

Unaudited Quarterly Financial Report September 30, 2018

Goldman Sachs International (unlimited company)
Company Number: 02263951

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Introduction

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

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

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

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

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

References to "the financial statements" are to the unaudited financial statements as presented in Part II of this financial report. All references to September 2018, June 2018 and September 2017 refer to the periods ended, or the dates, as the context requires, September 30, 2018, June 30, 2018 and September 30, 2017, respectively. All references to December 2017 refer to the date December 31, 2017. All references to "the 2017 Annual Report" are to the company's Annual Report for the year ended December 31, 2017.

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

Executive Overview

Profit and Loss Account

Three Months Ended September 2018 versus September 2017. The profit and loss account is set out on page 18 of this financial report. The company's profit for the financial period was \$625 million for the third quarter of 2018, an increase of 25% compared with the third quarter of 2017.

Net revenues were \$2.03 billion for the third quarter of 2018, 18% higher than the third quarter of 2017, reflecting significantly higher net revenues in Investment Banking and Investment Management, and higher net revenues in Institutional Client Services. These increases were partially offset by lower net revenues in Investing & Lending.

Administrative expenses were \$1.14 billion for the third quarter of 2018, 15% higher than the third quarter of 2017, primarily due to significantly higher other expenses, reflecting the impact of the company adopting IFRS 15 'Revenue from Contracts with Customers' (IFRS 15), which changed the presentation of certain costs from a net presentation within net revenues to a gross basis. In addition, management charges from/to group undertakings were higher. These increases were partially offset by lower direct costs of employment.

Nine Months Ended September 2018 versus September 2017. The company's profit for the financial period was \$1.80 billion for the first nine months of 2018, an increase of 48% compared with the first nine months of 2017.

Net revenues were \$6.57 billion for the first nine months of 2018, 32% higher than the first nine months of 2017, primarily due to significantly higher net revenues in Institutional Client Services, Investment Banking and Investment Management. Net revenues in Investing & Lending were essentially unchanged compared with the first nine months of 2017.

Administrative expenses were \$3.99 billion for the first nine months of 2018, 28% higher than the first nine months of 2017, primarily due to significantly higher other expenses, reflecting the impact of the company adopting IFRS 15. In addition, management charges from/to group undertakings and brokerage, clearing, exchange and distribution fees were significantly higher.

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

Capital Ratios

As of September 2018, the company's Common Equity Tier 1 ratio was 12.5% (under CRD IV as defined in "Equity Capital Management and Regulatory Capital — Regulatory Capital").

Balance Sheet

The balance sheet is set out on page 19 of this financial report. In the subsequent paragraphs, total assets are the sum of "Fixed assets", "Current assets" and "Pension surplus". Total liabilities are the sum of "Creditors: amounts falling due within one year", "Creditors: amounts falling due after more than one year" and "Provisions for liabilities".

As of September 2018, total assets were \$889.04 billion, a decrease of \$51.36 billion from December 2017, reflecting decreases in financial instruments owned of \$48.69 billion and debtors of \$7.42 billion, partially offset by increases in cash at bank and in hand of \$2.65 billion and collateralised agreements of \$2.02 billion. Financial instruments owned decreased primarily due to a decrease in derivative instruments, principally as a result of a decrease in interest rates derivatives, partially offset by an increase in cash instruments. Debtors decreased primarily due to a decrease in amounts due from broker/dealers and customers. Cash at bank and in hand increased primarily due to an increase in cash deposits held as Global Core Liquid Assets (GCLA). Collateralised agreements increased primarily due to changes in client and firm activity.

As of September 2018, total liabilities were \$855.49 billion, a decrease of \$53.20 billion from December 2017, reflecting decreases in financial instruments sold, but not yet purchased of \$55.17 billion and collateralised financings of \$7.79 billion, partially offset by an increase in other creditors of \$9.75 billion. Financial instruments sold, but not yet purchased decreased primarily due to a decrease in derivative instruments, principally as a result of a decrease in interest rates derivatives, partially offset by an increase in cash instruments. Collateralised financings decreased primarily due to changes in client and firm activity. Other creditors increased primarily due to an increase in unsecured borrowings.

Total level 3 financial assets were \$4.91 billion as of September 2018 and \$4.04 billion as of December 2017. See Note 18 to the financial statements for further information about level 3 financial assets, including changes in level 3 financial assets and related fair value measurement.

Under U.S. GAAP, as of September 2018, total assets were \$417.18 billion and total liabilities were \$389.64 billion. The company's total assets and total liabilities under U.S. GAAP differ from those reported under U.K. GAAP primarily due to the company presenting derivative balances gross under U.K. GAAP if they are not net settled in the normal course of business, even where it has a legally enforceable right to offset those balances.

Business Environment

Global

During the third quarter of 2018, real gross domestic product (GDP) growth remained healthy, but slowed in the U.S. and Euro area, and appeared to slow in Japan. Economic activity in several major emerging market economies continued to slow as concerns remained about the vulnerability of emerging economies to a stronger U.S. dollar and higher U.S. Treasury rates. The U.S. presidential administration implemented and proposed new tariffs on imports from China, which prompted retaliatory measures, and the rising global trade tensions remained a meaningful source of uncertainty affecting asset prices. During the third quarter of 2018, the U.S. Federal Reserve and the Bank of England increased their official target interest rates, while the Bank of Japan introduced forward guidance and expanded the permissible range of fluctuations for the 10-year interest rate. In investment banking, industrywide mergers and acquisitions transactions and underwriting transactions generally decreased compared with the second quarter of 2018.

Europe

In the Euro area, real GDP growth decreased during the quarter, while measures of inflation remained low. The European Central Bank maintained its main refinancing operations rate at 0.00% and its deposit rate at (0.40)%. Measures of unemployment remained high, but continued their downward trend, and the Euro depreciated by 1% against the U.S. dollar compared with the end of the second quarter of 2018. Yields on 10-year government bonds mostly increased across the Euro area. Following the formation of a new coalition government in Italy at the end of May 2018, political uncertainty in Italy remained high throughout the third quarter of 2018. In equity markets, the CAC 40 Index increased by 3% while the DAX Index and Euro Stoxx 50 Index were essentially unchanged compared with the end of the second quarter of 2018.

In the U.K., real GDP growth increased compared with the previous quarter. The Bank of England increased its official bank rate by 25 basis points to 0.75% in August 2018, and the British pound depreciated by 1% against the U.S. dollar. The yield on 10-year government bonds increased by 18 basis points and, in equity markets, the FTSE 100 Index decreased by 2% compared with the end of the second quarter of 2018.

In investment banking, EMEA industry-wide mergers and acquisitions transactions and underwriting transactions generally decreased compared with the second quarter of 2018.

Results of Operations

Recent Accounting Development

The company adopted IFRS 15 from January 1, 2018. As a result of adopting this standard, the company has prospectively changed the presentation of certain costs from a net presentation within net revenues to a gross basis, resulting in an increase in both net revenues and administrative expenses by \$164 million for the three months ended September 2018 and \$395 million for the nine months ended September 2018, in comparison to the company's past presentation. See Note 2 to the financial statements for further information.

Net Revenues

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

Segment Reporting

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

	Thre	e Months	Nine I	Months
	Ended	September	Ended S	eptember
\$ in millions	2018	2017	2018	2017
Investment Banking				
Financial Advisory	\$ 207	\$ 136	\$ 525	\$ 371
Underwriting	279	161	739	520
Total Investment Banking	\$ 486	\$ 297	\$1,264	\$ 891
Institutional Client Services Fixed Income, Currency and Commodities Client Execution	\$ 566	\$ 613	\$1,875	\$1,506
Equities	726	601	2,424	1,859
Total Institutional Client Services	\$1,292	\$1,214	\$4,299	\$3,365
Investing & Lending	\$ 63	\$ 95	\$ 360	\$ 355
Investment Management	\$ 187	\$ 108	\$ 651	\$ 382
Total net revenues	\$2,028	\$1,714	\$6,574	\$4,993

Investment Banking

Investment Banking consists of:

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

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

Three Months Ended September 2018 versus September 2017. Net revenues in Investment Banking were \$486 million for the third quarter of 2018. Net revenues in Investment Banking (excluding the impact of adopting IFRS 15) were \$392 million for the third quarter of 2018, 32% higher than the third quarter of 2017.

Net revenues in Financial Advisory were \$207 million for the third quarter of 2018. Net revenues in Financial Advisory (excluding the impact of adopting IFRS 15) were \$198 million for the third quarter of 2018, 46% higher than the third quarter of 2017, primarily reflecting an increase in completed mergers and acquisitions transactions.

Net revenues in Underwriting were \$279 million for the third quarter of 2018. Net revenues in Underwriting (excluding the impact of adopting IFRS 15) were \$194 million for the third quarter of 2018, 20% higher than the third quarter of 2017, due to higher net revenues in equity underwriting, partially offset by lower net revenues in debt underwriting.

As of September 2018, the company's investment banking transaction backlog decreased compared with June 2018 primarily due to lower estimated net revenues from potential equity underwriting transactions, primarily in initial public offerings, and lower estimated net revenues from potential debt underwriting transactions, particularly from leveraged finance and investment-grade transactions. These decreases were partially offset by slightly higher estimated net revenues from potential advisory transactions.

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

Nine Months Ended September 2018 versus September 2017. Net revenues in Investment Banking were \$1.26 billion for the first nine months of 2018. Net revenues in Investment Banking (excluding the impact of adopting IFRS 15) were \$1.05 billion for the first nine months of 2018, 18% higher than the first nine months of 2017.

Net revenues in Financial Advisory were \$525 million for the first nine months of 2018. Net revenues in Financial Advisory (excluding the impact of adopting IFRS 15) were \$471 million for the first nine months of 2018, 27% higher than the first nine months of 2017, primarily reflecting an increase in completed mergers and acquisitions transactions.

Net revenues in Underwriting were \$739 million for the first nine months of 2018. Net revenues in Underwriting (excluding the impact of adopting IFRS 15) were \$577 million for the first nine months of 2018, 11% higher than the first nine months of 2017, primarily reflecting significantly higher net revenues in equity underwriting. Net revenues in debt underwriting were essentially unchanged.

As of September 2018, the company's investment banking transaction backlog increased significantly compared with December 2017 due to significantly higher estimated net revenues from potential advisory transactions, partially offset by lower estimated net revenues from potential equity underwriting transactions, primarily in initial public offerings. Estimated net revenues from potential debt underwriting transactions were essentially unchanged.

Institutional Client Services

Institutional Client Services consists of:

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

- Interest Rate Products. Government bonds (including inflation-linked securities) across maturities, other government-backed securities, securities sold under agreements to repurchase (repurchase agreements), and interest rate swaps, options and other derivatives.
- Credit Products. Investment-grade corporate securities, high-yield securities, credit derivatives, exchange-traded funds, bank and bridge loans, municipal securities, emerging market and distressed debt, and trade claims.
- Mortgages. Commercial mortgage-related securities, loans and derivatives, residential mortgage-related securities, loans and derivatives, and other asset-backed securities, loans and derivatives.

- Currencies. Currency options, spot/forwards and other derivatives on G-10 currencies and emerging-market products.
- Commodities. Commodity derivatives and, to a lesser extent, physical commodities, involving crude oil and petroleum products, natural gas, base, precious and other metals, electricity, coal, agricultural and other commodity products.

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

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

Three Months Ended September 2018 versus September 2017. Net revenues in Institutional Client Services were \$1.29 billion for the third quarter of 2018. Net revenues in Institutional Client Services (excluding the impact of adopting IFRS 15) were \$1.25 billion for the third quarter of 2018, 3% higher than the third quarter of 2017.

Net revenues in Fixed Income, Currency and Commodities Client Execution (FICC Client Execution) were \$566 million for the third quarter of 2018. Net revenues in FICC Client Execution (excluding the impact of adopting IFRS 15) were \$540 million for the third quarter of 2018, 12% lower than the third quarter of 2017, due to significantly lower net revenues in mortgages and lower net revenues in interest rate products and credit products, partially offset by higher net revenues in commodities and currencies.

Net revenues in Equities were \$726 million for the third quarter of 2018. Net revenues in Equities (excluding the impact of adopting IFRS 15) were \$705 million for the third quarter of 2018, 17% higher than the third quarter of 2017, due to significantly higher net revenues in equities client execution, and higher net revenues in securities services and commission and fees.

Nine Months Ended September 2018 versus September 2017. Net revenues in Institutional Client Services were \$4.30 billion for the first nine months of 2018. Net revenues in Institutional Client Services (excluding the impact of adopting IFRS 15) were \$4.18 billion for the first nine months of 2018, 24% higher than the first nine months of 2017.

Net revenues in FICC Client Execution were \$1.88 billion for the first nine months of 2018. Net revenues in FICC Client Execution (excluding the impact of adopting IFRS 15) were \$1.80 billion for the first nine months of 2018, 20% higher than the first nine months of 2017, due to significantly higher net revenues in commodities, currencies and credit products, and higher net revenues in interest rate products, partially offset by significantly lower net revenues in mortgages.

Net revenues in Equities were \$2.42 billion for the first nine months of 2018. Net revenues in Equities (excluding the impact of adopting IFRS 15) were \$2.38 billion for the first nine months of 2018, 28% higher than the first nine months of 2017, due to significantly higher net revenues in equities client execution, and higher net revenues in securities services and commission and fees.

Investing & Lending

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

Three Months Ended September 2018 versus September 2017. Net revenues in Investing & Lending were \$63 million for the third quarter of 2018, compared with \$95 million for the third quarter of 2017.

Nine Months Ended September 2018 versus September 2017. Net revenues in Investing & Lending were \$360 million for the first nine months of 2018. Net revenues in Investing & Lending (excluding the impact of adopting IFRS 15) were \$357 million for the first nine months of 2018, essentially unchanged compared with the first nine months of 2017.

Investment Management

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

Three Months Ended September 2018 versus September 2017. Net revenues in Investment Management were \$187 million for the third quarter of 2018. Net revenues in Investment Management (excluding the impact of adopting IFRS 15) were \$164 million for the third quarter of 2018, 52% higher than the third quarter of 2017, primarily due to an increase in net revenues from providing investing services.

Nine Months Ended September 2018 versus September 2017. Net revenues in Investment Management were \$651 million for the first nine months of 2018. Net revenues in Investment Management (excluding the impact of adopting IFRS 15) were \$595 million for the first nine months of 2018, 56% higher than the first nine months of 2017, primarily due to an increase in net revenues from providing investing services.

Administrative Expenses

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

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

	Three Months Ended September		Nine Months Ended September	
\$ in millions	2018	2017	2018	2017
Direct costs of employment	\$ 510	\$ 588	\$2,038	\$1,980
Brokerage, clearing, exchange				
and distribution fees	192	179	630	516
Market development	19	18	63	55
Communications and technology	30	25	89	73
Depreciation and amortisation	18	11	48	27
Occupancy	48	39	131	115
Professional fees	39	35	114	87
Management charges from/to				
group undertakings	106	64	336	129
Other expenses	179	34	544	140
Total administrative expenses	\$1,141	\$ 993	\$3,993	\$3,122
Total staff at period-end	4,541	4,362		

In the table above:

 Direct costs of employment included a charge of \$20 million for the three months ended September 2018, a charge of \$91 million for the three months ended September 2017, a credit of \$43 million for the nine months ended September 2018 and a charge of \$40 million for the nine months ended September 2017 relating to the mark-to-market of share-based compensation.

- The company has reclassified \$23 million for the three months ended September 2017 and \$57 million for the nine months ended September 2017 of transaction and other fees that are paid to exchanges from other expenses to brokerage, clearing, exchange and distribution fees to conform to the current period presentation.
- Management charges from/to group undertakings includes service charges relating to operational and administrative support, and management services received from and provided to group undertakings. This included a charge of \$206 million and a credit of \$100 million for the three months ended September 2018, a charge of \$143 million and a credit of \$79 million for the three months ended September 2017, a charge of \$653 million and a credit of \$317 million for the nine months ended September 2018 and a charge of \$384 million and a credit of \$255 million for the nine months ended September 2017.

Three Months Ended September 2018 versus September 2017. Administrative expenses were \$1.14 billion for the third quarter of 2018. Administrative expenses (excluding the impact of adopting IFRS 15) were \$977 million for the third quarter of 2018, essentially unchanged compared with the third quarter of 2017.

Direct costs of employment were \$510 million for the third quarter of 2018, 13% lower than the third quarter of 2017. Direct costs of employment include the mark-to-market impact of share-based compensation. Excluding the mark-to-market impact of share-based compensation for both periods, direct costs of employment were \$490 million for the third quarter of 2018, essentially unchanged compared with the third quarter of 2017.

Brokerage, clearing, exchange and distribution fees were \$192 million for the third quarter of 2018, 7% higher than the third quarter of 2017, reflecting an increase in activity levels.

Management charges from/to group undertakings were \$106 million for the third quarter of 2018, 66% higher than the third quarter of 2017, primarily due to higher charges from affiliates.

Other expenses were \$179 million for the third quarter of 2018, compared with \$34 million for the third quarter of 2017, primarily due to the impact of adopting IFRS 15.

As of September 2018, total staff increased 4% compared with June 2018, primarily reflecting the timing of campus hires.

Nine Months Ended September 2018 versus September 2017. Administrative expenses were \$3.99 billion for the first nine months of 2018. Administrative expenses (excluding the impact of adopting IFRS 15) were \$3.60 billion for the first nine months of 2018, 15% higher than the first nine months of 2017.

Direct costs of employment were \$2.04 billion for the first nine months of 2018, 3% higher than the first nine months of 2017. Direct costs of employment include the mark-to-market impact of share-based compensation. Excluding the mark-to-market impact of share-based compensation for both periods, direct costs of employment were \$2.08 billion for the first nine months of 2018, 7% higher than the first nine months of 2017, reflecting an increase in net revenues.

Brokerage, clearing, exchange and distribution fees were \$630 million for the first nine months of 2018, 22% higher than the first nine months of 2017, reflecting an increase in activity levels.

Management charges from/to group undertakings were \$336 million for the first nine months of 2018, compared with \$129 million for the first nine months of 2017, due to higher charges from affiliates and the transfer of employees in the second quarter of 2017 to an affiliated group undertaking in the U.K.

Other expenses were \$544 million for the first nine months of 2018, compared with \$140 million for the first nine months of 2017, primarily due to the impact of adopting IFRS 15.

As of September 2018, total staff was essentially unchanged compared with December 2017.

Interest Payable and Similar Expenses

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

Three Months Ended September 2018 versus September 2017. Interest payable and similar expenses was \$65 million for the third quarter of 2018, 12% higher than the third quarter of 2017, reflecting an increase in average interest rates.

Nine Months Ended September 2018 versus September 2017. Interest payable and similar expenses was \$190 million for the first nine months of 2018, 22% lower than the first nine months of 2017, primarily due to a decrease in the average long-term subordinated loans balance as the company repaid \$3.58 billion of long-term subordinated loans in the second quarter of 2017.

Tax on Profit

The effective tax rate for first nine months of 2018 was 25.1%, which compares to the U.K. corporate tax rate applicable to the company of 27.0% for 2018. The effective tax rate represents the company's tax on profit divided by its profit before taxation.

Balance Sheet and Funding Sources

Balance Sheet Management

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

In order to ensure appropriate risk management, the company seeks to maintain a sufficiently liquid balance sheet and leverages GS Group's processes to dynamically manage its assets and liabilities which include (i) balance sheet planning, (ii) balance sheet limits, (iii) monitoring of key metrics and (iv) scenario analyses. See "Balance Sheet and Funding Sources — Balance Sheet Management" in Part I of the 2017 Annual Report for further information about the company's balance sheet management process.

Funding Sources

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

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

The table below presents secured funding, intercompany unsecured borrowings and external unsecured borrowings included in collateralised financings and other creditors in the balance sheet.

	As of	
	September	December
\$ in millions	2018	2017
Secured funding	\$167,656	\$175,447
Intercompany unsecured borrowings	49,860	43,152
External unsecured borrowings	27,087	23,316
Total	\$244,603	\$241,915

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

Secured Funding. The company funds a significant amount of inventory on a secured basis, with external counterparties, as well as with affiliates, including repurchase agreements, securities loaned and other secured financings. Secured funding represented as collateralised financings in the balance sheet was \$167.66 billion as of September 2018 and \$175.45 billion as of December 2017.

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

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

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

The weighted average maturity of the company's external secured funding included in collateralised financings in the balance sheet, excluding funding that can only be collateralised by liquid government obligations, exceeded 120 days as of September 2018.

Intercompany Unsecured Borrowings. The company sources funding through intercompany unsecured borrowings from Goldman Sachs Funding LLC (Funding IHC), Group Inc. and other affiliates. Intercompany unsecured borrowings included in other creditors in the balance sheet were \$49.86 billion as of September 2018 and \$43.15 billion as of December 2017.

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

External Unsecured Borrowings. External unsecured borrowings include debt securities issued, other borrowings, bank loans and overdrafts. External unsecured borrowings included in other creditors in the balance sheet were \$27.09 billion as of September 2018 and \$23.32 billion as of December 2017.

Equity Capital Management and Regulatory Capital

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

Equity Capital Management

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

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

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

Regulatory Capital

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

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

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

- A capital conservation buffer, consisting entirely of capital that qualifies as CET1, which began to phase in on January 1, 2016 and will continue to do so in increments of 0.625% per year until it reaches 2.5% of RWAs on January 1, 2019.
- A countercyclical capital buffer of up to 2.5% (and also consisting entirely of CET1) in order to counteract excessive credit growth. The buffer only applies to the company's exposures to certain types of counterparties based in jurisdictions which have announced a countercyclical buffer. The buffer currently adds 0.17% to the CET1 minimum ratio. The countercyclical capital buffer applicable to the company could change in the future and, as a result, the company's minimum ratios could increase.
- Individual capital guidance under Pillar 2A (an additional amount to cover risks not adequately captured in Pillar 1). The PRA performs a periodic supervisory review of the company's ICAAP, which leads to a final determination by the PRA of individual capital guidance under Pillar 2A. This is a point in time assessment of the minimum amount of capital the PRA considers that a firm should hold.

The table below presents the applicable minimum risk-based capital ratios. These minimum risk-based capital ratios incorporate the Pillar 2A capital guidance received from the PRA and could change in the future.

	September 2018	December 2017
	Minimum Ratio	Minimum Ratio
CET1 ratio	8.0%	7.2%
Tier 1 capital ratio	9.9%	9.1%
Total capital ratio	12.6%	11.8%

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

During the nine months ended September 2018 and the year ended December 2017, the company was in compliance with the capital requirements set by the PRA.

Regulatory Capital Ratios

The table below presents risk-based capital ratios under CRD IV.

	As	As of	
	September Dece		
	2018	2017	
CET1 ratio	12.5%	11.0%	
Tier 1 capital ratio	15.3%	13.6%	
Total capital ratio	17.8%	16.0%	

In the table above, the CET1 ratio, Tier 1 capital ratio and Total capital ratio as of September 2018 included approximately 71 basis points attributable to the company's profit after foreseeable charges and dividends, for the nine months ended September 2018. This represents the company's profit for the financial period reduced by foreseeable charges and dividends, divided by its RWAs. The company's CET1 ratio, Tier 1 capital ratio and Total capital ratio as of September 2018 increased compared with December 2017, primarily due to the decrease in the company's RWAs. See "Risk-Weighted Assets" for further information.

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

Capital Resources

The table below presents capital components under CRD IV.

	As of	
	September	December
\$ in millions	2018	2017
Called up share capital	\$ 582	\$ 582
Share premium account including capital reserves	4,864	4,881
Retained earnings	22,536	20,727
Accumulated other comprehensive income	(239)	(289)
Deductions	(1,628)	(1,030)
CET1	26,115	24,871
Additional Tier 1 notes	5,800	5,800
Tier 1 capital	\$31,915	\$30,671
Tier 2 and Total capital		
Long-term subordinated loans	\$ 5,377	\$ 5,377
Tier 2 capital	5,377	5,377
Total capital	\$37,292	\$36,048

Risk-Weighted Assets

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

See "Equity Capital Management and Regulatory Capital" in Part I of the 2017 Annual Report for a description of each RWA component.

	As	As of	
	September	December	
\$ in millions	2018	2017	
Credit RWAs	\$105,428	\$126,335	
Market RWAs	89,538	85,272	
Operational RWAs	14,104	14,335	
Total	\$209,070	\$225,942	

In the table above:

- Credit RWAs as of September 2018 decreased by \$20.91 billion compared with December 2017, primarily due to the company updating its methodology to calculate loss given default. As of September 2018, the estimated impact of this change was an increase in the company's CET1 ratio by 0.8 percentage points.
- Market RWAs as of September 2018 increased by \$4.27 billion compared with December 2017, primarily reflecting an increase in standardised market risk as a result of changes in risk exposures.

Leverage Ratio

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

The table below presents the leverage ratio under CRR.

	As	As of	
	September	December	
\$ in millions	2018	2017	
Tier 1 capital	\$ 31,915	\$ 30,671	
Leverage exposure	\$766,378	\$748,140	
Leverage ratio	4.2%	4.1%	

In the table above, the leverage ratio as of September 2018 included approximately 19 basis points attributable to the company's profit after foreseeable charges and dividends, for the nine months ended September 2018. This represents the company's profit for the financial period reduced by foreseeable charges and dividends, divided by its leverage exposure. This leverage ratio is based on the company's current interpretation and understanding of this rule and may evolve as the interpretation and application of this rule is discussed with the company's regulators.

Regulatory Matters and Developments

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

See "Regulatory Matters and Developments" in Part I of the 2017 Annual Report for further information about the laws, rules and regulations and proposed laws, rules and regulations that apply to the company and its operations.

Principal Risks and Uncertainties

The company faces a variety of risks that are substantial and inherent in its businesses including market, liquidity, credit, operational, model, legal, regulatory, and reputational risks and uncertainties. Those risks and uncertainties are consistent with those described in the 2017 Annual Report.

Minimum Requirement for Own Funds and Eligible Liabilities

In June 2018, the Bank of England published a Statement of Policy on internal minimum requirement for own funds and eligible liabilities (MREL). The policy would require a material U.K. subsidiary of an overseas banking group, such as the company, to meet a minimum internal MREL requirement to facilitate the transfer of losses to a resolution entity, which for the company is Group Inc. The transitional minimum internal MREL requirement will phase in from January 1, 2019, becoming fully effective from January 1, 2022. The company expects that in addition to its current levels of regulatory capital, a portion of its intercompany borrowings amended as needed to meet the subordination, maturity and bail-in trigger requirements, will serve to meet its internal MREL requirement.

Risk Management

Risks are inherent in the company's businesses and include liquidity, market, credit, operational, model, legal, compliance, conduct, regulatory and reputational risks. For further information about the company's risk management processes, see "Risk Management — Overview and Structure of Risk Management" in Part I of the 2017 Annual Report. The company's risks include the risks across its risk categories, regions or global businesses, as well as those which have uncertain outcomes and have the potential to materially impact the company's financial results, its liquidity and its reputation. For further information about the company's areas of risk, see "Liquidity Risk Management", "Market Risk Management", "Credit Risk Management", "Operational Risk Management", "Model Risk Management" below and "Principal Risks and Uncertainties" in Part I of the 2017 Annual Report.

Overview and Structure of Risk Management

Overview

The company believes that effective risk management is critical to its success. Accordingly, the company has established an enterprise risk management framework that employs a comprehensive, integrated approach to risk management, and is designed to enable comprehensive risk management processes through which the risks associated with the company's business are identified, assessed, monitored and managed. Together with the company's board of directors, an extensive cross-divisional committee structure representation from senior management of the company is the key to the risk management culture throughout the company. The company's risk management structure, consistent with GS Group, is built around three core components: governance; processes; and people. See "Risk Management - Overview and Structure of Risk Management" in Part I of the 2017 Annual Report for further information.

Liquidity Risk Management

Overview

Liquidity risk is the risk that the company will be unable to fund itself or meet its liquidity needs in the event of company-specific, broader industry or market liquidity stress events. Liquidity is of critical importance to the company, as most of the failures of financial institutions have occurred in large part due to insufficient liquidity. Accordingly, the company has in place a comprehensive and conservative set of liquidity and funding policies. The principal objective is to be able to fund the company and to enable the core businesses to continue to serve clients and generate revenues, even under adverse circumstances. See "Risk Management — Liquidity Risk Management" in Part I of the 2017 Annual Report for further information about the company's liquidity risk management process.

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

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

Liquidity Stress Tests

In order to determine the appropriate size of the company's GCLA, an internal liquidity model is used, referred to as the Modeled Liquidity Outflow, which captures and quantifies the company's liquidity risks. Other factors are considered including, but not limited to, an assessment of potential intraday liquidity needs through an additional internal liquidity model, referred to as the Intraday Liquidity Model, the results of the company's long-term stress testing models, resolution liquidity models and other applicable regulatory requirements and a qualitative assessment of the condition of the company, as well as the financial markets. The results of the Modeled Liquidity Outflow, the Intraday Liquidity Model and the longterm stress testing models are reported to senior management on a regular basis. See "Risk Management — Liquidity Risk Management" in Part I of the 2017 Annual Report for further information.

GCLA

Based on the results of the company's internal liquidity risk models, described above, as well as consideration of other factors, including, but not limited to, an assessment of the company's potential intraday liquidity needs and a qualitative assessment of the condition of the financial markets and the company, the company believes its liquidity position as of both September 2018 and December 2017 was appropriate. The company strictly limits its GCLA to a narrowly defined list of securities and cash because they are highly liquid, even in a difficult funding environment. The company does not include other potential sources of excess liquidity, such as less liquid unencumbered securities or committed credit facilities, in the GCLA.

The table below presents information about average GCLA by asset class.

	Average for the		
	Three Months Ended		
	September	June	
\$ in millions	2018	2018	
Overnight cash deposits	\$22,285	\$25,187	
U.S. government obligations	19,914	17,208	
French government obligations	7,237	7,326	
U.K. government obligations	8,133	10,820	
German government obligations	5,999	7,074	
Japanese government obligations	2,348	2,496	
Total	\$65,916	\$70,111	

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

Liquidity Regulatory Framework

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

The company is subject to a minimum LCR of 100% under the LCR rule approved by the U.K. regulatory authorities and the European Commission. The company's average monthly LCR for the trailing twelve-month period ended September 2018 exceeded the minimum requirement.

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

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

Credit Ratings

The company relies on the debt capital markets to fund a portion of its day-to-day operations and the cost and availability of debt financing is influenced by its credit ratings and that of Group Inc. Credit ratings are also important when the company is competing in certain markets, such as OTC derivatives, and when it seeks to engage in longer-term transactions. See "Principal Risks and Uncertainties — Liquidity" in Part I of the 2017 Annual Report for information about the risks associated with a reduction in the company's and/or Group Inc.'s credit ratings.

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

	As of September 2018			
	Fitch	Moody's	S&P	
GSI				
Short-term debt	F1	P-1	A-1	
Long-term debt	Α	A1	A+	
Ratings outlook	Stable	Negative	Stable	
Group Inc.				
Short-term debt	F1	P-2	A-2	
Long-term debt	Α	А3	BBB+	
Subordinated debt	Α-	Baa2	BBB-	
Trust preferred	BBB-	Baa3	ВВ	
Preferred stock	BB+	Ba1	ВВ	
Ratings outlook	Stable	Stable	Stable	

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

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

	As	of
	September	December
\$ in millions	2018	2017
Additional collateral or termination payments:		
One-notch downgrade	\$127	\$ 134
Two-notch downgrade	\$517	\$1,370

Market Risk Management

Overview

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

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

See "Risk Management — Market Risk Management" in Part I of the 2017 Annual Report for further information about the company's market risk management process.

Value-at-Risk. Value-at-Risk (VaR) is the potential loss in value due to adverse market movements over a defined time horizon with a specified confidence level. A one-day time horizon with a 95% confidence level is typically employed. The VaR model is a single model that captures risks including interest rates, equity prices, currency rates and commodity prices. As such, VaR facilitates comparison across portfolios of different risk characteristics. VaR also captures the diversification of aggregated risk across the company. See "Risk Management" in Part I of the 2017 Annual Report for further information.

Metrics

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

The table below presents average daily VaR by risk category.

				Nine Mo	onths
	Three	Months E	Ended	Ended Sep	tember
	September	June	September		
\$ in millions	2018	2018	2017	2018	2017
Interest rates	\$ 22	\$ 22	\$ 19	\$ 23	\$ 22
Equity prices	19	20	16	20	17
Currency rates	10	10	9	10	9
Commodity prices	1	1	1	1	3
Diversification effect	(21)	(21)	(19)	(22)	(23)
Total	\$ 31	\$ 32	\$ 26	\$ 32	\$ 28

The company's average daily VaR was \$31 million for the third quarter of 2018, essentially unchanged from the second quarter of 2018.

The company's average daily VaR increased to \$31 million for the third quarter of 2018 from \$26 million for the third quarter of 2017, primarily due to increases in the interest rates and equity prices category due to higher levels of volatility.

The company's average daily VaR increased to \$32 million for the nine months ended September 2018 from \$28 million for the nine months ended September 2017, primarily due to an increase in the equity prices category due to higher levels of volatility.

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

	As of			
	September	June	September	
\$ in millions	2018	2018	2017	
Interest rates	\$ 20	\$ 25	\$ 18	
Equity prices	21	23	16	
Currency rates	12	8	8	
Commodity prices	1	1	_	
Diversification effect	(27)	(21)	(16)	
Total	\$ 27	\$ 36	\$ 26	
	•			

The company's daily VaR decreased to \$27 million as of September 2018 from \$36 million as of June 2018 due to decreases in the interest rates and equity prices categories, and an increase in the diversification effect, partially offset by an increase in the currency rates category. The overall decrease was primarily due to reduced exposures.

The company's daily VaR increased to \$27 million as of September 2018 from \$26 million as of September 2017, due to increases in the equity prices, currency rates and interest rates categories, partially offset by an increase in the diversification effect. The overall increase was primarily due to higher levels of volatility.

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

	Three Months September		Three Months Ended September 2017		
\$ in millions	High	Low	High	Low	
Interest rates	\$37	\$18	\$24	\$17	
Equity prices	\$24	\$16	\$20	\$13	
Currency rates	\$14	\$ 6	\$15	\$ 6	
Commodity prices	\$ 1	\$ -	\$ 3	\$ -	

The high total VaR was \$38 million for the three months ended September 2018 and the low total VaR was \$25 million for the three months ended September 2018. The high total VaR was \$31 million for the three months ended September 2017 and the low total VaR was \$23 million for the three months ended September 2017.

Sensitivity Measures

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

10% Sensitivity Measures. The market risk for positions, accounted for at fair value, that are not included in VaR is determined by estimating the potential reduction in net revenues of a 10% decline in the value of these positions. The market risk of these positions was \$31.9 million as of September 2018, \$40.5 million as of June 2018 and \$11.3 million as of September 2017.

Credit Risk Management

Overview

Credit risk represents the potential for loss due to the default or deterioration in credit quality of a counterparty (e.g., an OTC derivatives counterparty or a borrower) or an issuer of securities or other instruments the company holds. The company's exposure to credit risk comes mostly from client transactions in OTC derivatives. Credit risk also comes from cash placed with banks, securities financing transactions (i.e., resale and repurchase agreements and securities borrowing and lending activities) and debtors. In addition, the company holds other positions that give rise to credit risk (e.g., bonds held in inventory) — these credit risks are captured as a component of market risk measures, which are monitored and managed by Market Risk Management, consistent with other inventory See "Risk Management — Credit Risk positions. Management" in Part I of the 2017 Annual Report for further information about the company's credit risk management process.

Credit Exposures

The company's credit exposures are described further below.

Financial Instruments Owned. Financial instruments owned includes cash instruments and derivatives. In the table below cash instruments are included in the gross exposure; however, to the extent that they have been captured by market risk they are removed to arrive at net credit exposure. Derivatives are reported at fair value on a gross by counterparty basis in the company's financial statements unless it has a current legal right of set-off and also intends to settle on a net basis. OTC derivatives are risk managed using the risk processes, measures and limits described above, and in more detail in "Risk Management — Credit Risk Management" in Part I of the 2017 Annual Report.

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

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

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

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

The table below presents a summary of the gross credit exposure and net credit exposure by financial asset class.

Cash at

Financial

	i inanoiai			Ouon at	
	instruments	Collateralised		bank and	
\$ in millions	owned	agreements	Debtors	in hand	Total
As of September 201	18				
Gross credit					
exposure	\$ 591,578	\$ 206,841	\$ 66,108	\$23,373	\$ 887,900
Assets captured by					
market risk	(75,486)	_	_	_	(75,486)
Counterparty					
netting	(445,079)	(78,757)	(3,433)	_	(527,269)
	(36,759)	_	(31,992)	_	(68,751)
Security collateral					
received	(15,073)	(125,074)	(9,106)	-	(149,253)
Net credit exposure	\$ 19,181	\$ 3,010	\$ 21,577	\$23,373	\$ 67,141
As of December 2017					
Gross credit	-				
exposure	\$ 640,264	\$ 204,820	\$ 73,378	\$20,727	\$ 939,189
Assets captured by					
market risk	(70,293)	_	_	_	(70,293)
Counterparty					
netting	(497,178)	(83,213)	(5,803)	_	(586,194)
Cash collateral	(37,649)		(36,896)		(74,545)
Security collateral					
received	(14,723)	(117,782)	(7,673)	_	(140,178)

The tables below present the gross credit exposure and net credit exposure by the company's internally determined public rating agency equivalents.

AA

AAA

\$ in millions

Assets captured by market risk

Investment-Grade

Α

BBB

(75,486)

(75,486)

Total

As of September 2018	<u> </u>				
Gross credit exposure	\$16,079	\$ 90,402	\$ 561,234	\$ 97,874	\$ 765,589
Counterparty netting	(2,507)	(34,811)	(424,696)	(49,806)	(511,820)
Cash collateral	(2,473)	(14,282)	(26,210)	(17,477)	(60,442)
Security collateral					
received	(639)	(22,630)	(89,808)	(20,442)	(133,519)
Net credit exposure	\$10,460	\$ 18,679	\$ 20,520	\$ 10,149	\$ 59,808
As of December 2017					
Gross credit exposure	\$19,282	\$111,588	\$ 601,039	\$ 90,579	\$ 822,488
Counterparty netting	(1,864)	(44,356)	(479,051)	(47,942)	(573,213)
Cash collateral	(2,535)	(16,676)	(30,177)	(17,230)	(66,618)
Security collateral					
received	(1,025)	(32,436)	(74,149)	(15,764)	(123,374)
Net credit exposure	\$13,858	\$ 18,120	\$ 17,662	\$ 9,643	\$ 59,283
		1	Non-Investme	ent-Grade /	Unrated
\$ in millions		BB	or lower	Unrated	Total
As of September 2018	<u>3</u>				
Gross credit exposure		\$	43,766	\$ 78,545	\$122,311

Counterparty netting	(15,415)	(34)	(15,449)
Cash collateral	(8,288)	(21)	(8,309)
Security collateral received	(15,339)	(395)	(15,734)
Net credit exposure	\$ 4,724	\$ 2,609	\$ 7,333
As of December 2017			
Gross credit exposure	\$ 43,729	\$ 72,972	\$116,701
Assets captured by market risk	_	(70,293)	(70,293)
Counterparty netting	(12,920)	(61)	(12,981)
Cash collateral	(7,895)	(32)	(7,927)
Security collateral received	(16,532)	(272)	(16,804)
Net credit exposure	\$ 6,382	\$ 2,314	\$ 8,696

In the table above, the unrated net credit exposure of \$2.61 billion as of September 2018 and \$2.31 billion as of December 2017 relates to financial assets for which the company has not assigned an internally determined public rating agency equivalent.

In addition to credit risk on financial assets, the company also has credit exposure in respect of contingent and forward starting collateralised agreements. The company's gross credit exposure related to these activities is \$51.43 billion as of September 2018 and \$58.76 billion as of December 2017. However, this will be mitigated by collateral of approximately \$51.08 billion as of September 2018 and \$58.39 billion as of December 2017, if these commitments are fulfilled. As a result, the company's net credit exposure to these commitments was \$343 million as of September 2018 and \$368 million as of December 2017.

As of September 2018 and December 2017, expected credit losses on financial assets, as calculated in accordance with IFRS 9 'Financial Instruments', were not material.

Operational Risk Management

Overview

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

See "Risk Management — Operational Risk Management" in Part I of the 2017 Annual Report for further information about the company's operational risk management process.

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. GS Group relies on quantitative models across its business activities primarily to value certain financial assets and financial liabilities, to monitor and manage its risk, and to measure and monitor its regulatory capital.

See "Risk Management — Model Risk Management" in Part I of the 2017 Annual Report for further information about the company's model risk management process.

Directors

I. Ealet resigned from the board of directors on June 20, 2018.

S. A. Boyle was appointed to the board of directors on July 20, 2018 and E. E. Stecher, T. L. Miller OBE and K. Pantazopoulos were appointed to the board of directors on July 31, 2018.

There were no other changes in the directorship of the company between the date of issue of this financial report and the 2017 Annual Report.

Date of Issue

This financial report was issued on November 13, 2018.

Unaudited Financial Statements

GOLDMAN SACHS INTERNATIONAL (UNLIMITED COMPANY)

Profit and Loss Account (Unaudited)

		Three N	/lonths	Nine N	/lonths
		Ended Se	eptember	Ended Se	eptember
\$ in millions	Note	2018	2017	2018	2017
Net revenues	4	\$ 2,028	\$1,714	\$ 6,574	\$ 4,993
Administrative expenses		(1,141)	(993)	(3,993)	(3,122)
Operating profit		887	721	2,581	1,871
Interest payable and similar expenses		(65)	(58)	(190)	(244)
Net finance income		2	_	7	2
Profit before taxation		824	663	2,398	1,629
Tax on profit	5	(199)	(162)	(601)	(413)
Profit for the financial period		\$ 625	\$ 501	\$ 1,797	\$ 1,216

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

Statements of Comprehensive Income (Unaudited)

		Three	Months	Nine N	/lonths
		Ended S	eptember	Ended Se	eptember
\$ in millions	Note	2018	2017	2018	2017
Profit for the financial period		\$ 625	\$ 501	\$ 1,797	\$ 1,216
Other comprehensive income					
Items that will not be reclassified subsequently to profit or loss					
Actuarial profit/(loss) relating to the pension scheme		(42)	74	(55)	(76)
Debt valuation adjustment	10	(182)	(32)	126	(152)
U.K. deferred tax attributable to the components of other comprehensive income	•••••	57	(10)	(21)	58
Other comprehensive income/(loss) for the financial period, net of tax		(167)	32	50	(170)
Total comprehensive income for the financial period		\$ 458	\$ 533	\$ 1,847	\$ 1,046

Balance Sheet (Unaudited)

		As	of	
		September	December	
\$ in millions	Note	2018	2017	
Fixed assets		\$ 303	\$ 210	
Current assets				
Financial instruments owned (includes \$25,300 and \$24,178 pledged as collateral)	6	591,578	640,264	
Collateralised agreements	7	206,841	204,820	
Debtors	8	66,637	74,052	
Cash at bank and in hand		23,373	20,727	
		888,429	939,863	
Creditors: amounts falling due within one year				
Financial instruments sold, but not yet purchased	6	(534,751)	(589,922)	
Collateralised financings	9	(154,454)	(158,069)	
Other creditors	10	(106,143)	(103,584)	
		(795,348)	(851,575)	
Net current assets		93,081	88,288	
Total assets less current liabilities		93,384	88,498	
Creditors: amounts falling due after more than one year				
Collateralised financings	9	(13,202)	(17,378)	
Other creditors	10	(46,919)	(39,730)	
		(60,121)	(57,108)	
Provisions for liabilities	11	(25)	(10)	
Net assets excluding pension surplus		33,238	31,380	
Pension surplus		305	321	
Net assets including pension surplus		\$ 33,543	\$ 31,701	
Capital and reserves				
Called up share capital	12	\$ 582	\$ 582	
Share premium account		4,864	4,864	
Capital reserve (non-distributable)			17	
Profit and loss account	······	22,536	20,727	
Accumulated other comprehensive income	·····	(239)	(289)	
Other equity instruments	13	5,800	5,800	
Total shareholder's funds		\$ 33,543	\$ 31,701	

GOLDMAN SACHS INTERNATIONAL (UNLIMITED COMPANY) Statements of Changes in Equity (Unaudited)

		Nine M	onths
		Ended Se	ptember
\$ in millions	Note	2018	2017
Called up share capital			
Beginning balance		\$ 582	\$ 582
Shares issued	12	17	_
Shares cancelled	12	(17)	
Ending balance		582	582
Share premium account			
Beginning balance		4,864	4,864
Ending balance		4,864	4,864
Capital reserve (non-distributable)			
Beginning balance		17	17
Subscription for shares	12	(17)	_
Ending balance		`-	17
Profit and loss account			
Beginning balance		20,727	22,316
Cumulative effect on retained earnings due to adoption of IFRS 15, net of tax		(5)	_
Profit for the financial period		1,797	1,216
Cancellation of shares	12	17	_
Interim dividends paid		_	(3,000)
Share-based payments		383	355
Management recharge related to share-based payments		(383)	(355)
Ending balance		22,536	20,532
Accumulated other comprehensive income			
Beginning balance		(289)	(246)
Other comprehensive income/(loss)		50	(170)
Ending balance		(239)	(416)
Other equity instruments			
Beginning balance		5,800	_
Additional Tier 1 notes issued		-	5,800
Ending balance		5,800	5,800
Total shareholder's funds		\$33,543	\$31,379

GOLDMAN SACHS INTERNATIONAL (UNLIMITED COMPANY)

Statements of Cash Flows (Unaudited)

		Nine M	Nine Months	
		Ended Se	ptember	
\$ in millions	Note	2018	2017	
Cash flows from operating activities				
Cash generated from operations	15	\$ 3,258	\$16,015	
Taxation received		1	_	
Taxation paid		(143)	(303)	
Net cash from operating activities		3,116	15,712	
Cash flows from investing activities				
Capital expenditure for fixed assets		(141)	(75)	
Net cash used in investing activities		(141)	(75)	
Cash flows from financing activities				
Receipts from issuing Additional Tier 1 notes		-	5,800	
Interim dividends paid		_	(3,000)	
Repayment of long-term subordinated loans		_	(3,581)	
Interest paid on long-term subordinated loans		(54)	(496)	
Net cash used in financing activities		(54)	(1,277)	
Net increase in cash and cash equivalents		2,921	14,360	
Cash and cash equivalents, beginning balance		20,654	16,881	
Foreign exchange gains/(losses) on cash and cash equivalents		(894)	1,643	
Cash and cash equivalents, ending balance	14	\$22,681	\$32,884	

Non-cash activities during the nine months ended September 2018:

[•] The company allotted 17.3 million ordinary shares of \$1 each to Goldman Sachs Group UK Limited and subsequently cancelled 17.3 million ordinary shares. Both transactions were for nil consideration. See Note 12 for further information.

Note 1.

General Information

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

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

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

Note 2.

Summary of Significant Accounting Policies

Basis of Preparation

The company prepares financial statements under U.K. GAAP. These financial statements have been prepared in accordance with the Disclosure and Transparency Rules of the FCA and FRS 104 'Interim Financial Reporting' (FRS 104). These financial statements should be read in conjunction with the 2017 Annual Report, which has been prepared in accordance with FRS 101 'Reduced Disclosure Framework'.

Accounting Policies

The accounting policies and applicable disclosure exemptions applied are consistent with those described in the 2017 Annual Report, except for the adoption of new accounting standards effective as of January 1, 2018. As required by FRS 104, the nature and effect of these changes are set out below.

IFRS 9 'Financial Instruments'

From January 1, 2018, the company adopted the remaining provisions of IFRS 9 'Financial Instruments' (IFRS 9), having early adopted the requirements related to changes in the fair value of financial liabilities attributable to own credit spreads (debt valuation adjustment or DVA) effective from January 1, 2016. As permitted by IFRS 9, the company continues to apply the hedge accounting requirements of IAS 39 'Financial Instruments: Recognition and Measurement' (IAS 39).

The remaining provisions of IFRS 9 adopted by the company related to classification and measurement and impairment. As permitted by the transitional provisions of IFRS 9, the company has elected to not restate comparative figures. There was no change to the carrying value of the company's financial assets and financial liabilities at the date of transition.

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

IFRS 9 requires debt assets to be classified based on a combination of the company's business models and the nature of the assets' cash flows.

The table below presents the measurement categories and the carrying amounts of financial assets in accordance with IFRS 9 and IAS 39 as of January 1, 2018.

As a result of the adoption of IFRS 9, the company reclassified \$1.82 billion of collateralised agreements from fair value through profit or loss to amortised cost as of January 1, 2018.

		IFRS 9	
	Mandatorily	Amortised	
\$ in millions	at fair value	cost	Total
As of January 1, 2018			
Financial instruments owned	\$640,264	\$ -	\$640,264
Collateralised agreements	138,545	66,275	204,820
Debtors	653	72,725	73,378
Cash at bank and in hand	-	20,727	20,727
Total financial assets	\$779,462	\$159,727	\$939,189

	IAS 39				
	Held for	Designated Loans and			
\$ in millions	Trading	at fair value	Receivables	Total	
As of January 1, 2018					
Financial instruments owned	\$640,264	\$ -	\$ -	\$640,264	
Collateralised agreements	-	140,360	64,460	204,820	
Debtors	-	653	72,725	73,378	
Cash at bank and in hand	-	-	20,727	20,727	
Total financial assets	\$640,264	\$141,013	\$157,912	\$939,189	

The company's classification and measurement of financial liabilities remained unchanged on adoption of IFRS 9.

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

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

The company has developed and tested an impairment model that complies with the key requirements of IFRS 9. No significant change was noted in the credit losses recorded as a result of adopting IFRS 9.

IFRS 15 'Revenue from Contracts with Customers'

From January 1, 2018, the company adopted IFRS 15 under the cumulative effect transition approach. This standard, as amended, provides comprehensive guidance on the recognition of revenue earned from contracts with customers arising from the transfer of goods and services, guidance on accounting for certain contract costs and new disclosures.

As a result of adopting this standard, the company will delay recognition of non-refundable and milestone payments on financial advisory assignments until the assignments are completed. The cumulative effect of adopting this standard on January 1, 2018 was a decrease in retained earnings of \$5 million (net of tax).

The company also prospectively changed the presentation of certain costs from a net presentation within net revenues to a gross basis, resulting in an increase in both net revenues and administrative expenses by \$164 million for the three months ended September 2018 and by \$395 million for the nine months ended September 2018, in comparison to the company's past presentation.

Presentation Changes

The company retrospectively changed the presentation of certain of its secured borrowings in its 2017 Annual Report to reclassify such balances from other creditors to collateralised financings. As a result, where relevant, comparatives in Notes 15 and 18 for the nine months ended September 2017 have been updated to reflect this change.

Note 3.

Critical Accounting Estimates and Judgements

The critical accounting estimates and judgements are consistent with those described in the 2017 Annual Report with the exception of the below.

Estimated Year-End Discretionary Compensation

A substantial portion of the company's compensation and benefits represents discretionary compensation, which is finalised at year-end. The company believes the most appropriate way to allocate estimated annual discretionary compensation among interim periods is in proportion to the net revenues earned in such periods.

Note 4.

Segment Reporting

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

Basis of Preparation

The basis of preparation of the company's segment reporting is consistent with that described in the 2017 Annual Report.

Segment Net Revenues

See "Results of Operations — Segment Reporting" in Part I of this financial report for the company's segment net revenues.

Segment Operating Profit

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

	Three Months			Nine Months					
	E	nded S	epte	mber	_E	Ended Se		eptember	
\$ in millions		2018		2017		2018		2017	
Investment Banking									
Net revenues	\$	486	\$	297	\$	1,264	\$	891	
Administrative expenses		(268)		(167)		(947)		(582)	
Operating profit	\$	218	\$	130	\$	317	\$	309	
Institutional Client Services									
Net revenues	\$	1,292	\$	1,214	\$	4,299	\$	3,365	
Administrative expenses		(692)		(584)	(2,473)	(2,049)	
Operating profit	\$	600	\$	630	\$	1,826	\$	1,316	
Total net revenues	\$ 2	2,028	\$	1,714	\$	6,574	\$	4,993	
Total administrative expenses	(1,141)		(993)	(3,993)	(3,122)	
Total operating profit	\$	887	\$	721	\$	2,581	\$	1,871	

In the table above:

- Total net revenues included net revenues related to Investing & Lending and Investment Management segments of \$250 million for the three months ended September 2018, \$203 million for the three months ended September 2017, \$1.01 billion for the nine months ended September 2018 and \$737 million for the nine months ended September 2017.
- Total administrative expenses included administrative expenses related to Investing & Lending and Investment Management segments of \$161 million for the three months ended September 2018, \$151 million for the three months ended September 2017, \$616 million for the nine months ended September 2018 and \$451 million for the nine months ended September 2017.

• Total administrative expenses included a charge of \$20 million for the three months ended September 2018, a charge of \$91 million for the three months ended September 2017, a credit of \$43 million for the nine months ended September 2018 and a charge of \$40 million for the nine months ended September 2017 relating to the mark-to-market of share-based compensation that has not been allocated to the company's segments.

Segment Assets

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

Note 5. Tax on Profit

The table below presents the analysis of tax on profit.

	Three M	Three Months		lonths
	Ended Se	ptember	Ended Se	ptember
\$ in millions	2018	2017	2018	2017
Current tax				
U.K. corporation tax	\$119	\$153	\$311	\$199
Overseas taxation	93	34	154	79
Total current tax	212	187	465	278
Deferred tax				
Origination and reversal of				
temporary differences	(13)	(25)	136	135
Total deferred tax	(13)	(25)	136	135
Total tax on profit	\$199	\$162	\$601	\$413

Note 6.

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

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

The table below presents financial instruments owned.

	As of		
	September	December	
\$ in millions	2018	2017	
Cash instruments			
Money market instruments	\$ 394	\$ 434	
Government and agency obligations	29,937	21,095	
Mortgage and other asset-backed loans			
and securities	493	641	
Corporate debt instruments	15,501	15,535	
Equity securities	35,029	35,944	
Commodities	221	406	
Total cash instruments	81,575	74,055	
Derivative instruments			
Interest rates	295,304	356,901	
Credit	29,136	30,158	
Currencies	108,774	108,600	
Commodities	14,164	11,222	
Equities	62,625	59,328	
Total derivative instruments	510,003	566,209	
Total financial instruments owned	\$591,578	\$640,264	

The table below presents financial instruments sold, but not yet purchased.

	As of		
	September	December	
\$ in millions	2018	2017	
Cash instruments			
Government and agency obligations	\$ 19,510	\$ 13,055	
Corporate debt instruments	2,723	2,406	
Equity securities	20,518	18,335	
Commodities	-	3	
Total cash instruments	42,751	33,799	
Derivative instruments			
Interest rates	286,471	348,980	
Credit	26,423	28,106	
Currencies	107,218	110,955	
Commodities	14,035	11,218	
Equities	57,853	56,864	
Total derivative instruments	492,000	556,123	
Total financial instruments sold, but not yet			
purchased	\$534,751	\$589,922	

In the tables above:

- Corporate debt instruments includes corporate loans, debt securities and other debt obligations.
- Equity securities includes public and private equities, exchange-traded funds and convertible debentures.

Note 7.

Collateralised Agreements

The table below presents collateralised agreements.

	As	As of		
	September	December		
\$ in millions	2018	2017		
Resale agreements	\$117,969	\$122,539		
Securities borrowed	88,872	82,281		
Total collateralised agreements	\$206,841	\$204,820		

In the table above:

- Total collateralised agreements included amounts due from group undertakings of \$126.08 billion as of September 2018 and \$119.51 billion as of December 2017.
- Total collateralised agreements included balances due in more than one year of \$1.07 billion as of September 2018 and \$522 million as of December 2017.

Note 8.

Debtors

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

	As of		
	September	December	
\$ in millions	2018	2017	
Amounts due from broker/dealers and customers	\$54,474	\$62,988	
Amounts due from parent and group undertakings	11,632	10,386	
Deferred tax	418	575	
Other debtors	65	34	
Prepayments and accrued income	48	69	
Total debtors	\$66,637	\$74,052	

In the table above:

- Amounts due from broker/dealers and customers included balances due in more than one year relating to prepaid commodity contracts of \$nil as of September 2018 and \$44 million as of December 2017.
- Total debtors included financial assets of \$66.11 billion as of September 2018 and \$73.38 billion as of December 2017, and non-financial assets of \$529 million as of September 2018 and \$674 million as of December 2017.

Note 9.

Collateralised Financings

The table below presents collateralised financings.

	As of		
	September	December	
\$ in millions	2018	2017	
Amounts falling due within one year			
Repurchase agreements	\$ 89,943	\$ 98,892	
Securities loaned	57,513	56,038	
Intercompany loans	1,461	_	
Debt securities issued	2,625	1,253	
Other borrowings	2,912	1,886	
Total	\$154,454	\$158,069	
Amounts falling due after more than one year			
Repurchase agreements	\$ 6,540	\$ 11,226	
Securities loaned	1,271	2,063	
Debt securities issued	267	405	
Other borrowings	5,124	3,684	
Total	\$ 13,202	\$ 17,378	
Total collateralised financings	\$167,656	\$175,447	

In the table above:

- Repurchase agreements falling due after more than one year included instruments that are repayable in more than five years of \$77 million as of September 2018 and \$83 million as of December 2017 which had maturities falling due in 2030.
- Debt securities issued and other borrowings falling due after more than one year included instruments that are repayable in more than five years of \$2.54 billion as of September 2018 and \$1.30 billion as of December 2017. As of September 2018, these instruments have maturities falling due between 2023 and 2040. Payments on these instruments are typically referenced to underlying financial assets, which are predominately interest rates, equities and credit-related.
- Total collateralised financings included amounts due to group undertakings of \$108.07 billion as of September 2018 and \$120.36 billion as of December 2017, of which \$104.00 billion as of September 2018 and \$116.40 billion as of December 2017 are due within one year.
- Debt securities issued and other borrowings are secured by securities which have been pledged as collateral. This pledged collateral is either recognised within financial instruments owned or sourced through collateralised agreements.

Intercompany Loans

Intercompany loans falling due within one year as of September 2018 increased compared with December 2017, reflecting an increase in secured borrowings of \$1.46 billion due to new proceeds of \$2.34 billion, partially offset by repayments of \$878 million.

Note 10.

Other Creditors

The table below presents other creditors.

	As of	
	September	December
\$ in millions	2018	2017
Amounts falling due within one year		
Unsecured borrowings	\$ 30,416	\$ 27,544
Amounts due to broker/dealers and customers	59,351	57,675
Amounts due to parent and group undertaking:		
Other unsecured creditors	13,971	16,210
Share-based compensation	500	702
Corporation tax payable	210	66
Other taxes and social security costs	208	301
Other creditors and accruals	1,487	1,086
Total	\$106,143	\$103,584
Amounts falling due after more than one year		
Unsecured borrowings	\$ 46,531	\$ 38,924
Amounts due to parent and group undertakings:		
Other unsecured creditors	-	44
Share-based compensation	328	697
Other creditors	60	65
Total	\$ 46,919	\$ 39,730
Total other creditors	\$153,062	\$143,314

In the table above, amounts falling due within one year included financial liabilities of \$105.73 billion as of September 2018 and \$103.22 billion as of December 2017, and non-financial liabilities of \$418 million as of September 2018 and \$367 million as of December 2017. All amounts falling due after more than one year are financial liabilities as of both September 2018 and December 2017.

Unsecured Borrowings

The table below presents unsecured borrowings.

	As of		
•	September	December	
\$ in millions	2018	2017	
Intercompany			
Loans	\$21,981	\$20,276	
Other borrowings	703	779	
Short-term intercompany unsecured borrowings	22,684	21,055	
Loans	20,509	14,920	
Subordinated loans	5,377	5,377	
Other borrowings	1,290	1,800	
Long-term intercompany unsecured borrowings	27,176	22,097	
Total intercompany unsecured borrowings	\$49,860	\$43,152	
External			
Overdrafts	\$ 692	\$ 73	
Bank loans	164	_	
Debt securities issued	6,224	5,329	
Other borrowings	652	1,087	
Short-term external unsecured borrowings	7,732	6,489	
Bank loans	6	170	
Debt securities issued	19,098	16,411	
Other borrowings	251	246	
Long-term external unsecured borrowings	19,355	16,827	
Total external unsecured borrowings	\$27,087	\$23,316	
Total unsecured borrowings	\$76,947	\$66,468	

In the table above:

- Debt securities issued and other borrowings falling due after more than one year included instruments that are repayable in more than five years of \$11.18 billion as of September 2018 and \$9.46 billion as of December 2017. As of September 2018, these instruments have maturities falling due between 2023 and 2057. Payments on these instruments are typically referenced to underlying financial assets, which are predominately interest rates and equities-related.
- Intercompany loans falling due after more than one year included loans that are repayable in more than five years. As of September 2018, the company had variable rate loans of \$1.02 billion with maturities falling due between April 8, 2024 and April 7, 2028. As of December 2017, the company had variable rate loans of \$1.21 billion with maturities falling due between February 8, 2023 and December 22, 2027.

Debt Valuation Adjustment

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

The table below presents information about the net DVA gains/(losses) on such financial liabilities.

	Three M	Three Months		onths
	Ended September		Ended Se	eptember
\$ in millions	2018	2017	2018	2017
DVA	\$(182)	\$(32)	\$126	\$(152)

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

Long-Term Subordinated Loans

Long-term subordinated loans consist of long-term subordinated loans from parent and group undertakings, which are unsecured and carry interest at a margin over the U.S. Federal Reserve's Federal Funds rate. The margin is reset on a periodic basis to reflect changes in GS Group's weighted average cost of debt. Long-term subordinated loans constitute regulatory capital as approved by the PRA, subject to any regulatory capital deductions, and are repayable subject to PRA approval. Long term subordinated loans of \$5.38 billion are repayable between December 26, 2024 and September 9, 2025.

Intercompany Loans

Intercompany loans falling due within one year as of September 2018 increased compared with December 2017, reflecting an increase in unsecured borrowings of \$1.71 billion due to new proceeds of \$2.67 billion, partially offset by repayments of \$678 million and borrowings of \$287 million being extended to long-term.

Intercompany loans falling due after more than one year as of September 2018 increased compared with December 2017, reflecting an increase in unsecured borrowings of \$5.59 billion due to new proceeds of \$33.06 billion and borrowings of \$287 million being extended from short-term, partially offset by repayments of \$27.76 billion.

Note 11.

Provisions for Liabilities

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

\$ in millions	2018
As of January 1	\$10
Charge to the profit and loss account	15
As of September 30	\$25

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

Note 12.

Share Capital

The table below presents share capital.

	Ordinary shares	
Allotted, called up and fully paid	of \$1 each	\$ in millions
As of January 1, 2018	581,964,161	\$582
Allotted during the period	17,300,000	17
Cancelled during the period	(17,300,000)	(17)
As of September 30, 2018	581,964,161	\$582

In order to simplify the company's capital structure, on May 10, 2018, the company allotted 17.3 million ordinary shares of \$1 each to GSG UK for nil consideration. The company subsequently cancelled 17.3 million ordinary shares for nil consideration, resulting in a reduction in the company's non-distributable capital reserve by \$17.3 million and increase in its profit and loss account in shareholder's funds by \$17.3 million.

Note 13.

Other Equity Instruments

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

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

Note 14.

Cash and Cash Equivalents

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

	As of Sept	As of September	
\$ in millions	2018	2017	
Cash at bank and in hand	\$23,373	\$33,146	
Overdrafts (see Note 10)	(692)	(262)	
Total cash and cash equivalents	\$22,681	\$32,884	

In the table above, cash at bank and in hand included cash that is not available for use by the company of \$4.03 billion as of September 2018 and \$3.18 billion as of September 2017.

Note 15.

Reconciliation of Cash Flows From Operating Activities

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

	Nine Mo	ntho
	Ended Sep	
\$ in millions	2018	2017
Profit before taxation	\$ 2,398	\$ 1,629
Adjustments for	Ψ 2,330	Ψ 1,023
Depreciation and amortisation	48	27
	(7)	·
Credit for defined benefit plan	904	(2)
Foreign exchange losses/(gains)		(1,643)
Share-based compensation expense	80	174
IFRS 15 transition adjustment	(7)	_
Provisions for liabilities	15	_
Interest payable and similar expenses	190	244
Cash generated before changes in operating		
assets and liabilities	3,621	429
Changes in operating assets Decrease in financial instruments owned	48,686	20,070
	(2,021)	(18,464)
Increase in collateralised agreements		
Decrease/(increase) in debtors	7,253	(7,166)
Changes in operating assets	53,918	(5,560)
Changes in operating liabilities Decrease in financial instruments		
sold, but not yet purchased	(55,171)	(34,605)
Increase/(decrease) in collateralised financings	(7,791)	42,107
Increase in other creditors	8,728	13,694
Changes in operating liabilities	(54,234)	21,196
Contributions paid to defined benefit plan	(47)	(50)
Cash generated from operations	\$ 3,258	\$ 16,015

Cash generated from operations included interest paid of \$4.33 billion for the nine months ended September 2018 and \$1.52 billion for the nine months ended September 2017 and interest received of \$4.13 billion for the nine months ended September 2018 and \$2.08 billion for the nine months ended September 2017.

Note 16.

Financial Commitments and Contingencies

Commitments and Contingencies

The table below presents commitments and contingencies.

	As of	
	September Decemb	
\$ in millions	2018	2017
Contingent and forward starting		
collateralised agreements	\$51,425	\$58,756
Forward starting collateralised financings	24,496	20,511
Other	2,467	3,691
Total	\$78,388	\$82,958

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

Other commitments primarily relate to collateral commitments.

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

Leases

The company leases certain buildings under long-term noncancellable lease agreements. Under these lease agreements, which are subject to renegotiation at various intervals specified in the leases, the company pays all insurance, maintenance and repairs of these properties.

Legal Proceedings

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

Interest Rate Swap Antitrust Litigation. The company is among the defendants named in a putative antitrust class action relating to the trading of interest rate swaps, filed in November 2015 and consolidated in the U.S. District Court for the Southern District of New York. The company is also among the defendants named in two antitrust actions relating to the trading of interest rate swaps filed in the U.S. District Court for the Southern District of New York beginning in April 2016 by three operators of swap execution facilities and certain of their affiliates. These actions have been consolidated for pretrial proceedings. The complaints generally assert claims under federal antitrust law and state common law in connection with an alleged conspiracy among the defendants to preclude exchange trading of interest rate swaps. The complaints in the individual actions also assert claims under state antitrust law. The complaints seek declaratory and injunctive relief, as well as treble damages in an unspecified amount. Defendants moved to dismiss the class and one of the individual actions on January 20, 2017. On July 28, 2017, the district court issued a decision dismissing the state common law claims asserted by the plaintiffs in the first individual action and otherwise limiting the state common law claim in the putative class action and the antitrust claims in both actions to the period from 2013 to 2016. On May 30, 2018, plaintiffs in the putative class action filed a third consolidated amended complaint, adding allegations as to the surviving claims. On August 28, 2018, the defendants moved to dismiss the amended complaint in the second individual action.

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

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

1Malaysia Development Berhad (1MDB)-Related Matters. GS Group has received subpoenas and requests for documents and information from various governmental and regulatory bodies and self-regulatory organisations as part of investigations and reviews relating to financing transactions and other matters involving 1MDB, a sovereign wealth fund in Malaysia. Subsidiaries of GS Group, including the company, acted as arrangers or purchasers of approximately \$6.5 billion of debt securities of 1MDB.

On November 1, 2018, the U.S. Department of Justice (DOJ) unsealed a criminal information and guilty plea by Tim Leissner, a former participating managing director of GS Group, and an indictment against Ng Chong Hwa, a former managing director of GS Group, and Low Taek Jho. Leissner pleaded guilty to a two-count criminal information charging him with conspiring to launder money and conspiring to violate the U.S. Foreign Corrupt Practices Act's (FCPA) antibribery and internal accounting controls provisions. Low and Ng were charged in a three-count indictment with conspiring to launder money and conspiring to violate the FCPA's antibribery provisions. Ng was also charged in this indictment with conspiring to violate the FCPA's internal accounting controls provisions. The charging documents state, among other things, that Leissner and Ng participated in a conspiracy to misappropriate proceeds of the 1MDB offerings for themselves and to pay bribes to various government officials to obtain and retain 1MDB business for GS Group. The plea and charging documents indicate that Leissner and Ng knowingly and willfully circumvented GS Group's system of internal accounting controls, in part by repeatedly lying to control personnel and internal committees that reviewed these offerings. The indictment of Ng and Low alleges that GS Group's system of internal accounting controls could be easily circumvented and that GS Group's business culture, particularly in Southeast Asia, at times prioritised consummation of deals ahead of the proper operation of its compliance functions. In addition, an unnamed participating managing director of GS Group is alleged to have been aware of the bribery scheme and to have agreed not to disclose this information to GS Group's compliance and control personnel.

That employee, who was identified as a co-conspirator, has been put on leave.

GS Group is cooperating with the DOJ and all other governmental and regulatory investigations relating to 1MDB. GS Group is unable to predict the outcome of the DOJ's investigation. However, any proceedings by the DOJ or other governmental or regulatory authorities could result in the imposition of significant fines, penalties and other sanctions against GS Group.

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

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

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

Note 17.

Financial Risk Management and Capital Management

Certain disclosures in relation to the company's financial risk management and capital management have been presented alongside other risk management and regulatory information in Part I of this financial report.

Note 18.

Financial Assets and Financial Liabilities

Financial Assets and Financial Liabilities by Category

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

The financial assets tables below have been prepared under IFRS 9 as of September 2018 and under IAS 39 as of December 2017. See Note 2 for further information.

		Fin	anci	al Assets	3	
•	Mandat	torily	Amortised			
\$ in millions	at fair v	alue	_	cost		Total
As of September 2018						
Financial instruments	\$591	,578	\$	-		\$591,578
Collateralised agreements	136	,180		70,661		206,841
Debtors		507		65,601		66,108
Cash at bank and in hand		-		23,373	23,373	
Total financial assets	\$728	,265	\$	159,635		\$887,900
	Held for	Dooigno	tod	Loon	and	
¢ in millions	Trading	Designa at fair va		Loans		Total
\$ in millions	rrauling	at fall va	liue	Receiva	abies	TOla
As of December 2017 Financial instruments owned	\$640 264	\$	_	\$	_	\$640,264
Collateralised agreements	Ψ3-10,20 -	140,3	360	·····	1,460	204,820
Debtors			353	.	2,725	73,378
Cash at bank and in hand			_),727	20,727
Total financial assets	\$640,264	\$141,0)13		7,912	\$939,189
		, ,		* -	,-	, ,
		Fina	ncia	l Liabilitie	es	
	Held for	Designa	ted	Amor	tised	
\$ in millions	trading	at fair va	lue		cost	Total
As of September 2018						
Amounts falling due within	one year					
Financial instruments sold,						
but not yet purchased	\$534,751	\$	_	\$	_	\$534,751
Collateralised financings	-	108,3			5,079	154,454
Other creditors			229		7,496	105,725
Total	534,751	116,6	604	143	3,575	794,930
Amounts falling due after n	nore than o	-	202			42 202
Collateralised financings	-	13,2				13,202
Other creditors		28,2			3,675	46,919
Total Total financial liabilities	<u>-</u> \$534,751	41,4 \$158,0			3,675 2,250	60,121 \$855,051
Total financial liabilities	\$534,75T	\$136,0	JOU	\$102	2,250	\$600,001
As of Docombor 2017						
As of December 2017 Amounts falling due within	one vear					
Financial instruments sold,	ono you					
but not yet purchased	\$589,922	\$	_	\$	_	\$589,922
Collateralised financings	-	Ψ 113,9	947	······································	1,122	158,069
Other creditors			784		5,433	103,217
Total	589,922	121,7			9,555	851,208
Amounts falling due after n	,			.00	.,500	55.,200
Collateralised financings	_	17,3	378		_	17,378
Other creditors	_	21,0		18	3,684	39,730
Total	_	38,4			3,684	57,108
		,			,	- ,

In the tables above, financial instruments owned included derivative instruments designated as hedges of \$71 million as of September 2018 and \$38 million as of December 2017.

\$160,155

\$158,239

\$908,316

\$589,922

Total financial liabilities

Fair Value Hierarchy

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

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

The fair value hierarchy is as follows:

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

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

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

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

Valuation Techniques and Significant Inputs

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

Level 1 Cash Instruments

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

Level 2 Cash Instruments

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

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

Level 3 Cash Instruments

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

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

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

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

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

- Interest Rate. In general, the key inputs used to value interest rate derivatives are transparent, even for most long-dated contracts. Interest rate swaps and options denominated in the currencies of leading industrialised nations are characterised by high trading volumes and tight bid/offer spreads. Interest rate derivatives that reference indices, such as an inflation index, or the shape of the yield curve (e.g., 10-year swap rate vs. 2-year swap rate) are more complex, but the key inputs are generally observable.
- Credit. Price transparency for credit default swaps. including both single names and baskets of credits, varies by market and underlying reference entity or obligation. Credit default swaps that reference indices, large corporates and major sovereigns generally exhibit the most price transparency. For credit default swaps with other underliers, price transparency varies based on credit rating, the cost of borrowing the underlying reference obligations, and the availability of the underlying reference obligations for delivery upon the default of the issuer. Credit default swaps that reference loans, asset-backed securities and emerging market debt instruments tend to have less price transparency than those that reference corporate bonds. In addition, more complex credit derivatives, such as those sensitive to the correlation between two or more underlying reference obligations or to secured funding spreads, generally have less price transparency.
- **Currency.** Prices for currency derivatives based on the exchange rates of leading industrialised nations, including those with longer tenors, are generally transparent. The primary difference between the price transparency of developed and emerging market currency derivatives is that emerging markets tend to be observable for contracts with shorter tenors.

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

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

Level 1 Derivatives

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

Level 2 Derivatives

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

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

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

Level 3 Derivatives

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

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

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

Valuation Adjustments

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

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

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

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

Fair Value of Financial Assets and Financial Liabilities by Level

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

\$ in millions	Level 1	Level 2	Level 3	Total
As of September 2018				
Financial Assets				
Cash instruments	\$57,475	\$ 23,283	\$ 817	\$ 81,575
Derivative instruments	17	505,889	4,097	510,003
Financial instruments owned	57,492	529,172	4,914	591,578
Collateralised agreements	-	136,180	-	136,180
Debtors	-	507	-	507
Total financial assets	\$57,492	\$665,859	\$ 4,914	\$728,265
Financial Liabilities				
Amounts falling due within o	ne year			
Cash instruments	\$38,477	\$ 4,264	\$ 10	\$ 42,751
Derivative instruments	74	489,695	2,231	492,000
Financial instruments sold,				
but not yet purchased	38,551	493,959	2,241	534,751
Collateralised financings	_	107,447	928	108,375
Other creditors	-	5,559	2,670	8,229
Total	38,551	606,965	5,839	651,355
Amounts falling due after mo	ore than one	e year		
Collateralised financings	-	13,151	51	13,202
Other creditors	-	21,445	6,799	28,244
Total	-	34,596	6,850	41,446
Total financial liabilities	\$38,551	\$641,561	\$12,689	\$692,801
Net derivative instruments	\$ (57)	\$ 16,194	\$ 1,866	\$ 18,003
A (D 0047				
As of December 2017				
Financial Assets	054.047	4.00.407	0 574	4.74.055
Financial Assets Cash instruments	\$51,047	\$ 22,437	\$ 571	\$ 74,055
Financial Assets Cash instruments Derivative instruments	5	562,731	3,473	566,209
Financial Assets Cash instruments Derivative instruments Financial instruments owned		562,731 585,168	.	566,209 640,264
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements	5	562,731 585,168 140,360	3,473	566,209 640,264 140,360
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors	5 51,052 – –	562,731 585,168 140,360 653	3,473 4,044 —	566,209 640,264 140,360 653
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets	5	562,731 585,168 140,360	3,473	566,209 640,264 140,360
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities	5 51,052 — — — \$51,052	562,731 585,168 140,360 653	3,473 4,044 —	566,209 640,264 140,360 653
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within o	5 51,052 — — — \$51,052 •ne year	562,731 585,168 140,360 653 \$726,181	3,473 4,044 — — — — \$ 4,044	566,209 640,264 140,360 653 \$781,277
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments	5 51,052 - - \$51,052 ne year \$30,201	562,731 585,168 140,360 653 \$726,181	3,473 4,044 —————————————————————————————————	566,209 640,264 140,360 653 \$781,277
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments	5 51,052 — — — \$51,052 •ne year	562,731 585,168 140,360 653 \$726,181	3,473 4,044 — — — \$ 4,044	566,209 640,264 140,360 653 \$781,277
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments sold,	5 51,052 - - \$51,052 sine year \$30,201 22	562,731 585,168 140,360 653 \$726,181 \$3,588 553,830	3,473 4,044 - - \$ 4,044 \$ 10 2,271	\$66,209 640,264 140,360 653 \$781,277 \$ 33,799 556,123
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments sold, but not yet purchased	5 51,052 - - \$51,052 ne year \$30,201	562,731 585,168 140,360 653 \$726,181 \$3,588 553,830 557,418	3,473 4,044 	\$66,209 640,264 140,360 653 \$781,277 \$ 33,799 556,123 589,922
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments sold, but not yet purchased Collateralised financings	5 51,052 - - \$51,052 sine year \$30,201 22	562,731 585,168 140,360 653 \$726,181 \$3,588 553,830 557,418 113,314	3,473 4,044 	\$66,209 640,264 140,360 653 \$781,277 \$ 33,799 556,123 589,922 113,947
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments sold, but not yet purchased Collateralised financings Other creditors	5 51,052 - \$51,052 **ne year \$30,201 22 30,223 -	562,731 585,168 140,360 653 \$726,181 \$ 3,588 553,830 557,418 113,314 5,896	3,473 4,044 	\$66,209 640,264 140,360 653 \$781,277 \$33,799 556,123 589,922 113,947 7,784
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments sold, but not yet purchased Collateralised financings Other creditors Total	5 51,052 - \$51,052 sine year \$30,201 22 30,223 - 30,223	562,731 585,168 140,360 653 \$726,181 \$ 3,588 553,830 557,418 113,314 5,896 676,628	3,473 4,044 	\$66,209 640,264 140,360 653 \$781,277 \$ 33,799 556,123 589,922 113,947
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments sold, but not yet purchased Collateralised financings Other creditors Total Amounts falling due after mo	5 51,052 - \$51,052 sine year \$30,201 22 30,223 - 30,223	\$62,731 585,168 140,360 653 \$726,181 \$3,588 553,830 557,418 113,314 5,896 676,628 2 year	\$ 4,044 	\$66,209 640,264 140,360 653 \$781,277 \$ 33,799 556,123 589,922 113,947 7,784 711,653
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments sold, but not yet purchased Collateralised financings Other creditors Total Amounts falling due after mot Collateralised financings	5 51,052 - \$51,052 sine year \$30,201 22 30,223 - 30,223	\$62,731 585,168 140,360 653 \$726,181 \$3,588 553,830 557,418 113,314 5,896 676,628 2 year 17,369	3,473 4,044 \$ 4,044 \$ 10 2,271 2,281 633 1,888 4,802	\$66,209 640,264 140,360 653 \$781,277 \$ 33,799 556,123 589,922 113,947 7,784 711,653
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Financial Assets Cash instruments Derivative instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments Collateralised financings Other creditors Total Amounts falling due after more Collateralised financings Other creditors Total Other creditors Total Collateralised financings Other creditors Total	5 51,052 - \$51,052 sine year \$30,201 22 30,223 - 30,223 ore than one	\$62,731 585,168 140,360 653 \$726,181 \$3,588 553,830 557,418 113,314 5,896 676,628 2 year 17,369 15,050 32,419	3,473 4,044 \$ 4,044 \$ 10 2,271 2,281 633 1,888 4,802 9 5,996 6,005	\$66,209 640,264 140,360 653 \$781,277 \$ 33,799 556,123 589,922 113,947 7,784 711,653 17,378 21,046 38,424
Financial Assets Cash instruments Derivative instruments Financial instruments owned Collateralised agreements Debtors Total financial assets Financial Liabilities Amounts falling due within of Cash instruments Derivative instruments Financial instruments sold, but not yet purchased Collateralised financings Other creditors Total Amounts falling due after model Collateralised financings Other creditors Other creditors Other creditors	5 51,052 - \$51,052 sine year \$30,201 22 30,223 - 30,223	\$62,731 \$85,168 140,360 653 \$726,181 \$3,588 553,830 557,418 113,314 5,896 676,628 2 year 17,369 15,050	3,473 4,044 \$ 4,044 \$ 10 2,271 2,281 633 1,888 4,802 9 5,996	\$66,209 640,264 140,360 653 \$781,277 \$ 33,799 556,123 589,922 113,947 7,784 711,653 17,378 21,046

Significant Unobservable Inputs Used in Level 3 Fair Value Measurements

Cash Instruments. The company had level 3 cash instrument assets of \$817 million as of September 2018 and \$571 million as of December 2017. Level 3 cash instrument liabilities were not material.

The table below presents the amount of level 3 cash instrument assets, and ranges and weighted averages of significant unobservable inputs used to value level 3 cash instrument assets.

	Level 3 Cash Instru	uments Assets and			
	Range of Significant	Range of Significant Unobservable Inputs			
	(Weighted Av	verage) as of			
	September	December			
\$ in millions	2018	2017			
Mortgages and other a	sset-backed loans and securi	ties			
Level 3 assets	\$168	\$144			
Yield	2.6% to 13.5% (7.7%)	2.3% to 19.4% (6.9%)			
Recovery rate	19.0% to 91.0% (77.9%)	37.9% to 89.0% (76.9%)			
Duration (years)	0.3 to 14.2 (4.6)	0.7 to 14.0 (4.2)			
Corporate debt instrum	nents and other cash instrum	ents			
Level 3 assets	\$567	\$365			
Yield	2.6% to 10.5% (5.2%)	3.6% to 13.9% (7.1%)			
Recovery rate	0.0% to 74.0% (39.0%)	0.0% to 74.0% (44.5%)			
Duration (years)	0.6 to 4.6 (2.4)	0.5 to 5.4 (2.3)			
Equity securities					
Level 3 assets	\$82	\$62			
Duration (years)	3.9x to 11.0x (4.9x)	3.0x to 3.0x (3.0x)			

In the table above:

- Ranges represent the significant unobservable inputs that were used in the valuation of each type of cash instrument.
- Weighted averages are calculated by weighting each input by the relative fair value of the cash instruments.
- The ranges and weighted averages of these inputs are not representative of the appropriate inputs to use when calculating the fair value of any one cash instrument. For example, the highest yield for mortgages and other asset-backed loans and securities is appropriate for valuing a specific mortgage but may not be appropriate for valuing any other mortgages. Accordingly, the ranges of inputs do not represent uncertainty in, or possible ranges of, fair value measurements of level 3 cash instruments.
- Increases in yield or duration used in the valuation of level 3 cash instruments would have resulted in a lower fair value measurement, while increases in recovery rate or multiples would have resulted in a higher fair value measurement as of both September 2018 and December 2017. Due to the distinctive nature of each level 3 cash instrument, the interrelationship of inputs is not necessarily uniform within each product type.

- Mortgages and other asset-backed loans and securities and corporate debt instruments and other cash instruments are valued using discounted cash flows, and equity securities are valued using market comparables and discounted cash flows.
- The fair value of any one instrument may be determined using multiple valuation techniques. For example, market comparables and discounted cash flows may be used together to determine fair value. Therefore, the level 3 balance encompasses both of these techniques.

Derivative Instruments. The company had net level 3 derivative instruments of \$1.87 billion as of September 2018 and \$1.20 billion as of December 2017.

The table below presents the amount of net level 3 derivative instruments, and ranges, averages and medians of significant unobservable inputs used to value interest rates, credit, currencies and equities derivative instruments.

As of both September 2018 and December 2017, the company's net level 3 financial instruments relating to commodities derivatives were not material.

Net Level 3 Derivative Instruments and Range of Significant Unobservable Inputs

	(Average/ivieulali) as or			
	September	December		
\$ in millions	2018	2017		
Interest rates	\$101	\$51		
Correlation	71% to 96% (87%/91%)	79% to 95% (87%/87%)		
Volatility (bps)	63 to 138 (85/77)	75 to 138 (107/107)		
Credit	\$2,087	\$1,794		
Correlation	N/A	28% to 84% (61%/60%)		
Credit spreads (bps)	2 to 612 (92/48)	1 to 505 (87/56)		
Upfront credit points	5 to 39 (16/10)	2 to 55 (36/53)		
Recovery rates	25% to 50% (40%/40%)	22% to 73% (70%/73%)		
Currencies	\$(81)	\$(110)		
Correlation	10% to 33% (21%/21%)	10% to 33% (22%/21%)		
Equities	\$(241)	\$(533)		
Correlation	(68)% to 97% (42%/44%)	(36)% to 94% (53%/65%)		
Volatility	3% to 68% (16%/13%)	4% to 63% (20%/20%)		

In the table above:

- Net derivative assets are shown as positive amounts and net derivative liabilities are shown as negative amounts.
- Ranges represent the significant unobservable inputs that were used in the valuation of each type of derivative.
- Averages represent the arithmetic average of the inputs and are not weighted by the relative fair value or notional of the respective financial instruments. An average greater than the median indicates that the majority of inputs are below the average.

- The ranges, averages and medians of these inputs are not representative of the appropriate inputs to use when calculating the fair value of any one derivative. For example, the highest correlation for interest rate derivatives is appropriate for valuing a specific interest rate derivative but may not be appropriate for valuing any other interest rate derivative. Accordingly, the ranges of inputs do not represent uncertainty in, or possible ranges of, fair value measurements of level 3 derivatives.
- Interest rates, currencies and equities derivatives are valued using option pricing models, and credit derivatives are valued using option pricing, correlation and discounted cash flow models.
- The fair value of any one instrument may be determined using multiple valuation techniques. For example, option pricing models and discounted cash flows models are typically used together to determine fair value. Therefore, the level 3 balance encompasses both of these techniques.
- Correlation was not significant to the valuation of level 3 credit derivatives as of September 2018.
- Correlation within currencies and equities includes crossproduct type correlation.

Range of Significant Unobservable Inputs

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

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

Sensitivity of Fair Value Measurement to Changes in Significant Unobservable Inputs

The following is a description of the directional sensitivity of the company's level 3 fair value measurements, as of both September 2018 and December 2017, to changes in significant unobservable inputs, in isolation:

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

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

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

- Resale and Repurchase Agreements and Securities Borrowed and Loaned. As of both September 2018 and December 2017, the company had no level 3 resale agreements, securities borrowed or securities loaned. As of both September 2018 and December 2017, level 3 repurchase agreements were not material.
- **Debtors.** As of both September 2018 and December 2017, level 3 debtors were nil.
- Other Secured Financings. As of both September 2018 and December 2017, the significant unobservable inputs used to value level 3 other secured financings are incorporated into the derivative instruments and cash instruments disclosures related to unobservable inputs. See "Cash Instruments" and "Derivative Instruments" above.

• Other Creditors. As of both September 2018 and December 2017, the significant unobservable inputs used to value level 3 other creditors are incorporated into derivative instruments and cash instruments disclosures related to unobservable inputs. See "Cash Instruments" and "Derivative Instruments" above.

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

During the nine months ended September 2018 and nine months ended September 2017, there were no significant transfers between level 1 and level 2 financial assets and financial liabilities measured at fair value on a recurring basis.

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

The fair value of financial assets and financial liabilities may be determined in whole or part using a valuation technique based on assumptions that are not supported by prices from observable current market transactions in the same instrument or based on available observable market data and changing these assumptions will change the resultant estimate of fair value. The potential impact of using reasonable possible alternative assumptions for the valuations, including significant unobservable inputs, has been quantified as approximately \$322 million as of September 2018 and \$296 million as of September 2017, for favourable changes, and \$212 million as of September 2018 and \$258 million as of September 2017, for unfavourable changes. In determining reasonably possible alternative unfavourable assumptions, a detailed business and position level review has been performed to identify and quantify instances where potential uncertainty exists. This has taken into account the positions' fair value as compared to the range of available market information. As of September 2018 and September 2017, the impact for favourable changes was primarily driven by changes in the assumptions around secured funding spreads and valuation adjustments in equity and fixed income derivatives, and the impact for unfavourable changes was primarily driven by changes in the assumptions around secured funding spreads, volatility and correlation inputs.

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

	Nine Months		
	Ended Septe	ember	
\$ in millions	2018	2017	
Beginning balance	\$161	\$149	
New transactions	76	85	
Amounts recognised in the profit and loss account			
during the period	(83)	(60)	
Ending balance	\$154	\$174	

Level 3 Rollforward

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

	Nine Mo	onths
	Ended Sep	tember
\$ in millions	2018	2017
Total financial assets		
Beginning balance	\$ 4,044	\$ 5,152
Gains/(losses)	507	547
Purchases	573	438
Sales	(149)	(419)
Settlements	(469)	(1,064)
Transfers into level 3	611	215
Transfers out of level 3	(203)	(536)
Ending balance	\$ 4,914	\$ 4,333
Total financial liabilities		
Beginning balance	\$(10,807)	\$ (9,628)
Gains/(losses)	99	(1,053)
Purchases	4	4
Sales	(272)	(119)
Issuances	(6,877)	(3,772)
Settlements	4,955	3,263
Transfers into level 3	(412)	(131)
Transfers out of level 3	621	1,486
Ending balance	\$(12,689)	\$(9,950)

In the table above:

- Financial assets relate to financial instruments owned.
- If a financial asset or financial liability was transferred into level 3 during a reporting period, its entire gain or loss for the period is classified in level 3. For level 3 financial assets, increases are shown as positive amounts, while decreases are shown as negative amounts. For level 3 financial liabilities, increases are shown as negative amounts, while decreases are shown as positive amounts.
- Transfers between levels of the fair value hierarchy are recognised at the beginning of the reporting period in which they occur. Accordingly, the tables do not include gains or losses for level 3 financial assets and financial liabilities that were transferred out of level 3 prior to the end of the period.
- Level 3 financial assets and financial liabilities are frequently economically hedged with level 1 and level 2 financial assets and financial liabilities. Accordingly, level 3 gains or losses that are reported for a particular class of financial asset or financial liability can be partially offset by gains or losses attributable to level 1 or level 2 in the same class of financial asset or financial liability or gains or losses attributable to level 1, level 2 or level 3 in a different class of financial asset or financial liability. As a result, gains or losses included in the level 3 rollforward do not necessarily represent the overall impact on the company's results of operations, liquidity or capital resources.

- The net gains on level 3 financial assets for the nine months ended September 2018 and the nine months ended September 2017 are reported in "Net revenues" in the profit and loss account.
- The net gains on level 3 financial liabilities of \$99 million for the nine months ended September 2018 included gains of \$69 million reported in "Net revenues" in the profit and loss account and gains of \$30 million reported in "Debt valuation adjustment" in the statements of comprehensive income. The net losses on level 3 financial liabilities of \$1.05 billion for the nine months ended September 2017 included losses of \$901 million reported in "Net revenues" in the profit and loss account and losses of \$152 million reported in "Debt valuation adjustment" in the statements of comprehensive income.

The table below disaggregates, by the balance sheet line items, the information for financial liabilities included in the summary table above.

	Nine Mo	Nine Months		
	Ended Sep	tember		
\$ in millions	2018	2017		
Financial instruments sold, but not ye	et purchased			
Beginning balance	\$(2,281)	\$(2,228)		
Gains/(losses)	(289)	(408)		
Purchases	4	4		
Sales	(272)	(119)		
Settlements	605	414		
Transfers into level 3	(224)	(86)		
Transfers out of level 3	216	411		
Ending balance	\$(2,241)	\$(2,012)		
Collateralised financings				
Beginning balance	\$ (642)	\$ (536)		
Gains/(losses)	67	(30)		
Issuances	(419)	_		
Settlements	15	35		
Ending balance	\$ (979)	\$ (531)		
Other creditors				
Beginning balance	\$(7,884)	\$(6,864)		
Gains/(losses)	321	(615)		
Issuances	(6,458)	(3,772)		
Settlements	4,335	2,814		
Transfers into level 3	(188)	(45)		
Transfers out of level 3	405	1,075		
Ending balance	\$(9,469)	\$(7,407)		

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

Nine Months Ended September 2018. Transfers into level 3 for financial assets and financial liabilities primarily reflected transfers of certain currency products from level 2, principally due to reduced transparency of certain modelling assumptions, and transfers of certain credit products from level 2, principally due to reduced transparency of certain spread and yield inputs. The reduced transparency was a result of a lack of market evidence.

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

Nine Months Ended September 2017. Transfers into level 3 for financial assets and financial liabilities primarily reflected transfers of certain credit products from level 2, principally due to unobservable credit spread and yield inputs becoming significant to the valuation of these instruments, and transfers of certain equity derivatives from level 2, principally due to unobservable volatility and correlation inputs becoming significant to the valuation of these derivatives.

Transfers out of level 3 for financial assets and financial liabilities primarily reflected transfers of certain credit products to level 2, principally due to unobservable credit spread and yield inputs no longer being significant to the valuation of these instruments, and transfers of certain equity derivatives to level 2, principally due to unobservable volatility and correlation inputs no longer being significant to the valuation of these derivatives.

Fair Value of Financial Assets and Financial Liabilities Not Measured at Fair Value

The company had current financial assets of \$159.64 billion as of September 2018 and \$157.91 billion as of December 2017, and current financial liabilities of \$143.58 billion as of September 2018 and \$139.56 billion as of December 2017 that are not measured at fair value. Given the short-term nature of these instruments, their carrying amounts in the balance sheet are a reasonable approximation of fair value.

As of both September 2018 and December 2017, the company had \$18.68 billion of financial liabilities that are due after more than one year that are not measured at fair value which predominantly relate to long-term intercompany borrowings. The interest rates of these borrowings are variable in nature and approximate prevailing market interest rates for instruments with similar terms and characteristics. As such, their carrying amounts in the balance sheet are a reasonable approximation of fair value.