mandatory	Fully Discretionary	Mandatory	
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully Discretionary	Mandatory	Mandatory	Fully Discretionary	Mandatory	
Existence of step up or other incentive to redeem	N/A	N/A	N/A	N/A	No	
Noncumulative or cumulative	Non-cumulative	Cumulative	Cumulative	Non-cumulative	Cumulative	
Convertible or non-convertible	N/A	Non-convertible	Non-convertible	Convertible	Non-convertible	
If convertible, conversion trigger(s)	N/A	N/A	N/A	Issuer discretion	N/A	
If convertible, fully or partially	N/A	N/A	N/A	Always fully	N/A	
If convertible, conversion rate	N/A	N/A	N/A	Each \$1,000,000 nominal amount of Notes shall be converted into such number of Ordinary Shares as have an aggregate market value as closely as possible equal to the nominal amount of such Note.	N/A	
If convertible, mandatory or optional conversion	N/A	N/A	N/A	Optional/at the option of the issuer	N/A	
If convertible, specify instrument type convertible into	N/A	N/A	N/A	Ordinary Shares	N/A	
If convertible, specify issuer of instrument it converts to	N/A	N/A	N/A	GSGUKL	N/A	
Write-down features	N/A	N/A	N/A	Yes	N/A	
If write-down, write-down trigger(s)	N/A	N/A	N/A	Regulatory Trigger Event <sup>3</sup>	N/A	
If write-down, full or partial	N/A	N/A	N/A	Always fully (to \$0.01 per Note)	N/A	
If write-down, permanent or temporary	N/A	N/A	N/A	Permanent	N/A	
If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A	N/A	
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Preference shares	Unsecured and unsubordinated debt	Unsecured and unsubordinated debt	Preference Shares	Unsecured and unsubordinated debt	
Non-compliant transitioned features	No	No	No	No	No	
If yes, specify non-compliant features	N/A	N/A	N/A	N/A	N/A	

1. First date of ordinary share issuance

2. CoF represents Cost of Funds (the US Federal Reserve Funds Rate) and LTDS represents Long Term Debt Spread (the Goldman Sachs Weighted Average Cost of Debt).

3. Regulatory Trigger Event will be deemed to have occurred at any time where: (i) the CET1 Ratio of the GSGUKL and its consolidated subsidiaries as calculated by GSGUKL or the PRA is less than 7 per cent.; and or (ii) the CET1 Ratio of GSI as calculated by GSGUKL or the PRA is less than 7 per cent.

## Pillar 3 Disclosures

Table 45: GSI and GSIB Capital instruments' main features template

\$ in millions							As of December 2017	
Issuer	GSI	GSI	GSI	GSI	GSI	GSIB	GSIB	
Unique Identifier	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Governing law(s) of the instrument	UK	UK	UK	UK	UK	UK	UK	
Transitional CRR rules	CET1	Tier 2	Tier 2	Additional Tier 1	Tier 2	CET1	Tier 2	
Post-transitional CRR rules	CET1	Tier 2	Tier 2	Additional Tier 1	Tier 2	CET1	Tier 2	
Eligible at solo/(sub-) consolidated/solo&(sub-) consolidated	Consolidated	Consolidated	Consolidated	Consolidated	Consolidated	Consolidated	Consolidated	
Instrument type	Ordinary Shares	Sub-ordinated Debt	Sub-ordinated Debt	Deeply Subordinated Undated Additional Tier 1 Notes	Sub-ordinated Debt	Ordinary Shares	Sub-ordinated Debt	
Amount recognised in regulatory capital	582	4,252	675	5,800	450	63	826	
Nominal amount of instrument	582	4,252	675	3,300; 2,500	450	63	826	
Issue Price	582	4,252	675	\$1,000,000 per Note	450	63	826	
Redemption Price	582	4,252	675	\$1,000,000 per Note	450	63	826	
Accounting Classification	Shareholder's Equity	Amortised Cost	Amortised Cost	Shareholder's Equity	Amortised Cost	Shareholder's Equity	Amortised Cost	
Original date of issuance <sup>1</sup>	May 18, 1988	July 31, 2003	June 26, 2012	June 27, 2017; June 28, 2017	Mar 20, 2013	Jun 28, 1973	Sep 9, 2015	
Perpetual or dated	Perpetual	Dated	Dated	Perpetual	Dated	Perpetual	Dated	
Original maturity date	No maturity	Dec 14, 2021	Dec 26, 2024	No maturity	Dec 26, 2024	No maturity	10 years from agreement	
Issuer call subject to prior supervisory approval	N/A	Yes	Yes	No	Yes	N/A	Yes	
Option call date, contingent call dates and redemption amount	N/A	No	No	N/A	No	N/A	No	
Subsequent call dates, if applicable	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Fixed or floating dividend / coupon	N/A	Floating	Floating	Fixed	Floating	N/A	Floating	
Coupon rate and any related index <sup>2</sup>	N/A	CoF + LTDS + 100bps	CoF + LTDS + 100bps	8.55 per cent.	CoF + LTDS + 100bps	N/A	CoF + 341bps	
Existence of a dividend stopper	No	No	No	No	No	No	No	
Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully discretionary	Mandatory	Mandatory	Fully Discretionary	Mandatory	Fully discretionary	Mandatory	
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully discretionary	Mandatory	Mandatory	Fully Discretionary	Mandatory	Fully discretionary	Mandatory	
Existence of step up or other incentive to redeem	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Noncumulative or cumulative	Non-cumulative	Cumulative	Cumulative	Non-cumulative	Cumulative	Non-cumulative	Cumulative	
Convertible or non-convertible	N/A	Non-Convertible	Non-Convertible	Convertible	Non-Convertible	N/A	Non-Convertible	
If convertible, conversion trigger(s)	N/A	N/A	N/A	Issuer discretion	N/A	N/A	N/A	
If convertible, fully or partially	N/A	N/A	N/A	Always fully	N/A	N/A	N/A	
If convertible, conversion rate	N/A	N/A	N/A	Each \$1,000,000 nominal amount of Notes shall be converted into such number of Ordinary Shares as have an aggregate market value as closely as possible equal to the nominal amount of such Note.	N/A	N/A	N/A	
If convertible, mandatory or optional conversion	N/A	N/A	N/A	Optional/at the option of the issuer	N/A	N/A	N/A	
If convertible, specify instrument type convertible into	N/A	N/A	N/A	Ordinary Shares	N/A	N/A	N/A	
If convertible, specify issuer of instrument it converts to	N/A	N/A	N/A	GSI	N/A	N/A	N/A	
Write-down features	N/A	N/A	N/A	Yes	N/A	N/A	N/A	
If write-down, write-down trigger(s)	N/A	N/A	N/A	Regulatory Trigger Event <sup>3</sup>	N/A	N/A	N/A	
If write-down, full or partial	N/A	N/A	N/A	Always fully (to \$0.01 per Note)	N/A	N/A	N/A	
If write-down, permanent or temporary	N/A	N/A	N/A	Permanent	N/A	N/A	N/A	
If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Preference shares	Unsecured and unsecured debt	Unsecured and unsecured debt	Preference Shares	Unsecured and unsecured debt	Preference shares	Unsecured and unsecured debt	
Non-compliant transitioned features	No	No	No	No	No	No	No	
If yes, specify non-compliant features	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

1. First date of ordinary share issuance

2. CoF represents Cost of Funds (the US Federal Reserve Funds Rate) and LTDS represents Long Term Debt Spread (the Goldman Sachs Weighted Average Cost of Debt).

## Governance Arrangements

Directors of GSI and GSIB are selected based primarily on the following criteria: (i) judgement, character, expertise, skills and knowledge useful to the oversight of the companies' businesses; (ii) diversity of viewpoints, backgrounds, experiences, and other demographics; (iii) business or other relevant experience; and (iv) the extent to which the interplay of the candidate's expertise, skills, knowledge and experience with that of other Board members will build a Board that is effective, collegial and responsive to the needs of the companies.

In selecting new directors, we consider a number of factors in seeking to develop a Board that, as a whole, reflects a range of skills, diversity, experience and expertise. It is our aim that at least 25% of the members of the Boards of the regulated entities in our UK group are women.

As of December 31, 2017, reflecting the resignation of Lord Griffiths from Boards, 25% of the members of the Board of GSI and 25% of the members of the Board of GSIB were women.

We have set out below information on the members of the Boards of Directors of GSI and GSIB as of December 31, 2017, together with the number of directorships they held at that date. We have excluded appointments held with organisations which do not pursue predominantly commercial objectives, such as charitable, educational and religious community organisations and counted directorships held within the same group as a single directorship in accordance with the FCA's Senior Management Arrangements, Systems and Controls (SYSC) handbook under requirement 4.3A.7.

**Table 46: GSI Board of Directors<sup>1</sup>**

Name	Role	Background	Directorships
J. M. D. Barroso	Non-executive director and chair	José Manuel joined the GSI Board of Directors in July 2016 as chair and a non-executive director, and also acts as an advisor to the firm. He served as President of the European Commission from 2004 to 2014 and as the Prime Minister of Portugal from 2002 to 2004.	3
I. Ealet	Executive director	Isabelle was appointed as a director of GSI in June 2016. Isabelle is global co-head of the Securities Division. She is a member of the Firmwide Management Committee, European Management Committee, Firmwide Risk Committee and EMEA Conduct Risk Committee. She joined Goldman Sachs in 1991.	1
R. J. Gnodde	Executive director and chief executive officer	Richard is a vice chairman of the Goldman Sachs Group, Inc. and chief executive officer of GSI. He has been a member of the Firmwide Management Committee since 2003 and also serves as chair of the European Management Committee and a member of the Firmwide Reputational Risk Committee. Richard joined Goldman Sachs in 1987.	2
Lord Grabiner QC	Non-executive director	Lord Grabiner joined the GSI Board of Directors in June 2015 and is chair of the GSI Board Remuneration Committee and the GSI Board Nominations Committee. He is a barrister and head of chambers at One Essex Court, and also sits as a deputy High Court Judge. Lord Grabiner also serves as non-executive director of The University of Law Limited and as the Master of Clare College, Cambridge.	2
N. Harman	Non-executive director	Nigel joined the GSI Board of Directors in December 2016 and is chair of the GSI Board Audit Committee and a member of the GSI Board Risk Committee <sup>2</sup> . He was formerly a partner at KPMG, acting in a number of roles including chairman of UK Banking, head of Banking and head of Financial Risk Management.	1
S. S. Kilsby	Non-executive director	Susan joined the GSI Board of Directors in May 2016 and is a member of the GSI Board Audit Committee and the GSI Board Risk Committee. Susan has also served as chair of Shire plc since 2014, prior to which she was an independent non-executive director of the company since 2011. She is also a non-executive director of BBA Aviation plc and Fortune Brands Home & Security, Inc.	4
D. W. McDonogh	Executive director	Dermot joined the GSI Board of Directors in December 2016 and is chief operating officer and chief financial officer for EMEA. He serves on a number of the firm's committees including the European Management Committee, Firmwide Client and Business Standards Committee, Firmwide Risk Committee and the Firmwide Conduct and Operational Risk Committee. Additionally, Dermot co-chairs the GSI Risk Committee and the EMEA Culture and Conduct Risk Committee. Dermot joined Goldman Sachs in 1994.	1
M. O. Winkelman	Non-executive director	Mark joined the GSI Board of Directors in June 2016 and is a member of the GSI Board Remuneration Committee and the GSI Board Risk Committee <sup>3</sup> . He has also served as a director of The Goldman Sachs Group, Inc. since 2014 and is a member of the The Goldman Sachs Group, Inc. Audit and Risk Committees. Mark previously held a number of senior roles at Goldman Sachs between 1978 and 1994, including as a member of the Management Committee, co-head of the Fixed Income Division and head of the J. Aron Division.	1

1. Lord Griffiths of Fforestfach resigned as a director of GSI in December 2017.
2. Nigel Harman succeeded Lord Griffiths as chairman of the GSI Board Audit Committee in May 2017.
3. Mark Winkelman will succeed Lord Griffiths as chair of the GSI Board Risk Committee in 2018, subject to regulatory approval.

## Pillar 3 Disclosures

Table 47: GSIB Board of Directors<sup>1</sup>

Name	Role	Background	Directorships
E. E. Stecher	Non-executive director and chair	Esta joined the GSIB Board of Directors in 2011 and was appointed chair in October 2016. She also chairs the Goldman Sachs Bank USA Board of Directors and is the Deputy Chair of the Supervisory Board of Goldman Sachs AG. She is a member of the Firmwide Client and Business Standards Committee and the Disciplinary Subcommittee as well as the Firmwide Reputational Risk Committee, and previously served on the Firmwide Management Committee. Esta joined Goldman Sachs in 1994, prior to which she was a partner at Sullivan & Cromwell.	1
D. C. M. Bicarregui	Executive director	David joined the GSIB Board of Directors in December 2016 and is the chief financial officer of GSIB and the firm's EMEA treasurer. He is co-chair of the Firmwide Asset and Liability Committee and a member of the GSIB Management Committee, the GSIB Risk Committee, the Deposit Pricing and Acquisition Subcommittee and the Firmwide Finance Committee. David joined Goldman Sachs in 1997.	3
E. H. Leouzon	Executive director	Eugène joined the GSIB Board of Directors in September 2012. He is the firm's global chief underwriting officer and leads the firm's Debt Underwriting Group. Eugène is co-chair of the Firmwide Commitments Committee and the Asia Pacific Capital Committee. He serves on the GSIB Risk Committee, GSI Risk Committee, Firmwide Capital Committee, Firmwide Suitability Committee, Firmwide Risk Committee, Asia Pacific Commitments Committee and Risk Governance Committee.	1
T. L. Miller OBE	Non-executive director	Therese ("Terry") Miller joined the GSIB Board of Directors in August 2015 and is a member of the GSI Board Risk Committee <sup>2</sup> . She served as general counsel for the London Organising Committee of the Olympic Games and Paralympic Games ("LOCOG") from 2006 to 2013. Prior to joining LOCOG, Terry was the International General Counsel of GSI. She is a non-executive director of Rothesay Life plc and Rothesay Holdco UK Limited and the senior independent director and chair of the remuneration committee of Galliford Try plc, as well as a trustee of the Invictus Games Foundation.	3
D. D. Wildermuth	Non-executive director	David joined the GSIB Board of Directors in March 2012. He is the firm's deputy risk officer with oversight for credit risk, debt underwriting, enterprise risk and liquidity risk. David serves as chair of the Allowance for Loan and Leases Losses Committee and co-chair of the Goldman Sachs Bank USA Investment Committee. He is also a member of the Firmwide Risk Committee, Firmwide Capital Committee, Firmwide Enterprise Risk Committee, Firmwide Model Risk Control Committee, Risk Governance Committee, Firmwide Investment Policy Committee and the Investment Banking Division Growth Investing Committee. David joined Goldman Sachs in 1997.	3
D. W. McDonogh	Executive director and chief executive officer	Dermot is chief executive officer of GSIB. He is also chief operating officer and chief financial officer for EMEA. He serves on a number of the firm's committees including the European Management Committee, Firmwide Client and Business Standards Committee, Firmwide Risk Committee and the Firmwide Conduct and Operational Risk Committee. Additionally, Dermot chairs the GSIB Management Committee and co-chairs the GSIB Risk Committee and the EMEA Culture and Conduct Risk Committee. He joined Goldman Sachs in 1994.	1
Lord Grabiner QC	Non-executive director	Lord Grabiner joined the GSIB Board of Directors in March 2016 and is chair of the GSIB Board Nominations Committee. He is a barrister and head of chambers at One Essex Court, and also sits as a deputy High Court Judge. Lord Grabiner also serves as non-executive director of The University of Law Limited and as the Master of Clare College, Cambridge.	2
N. Harman	Non-executive director	Nigel joined the Board of Directors of GSIB in December 2016 and is chair of the GSIB Board Audit Committee and a member of the GSIB Board Risk Committee <sup>3</sup> . He was formerly a partner at KPMG, acting in a number of roles including chairman of UK Banking, head of Banking and head of Financial Risk Management.	1

1. Douglas Paterson resigned as a director of GSIB in May 2017. Lord Griffiths of Fforestfach resigned as a director of GSIB in December 2017.
2. Terry Miller succeeded Lord Griffiths as chair of the GSIB Board Risk Committee in February 2018.
3. Nigel Harman succeeded Lord Griffiths as chair of the GSIB Board Audit Committee in May 2017.

## **Cautionary Note on Forward-Looking Statements**

We have included or incorporated by reference in these disclosures, and from time to time our management may make, statements that may constitute “forward-looking statements.” Forward-looking statements are not historical facts, but instead represent only our beliefs regarding future events, many of which, by their nature, are inherently uncertain and outside our control. These statements include statements other than historical information or statements of current condition.

It is possible that our actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements. Important factors that could cause our actual results and financial condition to differ from those indicated in the forward-looking statements include, among others, those discussed under “Risk Factors” in Part I, Item 1A in the firm’s 2017 Form 10-K.

## Glossary

- **Advanced Internal Ratings-Based (AIRB).** The AIRB approach of CRD IV provides a methodology for banks, subject to supervisory approval, to use various risk parameters to determine the EAD and risk-weights for regulatory capital calculations. Other risk parameters used in the determination of risk weights are each counterparty's Probability of Default (PD), Loss Given Default (LGD) and the effective maturity of the trade or portfolio of trades.
- **Central Counterparty (CCP).** A counterparty such as a clearing house that facilitates trades between counterparties.
- **Comprehensive Risk.** The potential loss in value, due to price risk and defaults for credit correlation positions. Comprehensive risk comprises a modeled measure which is calculated at a 99.9% confidence level over a one-year time horizon plus a surcharge which is 8% of the standardised specific risk add-on.
- **Credit Correlation Position.** A securitisation position for which all or substantially all of the value of the underlying exposures is based on the credit quality of a single company for which a two-way market exists, or indices based on such exposures for which a two-way market exists, or hedges of these positions (which are typically not securitisation positions).
- **Credit Risk.** 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 we hold.
- **Credit Valuation Adjustment (CVA).** An adjustment applied to uncollateralised OTC derivatives to cover the risk of mark-to-market losses of bilateral credit risk (i.e. counterparty and own) in uncollateralised derivatives.
- **Debt Valuation Adjustment (DVA).** An adjustment applied to debt held at fair value representing the mark-to-market of unilateral own credit risk in unsecured debt held at fair value.
- **Default.** A default is considered to have occurred when either or both of the two following events have taken place: (i) we consider that the obligor is unlikely to pay its credit obligations to us in full; or (ii) the obligor has defaulted on a payment and/or is past due more than 90 days on any material Wholesale credit obligation, 180 days on residential mortgage obligations or 120 days on other retail obligations.
- **Default Risk.** The risk of loss on a position that could result from failure of an obligor to make timely payments of principal or interest on its debt obligation, and the risk of loss that could result from bankruptcy, insolvency, or similar proceedings.
- **Effective Expected Positive Exposure (EEPE).** The time-weighted average of non-declining positive credit exposure over the EE simulation. EEPE is used under the IMM as the exposure measure that is then risk weighted to determine counterparty risk capital requirements.
- **Event Risk.** The risk of loss on equity or hybrid equity positions as a result of a financial event, such as the announcement or occurrence of a company merger, acquisition, spin-off, or dissolution.
- **Expected Exposure (EE).** The expected value of the probability distribution of non-negative credit risk exposures to a counterparty at any specified future date before the maturity date of the longest term transaction in a netting set.
- **Exposure at Default (EAD).** The exposure amount that is risk weighted for regulatory capital calculations. For on-balance-sheet assets, such as receivables and cash, EAD is generally based on the balance sheet value. For the calculation of EAD for off-balance-sheet exposures, including commitments and guarantees, an equivalent exposure amount is calculated based on the notional amount of each transaction multiplied by a credit conversion factor designed to estimate the net additions to funded exposures that would be likely to occur over a one-year horizon, assuming the obligor were to default. For substantially all of the counterparty credit risk arising from OTC derivatives and securities financing transactions, internal models calculate the distribution of exposure upon which the EAD calculation is based.
- **Idiosyncratic Risk.** The risk of loss in the value of a position that arises from changes in risk factors unique to that position.
- **Incremental Risk.** The potential loss in value of non-securitised inventory positions due to the default or credit migration of issuers of financial instruments over a one-year time horizon. This measure is calculated at a 99.9% confidence level over a one-year time horizon using a multi-factor model.

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- **Internal Models Methodology (IMM).** The IMM under CRD IV rules establishes a methodology for entities to use their internal models to estimate exposures arising from OTC derivatives, securities financing transactions and cleared transactions, subject to qualitative and quantitative requirements and supervisory approval.
  - **Loss Given Default (LGD).** An estimate of the economic loss rate if a default occurs during economic downturn conditions.
  - **Market Risk.** The risk of loss in the value of our inventory, as well as certain other financial assets and financial liabilities, due to changes in market conditions.
  - **Operational Risk.** The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.
  - **Other Systemically Important Institutions.** Institutions identified by national regulators as those whose failure or malfunction could potentially lead to serious negative consequences for the domestic financial systems and real economy.
  - **Prudent Valuation Adjustment (PVA).** A deduction from CET1 capital where the prudent value of trading assets or other financial assets measured at fair value is materially lower than the fair value recognised in the consolidated financial information.
  - **Probability of Default (PD).** Estimate of the probability that an obligor will default over a one-year horizon.
  - **Ratings Based Approach.** Under the ratings based method, the risk weighted exposure amount of a rated securitisation position or resecuritisation position are calculated by applying to the exposure value the risk weight associated with the credit quality step as prescribed in CRD IV multiplied by 1.06.
  - **Regulatory Value-at-Risk (VaR).** The potential loss in value of trading positions due to adverse market movements over a 10-day time horizon with a 99% confidence level.
  - **Regulatory VaR Backtesting.** Comparison of daily positional loss results to the Regulatory VaR measure calculated as of the end of the prior business day.
  - **Resecuritisation Position.** Represents an on or off-balance sheet transaction in which the risk associated with an underlying pool of exposures is tranching and at least one of the underlying exposures is a securitisation position.
  - **Securitisation Position.** Represents a transaction or scheme in which the credit risk associated with an exposure or pool of exposures is tranching and both payments in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures and the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme.
  - **Specific Risk.** The risk of loss on a position that could result from factors other than broad market movements and includes event risk, default risk and idiosyncratic risk. The specific risk add-on is applicable for both securitisation positions and for certain non-securitised debt and equity positions, to supplement the model-based measures.
  - **Stress Testing.** Stress testing is a method of determining the effect of various hypothetical stress scenarios.
  - **Stressed VaR (SVaR).** The potential loss in value of inventory positions, as well as certain other financial assets and financial liabilities, during a period of significant market stress. SVaR is calculated at a 99% confidence level over a 10-day horizon using market data inputs from a continuous 12-month period of stress.
  - **Synthetic Securitisation.** Defined as a securitisation transaction in which the tranching is achieved by the use of credit derivatives or guarantees, and the pool of exposures is not removed from the balance sheet of the originator.
  - **Traditional Securitisation.** Defined as a securitisation transaction which involves the economic transfer of the exposures being securitised to a securitisation special purpose entity which issues securities; and so that this must be accomplished by the transfer of ownership of the securitised exposures from the originator or through sub-participation; and the securities issued do not represent payment obligations of the originator.
  - **Value-at-Risk (VaR).** The potential loss in value of inventory positions, as well as certain other financial assets and financial liabilities, due to adverse market movements over a defined time horizon with a specified confidence level. Risk management VaR is calculated at a 95% confidence level over a one-day horizon.
- Wholesale Exposure.** A term used to refer collectively to credit exposures to companies, sovereigns or government entities (other than Securitisation, Retail or Equity exposures)

## UK Remuneration Disclosures

The following disclosures are made by Goldman Sachs Group UK Limited in accordance with Article 450 of the EU Capital Requirements Regulation No. 575/2013 (“CRR”) in respect of Goldman Sachs International (“GSI”) and Goldman Sachs International Bank (“GSIB”) and in accordance with the Prudential Sourcebooks of the Financial Conduct Authority (“FCA”) in respect of Goldman Sachs Asset Management International (together, the “UK Companies”<sup>1</sup>).

### Remuneration Programme Philosophy

Retention of talented employees is critical to executing the firm’s business strategy successfully. Remuneration is, therefore, a key component of the costs the firm incurs to generate revenues, similar to cost of goods sold or manufacturing costs in other industries.

The remuneration philosophy and the objectives of the remuneration programme for the firm are reflected in the Compensation Principles for The Goldman Sachs Group, Inc. (“GS Group”), as posted on the Goldman Sachs public website:

<http://www.goldmansachs.com/investor-relations/corporate-governance/corporate-governance-documents/compensation-principles.pdf>

The firm’s Compensation Principles were approved by shareholders at the 2010 annual shareholders’ meeting. In particular, effective remuneration practices should:

- (i) Encourage a real sense of teamwork and communication, binding individual short-term interests to the institution’s long-term interests;
- (ii) Evaluate performance on a multi-year basis;
- (iii) Discourage excessive or concentrated risk-taking;
- (iv) Allow an institution to attract and retain proven talent; and
- (v) Align aggregate remuneration for the firm with performance over the cycle.

<sup>1</sup> These disclosures include any employees assigned from time to time to Goldman Sachs Bank (USA) London branch.

## Remuneration Governance

### *The Compensation Committee*

The Board of Directors of GS Group (the “Board”) oversees the development, implementation and effectiveness of the firm’s global remuneration practices, which it generally exercises directly or through delegation to the Compensation Committee of the Board (the “Compensation Committee”). The responsibilities of the Compensation Committee include:

- Review and approval of (or recommendation to the Board to approve) the firm’s variable remuneration structure, including the portion to be paid as equity-based awards, all year-end equity-based grants for eligible employees (including those employed by the UK Companies), and the terms and conditions of such awards.
- Assisting the Board in its oversight of the development, implementation and effectiveness of policies and strategies relating to the Human Capital Management (“HCM”) function, including recruiting, retention, career development and progression, management succession (other than that within the purview of the Corporate Governance and Nominating Committee) and diversity.

The Compensation Committee held 7 meetings in 2017 to discuss and make determinations regarding remuneration.

The members of the Compensation Committee at the end of 2017 were James A. Johnson (Chair), M. Michele Burns, William W. George, Ellen J. Kullman, Lakshmi N. Mittal and Adebayo O. Ogunlesi (ex-officio). None of the members of the Compensation Committee was an employee of the firm. All members of the Compensation Committee were “independent” within the meaning of the New York Stock Exchange Rules and the firm’s Director Independence Policy.

### *The Remuneration Committee*

The responsibilities of the Board Remuneration Committee of GSI (the “Remuneration Committee”) include:

- Overseeing the development and implementation of the remuneration policies of GSI insofar as they relate to employees of GSI whose remuneration is subject to the relevant provisions of the Prudential Regulation Authority (“PRA”) Rulebook or FCA Handbook (together, “the Remuneration Code”).

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- To take steps to satisfy itself that the remuneration policies of GSI are in accordance with the relevant provisions of the Remuneration Code, including in particular that the remuneration policies of GSI:
  - appropriately take into account the long-term interests of shareholders, investors and other stakeholders in GSI; and
  - are consistent with and promote sound and effective risk management and do not encourage risk-taking that exceeds the level of tolerated risk of GSI.
- Making recommendations to the GSI Board for approval and adoption of the remuneration policies of GSI once satisfied that the policies are in accordance with the Remuneration code.

The Remuneration Committee held 5 meetings in 2017 to discuss and make determinations regarding the remuneration policies of GSI.

The members of the Remuneration Committee at the end of 2017 were Lord Anthony S. Grabiner QC (Chair) and Mark O. Winkelman. None of the members of the Remuneration Committee was an employee of the firm.

***Other Stakeholders***

In carrying out the responsibilities of the Compensation Committee, the Chair of the Compensation Committee met multiple times with senior management during the year, including the firm's Chief Operating Officer ("COO"), Chief Financial Officer ("CFO") and other members of senior management.

The firm's Chief Risk Officer (CRO) presented an annual compensation-related risk assessment to the Compensation Committee, meeting jointly with the Risk Committee of the Board, to assist the Compensation Committee in its assessment of the effectiveness of the firm's remuneration programme in addressing risk, and particularly, whether the programme is consistent with regulatory guidance that financial services firms ensure variable remuneration does not encourage employees to expose the firm to imprudent risk.

The firm's CRO and the CRO for GSI also provided a compensation-related risk assessment to the Remuneration Committee.

In addition, the firm's EMEA Conduct Risk Committee assists senior management of the UK Companies in the oversight of conduct risk and business standards.

***External Consultants***

The Compensation Committee has for several years recognised the importance of using an independent remuneration consultant that is appropriately qualified and that provides services solely to the Compensation Committee and not to the firm. The Compensation Committee continued to retain Semler Brossy Consulting Group LLC (Semler Brossy) as its independent remuneration consultant in 2017. Consistent with past practice, the Compensation Committee asked Semler Brossy to assess the remuneration programme for Participating Managing Directors ("PMDs"), the firm's approximately 450 most senior employees as at December 31, 2017.

In connection with its work for the Compensation Committee, Semler Brossy reviewed the information provided to the Compensation Committee by the CFO, HCM, and the firm's remuneration consultants. In its assessment of the 2017 remuneration programme for PMDs, Semler Brossy confirmed that, consistent with prior years, the programme has been aligned with, and is sensitive to, firm performance, contains features that reinforce significant alignment with shareholders and a long-term focus, and utilises policies and procedures, including subjective determinations that facilitate the firm's approach to risk-taking and risk management by supporting the mitigation of known and perceived risks.

Semler Brossy also reviewed and participated in the CRO's annual compensation-related risk assessment that was presented to the Compensation Committee, meeting jointly with the Risk Committee of the Board, in December 2017.

***Global Remuneration Determination Process***

The firm's global process for setting variable remuneration (including the requirement to consider risk and compliance issues) applies to employees of the UK Companies in the same way as to employees in other regions and is subject to oversight by the senior management of the firm in the region. The firm uses a highly disciplined and robust process for setting variable remuneration across all divisions and regions, which occurs prior to the Compensation Committee's review and approval. The process involves divisional compensation managers, divisional compensation committees, division heads, HCM and the Firmwide

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Management Committee (the firm's most senior executives), as appropriate.

In addition, as part of the remuneration determination process, members of the firm's Compliance, Risk, Employment Law Group and Employee Relations functions make arrangements for divisional management to take into consideration any compliance, risk or control matters when determining remuneration of individuals. Before any individual remuneration decisions are finalised, Employee Relations and the Employment Law Group assess the recommended remuneration for relevant individuals in the context of overall performance and other factors, and recommendations are reviewed with respect to comparators.

### Link Between Pay and Performance

In 2017, annual remuneration for employees generally comprised fixed remuneration (including base salary) and variable remuneration. The firm's remuneration practices provide for variable remuneration determinations to be made on a discretionary basis. Variable remuneration is based on multiple factors and is not set as a fixed percentage of revenue or by reference to any other formula. Firmwide performance is a key factor in determining variable remuneration.

The firm is committed to aligning variable remuneration with performance. In order to do so, the performance of the firm, division and individual over the past year, as well as over prior years, are taken into account. The firm believes that the firm's senior leaders have responsibility for overall performance and, as a result, senior employees have experienced more volatility in their remuneration year-over-year, particularly in periods when the firm's performance declined significantly.

The firm believes that multi-year guarantees should be avoided entirely to avoid misaligning remuneration and performance, and guaranteed remuneration in employment contracts should be used only in exceptional circumstances (for example, for certain new hires).

### Performance Measurement

In connection with making remuneration decisions for 2017, the Compensation Committee reviewed with the CFO certain firmwide financial metrics and year-on-year changes in those metrics, including the following:

- Return on average common shareholders' equity;
- Diluted earnings per common share;

- Book value per share;
- Net earnings;
- Net revenues;
- Remuneration and benefits expense;
- Ratio of remuneration and benefits to net revenues; and
- Non-remuneration expense

No specific goals for these metrics were used, nor were any specific weights ascribed to them, in making remuneration determinations.

Additionally, each revenue-producing division, in coordination with the CRO, identified the quantitative and/or qualitative metrics (none of which are given specific weight in determining remuneration) specific to the division, its business units and, where applicable, desks to be used to evaluate the performance of the division and its employees. Metrics included, but were not limited to:

- For the *Investment Bank* (comprising the Investment Banking Division, Merchant Banking Division, Securities Division and Global Investment Research Division): Pre-tax income, return on attributed equity, lost business, revenue and backlog, client team and activity, relationship lending history, principalling, key transactions, as well as franchise accretion.
- For the *Investment Manager* (comprising the Investment Management Division): Revenues, pre-tax profit, pre-tax margin, assets under supervision and net sales (including gross sales and redemptions), as well as business-specific measures such as client metrics for distribution channels and investment performance and risk measures for the portfolio management business units.

Employees are evaluated annually as part of the performance review feedback process. This process reflects input from a number of employees, including supervisors, peers and those who are junior to the employee, regarding an array of performance measures for 2017. The performance evaluations for 2017 included assessments of risk management and firm reputation, culture and conduct, and compliance with firm policies, sensitivity to risk and control (revenue-producing employees), and control side empowerment (control functions).

**Pillar 3 Disclosures****Risk Adjustment**

Prudent risk management is a hallmark of the firm's culture and sensitivity to risk and risk management are key elements in assessing employee performance, including as part of the performance review feedback process noted above.

The firm takes risk into account both on an ex-ante and ex-post basis when setting the amount and form of variable remuneration for employees. Different lines of business have different risk profiles and these are taken into account when determining remuneration. These include credit, market, liquidity, operational, reputational, legal, compliance and conduct risks.<sup>1</sup> Guidelines are provided to assist compensation managers when applying discretion during the remuneration process to promote consistent consideration of the different risks presented by the firm's businesses. Further, to ensure the independence of control function employees, remuneration for those employees is not determined by individuals in revenue-producing positions but rather by the management of the relevant control function.

For 2017, all employees with total remuneration above a particular threshold were subject to deferral of part of their variable remuneration in the form of an equity-based award. As in prior years, all 2017 equity-based awards were subject to a number of terms and conditions that could result in forfeiture or recapture. For further details, see "Structure of Remuneration" below.

In the 2017 annual compensation-related risk assessment presented to the Compensation Committee, meeting jointly with the Risk Committee of the Board, and separately to the Remuneration Committee, the CRO confirmed that the various components of the firm's remuneration programmes and policies (for example, process, structure and governance) worked together to balance risk and incentives in a manner that does not encourage imprudent risk-taking. In addition, the CRO stated that the firm has a risk management process that, among other things, is consistent with the safety and soundness of the firm and focuses on our:

- (i) *Risk management culture*: the firm's culture emphasises continuous and prudent risk management

reputational, legal and operational risk, are taken into account when determining aggregate variable compensation.

- (ii) *Risk-taking authority*: there is a formal process for identifying employees who, individually or as part of a group, have the ability to expose the firm to material amounts of risk
- (iii) *Upfront risk management*: the firm has tight controls on the allocation, utilisation and overall management of risk-taking, as well as comprehensive profit and loss and other management information which provide ongoing performance feedback. In addition, in determining variable remuneration, the firm reviews performance metrics that incorporate ex ante risk adjustments.
- (iv) *Governance*: the oversight of the Board, management structure and the associated processes all contribute to a strong control environment and control functions have input into remuneration structure and design

**Structure of Remuneration**

The variable component of remuneration paid to certain employees identified under Article 94(2) of Directive 2013/36/EU as "Code Staff" of GSI and GSIB does not exceed 200% of the fixed component.

**Fixed Remuneration**

The firm has a global salary approach to ensure consistency in salary levels and to achieve an appropriate balance between fixed and variable remuneration.

For employees identified as Code Staff, additional fixed remuneration is awarded in the form of an allowance generally paid in cash. Recipients and the value of allowances are determined as a result of an evaluation of the professional experience, role and level of organisational responsibility of each employee.

**Variable Remuneration**

For employees with total remuneration and variable remuneration above specific thresholds, variable remuneration is generally paid in a combination of cash and equity-based remuneration. In general, the portion paid in the form of an equity-based award increases as variable remuneration increases and, for Code Staff, is set to ensure compliance with Principles 12(f) and 12(g) of the Remuneration Code.

<sup>1</sup> The firm's compensation policy was updated during 2017 to specifically provide that non-financial risks, including conduct, compliance,

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The variable remuneration programme is flexible to allow the firm to respond to changes in market conditions and to maintain its pay-for-performance approach. Variable remuneration is discretionary (even if paid consistently over a period of years).

***Equity-Based Remuneration***

The firm believes that remuneration should encourage a long-term, firmwide approach to performance and discourage imprudent risk-taking. Paying a significant portion of variable remuneration in the form of equity-based remuneration that delivers over time, changes in value according to the price of shares of common stock (shares) of GS Group, and is subject to forfeiture or recapture encourages a long-term, firmwide focus because its value is realised through long-term responsible behavior and the financial performance of the firm.

The firm imposes transfer restrictions, retention requirements and anti-hedging policies to further align the interests of the firm's employees with those of the firm's shareholders. The firm's retention policies, coupled with the practice of paying senior employees a significant portion of variable remuneration in the form of equity-based awards, leads to a considerable investment in shares of GS Group over time.

In addition, from time to time, the firm may make awards consisting of unfunded, unsecured promises to deliver other instruments on terms and conditions that are substantially similar to those applicable to Restricted Stock Units ("RSUs") described below.

- **Deferral Policy:** The deferred portion of fiscal year 2017 annual variable remuneration was generally awarded in the form of RSUs. An RSU is an unfunded, unsecured promise to deliver a share on a predetermined date. RSUs awarded in respect of fiscal year 2017 generally deliver in three equal instalments on or about each of the first, second and third anniversaries of the grant date, assuming the employee has satisfied the terms and conditions of the award at each such date. Where required under the Remuneration Code, RSUs awarded in respect of fiscal year 2017 for certain Code Staff deliver in five equal instalments, either on or about each of the first, second, third, fourth and fifth anniversaries of the grant date, or, for Code Staff who perform a PRA Senior Management Function, on or about each of the third, fourth, fifth, sixth and seventh anniversaries of the grant date, assuming in each case, the employee has satisfied the terms and conditions of the award at each such date.
- **Transfer Restrictions:** The firm generally requires all individuals to hold, until the expiration of a period of up to five years from grant, a material portion of the shares they receive in respect of RSUs granted as part of their year-end remuneration according to the firm's global deferral table. These transfer restrictions apply to the lower of 50% of the shares delivered before reduction for tax withholding, or the number of shares received after reduction for tax withholding. Because combined tax and social security rates in the United Kingdom are close to 50%, transfer restrictions apply to substantially all net shares delivered to employees resident in the United Kingdom.

An employee generally cannot sell, exchange, transfer, assign, pledge, hedge or otherwise dispose of any RSUs or shares that are subject to transfer restrictions.
- **Retention Requirement:** All shares delivered to employees designated as Code Staff in relation to their variable remuneration are subject to retention in accordance with Principle 12(f) of the Remuneration Code. In addition, for 2017, the firm required the Chief Executive Officer of GS Group, for so long as he holds such position, to retain sole beneficial ownership (including, in certain cases, ownership through his spouse or estate planning entities established by them) of a number of shares equal to at least 75% of certain shares received (net of payment of any option exercise price and taxes) as remuneration since becoming a senior executive. The firm required the CFO, COO and Vice Chairmen to retain a number of shares equal to at least 50% of certain shares received. The firm imposes a similar retention requirement, equal to 25%, on other PMDs. These shares are referred to as "retention shares".
- **Forfeiture and Recapture Provisions:** The RSUs and shares delivered thereunder in relation to variable remuneration are subject to forfeiture or recapture selected if the Compensation Committee determines that during 2017 the employee participated (which could include, depending on the circumstances, participation in a supervisory role) in the structuring or marketing of any product or service, or participated on behalf of the firm or any of its clients in the purchase or sale of any security or other property, in any case without appropriate consideration of the risk to the firm or the broader financial system as a whole (for example, if the employee were to improperly analyse risk or fail sufficiently to raise concerns about such risk) and, as a result of such action or omission, the Compensation Committee determines there has been, or reasonably could be expected to be, a material adverse impact on the firm, the employee's business unit or the broader financial system.

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This provision is not limited to financial risks and is designed to encourage the consideration of the full range of risks associated with the activities (for example, legal, compliance or reputational). The provision also does not require that a material adverse impact actually occur, but rather may be triggered if the firm determines that there is a reasonable expectation of such an impact.

The Compensation Committee previously adopted guidelines that set forth a formal process regarding determinations to forfeit or recapture awards for improper risk analysis upon the occurrence of certain pre-determined events (for example, in the event of annual firmwide, divisional, business unit or individual losses). The review of whether forfeiture or recapture is appropriate includes input from the CRO, as well as representatives from Finance, Legal and Compliance. Determinations are made by the Compensation Committee or its delegates, with any determinations made by delegates reported to the Compensation Committee.

RSUs granted to all Code Staff in relation to variable remuneration are generally subject to forfeiture until delivery of the underlying shares if GS Group is determined by US bank regulators to be “in default” or “in danger of default” as defined under the US Dodd-Frank Wall Street Reform and Consumer Protection Act 2010, or fails to maintain for 90 consecutive business days, the required “minimum tier 1 capital ratio” (as defined under Federal Reserve Board regulations). RSUs awarded in relation to variable remuneration are also subject to forfeiture if the firm or the relevant business unit suffers a “material downturn in financial performance”.

All variable remuneration granted to Code Staff is generally subject to forfeiture or recapture in the event of a “material failure of risk management”, or in the event that the employee engages in “serious misconduct”, at any time during the seven year period after grant (equity-based awards) or payment (cash).

Additionally, RSUs and shares delivered thereunder in relation to variable remuneration are generally subject to forfeiture or recapture if it is appropriate to hold a Code Staff accountable in whole or in part for “serious misconduct” related to compliance, control or risk that occurred during 2017 by an individual for whom the Code Staff had supervisory responsibility as a result of direct or indirect reporting lines or management responsibility for an office, division or business.

An employee’s RSUs may also be forfeited, and shares delivered thereunder recaptured if the employee engages in conduct constituting “cause” at any time before the RSUs are delivered and any applicable transfer restrictions lapse. Cause includes, among other things, any material violation of any firm policy, any act or statement that negatively reflects on the firm’s name, reputation or business interests and any conduct detrimental to the firm.

With respect to all of the forfeiture conditions, if the firm determines after delivery or release of transfer restrictions that an RSU or share delivered thereunder should have been forfeited or recaptured, the firm can require return of any shares delivered or repayment to the firm of the fair market value of the shares when delivered (including those withheld to pay taxes) or any other amounts paid or delivered in respect thereof.

The clawback provisions of the Sarbanes-Oxley Act 2002 (“SOX”) apply to all variable compensation (whether cash- or equity-based) paid to any senior executives (Vice Chairman and above). The SOX provisions provide the following: If GS Group is required to prepare an accounting restatement due to material noncompliance, as a result of misconduct, with any financial reporting requirement under the securities laws described in Section 304 of SOX, the grantee will be required to forfeit or repay awards received during the 12-months after the initial incorrect filing. The firm adopted a clawback policy that formalised and expanded our longstanding clawback practices in a comprehensive, standalone policy.

- **Hedging:** The firm’s anti-hedging policy ensures employees maintain the intended exposure to the firm’s stock performance. In particular, all employees are prohibited from hedging RSUs and shares that are subject to transfer restrictions and, in the case of PMDs, retention shares. In addition, executive officers of GS Group (as defined under the Securities Exchange Act of 1934) are prohibited from hedging any shares that they can freely sell. Employees, other than executive officers, may hedge only shares that they can otherwise sell. However, no employee may enter into uncovered hedging transactions or sell short any shares. Employees may only enter into transactions or otherwise make investment decisions with respect to shares during applicable “window periods.”
- **Treatment upon Termination or Change-in-Control:** As a general matter, delivery schedules are not accelerated, and transfer restrictions are not removed, when an employee leaves the firm. The limited exceptions include death and “conflicted employment”. In addition, a change in control alone is not sufficient to trigger

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acceleration of any deliveries or removal of transfer restrictions; only if the change in control is followed within 18 months by a termination of employment by the firm without “cause” or by the employee for “good reason” will delivery and release of transfer restrictions be accelerated.

**Quantitative Disclosures**

The following tables show aggregate quantitative remuneration information for 678 employees, categorised as Code Staff for the purposes of the Remuneration Code in respect of their duties for the UK Companies. The PRA was consulted on these awards as part of their normal assessment of remuneration.

Code Staff are also eligible to receive certain general non-discretionary ancillary payments and benefits on a similar basis to other employees. These payments and benefits are not included in the disclosures below.

***Aggregate remuneration: split between fixed and variable remuneration and forms of variable remuneration***

Remuneration paid or awarded for the financial year ended December 31, 2017 comprised fixed remuneration (salaries, allowances and director fees) and variable remuneration. The figures are split into two tables showing “Senior

Management” and “Other Code Staff” according to the following definitions:

- **Senior Management:** members of the Boards of Directors of the UK Companies, members of the Management Committees for the Europe, Middle East and Africa (EMEA) region and GSIB, the head of each revenue-producing division in the EMEA region and heads of significant business lines in the EMEA region who perform a significant management function corresponding to PRA and FCA Senior Managers of the UK Companies or FCA controlled function CF29.
- **Other Code Staff:** other employees whose activities have a material impact on the risk profile of the firm.

As required by Article 450(2) of CRR and paragraph 308 of the EBA Guidelines, the quantitative information referred to in Article 450(1)(h) of CRR has also been provided separately for each major business area, internal control functions, corporate functions, and at the level of the management body in its management and supervisory function of GSI. In addition, the deferred remuneration shown in the table below includes remuneration subject to the deferral requirements in Principle 12 of the Remuneration Code. The amounts relate only to those employees who were Code Staff at the end of the fiscal year, December 31, 2017.

**Senior Management**

	Management Body – Supervisory Function	Management Body – Management Function	Investment Banking <sup>1</sup>	Asset Management <sup>2</sup>	Corporate Functions	Independent Control Functions
Number of members of Senior Management	13	9	16	8	6	8
2017 Fixed Remuneration awarded in cash (\$ in millions)	2.88	27.14	60.90	9.37	5.71	3.89
2017 Fixed Remuneration awarded in RSUs (number of RSUs in 000s)	-	34.69	7.97	-	-	-
2017 Variable Remuneration awarded in cash (\$ in millions)	-	1.30	2.60	1.67	0.85	1.07
2017 Variable Remuneration awarded in RSUs (number of RSUs in 000s)	-	87.47	183.26	28.42	11.97	12.27
Variable to Fixed Remuneration Ratio	-	0.62	0.73	0.92	0.66	1.06
Outstanding unvested as at 1 January 2017 (number of RSUs in 000s)	1.63	390.48	556.81	80.80	35.78	17.77
Awarded during 2017 (number of RSUs in 000s)	-	121.78	203.10	19.19	12.15	7.62
Paid out during 2017 (number of RSUs in 000s)	1.16	175.46	276.99	38.33	16.86	8.08
Reduced through performance adjustments during 2017 (number of RSUs in 000s)	-	-	-	-	-	-
Outstanding unvested as at 31 December 2017 (number of RSUs in 000s)	0.46	336.81	482.92	61.66	31.08	17.31

**Pillar 3 Disclosures****Other Material Risk Takers**

	Investment Banking <sup>1</sup>	Asset Management <sup>2</sup>	Corporate Functions	Independent Control Functions
Number of Other Material Risk Takers	535	33	16	34
2017 Fixed Remuneration awarded in cash (\$ in millions)	380.40	33.83	9.08	10.77
2017 Fixed Remuneration awarded in RSUs (number of RSUs in 000s)	-	-	-	-
2017 Variable Remuneration awarded in cash (\$ in millions)	55.37	3.67	2.05	2.23
2017 Variable Remuneration awarded in RSUs (number of RSUs in 000s)	1,102.09	85.37	25.78	17.16
Variable to Fixed Remuneration Ratio	0.86	0.73	0.95	0.62
Outstanding unvested as at 1 January 2017 (number of RSUs in 000s)	2,347.68	275.74	31.68	20.09
Awarded during 2017 (number of RSUs in 000s)	865.11	79.31	18.19	9.46
Paid out during 2017 (number of RSUs in 000s)	1,085.75	126.66	14.17	8.64
Reduced through performance adjustments during 2017 (number of RSUs in 000s)	-	-	-	-
Outstanding unvested as at 31 December 2017 (number of RSUs in 000s)	2,127.03	228.40	35.70	20.91

<sup>1</sup> Reflects Code Staff in the Investment Banking Division, Merchant Banking Division, Securities Division and Global Investment Research Division

<sup>2</sup> Reflects Code Staff in the Investment Management Division

**Sign-on and Severance Payments**

Eight sign-on payments were awarded to Code Staff during 2017. Fifteen Code Staff were awarded severance payments during 2017.

	Senior Management	Other Material Risk Takers	Total	Highest Individual Award
Severance payment (\$ in millions)	0	3.53	3.53	1.35
Sign-on award (\$ in millions)	0	9.83	9.83	4.60

No sign-on or severance payments were awarded to members of the Management Body.

**Code Staff with Total Compensation above One Million Euros**

The following table shows the number of Code Staff with total compensation above EUR 1 million arranged by remuneration band for the financial year ended December 31, 2017.

Total Compensation Band (EUR)	Number of Individuals
≥ 1,000,000 to < 1,500,000	102
≥ 1,500,000 to < 2,000,000	49
≥ 2,000,000 to < 2,500,000	26
≥ 2,500,000 to < 3,000,000	14
≥ 3,000,000 to < 3,500,000	17
≥ 3,500,000 to < 4,000,000	9
≥ 4,000,000 to < 4,500,000	5
≥ 4,500,000 to < 5,000,000	4
≥ 5,000,000 to < 6,000,000	11
≥ 6,000,000 to < 7,000,000	6
≥ 7,000,000 to < 8,000,000	5
≥ 8,000,000 to < 9,000,000	3
≥ 9,000,000	10
<b>Total</b>	<b>261</b>

## Pillar 3 Disclosures

## Appendix I: Scope of Consolidation Tables

## Consolidated Balance Sheet under the Regulatory Scope of Consolidation

The following three tables provide a reconciliation of GSGUK, GSI and GSIB balance sheet as of December 31, 2017 on an accounting consolidation basis to the GSGUK, GSI and GSIB balance sheet under the regulatory scope of consolidation. It also breaks down how carrying values under the scope of regulatory consolidation are allocated to the different risk frameworks laid out in Part Three of the CRR.

**Table 48: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories**

## GSGUK

\$ in millions

As of December 2017

	Carrying values as reported in published financial statements and under the scope of regulatory consolidation	Carrying values of items				Not subject to capital requirements or subject to deduction from capital
		Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	
<b>Assets</b>						
Cash at bank and in hand	\$ 24,724	\$ 23,257	-	-	-	\$ 1,467
Receivables from Broker Dealers and Customers	67,866	16,485	50,721	660	-	-
Cash Instruments Owned	77,670	5,314	-	-	72,356	-
Derivative financial instruments	566,997	956	566,041	-	566,042	-
Collateralised agreements	207,416	-	207,416	-	183,292	-
Fixed assets	599	413	-	-	-	186
Other Assets	12,874	3,755	8,749	-	-	370
<b>Total assets</b>	<b>\$ 958,146</b>	<b>\$ 50,180</b>	<b>\$ 832,927</b>	<b>\$ 660</b>	<b>\$ 821,690</b>	<b>\$ 2,023</b>
<b>Liabilities</b>						
Deposits from banks	\$ 73	-	-	-	-	\$ 73
Amounts due to Broker Dealers & Customers	57,983	-	-	-	-	57,983
Collateralised financings	135,632	-	135,632	-	130,450	-
Cash Instruments sold but not yet purchased	39,036	-	-	-	38,661	375
Derivative financial instruments	556,779	-	555,945	-	555,945	834
Other Creditors	131,759	-	-	-	-	131,759
<b>Total liabilities</b>	<b>\$ 921,262</b>	<b>-</b>	<b>\$ 691,577</b>	<b>-</b>	<b>\$ 725,056</b>	<b>\$ 191,024</b>

**GSI**

\$ in millions

As of December 2017

	Carrying values as reported in published financial statements and under the scope of regulatory consolidation	Carrying values of items				Not subject to capital requirements or subject to deduction from capital
		Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	
<b>Assets</b>						
Cash at bank and in hand	\$ 20,726	\$ 19,260	-	-	-	\$ 1,466
Receivables from Broker Dealers and Customers	62,988	12,898	50,090	-	-	-
Cash Instruments Owned	74,055	2,756	-	7	71,293	-
Derivative financial instruments (Assets)	566,209	543	565,666	-	565,666	-
Collateralised agreements	204,820	-	204,820	-	204,820	-
Fixed assets	211	25	-	-	-	186
Other Assets	11,385	3,290	7,666	-	-	429
<b>Total assets</b>	<b>\$ 940,394</b>	<b>\$ 38,772</b>	<b>\$ 828,242</b>	<b>\$ 7</b>	<b>\$ 841,779</b>	<b>\$ 2,081</b>
<b>Liabilities</b>						
Deposits from banks	\$ 73	-	-	-	-	\$ 73
Amounts due to Broker Dealers & Customers	57,673	-	-	-	-	57,673
Collateralised financings	175,447	-	175,447	-	175,447	-
Cash Instruments sold but not yet purchased	33,799	-	-	-	33,424	375
Derivative financial instruments (Liabilities)	556,123	-	555,457	-	555,457	666
Other Creditors	85,578	-	-	-	-	85,578
<b>Total liabilities</b>	<b>\$ 908,693</b>	<b>-</b>	<b>\$ 730,904</b>	<b>-</b>	<b>\$ 764,328</b>	<b>\$ 144,365</b>

**GSIB**

\$ in millions

As of December 2017

	Carrying values as reported in published financial statements and under the scope of regulatory consolidation	Carrying values of items				Not subject to capital requirements or subject to deduction from capital
		Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	
<b>Assets</b>						
Cash at bank and in hand	\$ 3,227	\$ 3,227	-	-	-	-
Receivables from Customers	5,261	3,873	767	621	-	-
Cash Instruments Owned	5,818	43	-	32	5,743	-
Derivative financial instruments (Assets)	2,414	413	2,001	-	2,001	-
Collateralised agreements	36,910	-	36,910	-	12,787	-
Fixed assets	-	-	-	-	-	-
Other Assets	817	767	-	-	-	50
<b>Total assets</b>	<b>\$ 54,447</b>	<b>\$ 8,323</b>	<b>\$ 39,678</b>	<b>\$ 653</b>	<b>\$ 20,531</b>	<b>\$ 50</b>
<b>Liabilities</b>						
Deposits from banks	\$ 1,441	-	-	-	-	\$ 1,441
Amounts due to Customers	27,818	-	-	-	-	27,818
Collateralised financings	9,587	-	9,587	-	4,405	-
Cash Instruments sold but not yet purchased	7,919	-	-	-	7,919	-
Derivative financial instruments (Liabilities)	2,101	-	1,934	-	1,934	167
Long-term subordinated loans from group undertakings	826	-	-	-	-	826
Other Liabilities	1,721	-	-	-	-	1,721
<b>Total liabilities</b>	<b>\$ 51,414</b>	<b>-</b>	<b>\$ 11,521</b>	<b>-</b>	<b>\$ 14,258</b>	<b>\$ 31,973</b>

**Pillar 3 Disclosures****Regulatory Balance Sheet Assets Reconciliation to Exposure at Default (EAD)**

The following three tables present a reconciliation of the consolidated regulatory balance sheet to EAD for items subject to credit risk, CCR and securitisation and frameworks.

**Table 49: Main sources of differences between regulatory exposures amounts and carrying values in financial statements****GSGUK**

\$ in millions

As of December 2017

	Items subject to		
	Credit risk framework	CCR framework	Securitisation framework
<b>1 Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)</b>	<b>\$ 50,180</b>	<b>\$ 832,927</b>	<b>\$ 660</b>
2 Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	-	(691,577)	-
3 Total net amount under the regulatory scope of consolidation	50,180	141,350	660
4 Off-balance-sheet amounts	7,196	-	10
5 Differences due to credit conversion factor	(1,505)	-	-
6 Differences due netting of collateral, haircut and EAD modelling	(12,975)	3,683	-
<b>7 Exposure amounts considered for regulatory purposes</b>	<b>\$ 42,896</b>	<b>\$ 145,033</b>	<b>\$ 670</b>

**GSI**

\$ in millions

As of December 2017

	Items subject to		
	Credit risk framework	CCR framework	Securitisation framework
<b>1 Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)</b>	<b>\$ 38,772</b>	<b>\$ 828,242</b>	<b>\$ 7</b>
2 Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	-	(730,904)	-
3 Total net amount under the regulatory scope of consolidation	38,772	97,338	7
4 Off-balance-sheet amounts	-	-	-
5 Differences due to credit conversion factor	-	-	-
6 Differences due netting of collateral, haircut and EAD modelling	(10,649)	47,337	-
<b>7 Exposure amounts considered for regulatory purposes</b>	<b>\$ 28,123</b>	<b>\$ 144,675</b>	<b>\$ 7</b>

**GSIB**

\$ in millions

As of December 2017

	Items subject to		
	Credit risk framework	CCR framework	Securitisation framework
<b>1 Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)</b>	<b>\$ 8,323</b>	<b>\$ 39,678</b>	<b>\$ 653</b>
<b>2 Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)</b>	<b>-</b>	<b>(11,521)</b>	<b>-</b>
<b>3 Total net amount under the regulatory scope of consolidation</b>	<b>8,323</b>	<b>28,157</b>	<b>653</b>
<b>4 Off-balance-sheet amounts<sup>1</sup></b>	<b>7,196</b>	<b>-</b>	<b>10</b>
<b>5 Differences due to credit conversion factor</b>	<b>(1,505)</b>	<b>-</b>	<b>-</b>
<b>6 Differences due netting of collateral, haircut and EAD modelling</b>	<b>(2,340)</b>	<b>(27,798)</b>	<b>-</b>
<b>7 Exposure amounts considered for regulatory purposes</b>	<b>\$ 11,674</b>	<b>\$ 358</b>	<b>\$ 663</b>

<sup>1</sup>**Off balance sheet amounts:** Off balance sheet amounts are stated gross and primarily consist of undrawn committed facilities and guarantees.

**Explanations of differences between accounting and regulatory exposure amounts**

The carrying value of assets is usually measured at amortised cost or fair value as at the balance sheet date. For on-balance-sheet assets, such as receivables and cash, the EAD is generally based on the carrying value. For the calculation of EAD for off-balance-sheet exposures, including commitments and guarantees, a credit equivalent exposure amount is calculated based on the notional amount of each transaction multiplied by a credit conversion factor in accordance with Article 166 of CRD IV.

As GSGUK calculates the majority of its credit exposure under the IMM, the impacts of netting and collateral are integral to the calculation of the exposure. The exposures considered for regulatory purposes are presented on a net and collateralised basis where there is a legally enforceable netting and collateral opinion. Under UK GAAP, netting is only permitted if legal right of set-off exists and the cash flows are intended to be settled on a net basis.

## Pillar 3 Disclosures

## Appendix II: Credit Risk Tables

The following three tables present GSGUK, GSI and GSIB's net values of on-balance-sheet and off-balance-sheet exposures by geographical areas and exposure classes as of December 31, 2017.

Table 50: Geographical breakdown of exposures

## GSGUK

\$ in millions

As of December 2017

	Net value						
	EMEA	Germany	United Kingdom	Other Countries	Asia	Singapore	Other Countries
1 Central governments or central banks	\$ 17,072	\$ 14,609	\$ 2,383	\$ 80	\$ 3	-	\$ 3
2 Institutions	3,135	78	1,209	1,848	2,534	738	1,796
3 Corporates	21,091	939	14,253	5,899	502	325	177
5 Equity	311	-	161	150	29	-	29
5a Securitisations	670	-	663	7	-	-	-
5b Non-credit obligation assets	37	-	37	-	-	-	-
6 <b>Total IRB approach</b>	<b>\$ 42,316</b>	<b>\$ 15,626</b>	<b>\$ 18,706</b>	<b>\$ 7,984</b>	<b>\$ 3,068</b>	<b>\$ 1,063</b>	<b>\$ 2,005</b>
7 Central governments or central banks	8	-	-	8	1	-	1
12 Institutions	509	8	152	348	5	0	5
13 Corporates	1,117	0	570	547	3	0	3
16 Exposures in default	151	-	45	106	6	-	6
17 Items associated with particularly high risk	1,616	-	113	1,503	57	57	-
18 Covered bonds	-	-	-	-	-	-	-
19 Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-
20 Collective investments undertakings	-	-	-	-	-	-	-
21 Equity exposures	172	-	172	-	-	-	-
22 Other exposures	957	1	520	436	-	-	-
23 <b>Total standardised approach</b>	<b>\$ 4,530</b>	<b>\$ 9</b>	<b>\$ 1,572</b>	<b>\$ 2,948</b>	<b>\$ 72</b>	<b>\$ 57</b>	<b>\$ 15</b>
24 <b>Total</b>	<b>\$ 46,846</b>	<b>\$ 15,635</b>	<b>\$ 20,278</b>	<b>\$ 10,932</b>	<b>\$ 3,139</b>	<b>\$ 1,119</b>	<b>\$ 2,020</b>

	Americas	United States	Other Countries	Total
	1 Central governments or central banks	-	-	-
2 Institutions	2,249	2,134	115	7,918
3 Corporates	4,452	2,641	1,811	26,045
5 Equity	50	42	8	390
5a Securitisations	-	-	-	670
5b Non-credit obligation assets	-	-	-	37
6 <b>Total IRB approach</b>	<b>\$ 6,751</b>	<b>\$ 4,817</b>	<b>\$ 1,934</b>	<b>\$ 52,135</b>
7 Central governments or central banks	-	-	-	9
12 Institutions	300	296	4	814
13 Corporates	5	1	4	1,125
16 Exposures in default	23	-	23	180
17 Items associated with particularly high risk	60	30	30	1,733
18 Covered bonds	-	-	-	-
19 Claims on institutions and corporates with a short-term credit assessment	-	-	-	-
20 Collective investments undertakings	-	-	-	-
21 Equity exposures	-	-	-	172
22 Other exposures	1	1	-	958
23 <b>Total standardised approach</b>	<b>\$ 389</b>	<b>\$ 329</b>	<b>\$ 61</b>	<b>\$ 4,991</b>
24 <b>Total</b>	<b>\$ 7,140</b>	<b>\$ 5,146</b>	<b>\$ 1,995</b>	<b>\$ 57,126</b>

## Pillar 3 Disclosures

## GSI

\$ in millions

As of December 2017

		Net value						
		EMEA	Germany	United Kingdom	Other Countries	Asia	Singapore	Other Countries
1	Central governments or central banks	14,013	11,905	2,028	80	3	-	3
2	Institutions	3,026	71	1,203	1,753	2,423	732	1,691
3	Corporates	13,981	0	12,984	997	398	271	127
5	Equity	311	-	161	150	29	-	29
5a	Securitisations	7	-	-	7	-	-	-
5b	Non-credit obligation assets	36	-	36	-	-	-	-
6	<b>Total IRB approach</b>	<b>\$ 31,375</b>	<b>\$ 11,976</b>	<b>\$ 16,412</b>	<b>\$ 2,987</b>	<b>\$ 2,853</b>	<b>\$ 1,003</b>	<b>\$ 1,850</b>
7	Central governments or central banks	-	-	-	-	-	-	-
12	Institutions	-	-	-	-	-	-	-
13	Corporates	407	-	407	(0)	-	-	-
16	Exposures in default	151	-	45	106	6	-	6
17	Items associated with particularly high risk	-	-	-	-	-	-	-
21	Equity exposures	-	-	-	-	-	-	-
22	Other exposures	499	-	499	-	-	-	-
23	<b>Total standardised approach</b>	<b>\$ 1,057</b>	<b>-</b>	<b>\$ 951</b>	<b>\$ 106</b>	<b>\$ 6</b>	<b>-</b>	<b>\$ 6</b>
24	<b>Total</b>	<b>\$ 32,432</b>	<b>\$ 11,976</b>	<b>\$ 17,363</b>	<b>\$ 3,093</b>	<b>\$ 2,859</b>	<b>\$ 1,003</b>	<b>\$ 1,856</b>

		Americas	United States	Other Countries	Total
1	Central governments or central banks	-	-	-	14,016
2	Institutions	2,191	2,077	114	7,641
3	Corporates	649	433	216	15,029
5	Equity	51	43	8	390
5a	Securitisations	-	-	-	7
5b	Non-credit obligation assets	-	-	-	36
6	<b>Total IRB approach</b>	<b>\$ 2,891</b>	<b>\$ 2,553</b>	<b>\$ 338</b>	<b>\$ 37,119</b>
7	Central governments or central banks	-	-	-	-
12	Institutions	-	-	-	-
13	Corporates	-	-	-	407
16	Exposures in default	23	-	23	180
17	Items associated with particularly high risk	-	-	-	-
21	Equity exposures	-	-	-	-
22	Other exposures	-	-	-	499
23	<b>Total standardised approach</b>	<b>\$ 23</b>	<b>-</b>	<b>\$ 23</b>	<b>\$ 1,086</b>
24	<b>Total</b>	<b>\$ 2,914</b>	<b>\$ 2,554</b>	<b>\$ 361</b>	<b>\$ 38,205</b>

## Pillar 3 Disclosures

## GSIB

\$ in millions

As of December 2017

		Net value						
		EMEA	Germany	United Kingdom	Other Countries	Asia	Singapore	Other Countries
1	Central governments or central banks	3,059	2,704	354	1	-	-	-
2	Institutions	109	7	7	95	110	5	105
3	Corporates	7,109	938	1,269	4,902	105	54	51
5	Equity	0	-	0	-	-	-	-
5a	Securitisations	663	-	663	-	-	-	-
5b	Non-credit obligation assets	1	-	1	-	-	-	-
6	<b>Total IRB approach</b>	<b>\$ 10,941</b>	<b>\$ 3,649</b>	<b>\$ 2,294</b>	<b>\$ 4,998</b>	<b>\$ 215</b>	<b>\$ 59</b>	<b>\$ 156</b>
7	Central governments or central banks	-	-	-	-	-	-	-
12	Institutions	-	-	-	-	-	-	-
13	Corporates	4	-	4	-	-	-	-
16	Exposures in default	-	-	-	-	-	-	-
17	Items associated with particularly high risk	-	-	-	-	-	-	-
21	Equity exposures	-	-	-	-	-	-	-
22	Other exposures	-	-	-	-	-	-	-
23	<b>Total standardised approach</b>	<b>\$ 4</b>	<b>-</b>	<b>\$ 4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
24	<b>Total</b>	<b>\$ 10,945</b>	<b>\$ 3,649</b>	<b>\$ 2,299</b>	<b>\$ 4,998</b>	<b>\$ 214</b>	<b>\$ 59</b>	<b>\$ 155</b>

		Americas	United States	Other Countries	Total
1	Central governments or central banks	-	-	-	3,059
2	Institutions	58	56	2	277
3	Corporates	3,802	2,207	1,595	11,016
5	Equity	-	-	-	0
5a	Securitisations	-	-	-	663
5b	Non-credit obligation assets	-	-	-	1
6	<b>Total IRB approach</b>	<b>\$ 3,860</b>	<b>\$ 2,263</b>	<b>\$ 1,597</b>	<b>\$ 15,016</b>
7	Central governments or central banks	-	-	-	-
12	Institutions	-	-	-	-
13	Corporates	-	-	-	4
16	Exposures in default	-	-	-	-
17	Items associated with particularly high risk	-	-	-	-
21	Equity exposures	-	-	-	-
22	Other exposures	-	-	-	-
23	<b>Total standardised approach</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 4</b>
24	<b>Total</b>	<b>\$ 3,860</b>	<b>\$ 2,264</b>	<b>\$ 1,597</b>	<b>\$ 15,020</b>

**Pillar 3 Disclosures**

The following three tables present GSGUK, GSI and GSIB's net values of on-balance-sheet and off-balance-sheet exposures by industry or counterparty types and exposure classes as of December 31, 2017.

**Table 51: Concentration of exposures by industry or counterparty types****GSGUK**

\$ in millions

As of December 2017

		Sovereigns (including Central Banks)	Banks	CCPs and Exchanges	Other Financials	Real Estate	Manufactur ing	Transport, Utilities & Storage	Retail / Wholes ale trade	Services and other Industries	Total
1	Central governments or central banks	\$ 17,075	-	-	-	-	-	-	-	-	\$ 17,075
2	Institutions	-	6,375	-	1,542	-	-	-	-	-	7,918
3	Corporates	-	-	2,066	18,526	355	722	1,218	510	2,648	26,045
5	Equity	-	-	110	144	4	6	25	-	101	390
5a	Securitisations	-	-	-	7	663	-	-	-	-	670
5b	Non-credit obligation assets	-	-	-	-	-	-	-	-	37	37
6	<b>Total IRB approach</b>	\$ 17,075	\$ 6,375	\$ 2,176	\$ 20,220	\$ 1,022	\$ 728	\$ 1,243	\$ 510	\$ 2,786	\$ 52,135
7	Central governments or central banks	9	-	-	-	-	-	-	-	-	9
12	Institutions	-	435	-	379	-	-	-	-	-	814
13	Corporates	-	-	-	131	426	91	-	-	477	1,125
16	Exposures in default	-	69	-	24	-	44	-	-	42	180
17	Items associated with particularly high risk	-	-	-	468	947	-	110	53	156	1,733
21	Equity exposures	-	-	-	172	-	-	-	-	-	172
22	Other exposures	-	40	-	-	388	-	-	-	529	957
23	<b>Total standardised approach</b>	\$ 9	\$ 544	-	\$ 1,175	\$ 1,761	\$ 136	\$ 110	\$ 53	\$ 1,204	\$ 4,991
24	<b>Total</b>	\$ 17,084	\$ 6,919	\$ 2,176	\$ 21,395	\$ 2,783	\$ 863	\$ 1,353	\$ 563	\$ 3,989	\$ 57,126

**GSI**

\$ in millions

As of December 2017

		Sovereigns (including Central Banks)	Banks	CCPs and Exchanges	Other Financials	Real Estat e	Manufacturi ng	Transport, Utilities & Storage	Retail / Whole sale trade	Services and other Industries	Total
1	Central governments or central banks	\$ 14,017	-	-	-	-	-	-	-	-	\$ 14,017
2	Institutions	-	6,101	-	1,541	-	-	-	-	-	7,641
3	Corporates	-	-	2,066	12,436	0	69	51	5	399	15,028
5	Equity	-	-	110	144	4	6	25	-	101	390
5a	Securitisations	-	-	-	7	-	-	-	-	-	7
5b	Non-credit obligation assets	-	-	-	-	-	-	-	-	36	36
6	<b>Total IRB approach</b>	\$ 14,017	\$ 6,101	\$ 2,176	\$ 14,128	\$ 4	\$ 75	\$ 76	\$ 5	\$ 537	\$ 37,119
7	Central governments or central banks	-	-	-	-	-	-	-	-	-	-
12	Institutions	-	-	-	-	-	-	-	-	-	-
13	Corporates	-	-	-	-	-	-	-	-	407	407
16	Exposures in default	-	69	-	24	-	44	-	-	42	180
17	Items associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
21	Equity exposures	-	-	-	-	-	-	-	-	-	-
22	Other exposures	-	-	-	-	-	-	-	-	499	499
23	<b>Total standardised approach</b>	-	\$ 69	-	\$ 24	-	\$ 44	-	-	\$ 948	\$ 1,086
24	<b>Total</b>	\$ 14,017	\$ 6,170	\$ 2,176	\$ 14,153	\$ 4	\$ 119	\$ 76	\$ 5	\$ 1,485	\$ 38,206

## Pillar 3 Disclosures

## GSIB

As of December  
2017

\$ in millions

		Sovereigns (including Central Banks)	Banks	CCPs and Exchang es	Other Financials	Real Estate	Manufacuri ng	Transport, Utilities & Storage	Retail / Wholesa le trade	Services and other Industries	Total
1	Central governments or central banks	\$ 3,059	-	-	-	-	-	-	-	-	\$ 3,059
2	Institutions	-	275	-	2	-	-	-	-	-	276
3	Corporates	-	-	-	6,090	354	653	1,167	505	2,248	11,017
5	Equity	-	-	-	-	-	-	-	-	0	0
5a	Securitisations	-	-	-	-	663	-	-	-	-	663
5b	Non-credit obligation assets	-	-	-	-	-	-	-	-	1	1
6	<b>Total IRB approach</b>	<b>\$ 3,059</b>	<b>\$ 275</b>	<b>-</b>	<b>\$ 6,091</b>	<b>\$ 1,018</b>	<b>\$ 653</b>	<b>\$ 1,167</b>	<b>\$ 505</b>	<b>\$ 2,249</b>	<b>\$ 15,016</b>
7	Central governments or central banks	-	-	-	-	-	-	-	-	-	-
12	Institutions	-	-	-	-	-	-	-	-	-	-
13	Corporates	-	-	-	-	-	-	-	-	4	4
16	Exposures in default	-	-	-	-	-	-	-	-	-	-
17	Items associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
21	Equity exposures	-	-	-	-	-	-	-	-	-	-
22	Other exposures	-	-	-	-	-	-	-	-	-	-
23	<b>Total standardised approach</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 4</b>	<b>\$ 4</b>
24	<b>Total</b>	<b>\$ 3,059</b>	<b>\$ 275</b>	<b>-</b>	<b>\$ 6,091</b>	<b>\$ 1,018</b>	<b>\$ 653</b>	<b>\$ 1,167</b>	<b>\$ 505</b>	<b>\$ 2,253</b>	<b>\$ 15,020</b>

The following three tables present GSGUK, GSI and GSIB's net values of on-balance-sheet and off-balance-sheet exposures by industry or counterparty types and exposure classes as of December 31, 2017.

## Table 52: Maturity of exposures

## GSGUK

\$ in millions

As of December 2017

		Net exposure value				No Stated Maturity	Total
		On demand	<= 1 Year	> 1 Year <= 5 Years	>5 years		
1	Central governments or central banks	\$ 17,054	\$ 4	-	\$ 18	-	\$ 17,075
2	Institutions	5,410	1,664	657	187	-	7,918
3	Corporates	2,195	15,061	8,012	776	-	26,045
5	Equity	-	-	-	-	390	390
5a	Securitisations	-	7	-	663	-	670
5b	Non-credit obligation assets	-	37	-	-	-	37
6	<b>Total IRB approach</b>	<b>\$ 24,659</b>	<b>\$ 16,783</b>	<b>\$ 8,670</b>	<b>\$ 1,634</b>	<b>\$ 390</b>	<b>\$ 52,135</b>
7	Central governments or central banks	9	-	-	-	-	9
12	Institutions	814	-	-	-	-	814
13	Corporates	47	488	209	381	-	1,125
16	Exposures in default	-	145	31	3	-	180
17	Items associated with particularly high risk	-	-	-	-	1,733	1,733
21	Equity exposures	-	-	-	-	172	172
22	Other exposures	40	529	-	-	388	957
23	<b>Total standardised approach</b>	<b>\$ 910</b>	<b>\$ 1,162</b>	<b>\$ 240</b>	<b>\$ 384</b>	<b>\$ 2,294</b>	<b>\$ 4,991</b>
24	<b>Total</b>	<b>\$ 25,569</b>	<b>\$ 17,946</b>	<b>\$ 8,910</b>	<b>\$ 2,018</b>	<b>\$ 2,684</b>	<b>\$ 57,126</b>

## Pillar 3 Disclosures

## GSI

\$ in millions

As of December 2017

	Net exposure value					No Stated Maturity	Total
	On demand	<= 1 Year	> 1 Year <= 5 Years	>5 years			
1 Central governments or central banks	\$ 13,996	\$ 3	-	\$ 18	-	\$ 14,017	
2 Institutions	5,226	1,652	576	187	-	7,641	
3 Corporates	39	13,857	1,026	107	-	15,028	
5 Equity	-	-	-	-	390	390	
5a Securitisations	-	7	-	-	-	7	
5b Non-credit obligation assets	-	36	-	-	-	36	
6 <b>Total IRB approach</b>	<b>\$ 19,260</b>	<b>\$ 15,556</b>	<b>\$ 1,602</b>	<b>\$ 311</b>	<b>\$ 390</b>	<b>\$ 37,119</b>	
7 Central governments or central banks	-	-	-	-	-	-	
12 Institutions	-	-	-	-	-	-	
13 Corporates	-	407	-	-	-	407	
16 Exposures in default	-	145	31	3	-	180	
17 Items associated with particularly high risk	-	-	-	-	-	-	
21 Equity exposures	-	-	-	-	-	-	
22 Other exposures	-	499	-	-	-	499	
23 <b>Total standardised approach</b>	<b>-</b>	<b>\$ 1,051</b>	<b>\$ 31</b>	<b>\$ 3</b>	<b>-</b>	<b>\$ 1,086</b>	
24 <b>Total</b>	<b>\$ 19,260</b>	<b>\$ 16,607</b>	<b>\$ 1,634</b>	<b>\$ 314</b>	<b>\$ 390</b>	<b>\$ 38,206</b>	

## GSIB

\$ in millions

As of December 2017

	Net exposure value					No Stated Maturity	Total
	On demand	<= 1 Year	> 1 Year <= 5 Years	>5 years			
1 Central governments or central banks	\$ 3,058	\$ 1	-	-	-	\$ 3,059	
2 Institutions	184	12	81	-	-	276	
3 Corporates	2,157	1,204	6,987	670	-	11,017	
5 Equity	-	-	-	-	0	0	
5a Securitisations	-	-	-	663	-	663	
5b Non-credit obligation assets	-	1	-	-	-	1	
6 <b>Total IRB approach</b>	<b>\$ 5,399</b>	<b>\$ 1,227</b>	<b>\$ 7,067</b>	<b>\$ 1,323</b>	<b>\$ 0</b>	<b>\$ 15,016</b>	
7 Central governments or central banks	-	-	-	-	-	-	
12 Institutions	-	-	-	-	-	-	
13 Corporates	-	4	-	-	-	4	
16 Exposures in default	-	-	-	-	-	-	
17 Items associated with particularly high risk	-	-	-	-	-	-	
21 Equity exposures	-	-	-	-	-	-	
22 Other exposures	-	-	-	-	-	-	
23 <b>Total standardised approach</b>	<b>-</b>	<b>\$ 4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 4</b>	
24 <b>Total</b>	<b>\$ 5,399</b>	<b>\$ 1,231</b>	<b>\$ 7,067</b>	<b>\$ 1,323</b>	<b>\$ 0</b>	<b>\$ 15,020</b>	

## Pillar 3 Disclosures

Table 53: Credit quality of exposures by exposure class and instrument

## GSGUK

\$ in millions

As of December 2017

	Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	Defaulted exposures <sup>1</sup>	Non-defaulted exposures					
1 Central governments or central banks	-	\$ 17,075	-	-	-	-	\$ 17,075
2 Institutions	-	7,918	-	-	-	-	7,918
3 Corporates	20	26,051	27	-	-	27	26,045
14 Equity	19	371	-	-	-	-	390
14a Securitisation positions	-	670	-	-	-	-	670
14b Non-credit obligation assets	-	37	-	-	-	-	37
15 <b>Total IRB approach</b>	<b>\$ 40</b>	<b>\$ 52,122</b>	<b>\$ 27</b>	-	-	<b>\$ 27</b>	<b>\$ 52,135</b>
16 Central governments or central banks	-	9	-	-	-	-	9
21 Institutions	-	814	-	-	-	-	814
22 Corporates	-	1,125	-	-	-	-	1,125
28 Exposures in default	180	-	-	-	-	-	180
29 Items associated with particularly high risk	-	1,733	-	-	-	-	1,733
33 Equity exposures	-	172	-	-	-	-	172
34 Other exposures	-	957	-	-	-	-	957
35 <b>Total standardised approach</b>	<b>\$ 180</b>	<b>\$ 4,811</b>	-	-	-	-	<b>\$ 4,991</b>
36 <b>Total</b>	<b>\$ 220</b>	<b>\$ 56,933</b>	<b>\$ 27</b>	-	-	<b>\$ 27</b>	<b>\$ 57,126</b>
37 Of which: Loans	65	4,008	17	-	-	17	4,055
38 Of which: Debt securities	136	1,872	-	-	-	-	2,008
39 Of which: Off- balance-sheet exposures	-	7,207	10	-	-	10	7,197

## GSI

\$ in millions

As of December 2017

	Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	Defaulted exposures <sup>1</sup>	Non-defaulted exposures					
1 Central governments or central banks	-	\$ 14,017	-	-	-	-	\$ 14,017
2 Institutions	-	7,641	-	-	-	-	7,641
3 Corporates	-	15,028	-	-	-	-	15,028
14 Equity	19	371	-	-	-	-	390
14a Securitisation positions	-	7	-	-	-	-	7
14b Non-credit obligation assets	-	36	-	-	-	-	36
15 <b>Total IRB approach</b>	<b>\$ 19</b>	<b>\$ 37,100</b>	-	-	-	-	<b>\$ 37,119</b>
16 Central governments or central banks	-	-	-	-	-	-	-
21 Institutions	-	-	-	-	-	-	-
22 Corporates	-	407	-	-	-	-	407
28 Exposures in default	180	-	-	-	-	-	180
29 Items associated with particularly high risk	-	-	-	-	-	-	-
33 Equity exposures	-	-	-	-	-	-	-
34 Other exposures	-	499	-	-	-	-	499
35 <b>Total standardised approach</b>	<b>\$ 180</b>	<b>\$ 906</b>	-	-	-	-	<b>\$ 1,086</b>
36 <b>Total</b>	<b>\$ 199</b>	<b>\$ 38,006</b>	-	-	-	-	<b>\$ 38,206</b>
37 Of which: Loans	44	23	-	-	-	-	67
38 Of which: Debt securities	136	730	-	-	-	-	865
39 Of which: Off- balance-sheet exposures	-	-	-	-	-	-	-

## Pillar 3 Disclosures

## GSIB

\$ in millions

As of December 2017

	Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	Defaulted exposures <sup>1</sup>	Non-defaulted exposures					
1 Central governments or central banks	-	\$ 3,059	-	-	-	-	\$ 3,059
2 Institutions	-	276	-	-	-	-	276
3 Corporates	20	11,023	27	-	-	27	11,017
14 Equity	-	0	-	-	-	-	0
14a Securitisation positions	-	663	-	-	-	-	663
14b Non-credit obligation assets	-	1	-	-	-	-	1
15 <b>Total IRB approach</b>	<b>\$ 20</b>	<b>\$ 15,022</b>	<b>\$ 27</b>	-	-	<b>\$ 27</b>	<b>\$ 15,016</b>
16 Central governments or central banks	-	-	-	-	-	-	-
21 Institutions	-	-	-	-	-	-	-
22 Corporates	-	4	-	-	-	-	4
28 Exposures in default	-	-	-	-	-	-	-
29 Items associated with particularly high risk	-	-	-	-	-	-	-
33 Equity exposures	-	-	-	-	-	-	-
34 Other exposures	-	-	-	-	-	-	-
35 <b>Total standardised approach</b>	-	<b>\$ 4</b>	-	-	-	-	<b>\$ 4</b>
36 <b>Total</b>	<b>\$ 20</b>	<b>\$ 15,026</b>	<b>\$ 27</b>	-	-	<b>\$ 27</b>	<b>\$ 15,020</b>
37 Of which: Loans	20	3,897	17	-	-	17	3,900
38 Of which: Debt securities	-	621	-	-	-	-	621
39 Of which: Off- balance-sheet exposures	-	7,207	10	-	-	10	7,197

<sup>1</sup>The defaulted exposures quantified in the tables above include positions where the obligor defaulted prior to our purchase of the position.

## Pillar 3 Disclosures

Table 54: Credit quality of exposures by industry or counterparty types

## GSGUK

\$ in millions

As of December 2017

		Gross carrying values of					Credit risk adjustment charges of the period	Net values
		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs		
1	Sovereigns	-	\$ 17,084	-	-	-	-	\$ 17,084
2	Services and other Industries	52	21,351	8	-	-	8	21,395
3	Banks	71	6,848	-	-	-	-	6,919
4	Other Financials	-	2,176	-	-	-	-	2,176
5	CCPs and Exchanges	46	3,951	8	-	-	8	3,989
6	Manufacturing	44	822	3	-	-	3	863
7	Transport, Utilities & Storage	6	1,352	5	-	-	5	1,353
8	Retail / Wholesale trade	-	566	3	-	-	3	563
9	Real Estate	-	2,783	0	-	-	0	2,783
10	<b>Total</b>	<b>\$ 220</b>	<b>\$ 56,933</b>	<b>\$ 27</b>	<b>-</b>	<b>-</b>	<b>\$ 27</b>	<b>\$ 57,126</b>

## GSI

\$ in millions

As of December 2017

		Gross carrying values of					Credit risk adjustment charges of the period	Net values
		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs		
1	Sovereigns	-	\$ 14,017	-	-	-	-	\$ 14,017
2	Services and other Industries	32	14,121	-	-	-	-	14,153
3	Banks	71	6,099	-	-	-	-	6,170
4	Other Financials	-	2,176	-	-	-	-	2,176
5	CCPs and Exchanges	46	1,438	-	-	-	-	1,485
6	Manufacturing	44	75	-	-	-	-	119
7	Transport, Utilities & Storage	6	71	-	-	-	-	76
8	Retail / Wholesale trade	-	5	-	-	-	-	5
9	Real Estate	-	4	-	-	-	-	4
10	<b>Total</b>	<b>\$ 199</b>	<b>\$ 38,006</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 38,206</b>

## GSIB

\$ in millions

As of December 2017

		Gross carrying values of					Credit risk adjustment charges of the period	Net values
		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs		
1	Sovereigns	-	\$ 3,059	-	-	-	-	\$ 3,059
2	Services and other Industries	20	6,079	8	-	-	8	6,091
3	Banks	-	275	-	-	-	-	275
4	Other Financials	-	-	-	-	-	-	-
5	CCPs and Exchanges	-	2,262	8	-	-	8	2,253
6	Manufacturing	-	655	3	-	-	3	653
7	Transport, Utilities & Storage	-	1,171	5	-	-	5	1,167
8	Retail / Wholesale trade	-	508	3	-	-	3	505
9	Real Estate	-	1,018	0	-	-	0	1,018
10	<b>Total</b>	<b>\$ 20</b>	<b>\$ 15,026</b>	<b>\$ 27</b>	<b>-</b>	<b>-</b>	<b>\$ 27</b>	<b>\$ 15,020</b>

## Pillar 3 Disclosures

Table 55: Credit quality of exposures by geography

## GSGUK

\$ in millions

As of December 2017

		Gross carrying values of					Credit risk adjustment charges of the period	Net values
		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs		
1	EMEA	\$ 173	\$ 46,699	\$ 26	-	-	\$ 26	\$ 46,846
2	Germany	-	14,698	1	-	-	1	14,696
3	United Kingdom	45	18,310	4	-	-	4	18,351
4	Other Countries	128	13,691	21	-	-	21	13,798
5	Asia	\$ 16	\$ 3,123	\$ 0	-	-	\$ 0	\$ 3,139
6	Singapore	-	1,066	0	-	-	0	1,065
7	Other Countries	16	2,058	0	-	-	0	2,074
8	Americas	\$ 30	\$ 7,111	\$ 0	-	-	\$ 0	\$ 7,141
9	United States	-	2,945	0	-	-	0	2,945
10	Other Countries	30	4,166	0	-	-	0	4,196
11	Other Geographical areas	-	\$ 0	-	-	-	-	\$ 0
12	<b>Total</b>	<b>\$ 220</b>	<b>\$ 56,933</b>	<b>\$ 27</b>	<b>-</b>	<b>-</b>	<b>\$ 27</b>	<b>\$ 57,126</b>

## GSI

\$ in millions

As of December 2017

		Gross carrying values of					Credit risk adjustment charges of the period	Net values
		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs		
1	EMEA	\$ 153	\$ 32,279	-	-	-	-	\$ 32,432
2	Germany	-	11,976	-	-	-	-	11,976
3	United Kingdom	45	17,318	-	-	-	-	17,363
4	Other Countries	108	2,985	-	-	-	-	3,093
5	Asia	\$ 16	\$ 2,843	-	-	-	-	\$ 2,860
6	Singapore	-	1,003	-	-	-	-	1,003
7	Other Countries	16	1,840	-	-	-	-	1,856
8	Americas	\$ 30	\$ 2,884	-	-	-	-	\$ 2,914
9	United States	-	2,554	-	-	-	-	2,554
10	Other Countries	30	330	-	-	-	-	360
11	Other Geographical areas	-	\$ 0	-	-	-	-	\$ 0
12	<b>Total</b>	<b>\$ 199</b>	<b>\$ 38,006</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 38,206</b>

## GSIB

\$ in millions

As of December 2017

		Gross carrying values of					Credit risk adjustment charges of the period	Net values
		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs		
1	EMEA	\$ 20	\$ 10,951	\$ 26	-	-	\$ 26	\$ 10,945
2	Germany	-	2,712	1	-	-	1	2,711
3	United Kingdom	-	375	4	-	-	4	371
4	Other Countries	20	7,864	21	-	-	21	7,864
5	Asia	-	\$ 215	\$ 0	-	-	\$ 0	\$ 214
6	Singapore	-	5	0	-	-	0	5
7	Other Countries	-	209	0	-	-	0	209
8	Americas	-	\$ 3,861	\$ 0	-	-	\$ 0	\$ 3,860
9	United States	-	62	0	-	-	0	62
10	Other Countries	-	3,798	0	-	-	0	3,798
11	Other Geographical areas	-	-	-	-	-	-	-
12	<b>Total</b>	<b>\$ 20</b>	<b>\$ 15,026</b>	<b>\$ 27</b>	<b>-</b>	<b>-</b>	<b>\$ 27</b>	<b>\$ 15,020</b>

**Pillar 3 Disclosures****Table 56: IRB (Equity exposures subject to the simple risk-weighted approach)<sup>1</sup>****GSGUK**

\$ in millions

As of December 2017

## Equities under the simple risk-weighted approach

Categories	On BS amount	Off BS amount	Risk Weight	Exposure Amount	RWAs	Capital Requirements
Other Equity Exposures	\$ 390	-	370%	\$ 390	\$ 1,443	\$ 115
<b>Total</b>	<b>\$ 390</b>	<b>-</b>	<b>0%</b>	<b>\$ 390</b>	<b>\$ 1,443</b>	<b>\$ 115</b>

**GSI**

\$ in millions

As of December 2017

## Equities under the simple risk-weighted approach

Categories	On BS amount	Off BS amount	Risk Weight	Exposure Amount	RWAs	Capital Requirements
Other Equity Exposures	\$ 390	-	370%	\$ 390	\$ 1,443	\$ 115
<b>Total</b>	<b>\$ 390</b>	<b>-</b>	<b>0%</b>	<b>\$ 390</b>	<b>\$ 1,443</b>	<b>\$ 115</b>

1. GSGUK and its subsidiaries do not have private equity exposures or exchanged-traded equity exposures which are risk-weighted at 190% or 290% respectively.

## Pillar 3 Disclosures

Table 57: IRB approach - Credit risk exposures by exposure class and PD range

GSGUK

\$ in millions

As of December 2017

PD Scale	Original on - BS gross exposures	Off-BS exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of Obligors	Average LGD	Average Maturity	RWAs	RWA density	EL	Value Adjustments and provisions
<b>Sovereign</b>												
0.00 to <0.15	\$ 17,059	-	0.00%	\$ 17,059	0.00013	10	0.8089	1.0000	\$ 1,223	7%	\$ 2	
0.15 to <0.25	0	-	0.00%	0	0.00179	6	0.7629	1.0000	0	50%	0	
0.25 to <0.50	0	-	0.00%	0	0.00260	1	0.7629	1.0000	0	64%	0	
0.50 to <0.75	0	-	0.00%	0	0.00600	1	0.7629	1.0000	0	103%	0	
0.75 to <2.50	-	-	0.00%	-	-	-	-	-	-	0%	-	
2.50 to <10.00	0	-	0.00%	0	0.05800	2	0.7173	1.0000	0	236%	0	
10.00 to <100.00	18	-	0.00%	18	0.23780	2	0.7629	1.0000	73	415%	3	
100.00 (Default)	-	-	0.00%	-	-	-	-	-	-	0%	-	
Subtotal	\$ 17,077	-	0.00%	\$ 17,077	0.00037	22	0.8088	1.0000	\$ 1,297	0%	\$ 5	
<b>Institutions</b>												
0.00 to <0.15	\$ 5,987	\$ 17	82.58%	\$ 6,253	0.00050	299	0.7080	1.0470	\$ 1,589	25%	\$ 2	
0.15 to <0.25	725	70	75.53%	778	0.00172	117	0.6750	1.1594	475	61%	1	
0.25 to <0.50	58	-	0.00%	58	0.00260	37	0.7674	1.0000	49	85%	0	
0.50 to <0.75	344	-	0.00%	344	0.00606	56	0.7964	1.0000	477	138%	2	
0.75 to <2.50	78	-	0.00%	78	0.01601	93	0.7686	1.0000	156	200%	1	
2.50 to <10.00	91	-	0.00%	91	0.09481	19	0.7786	1.0000	288	317%	7	
10.00 to <100.00	682	-	0.00%	682	0.23780	110	0.4966	4.3810	2,295	337%	80	
100.00 (Default)	-	-	0.00%	-	-	-	-	-	-	0%	-	
Subtotal	\$ 7,964	\$ 88	76.91%	\$ 8,284	0.02157	731	0.6930	1.3287	\$ 5,330	0%	\$ 93	
<b>Corporates</b>												
0.00 to <0.15	\$ 3,298	\$ 3,142	75.00%	\$ 4,923	0.00047	255	0.6892	2.1803	\$ 1,697	34%	\$ 2	
0.15 to <0.25	660	1,279	75.88%	1,478	0.00174	405	0.7139	2.3426	1,069	72%	2	
0.25 to <0.50	145	470	75.02%	787	0.00260	37	0.7939	2.0030	651	83%	2	
0.50 to <0.75	695	492	75.21%	1,096	0.00645	101	0.7959	2.0809	1,579	144%	6	
0.75 to <2.50	758	1,250	75.02%	1,936	0.02269	128	0.7016	3.3985	4,850	251%	31	
2.50 to <10.00	907	390	75.07%	1,200	0.06298	103	0.7323	3.5549	3,822	318%	55	
10.00 to <100.00	305	90	75.06%	370	0.23780	244	0.7858	1.5861	1,710	462%	69	
100.00 (Default)	12	-	0.00%	12	0.99900	2	0.6372	5.0000	0	1%	8	
Subtotal	\$ 6,781	\$ 7,114	75.18%	\$ 11,802	0.01982	1,275	0.7186	2.5035	\$ 15,377	130%	\$ 174	
Total (all portfolios)	\$ 31,822	\$ 7,201	75.20%	\$ 37,163	0.00982	2,028	0.7606	1.4026	\$ 22,004	59%	\$ 272	

## Pillar 3 Disclosures

## GSI

\$ in millions

As of December 2017

PD Scale	Original on - BS gross exposures	Off-BS exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of Obligors	Average LGD	Average Maturity	RWAs	RWA density	EL	Value Adjustments and provisions
<b>Sovereign</b>												
0.00 to <0.15	\$ 14,001	-	0.00%	\$ 14,001	0.00013	7	0.8088	1.0000	\$ 1,010	7%	\$ 1	
0.15 to <0.25	-	-	0.00%	-	-	-	-	-	-	0%	-	
0.25 to <0.50	0	-	0.00%	0	0.00260	1	0.7629	1.0000	0	64%	0	
0.50 to <0.75	-	-	0.00%	-	-	-	-	-	-	0%	-	
0.75 to <2.50	-	-	0.00%	-	-	-	-	-	-	0%	-	
2.50 to <10.00	0	-	0.00%	0	0.05800	2	0.7173	1.0000	0	236%	0	
10.00 to <100.00	18	-	0.00%	18	0.23780	2	0.7629	1.0000	73	415%	3	
100.00 (Default)	-	-	0.00%	-	-	-	-	-	-	0%	-	
Subtotal	\$ 14,018	-	0.00%	\$ 14,018	0.00043	12	0.8088	1.0000	\$ 1,083	8%	\$ 5	
<b>Institutions</b>												
0.00 to <0.15	\$ 5,793	-	0.00%	\$ 5,793	0.00050	211	0.7166	1.0000	\$ 1,458	25%	\$ 2	
0.15 to <0.25	724	-	0.00%	724	0.00172	104	0.6751	1.0000	420	58%	1	
0.25 to <0.50	58	-	0.00%	58	0.00260	36	0.7674	1.0000	49	85%	0	
0.50 to <0.75	344	-	0.00%	344	0.00606	52	0.7964	1.0000	476	138%	2	
0.75 to <2.50	78	-	0.00%	78	0.01601	91	0.7686	1.0000	156	200%	1	
2.50 to <10.00	91	-	0.00%	91	0.09481	17	0.7786	1.0000	288	317%	7	
10.00 to <100.00	682	-	0.00%	682	0.23780	103	0.4965	4.3818	2,295	337%	80	
100.00 (Default)	-	-	0.00%	-	-	-	-	-	-	0%	-	
Subtotal	\$ 7,769	-	0.00%	\$ 7,769	0.02295	614	0.6986	1.2967	\$ 5,142	66%	\$ 93	
<b>Corporates</b>												
0.00 to <0.15	\$ 3,172	-	0.00%	\$ 3,172	0.00041	99	0.7466	1.6134	\$ 935	29%	\$ 1	
0.15 to <0.25	518	-	0.00%	521	0.00171	32	0.7861	1.0099	350	67%	1	
0.25 to <0.50	7	-	0.00%	438	0.00260	13	0.9070	1.0000	334	76%	1	
0.50 to <0.75	376	-	0.00%	568	0.00657	40	0.9021	1.2639	869	153%	3	
0.75 to <2.50	87	-	0.00%	1,503	0.02338	92	0.7057	3.1361	3,848	256%	25	
2.50 to <10.00	354	-	0.00%	426	0.06574	29	0.8530	1.6778	1,424	335%	24	
10.00 to <100.00	279	-	0.00%	279	0.23780	175	0.8214	1.0000	1,326	475%	54	
100.00 (Default)	-	-	0.00%	-	-	-	-	-	-	0%	-	
Subtotal	\$ 4,794	-	0.00%	\$ 6,907	0.01976	480	0.7732	1.8106	\$ 9,087	132%	\$ 109	
Total (all portfolios)	\$ 26,581	-	0.00%	\$ 28,694	0.01050	1,106	0.7701	1.2329	\$ 15,311	53%	\$ 207	

## Pillar 3 Disclosures

## GSIB

\$ in millions

As of December 2017

PD Scale	Original on - BS gross exposures	Off-BS exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of Obligors	Average LGD	Average Maturity	RWAs	RWA density	EL	Value Adjustments and provisions
<b>Sovereign</b>												
0.00 to <0.15	\$ 3,058	-	0.00%	\$ 3,058	0.00012	3	0.8090	1.0000	\$ 213	7%	\$ 0	
0.15 to <0.25	0	-	0.00%	0	0.00179	6	0.7629	1.0000	0	50%	0	
0.25 to <0.50	-	-	0.00%	-	-	-	-	-	-	0%	-	
0.50 to <0.75	0	-	0.00%	0	0.00600	1	0.7629	1.0000	0	103%	0	
0.75 to <2.50	-	-	0.00%	-	-	-	-	-	-	0%	-	
2.50 to <10.00	-	-	0.00%	-	-	-	-	-	-	0%	-	
10.00 to <100.00	-	-	0.00%	-	-	-	-	-	-	0%	-	
100.00 (Default)	-	-	0.00%	-	-	-	-	-	-	0%	-	
Subtotal	\$ 3,059	-	0.00%	\$ 3,059	0.00012	10	0.8090	1.0000	\$ 214	7%	\$ 0	
<b>Institutions</b>												
0.00 to <0.15	\$ 194	\$ 17	82.58%	\$ 460	0.00052	88	0.6000	1.6394	\$ 131	28%	\$ 0	
0.15 to <0.25	1	70	75.53%	54	0.00180	13	0.6742	3.2987	56	103%	0	
0.25 to <0.50	0	-	0.00%	0	0.00260	1	0.7790	1.0000	0	87%	0	
0.50 to <0.75	1	-	0.00%	1	0.00639	4	0.7986	1.0000	1	145%	0	
0.75 to <2.50	0	-	0.00%	0	0.01560	2	0.8406	1.0000	0	174%	0	
2.50 to <10.00	0	-	0.00%	0	0.09328	2	0.8121	1.0000	0	326%	0	
10.00 to <100.00	0	-	0.00%	0	0.23780	7	0.7787	1.0000	1	477%	0	
100.00 (Default)	-	-	0.00%	-	-	-	-	-	-	0%	-	
Subtotal	\$ 196	\$ 88	76.91%	\$ 515	0.00074	117	0.6082	1.8119	\$ 188	37%	\$ 0	
<b>Corporates</b>												
0.00 to <0.15	\$ 126	\$ 3,142	75.00%	\$ 1,751	0.00059	156	0.5853	3.2073	\$ 762	44%	\$ 1	
0.15 to <0.25	142	1,279	75.88%	957	0.00176	373	0.6745	3.0687	719	75%	1	
0.25 to <0.50	138	470	75.02%	349	0.00260	24	0.6518	3.2628	317	91%	1	
0.50 to <0.75	319	492	75.21%	528	0.00633	61	0.6817	2.9596	710	134%	2	
0.75 to <2.50	671	1,250	75.02%	433	0.02029	36	0.6874	4.3093	1,002	231%	6	
2.50 to <10.00	553	390	75.07%	774	0.06145	74	0.6659	4.5870	2,398	310%	32	
10.00 to <100.00	26	90	75.06%	91	0.23780	69	0.6766	3.3800	384	421%	15	
100.00 (Default)	12	-	0.00%	12	0.99900	2	0.6372	5.0000	0	1%	8	
Subtotal	\$ 1,987	\$ 7,114	75.18%	\$ 4,896	0.01989	795	0.6415	3.4809	\$ 6,291	128%	\$ 65	
Total (all portfolios)	\$ 5,241	\$ 7,201	75.20%	\$ 8,469	0.00764	922	0.7380	1.9709	\$ 6,693	79%	\$ 65	

## Pillar 3 Disclosures

Table 58: IRB approach - Backtesting of PD per exposure class

## GSGUK

Exposure class	PD Range		External rating equivalent		Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate (5 years)
	Min	Max	Min	Max			Beginning of the year	End of the year			
Corporates	0.03%	23.78%	AAA	CCC	1.06%	3.98%	5,601	4,965	12	12	0.13%
Institutions	0.03%	23.78%	AAA	CCC	0.83%	3.80%	6,843	7,400	7	5	0.08%
Sovereigns	0.01%	23.78%	AAA	CCC	0.06%	0.77%	104	100	0	0	0.00%

## GSI

Exposure class	PD Range		External rating equivalent		Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate (5 years)
	Min	Max	Min	Max			Beginning of the year	End of the year			
Corporates	0.03%	23.78%	AAA	CCC	0.78%	3.85%	5,347	4,635	11	11	0.14%
Institutions	0.03%	23.78%	AAA	CCC	0.84%	3.82%	6,750	7,306	7	5	0.08%
Sovereigns	0.01%	23.78%	AAA	CCC	0.06%	0.80%	93	94	0	0	0.00%

## GSIB

Exposure class	PD Range		External rating equivalent		Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate (5 years)
	Min	Max	Min	Max			Beginning of the year	End of the year			
Corporates	0.03%	23.78%	AAA	CCC	4.62%	5.78%	254	330	1	1	0.00%
Institutions	0.03%	23.78%	AAA	CCC	0.12%	2.45%	93	94	0	0	0.00%
Sovereigns	0.01%	23.78%	AAA	CCC	0.01%	0.20%	11	6	0	0	0.00%

## Pillar 3 Disclosures

Table 59: Standardised approach – Credit risk exposure and CRM effects

## GSGUK

\$ in millions

As of December 2017

Exposure classes	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
1 Central governments or central banks	\$ 9	-	\$ 9	-	\$ 8	94%
6 Institutions	814	-	814	-	163	20%
7 Corporates	1,125	-	1,125	-	1,124	100%
10 Exposures in default	180	-	180	-	270	150%
11 Higher-risk categories	1,733	-	1,733	-	2,600	150%
15 Equity	172	-	172	-	172	100%
16 Other items	958	-	958	-	1,659	173%
17 Total	\$ 4,990	-	\$ 4,990	-	\$ 5,995	120%

## GSI

\$ in millions

As of December 2017

Exposure classes	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
1 Central governments or central banks	-	-	-	-	-	0%
6 Institutions	-	-	-	-	-	0%
7 Corporates	407	-	407	-	407	100%
10 Exposures in default	180	-	180	-	270	150%
11 Higher-risk categories	-	-	-	-	-	0%
15 Equity	-	-	-	-	-	0%
16 Other items	499	-	499	-	1,120	240%
17 Total	\$ 1,086	-	\$ 1,086	-	\$ 1,876	173%

## GSIB

\$ in millions

As of December 2017

Exposure classes	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
1 Central governments or central banks	-	-	-	-	-	0%
6 Institutions	-	-	-	-	-	0%
7 Corporates	4	-	4	-	4	100%
10 Exposures in default	-	-	-	-	-	0%
11 Higher-risk categories	-	-	-	-	-	0%
15 Equity	-	-	-	-	-	0%
16 Other items	-	-	-	-	-	0%
17 Total	\$ 4	-	\$ 4	-	\$ 4	100%

## Pillar 3 Disclosures

Table 60: Standardised approach

## GSGUK

*\$ in millions* As of December 2017

Exposure classes	Risk weight						Total	Of which unrated
	0%	20%	50%	100%	150%	250%		
1 Central governments or central banks	\$ 1	-	-	\$ 8	-	-	\$ 9	\$ 1
6 Institutions	-	814	-	-	-	-	814	-
7 Corporates	-	0	1	1,124	-	-	1,125	1,124
10 Exposures in default	-	-	-	-	180	-	180	180
11 Higher-risk categories	-	-	-	-	1,733	-	1,733	1,733
15 Equity	-	-	-	172	-	-	172	172
16 Other items	-	-	-	491	-	467	958	491
<b>17 Total</b>	<b>\$ 1</b>	<b>\$ 814</b>	<b>\$ 1</b>	<b>\$ 1,794</b>	<b>\$ 1,913</b>	<b>\$ 467</b>	<b>\$ 4,990</b>	<b>\$ 3,700</b>

## GSI

*\$ in millions* As of December 2017

Exposure classes	Risk weight						Total	Of which unrated
	0%	20%	50%	100%	150%	250%		
1 Central governments or central banks	-	-	-	-	-	-	-	-
6 Institutions	-	-	-	-	-	-	-	-
7 Corporates	-	-	-	407	-	-	407	407
10 Exposures in default	-	-	-	-	180	-	180	180
11 Higher-risk categories	-	-	-	-	-	-	-	-
15 Equity	-	-	-	-	-	-	-	-
16 Other items	-	-	-	32	-	467	499	32
<b>17 Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 439</b>	<b>\$ 180</b>	<b>\$ 467</b>	<b>\$ 1,086</b>	<b>\$ 619</b>

## GSIB

*\$ in millions* As of December 2017

Exposure classes	Risk weight						Total	Of which unrated
	0%	20%	50%	100%	150%	250%		
1 Central governments or central banks	-	-	-	-	-	-	-	-
5 International organisations	-	-	-	-	-	-	-	-
6 Institutions	-	-	-	-	-	-	-	-
7 Corporates	-	-	-	4	-	-	4	4
10 Exposures in default	-	-	-	-	-	-	-	-
11 Higher-risk categories	-	-	-	-	-	-	-	-
15 Equity	-	-	-	-	-	-	-	-
16 Other items	-	-	-	-	-	-	-	-
<b>17 Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 4</b>	<b>-</b>	<b>-</b>	<b>\$ 4</b>	<b>\$ 4</b>

## Pillar 3 Disclosures

## Appendix III: Counterparty Credit Risk Tables

Table 61: IRB approach - CCR exposures by portfolio and PD scale

GSGUK

\$ in millions

As of December 2017

	PD Scale	EAD post CRM	Average PD	Number of Obligors	Average LGD	Average Maturity	RWAs	RWA density
<b>Sovereign</b>								
	0.00 to <0.15	\$ 11,434	0.00026	158	0.7669	2.72	\$ 3,939	34%
	0.15 to <0.25	4,131	0.00179	19	0.7634	3.93	4,017	97%
	0.25 to <0.50	14	0.00260	14	0.7891	1.22	10	74%
	0.50 to <0.75	419	0.00603	10	0.8022	0.26	384	92%
	0.75 to <2.50	0	0.02370	2	0.8380	1.00	0	200%
	2.50 to <10.00	16	0.06029	11	0.7479	1.80	42	267%
	10.00 to <100.00	-	-	-	-	-	-	0%
	100.00 (Default)	-	-	-	-	-	-	0%
	<b>Subtotal</b>	<b>\$ 16,014</b>	<b>0.00087</b>	<b>214</b>	<b>0.7669</b>	<b>2.97</b>	<b>\$ 8,392</b>	<b>52%</b>
<b>Institutions</b>								
	0.00 to <0.15	\$ 38,761	0.00054	4,398	0.7564	1.79	\$ 15,142	39%
	0.15 to <0.25	13,083	0.00173	3,174	0.7288	1.74	10,182	78%
	0.25 to <0.50	1,796	0.00260	693	0.7730	1.62	1,731	96%
	0.50 to <0.75	2,855	0.00640	901	0.7641	2.82	5,310	186%
	0.75 to <2.50	2,639	0.01619	1,447	0.5956	2.60	4,345	165%
	2.50 to <10.00	168	0.06961	119	0.8083	1.52	534	318%
	10.00 to <100.00	1,148	0.23780	1,271	0.8032	0.33	5,185	452%
	100.00 (Default)	6	0.99900	4	0.8002	4.25	0	1%
	<b>Subtotal</b>	<b>\$ 60,456</b>	<b>0.00662</b>	<b>12,007</b>	<b>0.7453</b>	<b>1.83</b>	<b>\$ 42,429</b>	<b>70%</b>
<b>Corporates</b>								
	0.00 to <0.15	\$ 36,501	0.00048	2,969	0.7472	1.55	\$ 11,389	31%
	0.15 to <0.25	7,327	0.00174	904	0.7756	3.25	7,584	104%
	0.25 to <0.50	1,465	0.00260	514	0.7329	1.69	1,241	85%
	0.50 to <0.75	2,070	0.00625	1,059	0.7647	2.15	3,232	156%
	0.75 to <2.50	2,478	0.01740	1,996	0.7532	2.77	5,490	222%
	2.50 to <10.00	729	0.07879	608	0.7624	1.83	2,323	319%
	10.00 to <100.00	314	0.23780	1,612	0.7630	1.93	1,396	444%
	100.00 (Default)	-	-	-	-	-	-	0%
	<b>Subtotal</b>	<b>\$ 50,884</b>	<b>0.00437</b>	<b>9,662</b>	<b>0.7522</b>	<b>1.88</b>	<b>\$ 32,655</b>	<b>64%</b>
	<b>Total (all portfolios)</b>	<b>\$ 127,354</b>	<b>0.00500</b>	<b>21,883</b>	<b>0.7508</b>	<b>1.54</b>	<b>\$ 83,477</b>	<b>66%</b>

## Pillar 3 Disclosures

## GSI

\$ in millions

As of December 2017

PD Scale	EAD post CRM	Average PD	Number of Obligors	Average LGD	Average Maturity	RWAs	RWA density
<b>Sovereign</b>							
0.00 to <0.15	\$ 11,434	0.00026	158	0.7669	2.72	\$ 3,939	34%
0.15 to <0.25	4,131	0.00179	19	0.7634	3.93	4,017	97%
0.25 to <0.50	14	0.00260	14	0.7891	1.22	10	74%
0.50 to <0.75	419	0.00603	10	0.8022	0.26	384	92%
0.75 to <2.50	0	0.02370	2	0.8380	1.00	0	200%
2.50 to <10.00	16	0.06029	11	0.7479	1.80	42	267%
10.00 to <100.00	-	-	-	-	-	-	0%
100.00 (Default)	-	-	-	-	-	-	0%
<b>Subtotal</b>	<b>\$ 16,014</b>	<b>0.00087</b>	<b>214</b>	<b>0.7669</b>	<b>2.97</b>	<b>\$ 8,392</b>	<b>52%</b>
<b>Institutions</b>							
0.00 to <0.15	\$ 38,687	0.00054	4,390	0.7563	1.79	\$ 15,111	39%
0.15 to <0.25	13,048	0.00173	3,169	0.7286	1.74	10,146	78%
0.25 to <0.50	1,796	0.00260	693	0.7730	1.62	1,731	96%
0.50 to <0.75	2,855	0.00640	900	0.7641	2.82	5,310	186%
0.75 to <2.50	2,627	0.01619	1,443	0.5949	2.60	4,319	164%
2.50 to <10.00	168	0.06961	119	0.8083	1.52	534	318%
10.00 to <100.00	1,148	0.23780	1,270	0.8032	0.33	5,183	452%
100.00 (Default)	6	0.99900	4	0.8002	4.25	0	1%
<b>Subtotal</b>	<b>\$ 60,337</b>	<b>0.00663</b>	<b>11,988</b>	<b>0.7452</b>	<b>1.83</b>	<b>\$ 42,334</b>	<b>70%</b>
<b>Corporates</b>							
0.00 to <0.15	\$ 36,458	0.00048	2,966	0.7473	1.55	\$ 11,359	31%
0.15 to <0.25	7,213	0.00174	900	0.7752	3.22	7,409	103%
0.25 to <0.50	1,465	0.00260	514	0.7329	1.69	1,241	85%
0.50 to <0.75	2,070	0.00625	1,058	0.7647	2.15	3,232	156%
0.75 to <2.50	2,444	0.01731	1,989	0.7534	2.76	5,390	221%
2.50 to <10.00	724	0.07895	602	0.7619	1.84	2,307	319%
10.00 to <100.00	314	0.23780	1,612	0.7630	1.93	1,396	444%
100.00 (Default)	-	-	-	-	-	-	0%
<b>Subtotal</b>	<b>\$ 50,688</b>	<b>0.00436</b>	<b>9,641</b>	<b>0.7521</b>	<b>1.88</b>	<b>\$ 32,334</b>	<b>64%</b>
<b>Total (all portfolios)</b>	<b>\$ 127,038</b>	<b>0.00500</b>	<b>21,843</b>	<b>0.7507</b>	<b>1.54</b>	<b>\$ 83,060</b>	<b>65%</b>

**GSIB**

\$ in millions

As of December 2017

	PD Scale	EAD post CRM	Average PD	Number of Obligors	Average LGD	Average Maturity	RWAs	RWA density
<b>Sovereign</b>								
	0.00 to <0.15	-	-	-	-	-	-	0%
	0.15 to <0.25	-	-	-	-	-	-	0%
	0.25 to <0.50	-	-	-	-	-	-	0%
	0.50 to <0.75	-	-	-	-	-	-	0%
	0.75 to <2.50	-	-	-	-	-	-	0%
	2.50 to <10.00	-	-	-	-	-	-	0%
	10.00 to <100.00	-	-	-	-	-	-	0%
	100.00 (Default)	-	-	-	-	-	-	0%
	<b>Subtotal</b>	-	-	-	-	-	-	0%
<b>Institutions</b>								
	0.00 to <0.15	\$ 74	0.00057	8	0.7791	1.88	\$ 32	42%
	0.15 to <0.25	33	0.00180	5	0.8038	2.76	37	111%
	0.25 to <0.50	-	-	-	-	-	-	0%
	0.50 to <0.75	0	0.00670	1	0.7822	1.00	0	145%
	0.75 to <2.50	12	0.01560	4	0.7439	1.91	26	217%
	2.50 to <10.00	-	-	-	-	-	-	0%
	10.00 to <100.00	0	0.23780	1	0.8002	1.00	1	435%
	100.00 (Default)	-	-	-	-	-	-	0%
	<b>Subtotal</b>	<b>\$ 119</b>	<b>0.00303</b>	<b>19</b>	<b>0.7823</b>	<b>1.46</b>	<b>\$ 96</b>	<b>80%</b>
<b>Corporates</b>								
	0.00 to <0.15	\$ 44	0.00060	3	0.7168	3.81	\$ 31	70%
	0.15 to <0.25	113	0.00180	4	0.8040	4.92	175	155%
	0.25 to <0.50	-	-	-	-	-	-	0%
	0.50 to <0.75	0	0.00600	1	0.8108	1.00	0	110%
	0.75 to <2.50	34	0.02370	7	0.7409	3.90	100	297%
	2.50 to <10.00	6	0.05800	6	0.8302	1.00	16	276%
	10.00 to <100.00	-	-	-	-	-	-	0%
	100.00 (Default)	-	-	-	-	-	-	0%
	<b>Subtotal</b>	<b>\$ 197</b>	<b>0.00692</b>	<b>21</b>	<b>0.7744</b>	<b>1.47</b>	<b>\$ 322</b>	<b>164%</b>
	<b>Total (all portfolios)</b>	<b>\$ 316</b>	<b>0.00545</b>	<b>40</b>	<b>0.7774</b>	<b>1.03</b>	<b>\$ 418</b>	<b>132%</b>

**Table 62: Impact of netting and collateral held on exposure values<sup>1</sup>**

**GSGUK**

*\$ in millions* As of December 2017

	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure <sup>2</sup>
1 Derivatives	\$ 568,641	\$ 499,421	\$ 69,201	\$ 96,998	\$ 43,641
2 SFTs	314,926	62,604	252,322	419,406	19,169
<b>4 Total</b>	<b>\$ 883,567</b>	<b>\$ 562,025</b>	<b>\$ 321,523</b>	<b>\$ 516,404</b>	<b>\$ 62,810</b>

**GSI**

*\$ in millions* As of December 2017

	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure <sup>2</sup>
1 Derivatives	\$ 566,209	\$ 497,616	\$ 68,592	\$ 96,648	\$ 43,438
2 SFTs	278,016	62,604	215,412	417,204	19,169
<b>4 Total</b>	<b>\$ 844,225</b>	<b>\$ 560,220</b>	<b>\$ 284,004</b>	<b>\$ 513,852</b>	<b>\$ 62,607</b>

**GSIB**

*\$ in millions* As of December 2017

	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure <sup>2</sup>
1 Derivatives	\$ 2,414	\$ 1,805	\$ 609	\$ 774	\$ 185
2 SFTs	36,910	-	36,910	38,353	-
<b>4 Total</b>	<b>\$ 39,324</b>	<b>\$ 1,805</b>	<b>\$ 37,519</b>	<b>\$ 39,127</b>	<b>\$ 185</b>

<sup>1</sup>GSGUK and its subsidiaries do not have cross-product netting where both derivatives and SFTs are netted at a counterparty level.

<sup>2</sup>Net credit exposure for derivatives and SFTs represents the current exposure component of the modelled EAD, and takes into account legally enforceable collateral received.

**Table 63: Composition of collateral for exposures to CCR<sup>1</sup>**

**GSGUK**

\$ in millions

As of December 2017

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
Sovereign	\$ 5,454	\$ 20,216	\$ 5,678	\$ 23,005	\$ 275,006	\$ 211,159
Equities	621	1,602	6	14	124,469	114,193
Corporate Bonds	423	1,036	2	49	10,970	9,581
Cash	2,028	60,773	-	54,421	-	-
Other	2,659	564	-	0	8,962	14,534
<b>Total</b>	<b>\$ 11,185</b>	<b>\$ 84,191</b>	<b>\$ 5,686</b>	<b>\$ 77,489</b>	<b>\$ 419,406</b>	<b>\$ 349,467</b>

**GSI**

\$ in millions

As of December 2017

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
Sovereign	\$ 5,454	\$ 20,068	\$ 5,667	\$ 23,005	\$ 282,600	\$ 229,676
Equities	621	1,602	6	14	118,144	117,772
Corporate Bonds	423	1,025	2	49	8,173	12,767
Cash	2,028	60,615	-	54,299	-	0
Other	2,659	530	-	0	8,286	14,797
<b>Total</b>	<b>\$ 11,185</b>	<b>\$ 83,840</b>	<b>\$ 5,675</b>	<b>\$ 77,367</b>	<b>\$ 417,204</b>	<b>\$ 375,012</b>

**GSIB**

\$ in millions

As of December 2017

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
Sovereign	-	\$ 148	-	-	\$ 21,498	\$ 10,575
Equities	-	0	11	-	9,904	-
Corporate Bonds	-	11	-	-	5,983	-
Cash	-	582	-	284	-	-
Other	-	33	-	-	968	31
<b>Total</b>	<b>-</b>	<b>\$ 774</b>	<b>11</b>	<b>\$ 284</b>	<b>\$ 38,353</b>	<b>\$ 10,606</b>

<sup>1</sup>In addition, as of 31<sup>st</sup> December 2017, GSI had received \$20.6bn of collateral on derivative transactions that the firm cleared on behalf of clients as agent.

## Pillar 3 Disclosures

## Appendix IV: Past Due Exposures, Impaired Exposures and Impairment Provisions Tables

Table 64: Aging of past-due exposures

\$ in millions

As of December 2017

	Gross carrying values					
	≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
1 Loans	-	-	-	-	\$ 20	-
2 Debt securities	-	10	-	0	36	80
3 <b>GSGUK Total exposures</b>	-	\$ 10	-	\$ 0	\$ 56	\$ 80
1 Loans	-	-	-	-	-	-
2 Debt securities	-	10	-	0	36	80
3 <b>GSI Total exposures</b>	-	\$ 10	-	\$ 0	\$ 36	\$ 80
1 Loans	-	-	-	-	20	-
2 Debt securities	-	-	-	-	-	-
3 <b>GSIB Total exposures</b>	-	-	-	-	\$ 20	-

Table 65: Non-performing and forborne exposures

\$ in millions

As of December 2017

	Gross carrying amount of performing and non-performing exposures						Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
	Of which performing but past due > 30 days and ≤ 90 days	Of which performing forborne	Of which non-performing			On performing exposures		On non-performing exposures		On non-performing exposures	Of which forborne exposures	
			Of which defaulted	Of which impaired	Of which forborne		Of which forborne		Of which forborne			
<b>GSGUK</b>												
010 Debt securities	\$ 2,008	\$ 10	-	\$ 136	\$ 136	-	-	-	-	-	-	-
020 Loans and advances	\$ 4,073	-	-	\$ 64	\$ 64	-	-	\$ 17	-	-	-	-
030 Off-balance-sheet exposures	\$ 8,139	-	-	-	-	-	-	\$ 10	-	-	-	-
<b>GSI</b>												
010 Debt securities	865	10	-	136	136	-	-	-	-	-	-	-
020 Loans and advances	67	-	-	44	44	-	-	-	-	-	-	-
030 Off-balance-sheet exposures	933	-	-	-	-	-	-	-	-	-	-	-
<b>GSIB</b>												
010 Debt securities	621	-	-	-	-	-	-	-	-	-	-	-
020 Loans and advances	3,918	-	-	20	20	-	-	17	-	-	-	-
030 Off-balance-sheet exposures	7,207	-	-	-	-	-	-	10	-	-	-	-

**Table 66: Changes in the stock of general and specific credit risk adjustments<sup>1</sup>**

*\$ in millions*

	As of December 2017			
	Accumulated specific credit risk adjustment		Accumulated general credit risk adjustment	
	GSGUK	GSIB	GSGUK	GSIB
1 <b>Opening balance as of 30<sup>th</sup> June 2017</b>	\$ 30	\$ 30	-	-
8a Position and valuation changes	(3)	(3)	-	-
9 <b>Closing balance as of 31<sup>st</sup> December 2017</b>	\$ 27	\$ 27	-	-

<sup>1</sup>Changes in specific credit risk adjustment are due to position and valuation changes rather than changes in amounts set aside for estimated loan losses, transfers between credit risk adjustments, exchange rate differences or business combinations (such as acquisitions and disposals of subsidiaries).

**Table 67: Changes in the stock of defaulted and impaired loans and debt securities<sup>1</sup>**

*\$ in millions*

	As of December 2017		
	Gross carrying value defaulted exposures		
	GSGUK	GSI	GSIB
1 <b>Opening balance as of 30<sup>th</sup> June 2017</b>	\$ 237	\$ 207	\$ 30
2 Loans and debt securities that have defaulted or impaired since the last reporting period	34	34	-
5 Other changes	(71)	(61)	(10)
6 <b>Closing balance as of 31<sup>st</sup> December 2017</b>	\$ 200	\$ 180	\$ 20

<sup>1</sup>There were no defaulted or impaired loans and debt securities written off or returned to non-defaulted status during the period.

## Appendix V: Index of Tables to EBA Templates

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49	Template 2	EU L12 - Main sources of differences between regulatory exposure amounts and carrying values in financial statements	68-69
N/A	Template 3 <sup>1</sup>	EU L13 - Outline of the differences in the scopes of consolidation (entity by entity)	N/A
5	Template 4	EU OV1 - Overview of RWAs	12-13
56	Template 5 <sup>2</sup>	EU CR10 - IRB (specialised lending and equities)	80
N/A	Template 6 <sup>3</sup>	EU INS1 - Non-deducted participations in insurance undertakings	N/A
10	Template 7	EU CRB-B - Total and average net amount of exposures	18
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12	Template 18	EU CR3 - CRM techniques - Overview	20
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61	Template 29	EU CCR4 - IRB approach - CCR exposures by portfolio and PD scale	87
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18	Template 35	EU MR2-A - Market Risk under the IMA	28
19	Template 36	EU MR2-B- RWA flow statements of market risk exposures under the IMA	29
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1. Template 3 (The disclosure on differences in the scopes of consolidation) has been disclosed within the Basis of Consolidation section of the document.
2. The specialised lending section of Template 5 (IRB (specialised lending and equities)) has not been disclosed as GSGUK and its subsidiaries does not have specialised lending exposure.
3. Template 6 (Non-deducted participation in insurance undertakings) has not been disclosed as GSGUK and its subsidiaries does not have holdings of own funds instruments of an insurance undertaking, re-insurance undertaking or an insurance holding company.
4. Template 28 (Standardised approach – CCR exposures by regulatory portfolio and risk) has not been disclosed as the material entities within GSGSUK have regulatory permission from the PRA to compute risk weights in accordance with the AIRB approach. As a result, CCR exposures outside of these entities that are subject to the Standardised approach are deemed to be immaterial. The CCR exposure class, institutions, represents less than 5% of the total CCR exposure.