CITIGROUP GLOBAL MARKETS LIMITED

(Registered Number: 01763297)

ANNUAL REPORT AND FINANCIAL STATEMENTS

for the year ended 31 December 2017

CITIGROUP GLOBAL MARKETS LIMITED

STRATEGIC REPORT
for the year ended 31 December 2017

The Directors present their strategic report on Citigroup Global Markets Limited (CGML or the Company) for the year ended 31 December 2017.

1. Introduction

CGML is a private company limited by shares. It is a wholly-owned indirect subsidiary of Citigroup Inc. (Citi). It was incorporated in 1983 and has a major international presence as a dealer, market maker and underwriter in equity, fixed income and commodity markets, as well as providing advisory services to a wide range of corporate, institutional and government clients. It is headquartered in London and operates globally, generating the majority of its business from the Europe, Middle East and Africa (EMEA) region, with the remainder coming from Asia and the Americas. It is authorised by the Prudential Regulation Authority (PRA) and regulated by the Financial Conduct Authority (FCA) and the PRA. As at 31 December 2017, it had eight branch offices and five subsidiaries, listed below:

EU Branches	Subsidiaries
Czech Republic	Citigroup Global Markets Luxembourg S.a.R.L. (Luxembourg)
France	Citigroup Global Markets Funding Luxembourg SCA (Luxembourg)
Ireland	Citigroup Global Markets Funding Luxembourg GP S.a.R.L. (Luxembourg)
Italy	Citi Global Wealth Management S.A.M. (Monaco)
Spain	Citigroup South Africa Credit Products (Proprietary) Limited (South Africa) (company was dissolved in November 2017 and CGML is awaiting final distribution)
Non-EU Branches	
Israel	
Switzerland	
UAE	

CGML's key activities encompass cash, exchange traded and over-the-counter (OTC) derivative products in the following markets:

Business	***Activities***
G10 Rates	Makes markets and facilitates client activity across interest rate products in G10 markets, including sovereign and supranational bonds and both linear and non-linear OTC derivatives. It conducts much of its client facing activity on CGML with some market risk transferred to other Citi affiliates. It includes the Finance Desk, which acts as CGML's funding utility, dealing in repurchase and reverse repurchase agreements to finance its inventory, as well as running a matched book business.
Foreign Exchange and Local Markets (FXLM)	Facilitates local and international client demand for flow FX products, such as spot and forward contracts, short term interest rate products, and interest rate and currency derivatives. FX risk is largely warehoused on other affiliated Citi entities, with CGML acting in a client facing capacity. In particular, the business utilises CGML to access non-US primary market liquidity pools in non-deliverable forward contracts and FX options.
Equity Markets	Encompasses market making, flow trading, electronic execution and tailored solutions for clients. Products covered include cash equities, vanilla and exotic listed and OTC derivatives, convertible bonds and warrants.
Credit Markets	Provides liquidity in traded credit markets whose core products include corporate and financial bonds, single name and index credit default swaps, and corporate loans. The business spans investment grade and high yield products in both developed and emerging markets. The execution of vanilla flow trading also forms the basis of more tailored and structured client solutions.
Securitised Markets	Conducts financing, issuance and market making of commercial and residential mortgage backed and other consumer related assets, in the form of either loans or securities.

1. Introduction (continued)

Business	***Activities***
Prime, Futures & Securities Services (PFSS)	Comprises: • Prime Finance, which provides prime brokerage, financing solutions and capital introductions to clients. • Delta One, which provides access, financing and investment solutions to a broad spectrum of clients (institutional, corporates and hedge funds) via synthetic products such as swaps, exchange traded funds (ETFs) and access products. • Futures & OTC Clearing, which provides clients with access to global liquidity venues, multi-asset clearing services on global central counterparties (CCPs) and delivery of collateral solutions.
Commodities	Provides risk solutions to producers, consumers and investors in the area of European power, gas and emissions, agricultural products, coal and iron ore, as well as inventory financing transactions in a range of products. The business also offers clients exposure to precious metals, base metals and oil, with the associated market risk being held by bank chain affiliates.
Capital Markets Origination (CMO)	Helps clients raise finance in the international capital markets through loans, bonds, equity, convertibles and structured products (such as securitisations) and project and infrastructure finance.
Corporate and Investment Banking (CIB)	Provides advisory services to clients in relation to mergers and acquisitions, corporate broking and the raising and restructuring of capital.

A number of CGML's functional operations are carried out in locations outside London, including at Citi Service Centres (CSCs) in Belfast, Budapest and Warsaw. In addition, CGML makes use of a number of affiliated and third party outsourcing arrangements outside EMEA.

2. CGML Governance and Principal Risks

CGML has an established management and governance framework incorporating all of its businesses and functions. Its Board of Directors (the Board) consists of executive and non-executive directors, including the EMEA Chief Executive Officer (CEO), the Citi Country Officer (CCO) for the UK, the EMEA Chief Administrative Officer (CAO) and the EMEA Head of Markets and Securities Services (MSS).

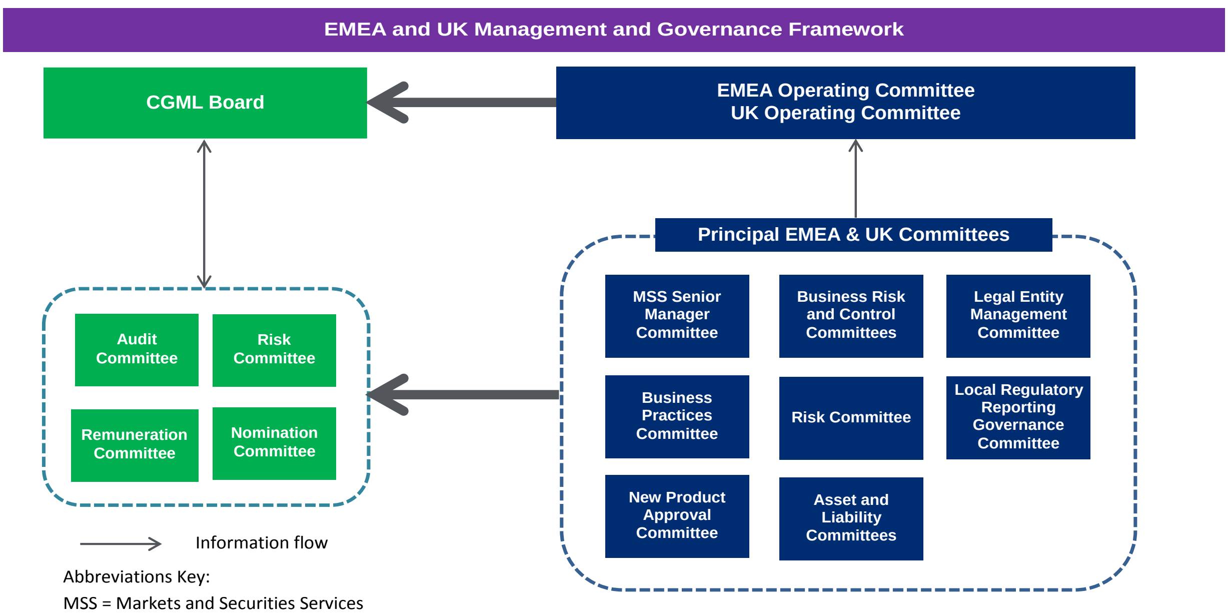
The Board is supported by UK Senior Managers and the relevant EMEA and UK business heads together with the regional and country heads of Risk, Finance, Operations & Technology, Legal and Compliance and Human Resources.

Senior Manager and Certification Regime (SMCR)

The SMCR focuses on a small cohort of individuals (Senior Managers) who hold key roles or have overall responsibility for whole areas of relevant UK entities and branches. Senior Managers require regulatory pre-approval to perform a Senior Management Function (SMF). The SMR requires Senior Managers to take reasonable steps to avoid a breach occurring or continuing. As part of the Individual Accountability Regime (of which the SMR is a part), CGML maintains a Management Responsibilities Map which documents the firm's governance arrangements.

As at 31 December 2017 Citi had 32 approved Senior Managers, of whom 4 were CGML non-executive directors.

The chart below highlights the main components of CGML's governance structure, within Citi's regional and UK management and governance framework:



From February 2018 UK governance has been enhanced with the introduction of a UK Senior Manager Committee alongside the Markets and Securities Services Senior Manager Committee.

Principal Risks

CGML's principal risks arise from the nature of the services provided to its clients and include both financial and non-financial elements. The principal risks identified by management and covered by CGML's risk management framework are noted as follows, and are described in more detail in Note 30:

- reputational and franchise risk;
- market risk;
- liquidity risk;
- credit risk;
- country risk;
- pension risk; and
- operational risk.

3. Mission and Strategy

CGML's mission, in line with that of Citi, is to serve as a trusted partner to its clients by responsibly providing financial services that enable growth and economic progress. Citi's core activities are safeguarding assets, lending money, making payments and accessing the capital markets on behalf of its clients, whilst ensuring that those actions are always in its clients' interests, create economic value and are systemically responsible.

CGML is Citi's international broker-dealer. Its business falls within the Institutional Clients Group (ICG) segment and is core to the accomplishment of Citi's mission. CGML is focused on building enduring and mutually valuable relationships with target market clients, such as:

- multinational and local corporations;
- financial institutions;
- governments and public sector bodies; and
- high net worth individuals.

The strategic priorities set out by CGML for 2017 were as follows:

- *Maintain top 3 ranked client benchmark ratings for Banking and Fixed Income businesses and increase revenues and benchmark ratings for the Equities franchise*

  Citi's EMEA Fixed Income and Banking businesses all maintained their top 3 client rankings throughout 2017 and intend to consolidate those positions in 2018 taking marginal wallet share when opportunities arise.

  The Equities business continues to be an area where CGML sees growth potential. Equities' client benchmark rating remained constant over the period, with some improvement in client wallet share. The business plans to improve underlying revenue in 2018 through the investments made in people and technology during 2017, with a focus on higher margin products.

- *Improve diversity, retain high performing talent and ensure Citi's leadership and ethical standards are effectively communicated and practised across the company*

  Management has set specific targets for diverse slates and panels for senior positions across the company as well as for minimising voluntary attrition of high performing staff. These targets were achieved in 2017. The company places a high priority on long-term diversity and is utilising internal scorecards, external benchmarking and more active pipeline management to ensure that the diversity mix at senior levels can be improved in the future.

  Employee feedback has indicated that the focus on ethical behaviour is embedded throughout the organisation. Ethics and leadership are critical to the culture of CGML and ensuring that they are effectively communicated and practised remains a key focus for Management.

- *Continuously seek to improve the internal control environment within CGML*

  There were a number of key focus areas identified for 2017 that saw improvement over the course of the year, meeting the strategic priorities set for CGML. A robust control environment will always be one of CGML's highest priorities. To ensure continuous enhancement, areas of focus and development have been identified for 2018 and built into CGML's strategic priorities.

3. Mission and Strategy (continued)

- *Increasing return on assets and return on capital to provide an improved contribution to Citi's overall targeted levels and maintain strong capital and liquidity levels*

  The execution of the strategy outlined by CGML's management led to improvements in all of its main Key Performance Indicators (KPIs) that are used to measure the success of its objectives, as can be seen below:

Key Performance Indicators

	2016	**2017** [(1)]	**Change on year**
Operating Efficiency *(operating expense as a percentage of revenue)*	85.5%	85.2%	0.3%
Return on Assets (basis points) *(Net income as a proportion of total assets)*	12.4	13.7	1.3
Return on Tangible Common Equity *(Net income as a proportion of TCE)*	3.08%	3.64%	0.56%
Return on Tier 1 Capital *(Net income as a proportion of Tier 1 capital)*	3.08%	3.23%	0.15%

(1) excluding one-off adjustments

4. Financial Highlights

The execution of CGML's strategy in 2017 enabled the Company to continue to improve its annual profitability.

4.1 Income Statement Summary

	2016	**2017**
	$ Million	**$ Million**
Commission income and fees	1,320	1,342
Net dealing income	1,612	1,953
Interest receivable	568	1,229
Interest payable	(765)	(1,600)
Gross profit	**2,735**	**2,924**
Operating expenses	(2,378)	(2,490)
Other income and expenses	23	17
Operating profit (loss) on ordinary activities before taxation	**380**	**451**

CGML's strategic priority to build on client engagement while maintaining a disciplined risk profile has been reflected in increased operating profit for the fifth consecutive year.

Gross Profit

Gross profit rose by $189 million, a 7% increase on 2016.

Fee and commission income
The main contributors to commission and fee income were the CMO, CIB and Equities trading businesses. The CMO and CIB businesses were key drivers of 2017 revenue growth as a result of investments made in those businesses over recent years which resulted in increased market share. In addition, CGML benefitted from a recovery in primary Equity issuance as global economic growth continued, stock markets reached record highs and interest rates remained historically low. This increase was offset by reductions in Equities trading due to low market volatility and in Securitisation intra-group fees as described below.

4. Financial Highlights (continued)

Net Dealing Income
The foremost contributors to net dealing income were the Fixed Income and Equities businesses. Net dealing income rose by $341 million which resulted from increased revenues across both businesses. The growth in revenue was mainly driven by the Rates business which benefitted from both heightened client activity and greater trading gains. There were additional contributions across CGML's Fixed Income businesses as they maintained their top 3 market positions.

Interest Receivable and Payable
Interest receivable increased year on year due to the growth in trading inventory and the rise in collateralised financing transactions through 2017. Higher interest payables were driven by an increase in collateralised financing transactions and an expansion in loan borrowings to support the asset growth and the increase in net dealing income.

The improvement in underlying profitability was partly offset by the transfer from CGML to another affiliate of certain Securitisation personnel and associated expenses as part of Citi's resolution planning. As a result of the transfer, Citi's Securitisation business ceased payments to CGML in 2017, which led to a significant reduction in intra-group fees with an associated impact on pre tax profits. Despite this, the overall rise in revenue from other activities described above resulted in an improvement in performance across the entity for the year.

Operating Expenses

Operating expenses were $2,490 million with the largest costs being compensation, technology and transaction costs. Expenses increased $112 million, a rise of 5%. Core to CGML's strategy is investing in those businesses which demonstrate growth potential while retaining a focus on controlling the expense base. The increases in 2017 were mainly due to increased technology investment to support the targeted businesses, coupled with increased transaction costs.

4.2 Balance Sheet

	2016 $ Million	2017 $ Million
Total assets	345,608	377,942
Total liabilities	331,728	361,911
Shareholders' funds	13,880	16,031

CGML's assets consist primarily of collateralised financing transactions, derivatives and trading inventory. Collateralised financing transactions include reverse repos and stock borrows; derivatives encompass interest rate credit, equity and commodity derivatives; whilst bonds and equities form the largest categories of trading inventory. The Company's liabilities predominantly comprise collateralised financing transactions, derivatives and securities sold not yet purchased.

Asset and liability growth in 2017 was largely a result of client demand for collateralised financing transactions, particularly those secured by government bonds. This was partially offset by a decrease in the value of interest rate swaps as sterling and euro yields rose over the year.

Shareholders' funds were $16,031 million (31 December 2016: $13,880 million) which represented an increase of $2,151 million. In addition to the profit for the period, this included an injection of $1,800 million of Additional Tier 1 (AT1) capital in the form of loan notes purchased by another Citi entity, Pipestone LLC, which took place on 20 June 2017. These replaced an equivalent amount of Tier 2 subordinated loans which were repaid, as part of an initiative to enhance the quality of CGML's regulatory capital. Further details are included in Note 27 'Subordinated Loans' and Note 29 'Other Equity Instruments'.

More detailed information about the composition of CGML's balance sheet, including analyses of its derivative and inventory holdings, can be found in the Balance Sheet and the Notes to the Accounts, in particular Note 15 'Financial Assets and Liabilities Accounting Classification and Fair Value', Note 14: 'Financial Assets at Fair Value through Profit or Loss', and Note 13 'Derivatives'

4. Financial Highlights (continued)

4.3 Regulatory Capital

CGML's regulatory capital position is summarised below.

	2016	2017
	$ Million	$ Million
Capital resources		
Tier 1 capital	13,880	16,031
Tier 2 capital	4,585	4,012
Tier 3 capital	-	-
Deductions	(1,143)	(1,234)
Total	17,322	18,809
Capital requirements (Pillar 1)		
Market risk	2,646	3,044
Credit risk	3,609	5,279
Operational risk	1,500	1,500
Large Exposures risk	-	20
CVA risk	550	596
Total	8,305	10,439
Excess capital over Pillar 1	9,017	8,370

Tier 1 capital encompasses tangible shareholders' funds. Tier 2 capital comprises long term subordinated debt that is eligible for inclusion as capital. Deductions from capital include adjustments for the value of the defined benefit pension scheme, intangible assets, credit valuation adjustments (CVA) on own liabilities and certain securitisation positions.

Pillar 1 prescribes the minimum capital requirements for banks and investment firms under the Basel Capital Accord and the EU Capital Requirements Directive and Regulation (CRD IV package). In addition to Pillar 1 requirements, the PRA mandates a set of Pillar 2 regulatory capital standards which CGML is required to meet in its Individual Capital Guidance and certain additional capital buffers. Management maintains a sufficiently strong and stable capital balance, in excess of these minimum regulatory requirements, and monitors CGML's excess capital to ensure that a surplus is maintained at all times.

4.4 External Environment

CGML's 2017 financial results were achieved against a political and economic backdrop characterised by a number of key themes:

- increased political and economic uncertainty;
- continuing accommodative monetary policy in many jurisdictions;
- stock indices reaching record highs;
- historically low volatility.

Global growth in Gross Domestic Product (GDP) was 3.2% in 2017, up from 2.5% in 2016, with increases across both advanced and developing economies. This was combined with a small increase in inflation from 2.3% to 2.4%, with relatively low oil prices and a weaker dollar keeping inflation low.

Increasing global GDP, higher employment levels, muted inflation, continued supportive monetary policies and record low volatility have all combined to drive increases in asset values in 2017. The benign interest rate environment and low volatility has also led to growth in primary issuance compared to 2016. In contrast in secondary markets, low volatility has meant lower transaction volumes in both Fixed Income and Equities asset classes.

5. 2018 Future Outlook

CGML’s 2018 strategic priorities are:

- *Continuing to be the best for its clients by enhancing the depth and quality of its customer engagement and ensuring successful implementation of its Brexit plans*

- *Attraction, development and retention of talent including promotion of diversity and furtherance of equal employment opportunities*

- *Investment and growth in the Equities franchise*

- *Continuous enhancement of the internal control infrastructure*

- *Improvement in its key financial performance indicators and maintaining strong capital and liquidity levels*

CGML currently possesses a European Union (EU) wide passport to offer investment services throughout the region. However following the vote to leave the EU, the UK may no longer be able to use passporting rights after Q1 2019. Citi is currently executing on its plan to convert an existing European affiliate into an EEA investment firm which CGML will purchase, so it can continue to service clients in the EEA jurisdictions where it is unable to maintain its current access.

5.1 Market Outlook

CGML’s strategy will be executed in a year that has already seen a return of higher volatility in financial markets. Looking forward, the Company is likely to be impacted by a number of developments with specific significance for its operations and strategy:

- **Brexit** and its associated economic, political, legal and regulatory ramifications. Detailed plans have been developed in order to ensure that Citi, CGML and other affiliates are able to continue servicing their clients following the expected exit by the UK from the EU in the first half of 2019.
- **Expected tightening of monetary policy** in the UK and US. The ECB has extended quantitative easing until September 2018, although at a reduced level.
- **US Tax Reform** was signed into law late in December 2017. The full impact is still being assessed and the possibility of tax reform in other countries cannot be ignored.
- **Capital Markets Union** representing a series of structural reforms aimed at increasing capital markets usage in the EU. These changes should be an opportunity for CGML, but reform of legislation or supervision may also present challenges to the current operating environment.
- **Technological Developments** within the finance industry have the potential to significantly change the current technological and operational infrastructure across financial institutions.
- **MiFID II** will have an ongoing impact on the competitive environment, further electronification, margin compression and potentially business models.

Citi and CGML will continue to monitor and assess these developments in order to mitigate any impact to services offered to clients and to take advantage of any opportunities that they may create.

5.2 Regulatory Developments

As the external regulatory environment continues to evolve, the most significant developments expected to impact CGML stem from:

- Total Loss Absorbing Capacity (TLAC) and Minimum Requirements for Eligible Liabilities (MREL);
- Proposed Revisions to the Capital Requirements Regulation (CRR)/CRD IV, including changes to the large exposures rules;
- Financial Transaction Tax;
- Uncleared Margin and Mandatory Clearing;
- General Data Protection Regulation (GDPR);
- Fundamental Review of the Trading Book (FRTB).

5. 2018 Future Outlook (continued)

Total Loss Absorbing Capacity (TLAC) and Minimum Requirements for Eligible Liabilities (MREL)

TLAC represents the amount of debt that could be withheld from debt holders to absorb the losses resulting from a failing institution. The Financial Stability Board (FSB) has proposed a standard for TLAC, which will require global systemically important banks (G-SIBs), including Citi, to issue and maintain minimum levels of external TLAC and long-term debt (LTD). The PRA has published two consultation papers on Internal MREL and, once finalised, these have the potential to impact the structure of CGML's balance sheet, as a result of the associated funding requirements.

Proposed Revisions to CRR/CRD IV

This proposal, published in late 2016, builds on existing EU banking rules and aims to complete the post-crisis regulatory agenda. It makes sure that the regulatory framework addresses any outstanding challenges to financial stability, while ensuring that banks can continue to support the real economy. The proposals are now subject to the trilogue process during which the European Commission, Council and Parliament discuss the details of the rules. Elements of the package will come into force at different stages; the earliest is estimated at 2019.

The rule changes within the proposal cover the European implementation of the TLAC rules, new risk-sensitive methods for calculating market risk and counterparty credit risk capital requirements (known as the Fundamental Review of the Trading Book and the Standardised Approach to Counterparty Credit Risk), a binding Leverage Ratio and a Net Stable Funding Ratio.

The proposal further includes changes to the large exposures framework. The capital that can be taken into account to calculate the large exposures limit is changing to include Tier 1 capital only and the standardised approach to counterparty credit risk is used to calculate exposures to derivatives.

The implementation date in Europe is expected to be two years after the entry into force of the revised CRR.

Financial Transaction Tax

A Financial Transaction Tax (FTT) continues to be considered by 10 EU Member States. The tax would impact financial transactions between financial institutions, charging 0.1% against the exchange of shares and bonds and 0.01% across derivative contracts.

Uncleared Margin and Mandatory Clearing

CGML commenced operating under the European Markets Infrastructure Regulation (EMIR) rules from 4 February 2017. In 2018, the EMIR rules on mandatory clearing for certain interest rate swap and credit default swap products expand to cover additional counterparties. Exposures at central clearing counterparties (CCPs) will therefore continue to increase to support clearing or optimisation of uncleared margin exposures.

General Data Protection Regulation (GDPR)

The new GDPR requirements set a global benchmark for the protection of personal data and are intended to harmonise fragmented privacy laws across the EU. The GDPR gives data subjects (i.e. people) greater control over their personal information. The requirements will be effective from 25 May 2018.

5. 2018 Future Outlook (continued)

Fundamental Review of the Trading Book (FRTB)

The Fundamental Review of the Trading Book (FRTB) comprises a comprehensive revision of the market risk rules; both the standardised and the internal models approaches. It introduces risk sensitivity into the standardised approach and equips it to act as a credible alternative to internal models. The FRTB also reduces the scope for conflicting interpretations of regulatory requirements between trading book and banking book. The revised internal models approach requires a rigorous model approval process conducted at desk level and uses an expected shortfall measure of calculation rather than VaR. The rules require firms to capture and utilise a significantly increased amount of data and processing capability in order to calculate the capital requirements. These rules are included in the CRR2/CRDV proposal published by the European Commission in November 2016. The implementation date set by the BCBS was delayed to 2022, as announced in December 2017.

While there are a number of regulatory changes anticipated over the coming years, Citi and CGML remain prepared for the implementation of new regulatory requirements, and continue to monitor developments in this area.

By order of the Board

J D K Bardrick
Director

12 April 2018

Incorporated in England and Wales
Registered office: Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB
Registered Number: 01763297

DIRECTORS' REPORT
for the year ended 31 December 2017

The Directors present their Report and the audited financial statements of CGML for the year ended 31 December 2017.

Going concern basis
The financial statements are prepared on a going concern basis taking into account CGML's existing capital and liquidity resources and the level of reliance placed on support from Citi, CGML's ultimate parent. The Directors acknowledge the risk that extreme circumstances might adversely impact CGML's ability to continue trading and are satisfied that CGML has the resources to continue in business for the foreseeable future. In making this assessment, the Directors have considered a wide range of information relating to present and future conditions. As CGML is part of the Citigroup, the risks that apply to the parent also apply to all subsidiaries within the group including CGML. The risk factors impacting Citigroup Inc. are described in its 2017 annual report on form 10-K, which can be found at http://www.citigroup.com/citi/investor/sec.htm.

Further information relevant to this assessment is provided in the following sections of these financial statements:

- the principal activities, strategic direction and challenges and uncertainties are described in the Strategic Report on pages 2 to 11;
- a financial summary, including the income statement and balance sheet, is provided in the financial results section on pages 17 to 19; and
- objectives, policies and processes for managing market, liquidity, credit and operational risk, and CGML's approach to capital management and allocation, are described in Note 30 'Financial instruments and risk management', starting on page 63.

Dividends
During the year CGML paid no dividends (2016: $nil).

Information included in the Strategic Report
CGML has elected to include information on financial risk management as per Schedule 7.6(1)(a) & (b) of the "Large and Medium-sized Companies and Groups Regulations 2008" in the Strategic Report as the Directors consider financial risk management to be of strategic importance to CGML. Further details about financial risk management are provided in Note 30 'Financial instruments and risk management.'

The Strategic Report also incorporates a discussion of likely future business developments, while important events affecting the company since the end of the financial year are described in Note 34 'Events after the reporting period'. Details of the Company's overseas branches and subsidiaries can be found in the Introduction to the Strategic Report.

Statement of Directors' responsibilities
The Directors are responsible for preparing the Strategic Report and the Directors' Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law they have elected to prepare the financial statements in accordance with United Kingdom Accounting Standards and applicable law (United Kingdom Generally Accepted Accounting Practice), including FRS 101 *Reduced Disclosure Framework*.

Under company law, the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of CGML and of the profit or loss of CGML for the relevant period.

In preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable United Kingdom Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- assess the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- prepare the financial statements on a going concern basis unless it is inappropriate to assume that CGML will continue in business.

DIRECTORS' REPORT
for the year ended 31 December 2017

Statement of Directors' responsibilities (continued)

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain CGML's transactions, disclose with reasonable accuracy at any time the financial position of CGML, and enable them to ensure that the financial statements comply with the Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of CGML and to prevent and detect fraud and other irregularities.

Directors
The Directors who held office during the year ended 31 December 2017 were:

Non-Executive
C Ardalan (appointed 2 August 2017, appointed Chair 30 August 2017)
J P Asquith (resigned as Director and Chair 30 August 2017)
S H Dean
R Goulding
D L Taylor

Executive
L Arduini
J D K Bardrick
J C Cowles
P McCarthy

C Ardalan was appointed as Non-Executive Director with effect from 2 August 2017 and was appointed Chair on 30 August 2017.

J P Asquith resigned with effect from 30 August 2017.

Directors' indemnity
Throughout the year and at the date of this report CGML is party to a group-wide indemnity policy which benefits all the Directors and is a qualifying third party indemnity provision for the purpose of section 236 of the Companies Act 2006.

Employee involvement
CGML places great value on the contributions of its employees and seeks to promote their involvement in the business wherever possible. It has continued its previous practice of keeping employees informed by written communications and meetings on matters affecting them as employees and on the various factors affecting the performance of CGML and of Citi as a group. Employees are encouraged to present their suggestions and views to CGML through various channels including an employee representative body and the Voice of the Employee Pulse survey which allows employees to share feedback three times a year, in addition to their normal reporting and communication lines within the business. Qualifying employees participate in performance-based incentive schemes as described in Note 9 'Share-based incentive plans'.

Employment of disabled people
CGML is committed to a policy of recruitment and promotion on the basis of aptitude and ability without discrimination of any kind. Applications for employment by disabled persons are fully and fairly considered having regard to the aptitudes and abilities of each applicant. Efforts are made to enable any employees who become disabled during employment to continue their careers within CGML. Training, career development and promotion of disabled persons are, as far as possible, identical to those applicable to other employees who are not disabled.

Diversity
Diversity is recognised as one of CGML's core values. CGML fosters a culture where the best people are recruited, where people are promoted on their merits, where respect for others is demanded and valued and where opportunities to develop are widely available to all. CGML maintains a workplace with different backgrounds, perspectives and ideas and provides employees with a wide range of experiences and skills to develop to their full potential. Citi's Code of Conduct prohibits discrimination and harassment.

DIRECTORS' REPORT
for the year ended 31 December 2017

Environment
CGML recognises the importance of its environmental responsibilities, monitors its impact on the environment, and designs and implements policies to reduce any damage that might be caused by its activities. Initiatives designed to minimise CGML's impact on the environment include safe disposal of waste, recycling and reducing energy consumption.

Political contributions
No political contributions were made during the year. During 2016, the Company made a donation of $353,350 (£250,000) to the Britain Stronger in Europe campaign, in advance of the UK Referendum on EU membership.

Events after the reporting period
On 30 January 2018 CGML drew down $650 million of subordinated loan borrowings from Citigroup Financial Products Inc.

Disclosure of information to auditors
In accordance with, and subject to all the provisions of, section 418 of the Companies Act 2006, it is stated by the Directors who held office at the date of approval of this Directors' Report that

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

Auditors
Pursuant to Section 487 of the Companies Act 2006, the auditors will be deemed to be reappointed and KPMG LLP will therefore continue in office.

By order of the Board.

J Bardrick
Director

12 April 2018

Incorporated in England and Wales
Registered office: Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB
Registered Number: 01763297

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF CITIGROUP GLOBAL MARKETS LIMITED

Opinion

We have audited the financial statements of Citigroup Global Markets Limited ("the company") for the year ended 31 December 2017, which comprise the Income Statement, Statement of Comprehensive Income, Statement of Changes in Equity, Balance Sheet, and related notes, including the accounting policies in note 1, with the exception of those sections marked as unaudited.

In our opinion the financial statements:

- give a true and fair view of the state of the company's affairs as at 31 December 2017 and of its profit for the year then ended;
- have been properly prepared in accordance with UK accounting standards, including FRS 101 *Reduced Disclosure Framework*; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities are described below. We have fulfilled our ethical responsibilities under, and are independent of the company in accordance with, UK ethical requirements including the FRC Ethical Standard. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion.

Going concern

We are required to report to you if we have concluded that the use of the going concern basis of accounting is inappropriate or there is an undisclosed material uncertainty that may cast significant doubt over the use of that basis for a period of at least twelve months from the date of approval of the financial statements. We have nothing to report in these respects.

Strategic report and directors' report

The directors are responsible for the strategic report and the directors' report. Our opinion on the financial statements does not cover those reports and we do not express an audit opinion thereon.

Our responsibility is to read the strategic report and the directors' report and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work:

- we have not identified material misstatements in the strategic report and the directors' report;
- in our opinion the information given in those reports for the financial year is consistent with the financial statements; and
- in our opinion those reports have been prepared in accordance with the Companies Act 2006.

Matters on which we are required to report by exception

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

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

We have nothing to report in these respects.

Directors' responsibilities

As explained more fully in their statement set out on pages 12 and 13, the directors are responsible for: the preparation of the financial statements and for being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF CITIGROUP GLOBAL MARKETS LIMITED

Auditor's responsibilities

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

A fuller description of our responsibilities is provided on the FRC's website at www.frc.org.uk/auditorsresponsibilities.

The purpose of our audit work and to whom we owe our responsibilities

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members, as a body, for our audit work, for this report, or for the opinions we have formed.

Matthew Davies (Senior Statutory Auditor)
for and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants
15 Canada Square
London E14 5GL
12 April 2018

CITIGROUP GLOBAL MARKETS LIMITED

INCOME STATEMENT
for the year ended 31 December 2017

	Notes	2017 $ Million	2016 $ Million
Fee and commission income	**4**	1,342	1,320
Net dealing income	**6**	1,953	1,612
Interest receivable	**5**	1,229	568
Interest payable	**5**	(1,600)	(765)
Gross profit		2,924	2,735
Operating expenses	**7**	(2,490)	(2,378)
Net finance income on pension	**8**	12	16
Other income		5	7
Operating profit on ordinary activities before taxation		451	380
Tax on profits on ordinary activities	**11**	(67)	(4)
Profit for the financial year		384	376

The accompanying notes on pages 20 to 83 form an integral part of these financial statements.

CITIGROUP GLOBAL MARKETS LIMITED

STATEMENT OF COMPREHENSIVE INCOME

for the year ended 31 December 2017

	Notes	2017 $ Million	2016 $ Million
Profit after taxation for the financial year		384	376
Other Comprehensive Income (Expense)			
Items that will not be reclassified subsequently to profit or loss:			
Gross gains/(losses) on remeasurement of defined benefit pension asset	**8**	(11)	52
Items that will be reclassified subsequently to profit or loss when specific conditions are met:			
Financial assets available for sale:			
- unrealised gains	**16**	28	3
Total other comprehensive income		17	55
Tax (charge)/benefit on other comprehensive income		3	(9)
Other comprehensive income net of tax		20	46
Total comprehensive gain for the financial year		404	422

The net movement in the Statement of Comprehensive Income in respect of the pension scheme reflects changes in the actual and expected returns on scheme assets and liabilities and the related tax impact associated with the balance sheet valuation of the defined pension asset.

STATEMENT OF CHANGES IN EQUITY

for the year ended 31 December 2017

	Notes	Share Capital $ Million	Other equity instruments $ Million	Capital reserve $ Million	Equity reserve $ Million	Retained earnings $ Million	Total $ Million
At 1 January 2016		**1,500**	**-**	**9,989**	**1,416**	**542**	**13,447**
Profit after taxation for the year		-	-	-	-	376	376
Net movement in Statement of Comprehensive Income in respect of the pension scheme	**8**	-	-	-	43	-	43
Financial assets available for sale:							
- unrealised gains		-	-	-	3	-	3
Share based payment transactions net of tax	**9**				1	-	1
Capital contribution		-	-	10	-	-	10
At 31 December 2016		**1,500**	**-**	**9,999**	**1,463**	**918**	**13,880**
Profit after taxation for the year						384	384
Gross losses on remeasurement of defined benefit pension asset	**8**	-	-	-	(11)	-	(11)
Deferred tax benefit associated with remeasurement of pension asset					3	-	3
Financial assets available for sale:							
- unrealised gains	**16**	-	-	-	28	-	28
Share based payment transactions	**9**	-	-	-	(71)	-	(71)
Deferred tax benefit associated with share based payment transactions					18	-	18
Other equity instruments issued	**29**	-	1,800	-	-	-	1,800
At 31 December 2017		**1,500**	**1,800**	**9,999**	**1,430**	**1,302**	**16,031**

The other equity instruments relate to Additional Tier 1 notes. Further information is included in Note 29.

The capital reserve includes capital contributions from the parent company, which are distributable.

The equity reserve includes the fair value movement of the share based incentives issued, and other fair value movements captured in equity.

The accompanying notes on pages 20 to 83 form an integral part of these financial statements.

CITIGROUP GLOBAL MARKETS LIMITED

BALANCE SHEET
as at 31 December 2017

	Notes	2017 $ Million	2016 $ Million
Assets			
Financial assets at amortised cost			
- cash at bank and in hand	**12**	2,953	3,738
- collateralised financing transactions		70,939	56,222
Financial assets at fair value through profit or loss			
- derivatives	**13**	149,409	167,634
- inventory	**14**	56,757	36,613
- financial assets designated at fair value through profit or loss		64,516	51,451
Financial assets classed as available for sale	**16**	59	31
Pension asset	**8**	480	437
Other assets	**18**	32,829	29,482
Total Assets		**377,942**	**345,608**
Liabilities and Equity			
Financial liabilities at amortised cost			
- bank loans and overdrafts		16,461	10,454
- collateralised financing transactions		51,340	33,509
Financial liabilities at fair value through profit or loss			
- derivatives	**13**	156,511	170,258
- securities sold but not yet purchased		42,779	44,654
- financial liabilities designated at fair value through profit or loss		57,000	35,783
Other liabilities	**23**	33,808	32,485
Subordinated loans	**27**	4,012	4,585
Total Liabilities		**361,911**	**331,728**
Capital and reserves			
Called up share capital	**28**	1,500	1,500
Other equity instruments	**29**	1,800	-
Capital reserve		9,999	9,999
Retained earnings and other reserves		2,732	2,381
Shareholders' funds		**16,031**	**13,880**
Total Liabilities and Shareholders' Funds		**377,942**	**345,608**

The accompanying notes on pages 20 to 83 form an integral part of these financial statements.
The financial statements on pages 17 to 83 were approved by the Directors on 12 April 2018 and were signed on their behalf by:

J D K Bardrick
Director
Registered Number: 01763297

1. Principal accounting policies

(a) Basis of presentation

The financial statements of the Company have been prepared in accordance with Financial Reporting Standard 101, 'Reduced Disclosure Framework' (FRS 101). In preparing these financial statements, the Company applies the recognition, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the EU (Adopted IFRSs), but makes amendments where necessary in order to comply with Companies Act 2006 and has set out below where advantage of the FRS 101 disclosure exemptions has been taken.

The Company has taken advantage of the following disclosure exemptions available under FRS 101:

(a) the requirements of paragraphs 45(b) and 46-52 of IFRS 2 share based payment, as the share based payment arrangement concerns the instruments of another group entity;

(b) the requirement in paragraph 38 of IAS 1 '*Presentation of financial statements'* to present comparative information in respect of

   (i) paragraph 79(a)(iv) of IAS 1 '*Presentation of financial statements';*

   (ii) paragraph 73(e) of IAS 16 '*Property, plant and equipment'; and*

   (iii) paragraph 118(e) of IAS 38 '*Intangible assets'.*

(c) the requirements of paragraphs 10(d), 16, 38A, and 111 of IAS 1 '*Presentation of financial statements'*;

(d) the requirements of IAS 7 '*Statement of cash flows';*

(e) the requirements in IAS 24 '*Related party disclosures'*. To disclose related party transactions entered into between two or more members of a group, provided that any subsidiary which is a party to the transaction is wholly owned by such a member; and

(f) the requirements of paragraphs 17 and 18A of IAS 24 that relate to transactions with key management personnel.

The financial statements have been prepared in US Dollars, which is the functional currency of the Company, and any reference to $ in these financial statements refers to US Dollars. The Company has rounded figures to the nearest million $, unless otherwise stated.

As permitted under section 401 of the Companies Act 2006, consolidated financial statements have not been prepared because the Company is a wholly owned subsidiary of the ultimate parent, Citigroup Inc., which prepares consolidated financial statements under US GAAP. The Company meets the criteria for exemption from the obligation to prepare and deliver group accounts that is available to a company included in non-EEA group accounts of a larger group. These financial statements therefore present information about the Company as an individual undertaking and not about its group. Citigroup Inc. makes its financial statements available to the public on a quarterly basis.

(b) Changes in accounting policy and disclosures

The accounting policies adopted are consistent with those of the previous financial year. There were no other material or amended standards or interpretations that resulted in a change in accounting policy for the year ended 31 December 2017.

Standards issued but not yet effective

There are a number of accounting standards that have been issued by the International Accounting Standards Board (IASB), but which are not yet effective for the Company. These are set out below.

1. Principal accounting policies (continued)

(b) Changes in accounting policy and disclosures (continued)

IFRS 9 – Financial Instruments

Introduction

IFRS 9 – *Financial Instruments*. The new standard includes a new model for classification and measurement of financial assets, a forward-looking 'expected loss' impairment model for debt instruments and a substantially reformed approach to hedge accounting (as the Company does not conduct hedge accounting, this change will have no impact on the Company). The standard replaces the existing guidance in IAS 39 – Financial Instruments: Recognition and Measurement. IFRS 9 is effective from 1 January 2018.

Classification and measurement

From a classification and measurement perspective, the new standard will require all financial assets, except equity instruments and derivatives, to be assessed based on a combination of the entity's business model for managing the assets and the instruments' contractual cash flow characteristics (whether the contractual cash flows are solely payments of principal and interest (SPPI)).

The IAS 39 measurement categories will be replaced by: fair value through profit or loss (FVTPL), fair value through other comprehensive income (FVOCI), and amortised cost. IFRS 9 will also allow entities to continue to irrevocably designate instruments that qualify for amortised cost or FVOCI instruments as FVTPL, if doing so eliminates or significantly reduces an accounting mismatch.

The accounting for financial liabilities will largely be the same as the requirements of IAS 39, except for the treatment of gains or losses arising from an entity's own credit risk relating to liabilities designated at FVTPL. Such movements will be presented in OCI with no subsequent reclassification to the income statement, unless an accounting mismatch in profit or loss would arise.

The transition to IFRS 9 will not result in any significant changes to the measurement basis of the financial instruments of the Company because the majority of assets are already held at fair value through profit or loss. These will continue to be accounted for as such under IFRS 9. The financial assets held at amortised cost are expected to meet the SPPI test and are not held for trading purposes. In that case, these will continue to be measured at amortised cost. There is an insignificant portion of assets which are classified as available for sale which will be classified to fair value through profit or loss under IFRS 9.

Because from 1 January 2018, gains or losses arising from an entity's own credit risk relating to liabilities designated at FVTPL will be recognised through OCI, any cumulative amounts that were recorded in the income statement for liabilities outstanding as at 1 January 2018 will be reclassified to FVOCI from retained earnings.

Impairment

IFRS 9 introduces an expected credit loss (ECL) impairment model that differs significantly from the incurred loss model under IAS 39 and is expected to result in the earlier recognition of credit losses going forward.

1. Principal accounting policies (continued)

(b) Changes in accounting policy and disclosures (continued)

Scope
Under IFRS 9, the same impairment model is applied to all financial assets, except for financial assets classified or designated as FVTPL and equity securities designated as FVOCI, which are not subject to impairment assessment. The Company has decided not to designate any equity securities as FVOCI. The scope of the IFRS 9 expected credit loss impairment model includes amortized cost financial assets, debt securities classified as FVOCI, and off-balance sheet loan commitments and financial guarantees which were previously provided for under IAS 37, Provisions, Contingent Liabilities and Contingent Assets.

The recognition and measurement of impairment is intended to be more forward looking than under IAS 39. The estimation of an ECL is required to be unbiased and probability weighted, including information about past events, current conditions and reasonable and supportable forecasts of future events and economic conditions at the reporting date. The estimate will also consider the time value of money.

Because of the nature of business activities and the financial assets on the Company's balance sheet (high credit quality reverse repo asset loans), the recognition of incremental expected impairment allowances will have a minimal impact, if any.

The assessment above may not be fully representative of the impact as at 1 January 2018 because, although at an advanced stage, the Company is still finalising its implementation efforts and assessments. The actual impact of the adoption of IFRS 9 on 1 January 2018 may change as a result of the following factors:

- the Company continues to refine its models for calculating ECL;
- the new accounting policies, judgements and estimation techniques employed are subject to change until the Company finalises its financial statements that include the date of initial application; and
- the Company may revise the accounting processes and internal controls, and these changes are not yet complete.

On transition, the expected impact to the Company's allowances for credit losses, due to the adoption of IFRS 9, is expected to be an increase of approximately $1.4 million.

Transition
The impairment and classification and measurement requirements of IFRS 9 will be applied retrospectively by adjusting CGML's Balance Sheet at 1 January 2018, the date of initial application of IFRS 9, with the difference between previous carrying amounts and carrying amounts at initial application recognised in retained earnings. There is no requirement to restate comparative periods other than for hedge accounting.

To manage the transition to IFRS 9, the Company has implemented a comprehensive enterprise-wide programme, led jointly by Finance and Risk Management, which focuses on key areas of impact, including controls over financial reporting, data, systems and processes, as well as communications and training. The Company has put in place dedicated Governance including a Steering Committee to monitor and continuously assess and prepare for the impact of the new standard on its internal process, controls and systems.

IFRS 15 – Revenue from Contracts with Customers

IFRS 15 – *Revenue from Contracts with Customers* was published by IASB on 28 May 2014. The core principle of the new Standard is to recognise revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration to which the company expects to be entitled in exchange for those goods or services. The revenue is recognised when the control over the goods or services is transferred to the customer. IFRS 15 is effective for annual reporting periods beginning on or after 1 January 2018.

Where CGML is acting in a principal capacity, in which it has primary responsibilities for fulfilling the contract with the customer, it will continue to record revenue when the performance obligation is fulfilled.

There will be no material impact from the adoption of IFRS 15 in relation to the timing of revenue recognition by the Company.

1. Principal accounting policies (continued)

(b) Changes in accounting policy and disclosures (continued)

IFRS 2 – Classification and measurement of share based payment transactions

In June 2016, the IASB issued narrow-scope amendments to IFRS 2, "Share-based Payment" which clarify the accounting for certain types of share-based payment transactions. The amendments, which were developed through the IFRS Interpretations Committee, clarify the accounting for cash-settled share-based payment transactions that include a performance condition, the classification of share-based payment transactions with net settlement features and the accounting for modifications of share-based payment transactions from cash-settled to equity-settled. They are effective for annual periods beginning on or after 1 January 2018.

This standard will have no material impact on the Company.

IFRS 16 – Leases

In January 2016, the IASB issued IFRS 16 *Leases*, which will replace IAS 17 *Leases*. IFRS 16 will apply to all leases with the exception of licenses of intellectual property, rights held by licensing agreement within the scope of IAS 38 *Intangible Assets*, service concession arrangements, leases of biological assets within the scope of IAS 41 Agriculture, and leases of minerals, oil, natural gas and similar non-regenerative resources. IFRS 16 will not result in a significant change to lessor accounting. However, for lessee accounting, there will no longer be a distinction between operating and finance leases. Instead, lessees will be required to recognise both a right of use asset and lease liability on balance sheet for all leases.

This standard will have no impact on the Company because it does not enter into lease arrangements.

IFRS 17 – Insurance contracts

In May 2017, the IASB issued IFRS 17 *Insurance Contracts*, a comprehensive new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure. Once effective, IFRS 17 will replace IFRS 4 *Insurance Contracts* which was issued in 2005. IFRS 17 applies to all types of insurance contracts (i.e. life, non-life, direct insurance and re-insurance), regardless of the type of entities that issue them, as well as to certain guarantees and financial instruments with discretionary participation features. A few scope exceptions will apply. The standard is effective from 1 January 2021.

This standard will have no impact on the Company because it does not issue insurance contracts.

IFRIC Interpretation 23 – Uncertainty over Income tax treatment

IFRIC 23 clarifies the application of IAS 12 to accounting for income tax treatments that have yet to be accepted by tax authorities, in scenarios where it may be unclear how tax law applies to a particular transaction or circumstance, or whether a taxation authority will accept an entity's tax treatment. The effective date is 1 January 2019.

The Company is currently assessing the impact of IFRIC 23.

1. Principal accounting policies (continued)

(c) Financial instruments

Trading assets and trading liabilities
Financial instruments that have been acquired principally for the purpose of selling or repurchasing in the near term, or form part of a portfolio of financial instruments that are managed at fair value together and for which there is evidence of short term profit taking are classified as "held for trading". Financial assets classified as "held for trading" include collateralised financing transactions, government bonds, non-government bonds, equities and derivatives. Financial liabilities classified as "held for trading" include securities sold but not yet purchased and derivatives.

Trading assets and liabilities are initially recognised at fair value on settlement date and subsequently re-measured at fair value. Any changes in fair value between trade date and settlement date are reported in the income statement. Gains and losses realised on disposal or redemption and unrealised gains and losses from changes in fair value (including any foreign currency retranslation gains and losses) are reported in the income statement. Any initial gain or loss on financial instruments where valuation is dependent on valuation techniques using unobservable parameters are deferred over the life of the contract or until the instrument is redeemed, transferred or sold or the fair value becomes observable.

Derivative contracts
Derivative contracts used in trading activities are recognised at fair value on the date the derivative is entered into and are subsequently re-measured at fair value. All derivatives are carried as assets when fair value is positive and as liabilities when fair value is negative. Gains and losses realised on disposal or redemption and unrealised gains and losses from changes in fair value are reported in the income statement. Where an embedded derivative exists, the host contract and embedded derivative are measured as a package under the fair value option.

Repurchase and resale agreements
Repurchase and resale agreements are treated as collateralised financing transactions. Securities which have been sold with an agreement to repurchase continue to be shown on the balance sheet and the sale proceeds are recorded as a collateralised financing transaction within other liabilities. Securities acquired in purchase and resale transactions are not recognised on the balance sheet and the purchase is recorded as a collateralised financing transaction within other assets. The difference between the sale price and the repurchase price is recognised over the life of the transaction and is charged or credited to the income statement as interest payable or receivable.

The Company has chosen to designate a portion of its repurchase and resale agreements at fair value. Financial instruments are designated by management as fair value through profit or loss when they meet one or more of the criteria set out below:

- the assets or liabilities are managed, evaluated and reported internally on a fair value basis.

- the designation eliminates or significantly reduces an accounting mismatch that would otherwise arise.

That portion of the Company's repurchase and resale agreements which are hedged with instruments measured at fair value and managed as a combined business strategy have been designated as fair value through profit or loss.

Loans and receivables
Loans and receivables incorporate trade debtors, including settlement receivables, and are initially recognised at fair value including direct and incremental transaction costs and subsequently measured at amortised cost using the effective interest rate method.

At each reporting date the Company assesses whether there is objective evidence that financial assets carried at amortised cost are impaired. A financial asset or a group of financial assets is impaired when objective evidence demonstrates that a loss event has occurred after the initial recognition of the asset(s), and that the loss event has an impact on the future cash flows of the asset(s) that can be estimated reliably.

Objective evidence that financial assets are impaired can include significant financial difficulty of the debtor or other observable data such as adverse changes in the payment status of debtors, or economic conditions that correlate with defaults of the debtor.

1. Principal accounting policies (continued)

(c) Financial instruments (continued)

Impairment losses on assets carried at amortised cost are measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the asset's original effective interest rate. Impairment losses are recognised in the income statement and reflected in an allowance account against loans and receivables. Interest on impaired assets continues to be recognised through the unwinding of the discount. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through the income statement. The Company writes off loans and receivables when they are determined to be uncollectible.

Available for Sale Assets
Available for sale (AFS) investments are non-derivative financial assets that are designated as available for sale or are not classified within another category of financial assets. The vast majority of CGML's financial assets are classified in other categories described above. Strategic investments including investments in exchanges, clearing houses and settlement houses are included in AFS assets.

A financial asset classified as AFS is initially recognised at its fair value plus transaction costs that are directly attributable to the acquisition of the financial asset. Financial assets classified as AFS are carried at fair value with the changes in fair value reported in other comprehensive income. For AFS debt instruments, changes in carrying amounts relating to changes in foreign exchange rate are recognised in the income statement and other changes in carrying amount are recognised in other comprehensive income as indicated above. However, interest calculated using the effective interest rate method is recognised in the income statement. For financial assets classified as AFS that are non-monetary items (equity instruments), the gain or loss that is recognised in other comprehensive income includes any related foreign exchange component. Dividend income is recognised in the income statement when the Company becomes entitled to the dividend. When a financial asset classified as AFS is derecognised by way of sale, or is impaired, the cumulative gain or loss recognised in OCI is reclassified from equity to profit or loss.

Other financial liabilities and subordinated loans
Financial liabilities and subordinated loans are measured at amortised cost using the effective interest rate, except those which are "held for trading", which are held at fair value through the profit or loss account.

Determination of fair value
Where the classification of a financial instrument requires it to be stated at fair value, this is determined by reference to the quoted market value in an active market wherever possible. Where no such active market exists for the particular instrument, the Company uses a valuation technique to arrive at the fair value, including the use of prices obtained in recent arms' length transactions, discounted cash flow analysis, option pricing models and other valuation techniques commonly used by market participants. In case the transaction price in the market in which these transactions are undertaken is different from the fair value in the Company's principal market for those instruments, the fair value of these transactions are also estimated by using valuation techniques. See Note 15 'Financial assets and liabilities accounting classifications and fair values' for further details.

Collateral
The Company receives collateral from customers as part of its business activities. Collateral can take the form of cash, securities or other assets. Where cash collateral is received this is recorded on the balance sheet and, where required by collateral agreements, is held in segregated client cash accounts. The Company does not recognise non-cash collateral received on its balance sheet.

Where cash collateral is posted to a third party the Company derecognises cash from its balance sheet. Non-cash collateral posted to a third party remains on the Company's balance sheet.

Offsetting financial instruments
Financial assets and liabilities are offset and the net amount reported in the balance sheet only when there is currently a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legal right to set off the recognised amounts must be enforceable in both the normal course of business, in the event of default, insolvency or bankruptcy of both the Company and its counterparty. In all other situations they are presented gross.

1. Principal accounting policies (continued)

(c) Financial instruments (continued)

All offsetting applied by the Company relates to derivatives and repurchase and reverse repurchase agreements. A significant portion of offsetting is applied to interest rate derivatives and related cash margin balances, which are cleared through central clearing parties such as the London Clearing House. The Company also offsets repurchase and reverse repurchase agreements for which the Company has the right to set off and has the intent to settle on a net basis or to realise an asset and settle a liability simultaneously.

Derecognition of financial assets and financial liabilities
Financial assets are derecognised when the right to receive cash flows from the assets has expired or when the Company has transferred its contractual right to receive the cash flows of the financial assets and either substantially all the risks and rewards of ownership have been transferred or substantially all the risks and rewards have neither been retained nor transferred but control is not retained.

If the Company enters into a transaction that results in it retaining significantly all of the risks and rewards of a financial asset it will continue to recognise that financial asset and will recognise a financial liability equal to the consideration received under the transaction.

Financial liabilities are derecognised when they are extinguished, that is when the obligation is substantially modified, exchanged, discharged, cancelled or expired.

(d) Physical commodities

Physical commodities are initially recognised at fair value on settlement date and subsequently re-measured at fair value. Realised gains and losses on sales of commodities inventory are included in net dealing income.

(e) Fee and commission income

Fee and commission income is recognised when the right to consideration has been obtained in exchange for performance.

Underwriting and advisory revenues including mergers and acquisition fees are recognised when CGML's performance under the terms of a contractual arrangement is completed, which is typically at the closing of the transaction. Trading-related fees primarily include commissions and fees from the following: executing transactions on exchanges and over-the counter markets; sale of mutual funds, insurance and other annuity products; and assisting clients in clearing transactions, providing brokerage services and other such activities. Trading-related fees are recognised when earned in fee and commission income.

The services described above are generally provided by the Company in a principal capacity, whereby it has primary responsibility for fulfilling the contract with the customer.

(f) Interest receivable and payable

Interest income and expense is recognised in the income statement for all financial assets classified as loans and receivables and non-trading financial liabilities, using the effective interest rate method. The effective interest rate is the rate that exactly discounts the estimated future cash payments and receipts through the expected life of the financial asset or financial liability to the carrying amount of the financial asset or financial liability. The calculation of the effective interest rate includes incremental and directly attributable transaction costs and fees paid or received that are an integral part of the effective interest rate.

Interest arising on financial assets or financial liabilities that are "held for trading" or "designated at fair value" is reported within interest income and expense respectively.

(g) Net dealing income

Net dealing income comprises gains and losses related to trading assets, trading liabilities and financial assets and liabilities designated at fair value and physical commodities, and includes all realised and unrealised fair value changes, dividends and foreign exchange differences. For derivatives that are not part of hedging programmes, both the interest element and the fair value movements are recognised as part of net dealing income.

1. Principal accounting policies (continued)

(h) Tangible and Intangible assets

Tangible fixed assets are measured at cost, less accumulated depreciation. The cost of developed software includes directly attributable internal costs and the cost of external consultants. Depreciation is provided at rates calculated to write-off the cost, less the estimated residual value of each asset, on a straight-line basis over its expected economic useful life, as follows:

Premises improvements	-	lesser of the life of the lease or 10 years
Equipment	-	lesser of the life of the equipment or 10 years
Capitalised software	-	2 to 10 years

At each reporting date the Company assesses whether there is any indication that tangible or intangible fixed assets are impaired.

(i) Fixed asset investments

Investments in subsidiary undertakings are stated at cost, less any impairment.

(j) Taxation

Income tax payable on profits is recognised as an expense based on the applicable tax laws in each jurisdiction in the period in which profits arise.

Deferred tax assets and liabilities are recognised for taxable and deductible temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets are recognised to the extent that it is probable that there will be sufficient profits available against which these differences can be utilised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the asset will be realised or the liability will be settled based on tax rates that are enacted or substantively enacted at the balance sheet date. Deferred tax balances are not discounted.

(k) Pension and other post retirement benefit costs

CGML operates both a defined benefit and a defined contribution pension scheme.

The cost of CGML's defined contribution pension scheme is expensed as the related service is provided and recognised within operating expenses in the income statement. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating to the term of the related pension liability. Remeasurement gains and losses are recognised immediately in the Statement of Other Comprehensive Income (OCI). The current service cost and any past service costs are included in the income statement within operating expenses. The interest income on pension scheme assets, net of the impact of the interest cost on the pension scheme liabilities, is included within Net finance income on pension.

A surplus is recognised on the balance sheet where an economic benefit is available as a reduction in future contributions or as a refund of monies to Citi.

(l) Foreign currencies

Transactions in foreign currencies are recorded using the rate of exchange at the date of transaction. Monetary assets and liabilities denominated in currencies other than US Dollars are translated into US Dollars using the year end spot exchange rates. Non-monetary assets and liabilities denominated in currencies other than US Dollar that are classified as "held for trading" or "designated at fair value" are translated into US Dollars using the year end spot rate. Non-monetary assets and liabilities denominated in currencies other than US Dollars that are not measured at fair value have been translated at the relevant historical exchange rates. Any gains or losses on exchange are taken to the income statement as incurred apart from AFS equity instruments where any currency differences are recognised in OCI.

1. Principal accounting policies (continued)

(m) Share-based incentive plans

The Company participates in a number of Citigroup Inc. (Citi) share-based incentive plans under which Citi grants shares to the Company's employees. Pursuant to a separate Stock Plans Affiliate Participation Agreement (SPAPA) the Company makes a cash settlement to Citi for the fair value of the share-based incentive awards delivered to the Company's employees under these plans.

The Company applies equity-settled accounting for its share based incentive plans, with separate accounting for its associated obligations to make payments to Citigroup Inc. The Company recognises the fair value of the awards at grant date as compensation expense over the vesting period with a credit to the intercompany payable to Citigroup Inc. All amounts paid to Citigroup Inc. and the associated obligations are recognised over the vesting period. Subsequent changes in the fair value of the recharges in respect of all unexercised awards are reviewed annually and any changes in value are recognised in the equity reserve, again over the vesting period. The SPAPA is also updated annually.

For Citi's share based incentive plans that have a graded vested period each "tranche" of the award is treated as a separate award. Where a plan has a cliff vest, the award only has a single "tranche". The expense is recognised as follows:

Vesting Period of Award	**% of expense recognised in Income Statement**			
	Year 1	**Year 2**	**Year 3**	**Year 4**
2 Years (vesting in 2 Tranches)	75%	25%		
2 Years (vesting in 1 Tranche)	50%	50%		
3 Years (vesting in 3 Tranches)	61%	28%	11%	
3 years (vesting in 1 Tranche)	33%	33%	33%	
4 Years (vesting in 4 Tranches)	52%	27%	15%	6%
4 Years (vesting in 1 Tranche)	25%	25%	25%	25%

Employees who meet certain age plus years of service requirements (retirement eligible employees) may terminate active employment and continue vesting of their awards provided they comply with specified non-compete provisions. The cost of share based incentive plans are recognised over the requisite service period. For awards granted to retirement eligible employees, the services are provided prior to grant date, and subsequently the costs are accrued in the year prior to the grant date.

EU Short Term awards are a form of Capital Accumulation Program (CAP) awarded to qualifying staff. The award is accounted for similarly to CAP awards but is delivered in the form of immediately vested restricted shares subject to a six month sale restriction.

2. Use of assumptions, estimates and judgements

The results of the Company are sensitive to the accounting policies, assumptions and estimates that underlie the preparation of its financial statements. The accounting policies used in the preparation of the financial statements are described in detail above.

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

The following critical judgements have had the most significant effect on the amounts recognised in the financial statements.

Valuation of financial instruments
The Company's accounting policy for valuation of financial instruments is described in Note 1(c). The fair values of financial instruments that are not quoted in active markets are determined by using valuation techniques. To the extent practicable, models use only observable data. Where this is not possible, management may be required to make estimates. Note 15 'Financial assets and liabilities accounting classifications and fair values' discusses further the valuation of financial instruments.

Credit valuation adjustment
The Company has a number of financial liabilities that are valued at fair value. Under IAS 39, the Company is required to consider its own credit risk in determining the fair value of such financial liabilities. Management judgement is required in determining the appropriate measure of own credit risk to be included in the valuation model of the financial liability.

Credit valuation adjustments (CVA) and funding valuation adjustments (FVA), are applied to OTC derivative instruments in which the base valuation generally discounts expected cash flows using the relevant base interest rate curve for the currency of the derivative (e.g., LIBOR for uncollateralized U.S. dollar derivatives). As not all counterparties have the same credit risk as that implied by the relevant base curve, a CVA is necessary to incorporate the market view of both counterparty credit risk and Citi's own credit risk in the valuation. FVA reflects a market funding risk premium inherent in the uncollateralized portion of derivative portfolios and in collateralized derivatives where the terms of the agreement do not permit the reuse of the collateral received.

Citi's CVA methodology is composed of two steps. First, the credit exposure profile for each counterparty is determined using the terms of all individual derivative positions and a Monte Carlo simulation or other quantitative analysis to generate a series of expected cash flows at future points in time. The calculation of this exposure profile considers the effect of credit risk mitigants, including pledged cash or other collateral and any legal right of offset that exists with counterparty through arrangements such as netting agreements. Individual derivative contracts that are subject to an enforceable master netting agreement with a counterparty are aggregated for this purpose, since it is those aggregate net cash flows that are subject to non-performance risk. This process identifies specific, point-in-time future cash flows that are subject to non-performance risk, rather than using the current recognised net asset or liability as a basis to measure the CVA.

Second, market-based views of default probabilities derived from observed credit spreads in the credit default swap (CDS) market are applied to the expected future cash flows determined in step one. Citi's own-credit CVA is determined using Citi-specific CDS spreads for the relevant tenor. For netting sets where individual analysis is practicable (e.g., exposures to counterparties with liquid CDSs), counterparty-specific CDS spreads are used as an input into the calculation. Where counterparty-specific CDS spreads are not available, counterparty CVA is determined by proxy approach, for instance one which uses CDS spread indices for each credit rating and tenor.

The CVA and FVA are designed to incorporate a market view of the credit and funding risk, respectively, inherent in the derivative portfolio. However, most unsecured derivative instruments are negotiated bilateral contracts and are not commonly transferred to third parties. Derivative instruments are normally settled contractually or, if terminated early, are terminated at a value negotiated bilaterally between the counterparties. Thus, the CVA and FVA may not be realised upon a settlement or termination in the normal course of business. In addition, all or a portion of these adjustments may be reversed or otherwise adjusted in future periods in the event of changes in the credit or funding risk associated with the derivative instruments.

2. Use of assumptions, estimates and judgements (continued)

Credit valuation adjustment (continued)

During 2017, the Company recorded net CVA losses of $11 million (2016: $20 million losses). There were additionally net FVA losses of $2 million (2016: $6 million losses). The total adjustment recorded in the balance sheet at the year-end was $5 million (2016: $0.4 million).

Pension

The Company's defined benefit schemes are measured on an actuarial basis, with the key assumptions being discount rate, inflation, mortality and investment returns. There is no separate assumption for expected return on assets. The net finance income is calculated using the discount rate.

Mortality assumptions are based upon the relevant standard industry and national mortality tables. Discount rates are set using the Aon Hewitt GBP Single Agency Curve, composed using an underlying swap curve and a credit spread curve fitted from prices on AA UK corporate bonds. Management judgement is required in estimating the rate of future salary growth and in assessing the implications of IFRIC 14 and the recoverability of any surplus. All assumptions are unbiased, mutually compatible and based upon market expectations at the reporting date.

3. Turnover and results

As permitted by paragraph 4 of Schedule 1 to the Companies Act 2006 The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (SI 2008 No 410), the format of the income statement and the Balance sheet have been adapted to the circumstances of the Company. Instead of turnover, the Directors have reported fee and commission income, net dealing income and interest receivable less interest payable in determining the gross profit of the Company.

4. Fee and commission income

Fee and commission income is derived from underwriting activities, marketing securities owned by other group undertakings, trading services provided to other group undertakings and corporate finance fees associated with mergers and acquisitions and other corporate finance and broking advisory activities.

5. Interest receivable and interest payable

	2017 $ Million	2016 $ Million
Interest receivable comprises:		
Interest on trading assets and collateralised financing transactions at fair value through profit or loss	517	239
Interest on collateralised financing transactions, debtors and cash assets not at fair value through profit or loss	712	329
	1,229	568
Interest payable comprises:		
Interest on collateralised financing transactions at fair value through profit or loss	405	54
Interest on collateralised financing transactions and borrowings not at fair value through profit or loss	1,123	617
Interest on subordinated debt	72	94
	1,600	765

Included within interest receivable is interest received on client money.

6. Gains and losses on financial assets and financial liabilities held at fair value through profit and loss

	2017 $ Million	2016 $ Million
Gains and losses on financial assets and financial liabilities held for trading:		
Net dealing income	1,817	1,559
Interest receivable	103	210
Interest payable	(126)	(54)
	1,794	1,715
Gains and losses on financial assets and financial liabilities "designated at fair value through profit or loss":		
Net dealing income	136	53
Interest receivable	414	29
Interest payable	(279)	-
	271	82

The financial liabilities designated at fair value through profit or loss are fully collateralised (see Note 30) such that there are no changes in the fair value of these liabilities attributable to changes in their credit risk.

7. Operating expenses

	2017 $ Million	2016 $ Million
Operating expenses include:		
Employee remuneration	952	975
Share-based incentive expense (Note 9)	185	224
Payroll taxes	159	142
Pension costs		
- defined benefit scheme (Note 8)	11	10
- defined contribution scheme	46	63
Depreciation (Note 19)	48	53
Auditor's remuneration:		
Audit of these financial statements	1.73	1.27
Amounts receivable by the company's auditor and its associates in respect of:		
Audit related assurance services	0.85	0.77
Other assurance services	0.07	0.11

The Company employed an average of 3,519 (2016: 3,515) employees during the year.

The classification of last year's amounts receivable by the company's auditor has been realigned to better reflect the services provided.

8. Pension

Defined contribution scheme

The Citigroup (UK) Pension Plan was established in September 2000 and provides defined contribution benefits to all new hires. The contributions that Citi is required to make are known, although the pension benefit will vary depending upon the investment returns achieved by investment choices made by the employee.

Defined benefit scheme

The Citigroup Global Markets Limited Pension and Life Assurance Scheme ("the Scheme") is a funded pension scheme providing benefits on both a defined benefit and defined contribution basis. The Scheme is now closed to new entrants. The assets of the Scheme are held separately from those of the Company, in a trustee administered fund. The Company's objective is to ensure that the Scheme has sufficient assets to pay benefits as they fall due i.e. to be fully funded on a technical provisions basis, as measured from time to time.

A global pension risk framework and accompanying global policies on the management of risks related to defined benefit and defined contribution plans are in place. Pension risk, governance and oversight are managed by a network of global, regional and local pension forums.

The pension cost in respect of defined benefit obligations is assessed in accordance with the advice of a qualified external actuary using a Projected Unit method with a triennial review. The most recent full actuarial assessment of the liabilities of the scheme was at 5 April 2017.

The Scheme exposes Citi to a number of risks, the most significant being;

- Asset Volatility - the Scheme's obligations are calculated using a discount rate set with reference to corporate bond yields; if assets underperform this yield, this will create a deficit.

- Bond Yields - a decrease in corporate bond yields will increase the value placed on the Scheme's obligations for accounting purposes. Provided that government bond yields decrease by the same margin as corporate bond yields, this will largely be offset by an increase in the value of the Scheme's assets.

- Inflation Risk - a significant proportion of the Scheme's obligations are linked to inflation such that higher inflation will lead to higher liabilities (although in most cases, caps on the level of inflationary increases are in place to protect against extreme inflation).
- Life Expectancy - the majority of the Scheme's obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the liabilities.

Expected regular employer contributions to be paid into the Scheme during 2018 are $13 million (2017: $13 million). Employees are not required to contribute to the Scheme, which is contracted out of the State Earnings Related Pension Scheme.

The Scheme duration is an indicator of the weighted-average time until benefit payments are made. For the Scheme as a whole, the duration is 22 years.

There were no plan amendments, curtailment or settlement events during the current year.

The mortality assumptions are based on standard mortality tables which allow for expected future mortality improvements. The assumptions are that a member currently aged 65 will live on average for a further 23.6 years for males and 25.1 years for females. Members currently aged 45 are expected to live a further 24.6 years and 26.1 years from age 65 for males and females respectively.

8. Pension (continued)

Assumptions that are affected by economic conditions (financial assumptions) are based on market expectations at the balance sheet date, for the period over which the obligations are settled. In addition to the assumptions on which the Scheme obligation at the balance sheet date is based, it is also necessary to assume an expected rate of return on assets, for the purpose of reporting the interest income on pension scheme assets.

The financial assumptions used in calculating the defined benefit scheme liabilities as at 31 December 2017 are as follows:

	2017	2016
Discount rate for scheme liabilities	2.50%	2.70%
Interest income rate on scheme assets	2.50%	2.70%
Expected rate of return on assets	2.50%	2.70%
Inflation	3.40%	3.40%
Rate of general long-term increase in salaries	1.50%	1.50%
Rate of increase to pensions in payment		
- Pensions accrued from 1 May 2005	2.50%	2.50%
- Pensions accrued prior to 1 May 2005	3.20%	3.20%

The fair value of Scheme assets at the reporting date are set out as follows:

	Fair value	
	2017	2016
	$ Million	$ Million
Government bonds	1,241	1,200
Corporate bonds	703	641
Insured Pensions	1	1
Other	10	5
Total market value of assets	1,955	1,847

Analysis of amounts recognised in the income statement account:

	2017	2016
	$ Million	$ Million
Current service cost	11	9
Curtailment cost	-	1
Expense recognised in the profit and loss account	11	10

Analysis of other finance income:

	2017	2016
	$ Million	$ Million
Interest income on pension scheme assets	51	61
Interest expense on pension scheme liabilities	(39)	(45)
Net finance income on pension	**12**	**16**

8. Pension (continued)

Analysis of amount recognised in Statement of Comprehensive Income:

	2017 $ Million	2016 $ Million
Return on scheme assets in excess of/(below) that recognised in net interest	32	392
Actuarial losses due to changes in financial assumptions	(52)	(357)
Actuarial gains due to changes in demographic assumptions	33	-
Actuarial (losses)/gains due to liability experience	(24)	17
Total remeasurement (losses)/gains recognised in Statement of Comprehensive Income	(11)	52
Deferred tax adjustment on pension in Statement of Comprehensive Income	3	(9)
Total (losses)/gains recognised in Statement of Comprehensive Income	**(8)**	**43**

Reconciliation to the balance sheet:

	2017 $ Million	2016 $ Million
Total market value of assets	1,955	1,847
Present value of scheme liabilities	(1,474)	(1,410)
Gross pension asset	**481**	**437**
Related deferred tax liability	(120)	(109)
Net pension asset	361	328

	2017 $ Million	2016 $ Million
Surplus in scheme at beginning of the year	437	446
Current service cost	(11)	(9)
Contributions	13	11
Curtailments	-	(1)
Other finance income	12	16
Remeasurement (losses)/gains	(11)	52
Foreign exchange adjustment	40	(78)
Surplus in scheme at end of year	**480**	**437**

CGML recognises a surplus in accordance with the requirements of IFRIC 14. The trustees of the Scheme do not have the unilateral right to commence wind-up of the Scheme, and thus CGML assumes that the Scheme will continue in existence until the last benefit payments are made to members, at which point any residual assets will be returned to the employer in line with the rules of the Scheme.

The IASB's proposed amendments to IFRIC 14 are not expected to affect CGML's ability to receive a refund of any surplus in this situation, but the Company will assess this again once the amendments are finalised.

8. Pension (continued)

The changes to the present value of the defined obligation during the year are as follows:

	2017 $ Million	2016 $ Million
Opening defined benefit obligation	1,410	1,308
Current service cost	11	9
Interest expense	39	45
Remeasurement losses on scheme liabilities	43	340
Net benefits paid out	(165)	(45)
Curtailments	-	1
Foreign exchange adjustment	136	(248)
Closing defined benefit obligation	1,474	1,410

The changes to the fair value of scheme assets during the year are as follows:

	2017 $ Million	2016 $ Million
Opening fair value of scheme assets	1,847	1,754
Interest income on pension scheme assets	51	61
Actuarial gains on scheme assets	32	392
Contributions by the employer	13	11
Net benefits paid out	(165)	(45)
Foreign exchange adjustment	177	(326)
Closing fair value of scheme assets	1,955	1,847

The actual return on assets is as follows:

	2017 $ Million	2016 $ Million
Interest income on pension scheme assets	51	61
Remeasurement gains on scheme assets	32	392
Actual return on assets	83	453

Asset values increased in both 2016 and 2017 driven by falling bond yields, the sharp decrease in bond yields in 2016 precipitating a steeper remeasurement gain.

8. Pension (continued)

The table below sets out the history of experience gains and losses:

	2017 $ Million	2016 $ Million	2015 $ Million	2014 $ Million	2013 $ Million
Gains/(losses) on scheme assets due to experience	32	392	(94)	392	(21)
(Losses)/gains on scheme liabilities due to experience	(24)	17	27	9	3
(Losses)/gains on scheme liabilities due to assumptions	(19)	(357)	13	(135)	(70)
Remeasurements recognised in Statement of Comprehensive Income	(11)	52	(54)	266	(88)
Related deferred tax (liability)	3	(9)	(16)	(100)	-
Total (losses)/gains recognised in Statement of Comprehensive Income net of tax	(8)	43	(70)	166	(88)

The key assumptions used for IAS 19 are the discount rate, inflation and mortality. If different assumptions were used, this could have a material effect on the results disclosed. The sensitivity of the results to these assumptions is set out in the table below.

Sensitivity to key assumptions	2017 Change in defined benefit obligation increase/(decrease) $ Million	2016 Change in defined benefit obligation increase/(decreas $ Million
Effect of decreasing the discount rate assumption by 1%	355	393
Effect of increasing the salary increase assumption by 1%	9	11
Effect of increasing the life expectancy assumption by 1 year	65	56
Effect of increasing the pension increase assumption by 1%	204	239
Effect of increasing the inflation assumption by 1%	236	263

In valuing the liabilities of the pension fund, mortality assumptions have been made as indicated above. If life expectancy had been changed to assume that all members of the fund lived for one year longer, the value of the reported liabilities would have increased by $65 million.

The sensitivity information shown above is approximate and has been determined taking into account the duration of the liabilities and the overall profile of the Scheme membership. The methods and assumptions used in preparing the sensitivity analysis above have not changed from the prior year.

9. Share-based incentive plans

As part of the Company's remuneration programme it participates in a number of Citigroup share-based incentive plans. These plans involve the granting of restricted or deferred share awards and share payments. Such awards are used to attract, retain and motivate officers and employees to provide incentives for their contributions to the long-term performance and growth of the Company, and to align their interests with those of the shareholders. The award programmes are administered by the Personnel and Compensation Committee of the Citigroup Inc. Board of Directors, which is composed entirely of non-employee directors.

In the share award program Citigroup issues common shares in the form of restricted share awards, deferred share awards and share payments. For all stock award programs during the applicable vesting period, the shares awarded are not issued to participants (in the case of a deferred stock award) or cannot be sold or transferred by the participants (in the case of a restricted stock award), until after the vesting conditions have been satisfied. Recipients of deferred share awards do not have any shareholder rights until shares are delivered to them, but they generally are entitled to receive dividend-equivalent payments during the vesting period. Recipients of restricted share awards are entitled to a limited voting right and to receive dividend or dividend-equivalent payments during the vesting period. Once a share award vests the shares become freely transferrable, but in the case of certain employees, may be subject to transfer restriction by their terms or share ownership commitment.

In prior years, certain stock-based awards were subject to discretionary clawback provisions and as such subject to variable accounting. Under variable accounting the associated value of the award liability moves in line with changes in Citigroup's common stock price until the date that the award vests. Any fluctuation from the grant date value of the award until the award is fully vested is recognised through the income statement.

In April 2017 Citigroup made amendments to its UK awards prospectus which enabled the adoption of fixed accounting for all unvested variable accounting awards using a modification price of $59.39 (set at the end of April when the decision was confirmed). The difference between the grant price of all unvested variable accounting awards and the modification price was recognised through the income statement. Further fluctuations in share price from the modification price to the vesting date will be recognised in equity, in line with other non-variable accounting share based payment award types.

(i) Stock award programme

The Company participates in the Citigroup Capital Accumulation Program (CAP), under which shares of Citigroup common stock are awarded in the form of restricted or deferred stock to participating employees.

Generally CAP awards of restricted or deferred stock constitute a percentage of annual incentive compensation and vest over a three or four year period beginning on or about the first anniversary of the award date. Except in specific circumstances, continuous employment within Citigroup is required for CAP and other stock award programs to vest.

The program provides that employees who meet certain age plus years-of-service requirements (retirement-eligible employees) may terminate active employment and continue vesting in their awards provided they comply with specified non-compete provisions. Awards granted to retirement-eligible employees are accrued in the year prior to the grant date in the same manner as cash incentive compensation is accrued.

For all stock award programmes, during the applicable vesting period, the shares awarded cannot be sold or transferred by the participant, and the award is subject to cancellation if the participant's employment is terminated. After the award vests, the shares become freely transferable (subject to specific sale restrictions). From the date of award, the recipient of a restricted stock award can direct the vote of the shares and receive regular dividends to the extent dividends are paid on Citigroup common stock. Recipients of deferred stock awards receive dividend equivalents to the extent dividends are paid on Citigroup common stock, but cannot vote.

Stock awards granted generally vest 25% per year over four years or 33% per year over 3 years.

(i) Stock award programme (continued)

As part of remuneration since 2010, the Company entered into an arrangement referred to as an "EU Short Term" award. The award will be delivered in the form of immediately vested restricted shares subject to a six month sale restriction.

	2017	2016	2015	2014	2013
Shares awarded	2,714,862	4,874,781	3,380,169	3,744,987	4,677,014
Weighted average fair market value per share	$59.34	$37.51	$50.54	$49.64	$44.23

(ii) Stock option programme

In prior years, the Company made discretionary grants of options to eligible employees pursuant to the broad-based Citigroup Employee Option Grant (CEOG) Program under the Citigroup Stock Incentive Plan. The last options granted under the plan were in 2011. These grants have 10,000 options outstanding, with a weighted average contractual life remaining of 1.16 years and a weighted average exercise price of $249.50. Full details on the history of CEOG can be found in the Company's prior year financial statements.

(iii) Income statement impact

The table below details the income statement impact of the share based incentive plans. The expense recognised in the income statement has decreased, with a corresponding increase in the recharges included in the equity reserve, as all deferred compensation awards are now subject to variable accounting.

	2017 $ million	2016 $ million
Stock Awards		
Granted in 2017	122	-
Granted in 2016	35	185
Granted in 2015	8	31
Granted in 2014	3	7
Granted in 2013	-	(3)
Accrued Expenses	17	4
Total Expense (Note 7)	185	224
Fair value adjustment of intercompany recharges in equity reserve	(71)	1
Deferred tax impact of fair value adjustment in equity reserve	18	-
Net fair value adjustment of intercompany recharges in equity reserve	**(53)**	**1**
Total carrying amount of equity-settled transaction liability	439	405
Total carrying amount of cash-settled transaction liability	6	8

10. Directors' remuneration

Directors' remuneration in respect of services to the Company was as follows:

	2017 $'000	2016 $'000
Aggregate emoluments	8,207	6,297
Contributions to defined contribution pension scheme	96	171
	8,303	6,468

The contributions to the money purchase pension schemes are accruing to four of the Directors (2016: four). Four of the Directors (2016: four) of the Company participate in parent company share and share option plans and, during the year, none of the Directors (2016: none) exercised options.

The remuneration of the highest paid Director was $3,661,806 (2016: $2,450,590) and accrued pension of $16,063 (2016: $16,360). The highest paid Director did not (2016: did not) exercise share options during the year.

10. Directors' remuneration (continued)

The above remuneration is based on the apportionment of time incurred by the Directors for services to the Company, both in their capacity as a Director and, where applicable, their normal employment.

11. Tax on profit on ordinary activities

(a) Analysis of tax charge in the year

	2017 $ Million	2016 $ Million
Current tax:		
UK corporation tax	116	-
Adjustment in respect of UK corporation tax for previous years	1	1
Double taxation relief	(50)	-
Overseas current tax	69	14
Adjustment in respect of overseas tax for previous years	15	(10)
Total current tax	151	5
Deferred tax:		
Origination and reversal of temporary differences		
- UK movement on Pension Asset	13	(15)
- UK movement on other temporary differences (Note 22)	(92)	1
- overseas	(1)	7
Rate change adjustment	-	6
Adjustment in respect of deferred tax for earlier years - overseas	(4)	-
Total deferred tax	(84)	(1)
Tax charge on ordinary activities	67	4

(b) Factors affecting tax charge for the year

The table below illustrates how the tax chargeable on operating profit for the year is impacted by non-taxable items and available reliefs, as well as by the effect of previously unrecognised deferred tax.

	2017 $ Million	2016 $ Million
Profit/(loss) on ordinary activities before tax	451	380
Profit/(loss) on ordinary activities multiplied by the standard rate of corporation tax in the UK of 27.25% (2016: 28%)	123	106
Effects of:		
Expenses not deductible for tax purposes	24	20
Recognition of previously unrecognised deferred tax relating to prior years	(98)	
Accrued interest paid (reversal of unrecognised deferred tax asset)	-	(202)
Foreign tax credits/deductions	-	(4)
Impact of tax rates on overseas profits	17	14
Group relief surrendered / (received)	-	40
Adjustments in relation to previous years	12	(9)
Unrecognised current year deferred tax	-	48
Rate change adjustment	-	6
Deferred tax on pension	-	(15)
Impact of differing rates on current and deferred tax	(11)	-
Total tax charge for year	67	4

11. Tax on profit on ordinary activities (continued)

(c) Aggregate current and deferred tax relating to items recognised directly in equity

	2017 $ Million	2016 $ Million
Deferred tax on pension revaluation in Other comprehensive income	(3)	9
Deferred tax on Share based payments in equity	(18)	-
Total current and deferred tax recognised in equity	(21)	9

(d) Factors that may affect future tax charges

The UK corporate tax rate applying to CGML in 2017 was 27.25%. This includes a surcharge of 8% on the profits of banking companies applicable from 1 January 2016. Overseas branches provided for taxation at the appropriate rates for the countries in which they operate.

The main rate of corporation tax (excluding surcharge) in the UK was reduced from 20% to 19% on 1 April 2017 and will reduce further to 17% from 1 April 2020.

12. Cash at bank and in hand

The following amounts are included within cash at bank and in hand:

	2017 $ Million	2016 $ Million
Cash at bank held by third parties	2,076	2,383
Cash at bank held by other group undertakings	877	1,355
	2,953	3,738

Included within cash held by third parties is $1,841 million (2016: $1,533 million) that is held on behalf of clients in segregated accounts. Included within cash held by other group undertakings is $110 million (2016: $120 million) on behalf of clients in segregated accounts.

13. Derivatives

	2017 Fair Value		2016 Fair Value	
	Asset $ Million	Liability $ Million	Asset $ Million	Liability $ Million
Swap agreements, swap options and interest rate cap and floor agreements	141,686	139,197	152,583	155,575
Index and equity options and similar contractual commitments	6,268	12,608	3,336	4,014
Other options and contractual commitments	1,455	4,706	11,715	10,669
	149,409	156,511	167,634	170,258

13. Derivatives (continued)

In the ordinary course of its business, CGML enters into various types of derivative transactions, which include:

- Swap contracts - commitments to settle in cash at a future date or dates ranging from a few days to a number of years, based on differentials between specified instruments or indices, as applied to a notional principal amount;

- Option contracts - the right but not the obligation to buy or sell within a specified time a financial asset at a fixed price over a specified time period; and

- Futures and forward contracts - commitments to buy or sell at a future date a financial asset at a fixed price.

Derivative transactions may be OTC agreements which are bilaterally negotiated with counterparties and either settled with those counterparties or novated and cleared through CCPs. Others are standardised contracts traded on an exchange with the CCP as the counterparty to the trade. Derivatives expose CGML to market, credit or liquidity risks which are described further in Note 30 and which may impact the amount, timing and certainty of future cash flows.

14. Financial assets at fair value through profit or loss

Financial assets measured at fair value through profit or loss form part of the trading portfolio of the Company and comprise marketable securities and other financial assets. The following amounts are included in financial assets held at fair value.

	2017 $ Million	2016 $ Million
Financial assets classed as held for trading		
Derivatives (Note 13)	149,409	167,634
Inventory		
Government bonds	25,900	15,121
Non-government bonds	7,133	6,526
Equities	23,073	14,831
Physical Commodities	572	135
Commercial Paper	79	-
	56,757	36,613
Financial assets designated at fair value through profit or loss		
Collateralised financing transactions	64,516	51,451
	270,682	255,698

15. Financial assets and liabilities accounting classifications and fair values

The table below sets out the Company's classification of each class of financial assets and liabilities, and their fair values. Those classified as held for trading or designated at fair value are further allocated to levels in the fair value hierarchy in the table on the following page.

31 December 2017	Held for Trading $ Million	Designated at fair value $ Million	Amortised cost $ Million	Available for Sale $ Million	Total carrying amount $ Million	Fair value $ Million
Cash	-	-	2,953	-	2,953	2,953
Derivatives	149,409	-	-	-	149,409	149,409
Inventory	56,757		-	-	56,757	56,757
Collateralised financing transactions	-	64,516	70,939	-	135,455	135,455
Cash collateral pledged	-	-	22,071	-	22,071	22,071
Trade debtors	-	-	10,254	-	10,254	10,254
Other debtors	-	-	51	-	51	51
Financial assets classed as available for sale	-	-	-	59	59	59
	206,166	64,516	106,268	59	377,009	377,009
Bank loans and overdrafts	-	-	16,461		16,461	16,522
Derivatives	156,511	-	-	-	156,511	156,511
Securities sold but not yet purchased	42,779	-	-	-	42,779	42,779
Collateralised financing transactions	-	57,000	51,340	-	108,340	108,340
Cash collateral held	-	-	20,549	-	20,549	20,549
Trade creditors	-	-	11,925	-	11,925	11,925
Other creditors and accruals	-	-	1,134	-	1,134	1,134
Subordinated loans	-	-	4,012	-	4,012	4,249
	199,290	57,000	105,421	-	361,711	362,009

31 December 2016	Held for Trading $ Million	Designated at fair value $ Million	Amortised cost $ Million	Available for Sale $ Million	Total carrying amount $ Million	Fair value $ Million
Cash	-	-	3,738	-	3,738	3,738
Derivatives	167,634	-	-	-	167,634	167,634
Inventory	36,613		-	-	36,613	36,613
Collateralised financing transactions	-	51,451	56,222	-	107,673	107,673
Cash collateral pledged	-	-	21,992	-	21,992	21,992
Trade debtors	-	-	7,146	-	7,146	7,146
Other debtors	-	-	9	-	9	9
Financial assets classed as available for sale	-	-	-	31	31	31
	204,247	51,451	89,107	31	344,836	344,836
Bank loans and overdrafts	-	-	10,454	-	10,454	10,454
Derivatives	170,258	-	-	-	170,258	170,258
Securities sold but not yet purchased	44,654	-	-	-	44,654	44,654
Collateralised financing transactions	-	35,783	33,509	-	69,292	69,292
Cash collateral held	-	-	22,595	-	22,595	22,595
Trade creditors	-	-	8,680	-	8,680	8,680
Other creditors and accruals	-	-	988	-	988	988
Subordinated loans	-	-	4,585	-	4,585	4,846
	214,912	35,783	80,811	-	331,506	331,767

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NOTES TO THE FINANCIAL STATEMENTS

15. Financial assets and liabilities accounting classifications and fair values (continued)

The following table shows an analysis of financial assets and liabilities measured at fair value by level in the hierarchy:

31 December 2017	Level 1 $ Million	Level 2 $ Million	Level 3 $ Million	Total $ Million
Financial assets held for trading				
Derivatives	31	147,519	1,859	149,409
Government bonds	23,065	2,819	16	25,900
Non-government bonds	176	6,713	244	7,133
Equities	21,637	1,364	72	23,073
Physical Commodities	-	572	-	572
Commercial Paper	-	79	-	79
	44,909	159,066	2,191	206,166
Financial assets designated at fair value				
Collateralised financing transactions	-	64,487	29	64,516
Financial assets available for sale				
Investment securities	-	59	-	59
	44,909	223,612	2,220	270,741
Financial liabilities held for trading				
Derivatives	99	152,791	3,621	156,511
Securities sold but not yet purchased	39,262	3,283	234	42,779
	39,361	156,074	3,855	199,290
Financial liabilities designated at fair value				
Collateralised financing transactions	-	56,930	70	57,000
	39,361	213,004	3,925	256,290

31 December 2016	Level 1 $ Million	Level 2 $ Million	Level 3 $ Million	Total $ Million
Financial assets held for trading				
Derivatives	39	165,335	2,260	167,634
Government bonds	11,292	3,827	2	15,121
Non-government bonds	8	6,335	183	6,526
Equities	13,581	1,235	15	14,831
Physical Commodities	-	117	18	135
Commercial Paper	-	-	-	-
	24,920	176,849	2,478	204,247
Financial assets designated at fair value				
Collateralised financing transactions	-	51,451	-	51,451
Financial assets available for sale				
Investment securities	-	31	-	31
	24,920	228,331	2,478	255,729
Financial liabilities held for trading				
Derivatives	57	166,675	3,526	170,258
Securities sold but not yet purchased	39,598	4,946	110	44,654
	39,655	171,621	3,636	214,912
Financial liabilities designated at fair value				
Collateralised financing transactions	-	35,783	-	35,783
	39,655	207,404	3,636	250,695

15. Financial assets and liabilities accounting classifications and fair values (continued)

The following table shows an analysis of financial assets and liabilities classified as held at amortised cost by level in the hierarchy:

31 December 2017	Level 1 $ Million	Level 2 $ Million	Level 3 $ Million	Total $ Million
Financial assets at amortised cost				
Cash	2,953	-	-	2,953
Collateralised financing transactions	-	70,939	-	70,939
Cash collateral pledged	-	22,071	-	22,071
Trade debtors	-	10,254	-	10,254
Other debtors	-	51	-	51
	2,953	103,315	-	106,268
Financial liabilities at amortised cost				
Bank loans and overdrafts	-	16,461	-	16,461
Collateralised financing transactions	-	51,340	-	51,340
Cash collateral held	-	20,549	-	20,549
Trade creditors	-	11,925	-	11,925
Other creditors	-	1,134	-	1,134
Subordinated loans	-	4,012	-	4,012
	-	105,421	-	105,421

31 December 2016	Level 1 $ Million	Level 2 $ Million	Level 3 $ Million	Total $ Million
Financial assets at amortised cost				
Cash	3,738	-	-	3,738
Collateralised financing transactions	-	56,222	-	56,222
Cash collateral pledged	-	21,992	-	21,992
Trade debtors	-	7,146	-	7,146
Other debtors	-	9	-	9
	3,738	85,369	-	89,107
Financial liabilities at amortised cost				
Bank loans and overdrafts	-	10,454	-	10,454
Collateralised financing transactions	-	33,509	-	33,509
Cash collateral held	-	22,595	-	22,595
Trade creditors	-	8,680	-	8,680
Other creditors	-	988	-	988
Subordinated loans	-	4,585	-	4,585
	-	80,811	-	80,811

For the year ended 31 December 2017, there were no significant transfers between Level 1 and Level 2.

15. Financial assets and liabilities accounting classifications and fair values (continued)

Given the short term nature and characteristics of trade debtors, other debtors, trade creditors, other creditors and accruals the fair value has been assumed to approximate the carrying value. The fair value of subordinated loans has been calculated using the present value of future estimated cash flows, discounted using a discount rate of USD 3 month Overnight Indexed Swap (OIS) or 3 month Euro Overnight Index Average (EONIA) plus the Company's credit spread as at 31 December 2017.

Fair Value Measurement

IFRS 13 – *Fair Value Measurement* defines fair value, establishes a framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price 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. Among other things, the standard requires the Company to maximise the use of observable inputs and minimise the use of unobservable inputs when measuring fair value.

Under IFRS 13, the probability of default of a counterparty is factored into the valuation of derivative positions and includes the impact of the Company's own credit risk on derivatives and other liabilities measured at fair value.

<u>Fair Value Hierarchy</u>

The calculation of fair value incorporates the Company's estimate of the fair value of financial assets and financial liabilities. Other entities may use different valuation methods and assumptions in determining fair values, so comparisons of fair values between entities may not necessarily be meaningful.

The Company measures fair values using the following fair value hierarchy that indicates whether the inputs to those valuation techniques are observable or unobservable. Observable inputs denote market data obtained from independent sources, while unobservable inputs reflect the Company's market assumptions.

The types of inputs have created the following fair value hierarchy:

- Level 1: Quoted prices for identical instruments in active markets.

- Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.

- Level 3: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

The Company considers relevant and observable market prices in its valuations where possible. The frequency of transactions and the size of the bid-ask spread when comparing similar transactions are factors that are driven by the liquidity of markets and determine the relevance of observed prices in those markets.

Financial instruments may move between levels in the fair value hierarchy when factors such as the observability of pricing information, or of market input parameters, change. The Company's policy with respect to transfers between levels of the fair value hierarchy is to recognise transfers into and out of each level as of the end of the reporting period.

15. Financial assets and liabilities accounting classifications and fair values (continued)

Determination of Fair Value

As set out more fully in Note 1(c) of these financial statements, when available, the Company generally uses quoted market prices in an active market to calculate the fair value of a financial asset or liability and classifies such items as Level 1. In some specific cases where a market price is available, the Company will make use of alternative pricing techniques, such as matrix pricing, whereby a similar instrument is used as a proxy, to calculate more appropriate fair value for the instrument being valued, in which case the items are classified as Level 2.

If quoted market prices are not available, fair values are based upon internally developed valuation techniques that use, where possible, current market-based or independently sourced market input parameters such as interest rates, foreign exchange rates and option volatilities. Instruments valued using such internally generated valuation techniques are classified according to the significance of the inputs to the valuation. Thus an instrument may be classified in Level 3 even though there may be other significant inputs that are readily observable. Similarly, an instrument may be classified in Level 2, if the unobservable inputs are not deemed significant to the valuation.

Where available, the Company may also make use of quoted prices for recent trading activity in positions with the same or similar characteristics to that being valued. The frequency and size of transactions are among the factors considered in determining the relevance of prices observed from those markets. If relevant and observable prices are available for all significant pricing inputs, those instruments would be classified as Level 2. If relevant and observable market information is not available for significant pricing inputs, other valuation techniques would be used and the item would be classified as Level 3. Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors or brokers. Vendors' and brokers' valuations may be based on a variety of inputs ranging from observed prices to proprietary valuation models, and the Company assesses the quality and relevance of this information in determining the fair value measurement and disclosure of each instrument if such information is used as part of that determination.

Set out below is a description of the procedures used by CGML to determine the fair value of financial assets and financial liabilities irrespective of whether they are "held for trading" or have been "designated at fair value". This description includes an indication of the level in the fair value hierarchy in which each financial instrument is generally classified. Where appropriate, it also includes details of the valuation models, the key inputs to those models and any significant assumptions.

Market valuation adjustments
Market valuation adjustments are applied to items in Level 2 and Level 3 of the fair value hierarchy to ensure that the fair value reflects an exit price. These valuation adjustments therefore take into account bid-ask and, where relevant to fair value, additional liquidity considerations.

Credit valuation adjustments
Counterparty credit-risk adjustments are applied to derivatives, such as over-the-counter uncollateralised derivatives, where the base valuation uses market parameters based on the relevant base interest rate curves. Not all counterparties have the same credit risk as that implied by the relevant base curve, so it is necessary to consider the market view of the credit risk of a counterparty in order to estimate the fair value of such an item.

Bilateral or "own" credit-risk adjustments are applied to reflect the Company's own credit risk when valuing derivative liabilities and other liabilities measured at fair value. Counterparty and own credit adjustments consider the expected future cash flows between the Company and its counterparties under the terms of the instrument and the effect of credit risk on the valuation of those cash flows, rather than a point-in-time assessment of the current recognised net asset or liability. Furthermore, the credit-risk adjustments take into account the effect of credit-risk

15. Financial assets and liabilities accounting classifications and fair values (continued)

mitigants, such as pledged collateral and any legal right of offset (to the extent such offset exists) with a counterparty through arrangements such as netting agreements.

Derivatives
Exchange-traded derivatives in active markets are generally fair valued using quoted market prices (i.e. exchange prices) and are therefore classified as Level 1 of the fair value hierarchy.

The majority of derivatives entered into by the Company are executed over the counter and are valued using a combination of external prices and internal valuation techniques, including benchmarking to pricing vendor services. The valuation techniques and inputs vary according to the type of derivative and the nature of the underlying instrument. The principal methods used to value these instruments are those adopted industry wide and include discounted cash flows, modelling and numerical approaches.

The type of inputs may include interest rate yield curves, credit spreads, foreign exchange rates, volatilities and correlations.

The Company discounts future cash flows using appropriate interest rate curves. In the case of collateralised interest rate derivatives the Company follows the terms in the collateral agreement governing the transaction. The agreements generally provide that an OIS curve is used. The OIS curves reflect the interest rate paid on the collateral against the fair value of these derivatives. Citi uses the relevant benchmark curve for the currency of the derivative (e.g., the U.S. Dollar London Interbank Offered Rate (LIBOR) for U.S. dollar derivatives) as the discount rate for uncollateralized derivatives.

Government bonds, corporate bonds and equities
CGML uses quoted market prices to determine the fair value of government bonds and exchange traded equities; such items are typically classified as Level 1 of the fair value hierarchy.

For government bonds, corporate bonds and equities traded over the counter, for which a quoted price is not available, CGML generally determines fair value utilising internal valuation techniques. Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors. Vendors compile prices from various sources and may apply alternative pricing techniques, such as matrix pricing, whereby a similar instrument is used as a proxy for similar bonds or loans where no price is observable. If available, the Company may also use quoted prices for recent trading activity of assets with similar characteristics to the bond being valued. Government bonds, corporate bonds and equities priced using such methods are generally classified as Level 2. However, when less liquidity exists for government bonds, corporate bonds or equities, a quoted price is stale or prices from independent sources vary, they are generally classified as Level 3.

Collateralised financing transactions
No quoted prices exist for such financial instruments and so fair value is determined using a discounted cash-flow technique. Cash flows are estimated based on the terms of the contract, taking into account any embedded derivative or other features. Expected cash flows are discounted using market rates appropriate to the maturity of the instrument as well as the nature and amount of collateral taken or received. Generally, when such instruments are held at fair value, they are classified within Level 2 of the fair value hierarchy as the inputs used in the valuation are readily observable.

15. Financial assets and liabilities accounting classifications and fair values (continued)

Changes in Level 3 Fair Value Category

The following tables present the changes in the Level 3 fair value category for the years ended 31 December 2017 and 31 December 2016. Gains and losses presented below include changes in the fair value related to both observable and unobservable inputs. CGML often hedges positions with offsetting positions that are classified in a different level.

2017	At 1 January $ Million	Gain/(loss) recorded in the profit and loss statement: Realised $ Million	Gain/(loss) recorded in the profit and loss statement: Unrealised $ Million	Purchases $ Million	Sales $ Million	Issuances $ Million	Settlements $ Million	Transfers into Level 3 $ Million	Transfers out of Level 3 $ Million	At 31 December $ Million
Financial assets held for trading										
Derivatives	2,260	(15)	(125)	7	(7)	-	266	301	(828)	1,859
Government bonds	2	1	1	49	(43)	-	-	8	(2)	16
Non-government bonds	183	23	46	275	(243)	-	-	138	(178)	244
Equities	15	2	14	9	(17)	-	-	74	(25)	72
Physical Commodities	18	(1)	(35)	20	(2)	-	-	-	-	-
Financial assets designated at fair value										
Collateralised financing transactions	-	-	-	-	-	-	-	29	-	29
	2,478	10	(99)	360	(312)	-	266	550	(1,033)	2,220

Financial liabilities held for trading	At 1 January $ Million	(Gain)/loss recorded in the profit and loss statement: Realised $ Million	(Gain)/loss recorded in the profit and loss statement: Unrealised	Purchases $ Million	Sales $ Million	Issuances $ Million	Settlements $ Million	Transfers into Level 3 $ Million	Transfers out of Level 3 $ Million	At 31 December $ Million
Derivatives	3,526	(656)	(212)	(4)	4	-	819	1,191	(1,047)	3,621
Securities sold but not yet purchased	110	(6)	(94)	-	20	-	(18)	221	1	234
Financial liabilities designated at fair value										
Collateralised financing transactions	-	-	-	70	-	-	-	-	-	70
	3,636	(662)	(306)	66	24	-	801	1,412	(1,046)	3,925

2016	At 1 January $ Million	Gain/(loss) recorded in the profit and loss statement: Realised $ Million	Gain/(loss) recorded in the profit and loss statement: Unrealised $ Million	Purchases $ Million	Sales $ Million	Issuances $ Million	Settlements $ Million	Transfers into Level 3 $ Million	Transfers out of Level 3 $ Million	At 31 December $ Million
Financial assets held for trading										
Derivatives	3,031	(38)	(110)	9	(2)	-	(416)	1,000	(1,214)	2,260
Government bonds	3	-	-	-	-	-	-	-	(1)	2
Non-government bonds	223	(66)	23	423	(497)	-	-	161	(84)	183
Equities	31	(114)	11	93	(8)	-	-	9	(7)	15
Physical Commodities	-	-	-	-	-	-	-	18	-	18
Financial assets designated at fair value										
Collateralised financing transactions	218	99	-	82	(102)	-	(297)	-	-	-
	3,506	(119)	(76)	607	(609)	-	(713)	1,188	(1,306)	2,478

Financial liabilities held for trading	At 1 January $ Million	(Gain)/loss recorded in the profit and loss statement: Realised $ Million	(Gain)/loss recorded in the profit and loss statement: Unrealised	Purchases $ Million	Sales $ Million	Issuances $ Million	Settlements $ Million	Transfers into Level 3 $ Million	Transfers out of Level 3 $ Million	At 31 December $ Million
Derivatives	3,634	(7)	(276)	(5)	5	-	520	1,113	(1,458)	3,526
Securities sold but not yet purchased	3	(27)	69	(9)	4	11	16	111	(68)	110
Financial liabilities designated at fair value										
Collateralised financing transactions	-	-	-	-	-	-	-	-	-	-
	3,637	(34)	(207)	(14)	9	11	536	1,224	(1,526)	3,636

Included in the Level 3 balance at 31 December 2017 above are intercompany assets of $1,208 million (2016: $1,405 million) and liabilities of $2,314 million (2016: $2,042 million).

15. Financial assets and liabilities accounting classifications and fair values (continued)

Valuation process for Level 3 Fair Value Measurements

Price verification procedures and related internal control procedures are governed by the Citi Pricing and Price Verification Policy and Standards, which are jointly owned by Finance and Risk Management. Finance has implemented the Pricing and Price Verification Standards and Procedures to facilitate compliance with this policy.

For fair value measurements of substantially all assets and liabilities held by CGML, individual business units are responsible for valuing the trading account assets and liabilities, and Product Control within Finance performs independent price verification procedures to evaluate those fair value measurements. Product Control is independent of the individual business units and reports into the Global Head of Product Control, who ultimately reports to the Citi Chief Financial Officer. Fair value measurements of assets and liabilities are determined using various techniques including, but not limited to, discounted cash flows and internal models, such as option and correlation models.

Based on the observability of inputs used, Product Control classifies the inventory as Level 1, Level 2 or Level 3 within the fair value hierarchy. When a position involves one or more significant inputs that are not directly observable, additional price verification procedures are applied. These procedures may include reviewing relevant historical data, analysing profit and loss, valuing each component of a structured trade individually and benchmarking, amongst others.

Reports of Level 3 inventory of each business line of the Company are distributed to senior management in Finance, Risk and the individual business lines. Reports are also discussed at the EMEA Risk Committee, the CGML Risk Committee and in monthly meetings with Senior Management. Whenever a valuation adjustment is needed to bring the price of an asset or liability to its exit price, Product Control reports it to management along with other price verification results.

In addition, the pricing models used in measuring fair value are governed by an independent control framework. Although the models are developed and tested by the individual business units, they are independently validated by the Model Validation Group and reviewed by Finance with respect to their impact on the price verification procedures. The purpose of this independent control framework is to assess model risk arising from models' theoretical soundness, calibration techniques where needed, and the appropriateness of the model for a specific product in a defined market. To ensure their continued applicability, models are subject to independent annual model review. In order to ensure that the models used are for the correct products, the approved pricing models that may be used for each product are defined on the trading desk's Permitted Product List (PPL,) which is maintained by Market Risk but approved by all Control Functions.

Transfers from Level 2 to Level 3 arise when the availability of observable independent market data or pricing information for the significant valuation inputs of an instrument reduces. Transfers from Level 3 to Level 2 can occur when observability of the independent market data or pricing information for significant valuation inputs improves, or where the significance of the unobservable inputs reduces sufficiently.

The reduction in Level 3 inventory was mainly due to transfers to Level 2. These were driven by greater observability of Interest Rates pricing inputs, where due to market activity the significance of the unobservable pricing inputs had reduced to immaterial levels, and within the Equities business, which saw an increase in observable pricing data.

The main contribution to purchases was Bonds (both Government and Non-government).

Transfers into Level 3 arose predominantly from the Equity Derivatives and Delta One trading desks within the Equities business. These were primarily driven by reduction in pricing observability.

15. Financial assets and liabilities accounting classifications and fair values (continued)

Unobservable inputs
During the year, total changes in fair value, representing a gain of $879 million (2016: $46 million gain) were recognised in the income statement relating to items where fair value was estimated using a valuation technique that incorporated one or more significant inputs based on unobservable market data. As these valuation techniques were based upon assumptions, changing the assumptions would change the estimate of fair value. The potential impact of using reasonably possible alternative assumptions for the valuation techniques for both observable and unobservable market data has been quantified as approximately $319 million downside and $276 million upside (2016: $263 million downside and $242 million upside). The main contributors to this impact are Equity Markets, Rates businesses and Credit Trading.

Valuation uncertainty is computed on a quarterly basis. The methodology used to derive the impact across each product is determined by applying adjustments to the price or significant model input parameters used in the valuation.

The adjustments are typically computed with reference to proxy analysis using third party data. Examples of the approach used to derive sensitivity adjustments are outlined below:

- Equity Markets: Valuation uncertainty is computed from a combination of consensus market data and proxy analysis using third party data providers.

- Credit Trading and Securitised Markets: Valuation uncertainty is computed from a combination of consensus market data, broker data and proxy analysis using third party data providers.

- Commodity Markets: Valuation uncertainty is computed from a combination of consensus market data and proxy analysis using third party data providers.

15. Financial assets and liabilities accounting classifications and fair values (continued)

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

The following tables present the valuation techniques covering the majority of Level 3 inventory and the most significant unobservable inputs used in Level 3 fair value measurements as of 31 December 2017 and 31 December 2016. Note that these tables represent key drivers by disclosures line and may not agree back to the Changes in Level 3 Fair Value Category table.

2017	Fair Value $ million	Methodology	Input	Range of Inputs Min	Max	Unit
Assets						
Equity Securities	32	Model-based	Price	-	287.6	$
Equity Securities	28	Price-based	Price	-	287.6	$
Credit Derivatives	82	Model-based	Credit Spread	-	717.3	bps
Credit Derivatives	151	Price-based	Upfront Points	-	143.0	%
Equity Derivatives	348	Model-based	Equity Volatility	1.5	51.4	%
Equity Derivatives	401	Model-based	Forward Price	69.7	154.2	%
Equity Derivatives	10	Model-based	Price	-	287.6	$
Equity Derivatives	22	Price-based	Price	-	287.6	$
Interest Rate Derivatives	441	Model-based	IR Normal Volatility	0.1	77.4	%
Non-government bonds	71	Price-based	Price	-	50,000.0	$
Liabilities						
Credit Derivatives	82	Model-based	Credit Spread	-	717.3	bps
Credit Derivatives	151	Price-based	Upfront Points	0.0	143.0	%
Equity Derivatives	677	Model-based	Equity Volatility	0.3	51.4	%
Equity Derivatives	1,968	Model-based	Forward Price	69.7	154.2	%
Equity Derivatives	15	Model-based	Price	-	287.6	$
Equity Derivatives	7	Price-based	Price	-	287.6	$
Interest Rate Derivatives	425	Model-based	IR Normal Volatility	0.1	77.4	%
Equity Securities	0	Model-based	Price	-	287.6	$
Non-government bonds	230	Model-based	IR Normal Volatility	9.4	69.2	%

2016	Fair Value $ million	Methodology	Input	Range of Inputs Min	Max	Unit
Assets						
Credit derivatives	363	Model-based	Credit Correlation	5.0	95.0	%
Credit derivatives	47	Model-based	Credit Spread	0.3	850.0	bps
Credit derivatives	375	Model-based	Recovery Rate	7.0	40.0	%
Equity contracts	864	Model-based	Equity Volatility	-	97.8	%
Equity contracts	751	Model-based	Forward Price	35.7	235.4	%
Equity contracts	359	Model-based	Price	-	1,495.9	$
Interest rate contracts	102	Model-based	Credit Spread	308.3	3,790.7	bps
Interest rate contracts	347	Model-based	IR Normal Volatility	0.2	94.0	%
Equity securities	7	Model-based	Price	-	5,500.0	$
Liabilities						
Commodity and other contracts	363	Model-based	Credit Correlation	5.0	95.0	%
Credit derivatives	47	Model-based	Credit Spread	3.4	850.0	bps
Credit derivatives	375	Model-based	Recovery Rate	7.0	40.0	%
Equity contracts	1,712	Model-based	Equity Volatility	-	243.5	%
Equity contracts	1,932	Model-based	Forward Price	35.7	235.4	%
Equity contracts	145	Model-based	Equity-IR Correlation	(35.0)	41.0	%

15. Financial assets and liabilities accounting classifications and fair values (continued)

Sensitivity to unobservable inputs and interrelationships between unobservable inputs

The impact of key unobservable inputs on the Level 3 fair value measurements may not be independent of one another. In addition, the amount and direction of the impact on a fair value measurement for a given change in an unobservable input depends on the nature of the instrument as well as whether the Company holds the instrument as an asset or a liability. For certain instruments, the pricing, hedging and risk management are sensitive to the correlation between various inputs rather than on the analysis and aggregation of the individual inputs.

The following section describes the sensitivities and interrelationships of the most significant unobservable inputs used by the Company in Level 3 fair value measurements.

Yield
Adjusted yield is generally used to discount the projected future principal and interest cash flows on instruments, such as loans. Adjusted yield is impacted by changes in the interest rate environment and relevant credit spreads.

In some circumstances, the yield of an instrument is not observable in the market and must be estimated from historical data or from yields of similar securities. This estimated yield may need to be adjusted to capture the characteristics of the security being valued. In other situations, the estimated yield may not represent sufficient market liquidity and must be adjusted as well. Whenever the amount of the adjustment is significant to the value of the security, the fair value measurement is classified as Level 3.

Recovery
Recovery is the proportion of the total outstanding balance of a bond or loan that is expected to be collected in a liquidation scenario. For many credit securities (such as asset-backed securities), there is no directly observable market input for recovery, but indications of recovery levels are available from pricing services. The assumed recovery of a security may differ from its actual recovery that will be observable in the future. The recovery rate impacts the valuation of credit securities. Generally, an increase in the recovery rate assumption increases the fair value of the security. An increase in loss severity, the inverse of the recovery rate, reduces the amount of principal available for distribution and, as a result, decreases the fair value of the security.

Credit Spread
Credit spread is a component of the security's yield representing its credit quality. Credit spread reflects the market perception of changes in prepayment, delinquency and recovery rates. Changes in credit spread affect the fair value of securities differently depending on the characteristics and maturity profile of the security. For example, credit spread is a more significant driver of the fair value measurement of a high yield bond as compared to an investment grade bond. Generally, the credit spread for an investment grade bond is also more observable and less volatile than its high yield counterpart.

Volatility
Volatility represents the speed and severity of market price changes and is a key factor in pricing options. Typically, instruments can become more expensive if volatility increases. For example, as an index becomes more volatile, the cost to Citi of maintaining a given level of exposure increases because more frequent rebalancing of the portfolio is required. Volatility generally depends on the tenor of the underlying instrument and the strike price or level defined in the contract. Volatilities for certain combinations of tenor and strike are not observable. The general relationship between changes in the value of a portfolio to changes in volatility also depends on changes in interest rates and the level of the underlying index. Generally, long option positions (assets) benefit from increases in volatility, whereas short option positions (liabilities) will suffer losses. Some instruments are more sensitive to changes in volatility than others. For example, an at-the-money option would experience a larger percentage change in its fair value than a deep-in-the-money option. In addition, the fair value of an option with more than one underlying security (for example, an option on a basket of bonds) depends on the volatility of the individual underlying securities as well as their correlations.

15. Financial assets and liabilities accounting classifications and fair values (continued)

Correlation

Correlation is a measure of the co-movement between two or more variables. A variety of correlation-related assumptions are required for a wide range of instruments, including equity baskets, foreign-exchange options and many other instruments. For almost all of these instruments, correlations are not observable in the market and must be estimated using historical information. Estimating correlation can be especially difficult where it may vary over time. Extracting correlation information from market data requires significant assumptions regarding the informational efficiency of the market (for example, swaption markets). Changes in correlation levels can have a major impact, favorable or unfavorable, on the value of an instrument, depending on its nature.

Qualitative discussion of the ranges of significant unobservable inputs

The following section describes the ranges of the most significant unobservable inputs used by the Company in Level 3 fair value measurements. The level of aggregation and the diversity of instruments held by the Company lead to a wide range of unobservable inputs that may not be evenly distributed across the Level 3 inventory.

Price

The price input is a significant unobservable input for certain fixed income instruments. For these instruments, the price input is expressed as a percentage of the notional amount, with a price of 100 meaning that the instrument is valued at par. For most of these instruments, the price varies between zero and slightly above 100. Relatively illiquid assets that have experienced significant losses since issuance, such as certain asset-backed securities, are at the lower end of the range, whereas most investment grade corporate bonds will fall in the middle to the higher end of the range. The price input is also a significant unobservable input for certain equity securities; however, the range of price inputs varies depending on the nature of the position, the number of shares outstanding and other factors.

Yield

Ranges for the yield inputs vary significantly depending upon the type of security. For example, securities that typically have lower yields, such as German or U.S. government bonds, will fall on the lower end of the range, while more illiquid securities or securities with lower credit quality, such as certain residual tranche asset-backed securities, will have much higher yield inputs.

Credit Spread

Credit spread is relevant primarily for fixed income and credit instruments; however, the ranges for the credit spread input can vary across instruments. For example, certain fixed income instruments, such as certificates of deposit, typically have lower credit spreads, whereas certain derivative instruments with high-risk counterparties are typically subject to higher credit spreads when they are uncollateralized or have a longer tenor. Other instruments, such as credit default swaps, also have credit spreads that vary with the attributes of the underlying obligor. Stronger companies have tighter credit spreads, and weaker companies have wider credit spreads.

Volatility

Similar to correlation, asset-specific volatility inputs vary widely by asset type. For example, ranges for foreign exchange volatility are generally lower and narrower than equity volatility. Equity volatilities are wider due to the nature of the equities market and the terms of certain exotic instruments. For most instruments, the interest rate volatility input is on the lower end of the range; however, for certain structured or exotic instruments (such as market-linked deposits or exotic interest rate derivatives), the range is much wider.

Correlation

There are many different types of correlation inputs, including credit correlation, cross-asset correlation (such as equity-interest rate correlation), and same-asset correlation (such as interest rate-interest rate correlation). Correlation inputs are generally used to value hybrid and exotic instruments. Generally, same-asset correlation inputs have a narrower range than cross-asset correlation inputs. However, due to the complex nature of many of these instruments, the ranges for correlation inputs can vary widely across portfolios.

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16. Financial assets classed as available for sale

	Unlisted Investments 2017 $ Million	Unlisted Investments 2016 $ Million
Fair value		
At 1 January	31	27
Additions	-	3
Disposals	-	(2)
Gains recognised in statement of comprehensive income	28	3
At 31 December	59	31

The 2017 gains reflect revaluation increases following improved observability of the market value of these instruments.

17. Involvement with unconsolidated structured entities

The table below describes the types of structured entities that are not controlled by CGML but in which it holds an interest.

		2017		2016	
Type of structured entity	**Nature and purpose**	**Total VIE assets $ millions**	**CGML exposure $ millions**	**Total VIE assets $ millions**	**CGML exposure $'000**
Asset based financing	Auto lease financing	-	-	552	128
Investment Funds	Fund/Limited Partnership Structure	612	-	98	30
Client Intermediation	Credit Derivative Repack Vehicle	18	9	-	-
		630	9	650	158

Asset based financing
This entity was established to provide funding to a client via the securitisation of auto leases. CGML funded the entity by investing in bonds issued by the entity. As at 31 December 2016 the bonds are included in CGML's balance sheet inventory at a value of $128 million which represents CGML's exposure to the entity.

Investment funds
The objective of these funds is to seek income and capital gains from investing in US government securities. Funding is provided by investors in the fund, who are professional or institutional investors. CGML is the derivative swap counterparty to the fund which is the source of its exposure. The derivative transactions are FX options and swaps.

Client Intermediation
Client intermediation transactions represent a range of transactions designed to provide investors with specified returns based on the returns of an underlying security, referenced asset or index. The Company's involvement in these transactions includes being the counterparty to the entity's derivative instruments. The derivative transactions are FX options and swaps.

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18. Other Assets

The following amounts are included in Other Assets:

	2017 $ Million	2016 $ Million
Cash collateral pledged	22,071	21,992
Trade debtors	10,254	7,146
Other debtors	51	9
Prepayments and accrued income	18	21
Corporation tax recoverable	19	16
Deferred tax asset (Note 22)	226	111
Intangible fixed assets (Note 19)	179	176
Tangible fixed assets - equipment (Note 19)	2	2
Tangible fixed assets - premises improvement (Note 19)	5	5
Investments in subsidiary undertakings (Note 20)	4	4
	32,829	29,482

Included within Trade Debtors are receivables from central clearing counterparties, securities trading receivables outside standard settlement, and other brokerage receivables.

Other Assets includes the following balances due from other Citi affiliates:

	2017 $ Million	2016 $ Million
Trade debtors	1,886	1,283
Cash collateral pledged	1,678	1,002
Other debtors	5	11
Prepayments and accrued income	-	1
Investments in subsidiary undertakings	4	4
	3,573	2,301

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19. Intangible and Tangible fixed assets

The movement in Intangible and Tangible fixed assets for the year was as follows:

	Intangible	Tangible Fixed Assets	
	Software	Equipment	Premises improvements
	$ Million	$ Million	$ Million
Cost			
At 1 January 2017	461	10	13
Additions	50	1	-
Disposals	(3)	-	-
Exchange rate adjustments	2	-	-
At 31 December 2017	510	11	13
Accumulated depreciation			
At 1 January 2017	285	8	8
Charge for the year (Note 7)	47	1	-
Additions	-	-	-
Disposals	(1)	-	-
Exchange rate adjustments	-	-	-
At 31 December 2017	331	9	8
Net book value			
At 31 December 2017	179	2	5

	Intangible	Tangible Fixed Assets	
	Software	Equipment	Premises improvements
	$ Million	$ Million	$ Million
Cost			
At 1 January 2016	511	11	15
Additions	46	-	1
Disposals	(92)	(1)	(3)
Exchange rate adjustments	(4)	-	-
At 31 December 2016	461	10	13
Accumulated depreciation			
At 1 January 2016	288	10	9
Charge for the year (Note 7)	51	1	1
Additions	-	-	1
Disposals	(51)	(3)	(3)
Exchange rate adjustments	(3)	-	-
At 31 December 2016	285	8	8
Net book value			
At 31 December 2016	176	2	5

20. Investments in subsidiary and related undertakings

The following amounts for subsidiary undertakings are included in Other assets:

	2017 $'000	2016 $'000
Cost		
At 1 January	3,580	3,580
Additions	-	-
At 31 December	3,580	3,580

Details of all related undertakings held at 31 December 2017 as required by CA2006 SI 2008 No 410 Sch 4 Para 1 are set out below. All have a year end of 31 December. Citigroup South Africa Credit Products (Proprietary) Limited was dissolved in November 2017 and awaiting final distribution.

Subsidiary undertakings (all 100% owned)

Name	Registered address
Citigroup Global Markets Luxembourg S.a.R.L.	31, Z.A. Bourmicht, L-8070 Bertrange, Luxembourg
Citigroup Global Markets Funding Luxembourg SCA	31, Z.A. Bourmicht, L-8070 Bertrange, Luxembourg
Citigroup Global Markets Funding Luxembourg GP S.a.R.L.	31, Z.A. Bourmicht, L-8070 Bertrange, Luxembourg
Citi Global Wealth Management S.A.M.	Monte Carlo Palace, 7-9 Boulevard des Moulins, MC98000 Monaco
Citigroup South Africa Credit Products (Proprietary) Limited	145 West Street, Sandown, Sandton 2196, South Africa

21. Pledged assets

Collateral accepted as security for assets
The fair value of financial assets including government bonds, non-government bonds, equities, and cash accepted that were permitted to be sold or re-pledged in the absence of default was $275 billion (2016: $210 billion). The fair value of the collateral accepted that had been re-pledged at 31 December 2017 was $246 billion (2016: $192 billion). The Company was obliged to return equivalent securities. Where the collateral was used in secured financing transactions, these transactions were conducted under terms that are usual and customary to standard lending and securities borrowing and lending activities. Where the collateral was used for derivative transactions, this was conducted under industry-standard ISDA (International Swaps and Derivatives Association and CSA (Credit Support Annex) agreements.

Financial assets pledged to secure liabilities
The total value of purchased financial assets including government bonds, non-government bonds, equities and cash that were pledged as collateral for liabilities at 31 December 2017 was $42 billion (2016: $31 billion). These transactions were conducted under terms that are usual and customary to standard lending and securities borrowing and lending activities.

22. Deferred tax asset

The movement in deferred tax in the year is as follows:

	2017 $ Million	2016 $ Million
At 1 January	111	125
Income statement movement relating to overseas deferred tax	5	(7)
Income statement movement relating to UK deferred tax	92	(1)
Deferred tax movement on share based payment transactions in equity reserve	18	-
Rate change adjustment	-	(6)
At 31 December	226	111

Deferred tax is recognised on the company's carry forward losses and temporary differences as it is considered probable that taxable profits will arise against which these can be utilised. Deferred tax on UK operations was recognised in the current year, with the corresponding prior year deferred tax asset being unrecognised at 31 December 2016 ($102 million).

There is also a deferred tax liability of $120 million on the pension asset which is reflected in Note 8 Pension.

The deferred tax asset is recognised at the tax rates at which the temporary differences are expected to reverse. For the UK deferred tax asset, this includes losses at 17% and other temporary differences at between 25% and 27% depending on when these amounts are expected to reverse.

The deferred tax asset in the balance sheet comprises:

	2017 $ Million	2016 $ Million
Accelerated tax depreciation	37	40
Deferred compensation	178	69
Provisions and other temporary differences	8	2
Losses carried forward	3	-
	226	111

The deferred tax charge or credit in the income statement comprises:

	2017 $ Million	2016 $ Million
Accelerated tax depreciation	(4)	22
Deferred compensation	78	(38)
Provisions and other temporary differences	7	15
Losses carried forward	3	
	84	(1)

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23. Other Liabilities

The following amounts are included within Other Liabilities. Included within 'Other creditors and accruals' is the accrual in respect of the bank levy.

	2017 $ Million	2016 $ Million
Cash collateral held	20,549	22,595
Trade creditors	11,925	8,680
Other creditors and accruals	1,134	988
Payroll taxes	43	35
Corporation tax payable	11	4
Deferred tax liability on pensions (Note 8)	120	109
Provisions for liabilities and charges (Note 24)	25	74
	33,807	32,485

Trade Creditors includes customer margin trading payables, securities trading payables outside standard settlement and other brokerage payables.

Included within Other Liabilities are the following balances due to other Citi affiliates:

	2017 $ Million	2016 $ Million
Cash collateral held	432	1,515
Trade creditors	750	398
Other creditors and accruals	425	404
	1,607	2,317

24. Provisions for liabilities

	Restructuring provision $ Million	Litigation provisions $ Million	Other provisions $ Million	Total $ Million
At 1 January 2017	12	40	22	74
Charge to profits	17	12	1	30
Provisions utilised	(21)	(51)	(11)	(83)
Exchange adjustments	-	-	4	4
At 31 December 2017	8	1	16	25

No further information is disclosed in respect of the litigation provision due to its sensitive nature. Other provisions are held in respect of accounting reconciliation and control procedures as part of the balance sheet substantiation process.

25. Derecognition of financial assets and financial liabilities

Transferred financial assets that are not derecognised in their entirety

There are certain instances where the Company continues to recognise financial assets that it has transferred.

CGML enters into collateralised financing transactions where it sells or lends debt or equity securities with a concurrent agreement to repurchase them. As significantly all of the risks and rewards of the underlying securities are retained, a collateralised financing liability is recognised and the securities remain on balance sheet. As at 31 December 2017 the Company recognised $42 billion of assets (2016: $31 billion), with an associated $41 billion of collateralised financing liabilities (2016: $29 billion).

CGML also enters into collateralised financing transactions where it sells debt or equity securities and simultaneously undertakes a swap transaction for the same underlying instrument. As significantly all of the risks and rewards of the underlying securities are retained, a collateralised financing liability is recognised and the securities remain on balance sheet. As at 31 December 2017 the Company recognised $3,281 million of inventory (2016: $1,451 million) with associated collateralised financing liabilities of $3,209 million (2016: $1,402 million) for transactions of this nature.

26. Trading financial assets and liabilities

Any initial gain or loss on financial instruments where valuation is dependent on techniques using unobservable parameters is deferred over the life of the contract or until the instrument is redeemed, transferred or sold or the fair value becomes observable. In case the transaction price in the market in which these transactions are undertaken is different from the fair value in the Company's principal market for those instruments, the fair value of these transactions are also estimated by using valuation techniques.

The table below sets out the aggregate difference yet to be recognised in profit or loss at the beginning and end of the year with a reconciliation of the changes of the balance during the year for those financial assets and liabilities classified as trading.

	2017	**2016**
	$ Million	**$ Million**
Unamortised balance at 1 January	52	48
Deferral on new transactions	-	17
Recognised in the income statement during the period:		
- amortisation	(17)	(13)
Unamortised balance at 31 December	35	52

27. Subordinated loans

The subordinated loans form part of the Company's Tier 2 regulatory capital resources held to meet the capital adequacy requirements of the PRA and can only be repaid with their consent. The loans, on which interest is payable at market rates, are due to other group undertakings. The following amounts were included within subordinated loans:

31 December 2017	Currency	$ Million	Interest rate	Maturity Date
Amounts falling due after five years	EUR	661	0.794%	22 May 2024
		1,201	0.696%	22 May 2024
	USD	1,150	3.125%	22 May 2024
		1,000	2.955%	25 July 2028
		4,012		

31 December 2016	Currency	$ Million	Interest rate	Maturity Date
Amounts falling due after five years	EUR	580	0.812%	22 May 2024
		1,055	0.694%	22 May 2024
	USD	2,950	2.325%	22 May 2024
		4,585		

On 18 August 2016 the Company repaid $800 million of subordinated loan borrowings from Citigroup Financial Products Inc.

On 20 June 2017 CGML repaid $2,950 million of subordinated loan borrowings from Citigroup Financial Products Inc. On 20 June 2017 the Company drew down $1,150 million of subordinated loan borrowings from Citigroup Financial Products Inc.

On 25 October 2017 CGML drew down $1,000 million of subordinated loan borrowings from Citigroup Financial Products Inc.

There are no circumstances under which early repayment may be demanded by the lender. There are no provisions whereby the loans may be converted into capital or any other form of liability.

The terms of subordination of the loans state that payment of any principal or interest amount is conditional upon:

- the Company being in compliance with not less than 120% of its Financial Resources Requirement immediately after payment; and
- the Company being solvent immediately after payment, defined as being able to pay its other liabilities in full.

28. Called up share capital

CGML's share capital comprises:

	2017	2016
Allotted, called-up and fully paid:	**$ Million**	**$ Million**
1,499,626,620 ordinary shares of a par value of $1 each	1,500	1,500
	1,500	1,500

The shares have attached to them full voting, dividend and capital distribution (including on winding up) rights. They do not confer any rights of redemption.

29. Other equity instruments

On 20 June 2017 CGML issued $1,800 million of Additional Tier 1 Notes to Pipestone LLC, another Citi entity. The notes are perpetual with no fixed redemption date, and are redeemable at the issuer's option subject to approval from the PRA. Interest is fixed every 5 years, interest payments are not cumulative and the issuer may cancel any interest payment at its sole discretion. In the event that CGML's Common Equity Tier 1 (CET1) ratio falls below 7.0%, the notes will be written down to zero.

30. Financial instruments and risk management

Risk Management Overview and Culture

Effective risk management is of primary importance to the Company and accordingly, the Company maintains a comprehensive risk management process. The Company utilises Citi's risk management model and organisation, with its multi-dimensional risk oversight and its people, processes and systems to ensure robust oversight of entity risks. In addition, the Company has entity specific risk management and controls, to ensure local challenge to risk-taking and to ensure that Citi's approach is appropriate for the Company.

Risk management must be built on a foundation of ethical culture. Under Citi's mission and value proposition, which was developed by Citi's senior leadership and distributed throughout the firm, Citi strives to serve as a trusted partner to its clients by responsibly providing financial services that enable growth and economic progress while earning and maintaining the public's trust by constantly adhering to the highest ethical standards. As such, Citi asks all employees to ensure that their decisions pass three tests: they are in clients' interests, create economic value and are always systemically responsible. Additionally, Citi evaluates employees' performance against behavioural expectations set out in Citi's leadership standards, which were designed in part to effectuate Citi's mission and value proposition. Other culture-related efforts in connection with conduct risk, ethics and leadership, escalation, and treating customers fairly help Citi to execute its mission and value proposition.

While the management of risk is the collective responsibility of all employees, Citi and the Company assign accountability into three lines of defence:

- first line of defence: the business owns all of its risks and is responsible for the management of those risks;
- second line of defence: the Company's control functions (e.g., risk, finance, compliance, etc.) establish standards for the management of risks and effectiveness of controls; and
- third line of defence: Citi's internal audit function independently provides assurance, based on a risk-based audit plan, that processes are reliable and governance and controls are effective.

The Company applies Citi's global risk management framework, tailored as appropriate for the Company, based on the following principles established by the Chief Risk Officer:

- a defined risk appetite, aligned with business strategy;
- accountability through a common framework to manage risks;
- risk decisions based on transparent, accurate and rigorous analytics;
- a common risk capital model to evaluate risks;
- expertise, stature, authority and independence of risk managers; and
- risk managers empowered to make decisions and escalate issues.

Reputational and Franchise Risk and New Products or Services

A Citi-wide (including an EMEA-based) Business Practices Committee (BPC) reviews practices involving reputational or franchise issues. These committees review whether Citi's business practices have been designed and implemented in a way that meets the highest standards of professionalism, integrity and ethical behaviour.

Additional committees ensure that product risks are identified, evaluated and determined to be appropriate for Citi and its customers, and safeguard the existence of necessary approvals, controls and accountabilities.

The New Product Approval Committee (NPAC) is designed to ensure that significant risks, including reputation and franchise risks, for all new ICG products, services or complex transactions, are identified and evaluated, determined to be appropriate, properly recorded for risk aggregation purposes, effectively controlled, and have accountabilities in place.

30. Financial instruments and risk management (continued)

Reputational and Franchise Risk and New Products or Services (continued)

Investment Products Risk (IPR) oversees two product approval committees that facilitate analysis and discussion of new retail investment products and services created and/or distributed by Citi. The Manufacturing Product Approval Committee (MPAC) is responsible for reviewing new or modified products or transactions created by Citi that are distributed to retail investors through Citi distribution channels as well as third-party retail distributors. The Distribution Product Approval Committee (DPAC) approves new investment products and services, including those created by Citi and third parties as part of Citi's "open architecture" distribution model, before they are offered to retail investors via Citi distribution businesses (e.g. private bank, consumer, etc.).

Risk Appetite Framework

The Company's risk appetite framework includes principle-based qualitative boundaries to guide behaviour and quantitative boundaries within which the Company will operate, focusing on ensuring it has sufficient capital resources for the risks to which the Company could be exposed. The Company's Board of Directors sets the Company's risk appetite, and incorporates management judgement regarding prudent risk taking and growth in light of the business environment within which the Company operates. The Company's Board of Directors, with input from senior Citi and Company management, sets overarching expectations and holds management accountable for ensuring the risk profile remains within this appetite.

CGML Risk Committee

The CGML Risk Committee assists the Board in fulfilling its responsibility for oversight of the risks the Company faces including market, liquidity, credit, operational and certain other risks; their alignment with the Company's strategy, capital adequacy and the macroeconomic environment; and the development of a strategy to manage these risks in line with Citi's global risk strategy. The CGML Risk Committee meets not less than quarterly.

Managing Risk across Businesses, Regions and Products

Citi manages risk across three dimensions: businesses, regions and products. The Company's risk management framework aims to recognise the range of the Company's global business activities by combining corporate oversight with independent risk management functions within each business.

Each of the major business groups has a Business Chief Risk Officer who is the focal point for risk decisions (such as setting risk limits or approving transactions) in the business. The independent risk managers at the business level are responsible for establishing and implementing risk management policies and practices within their business, for overseeing the risk in their business, and for responding to the needs and issues of their business. This ensures the active management of the principal risks of the Company.

Regional Chief Risk Officers are accountable for the risks in their geographic area and are the primary risk contact for the regional business heads and local regulators. In addition, Product Chief Risk Officers are accountable for those areas of critical importance to Citi and are accountable for the risks within their specialities across businesses and regions, such as real estate and fundamental credit. The Product Risk Officers serve as a resource to the Chief Risk Officer, as well as enabling the Business and Regional Chief Risk Officers to focus on the day-to-day management of risks and respond in a timely manner to business needs. Risk management within the Company is overseen by the Regional Risk Manager along with the managers for the different risk types within the region, such as market risk, liquidity risk, credit risk and operational risk.

Finance & Risk Infrastructure (FRI) is a Citi global function that was established to implement common data and data standards, common processes and integrated technology platforms globally as well as to integrate infrastructure activities across both Finance and Risk. FRI works to drive straight through data processing and produce more effective and efficient processes and governance aimed at supporting both the Finance and Risk organisations. The head of the FRI global function reports into Citi's CFO and Chief Risk Officer.

30. Financial instruments and risk management (continued)

Risk Aggregation and Stress Testing

The Citi Chief Risk Officer is responsible for monitoring and controlling major risk exposures and concentrations across the organisation. This means aggregating risks, within and across businesses, as well as subjecting those risks to alternative stress scenarios in order to assess the potential economic impact they may have on Citi. This aggregation is also performed at a Company level under the accountability of the Company's CRO.

Stress tests are undertaken across Citi and the Company and cover mark-to-market, available-for-sale, and amortised cost portfolios. These firm-wide stress reports seek to measure the potential impact to Citi, the Company and its component businesses, of stresses such as the risk of very large movements in a number of key risk factors (e.g. interest rates, credit spreads), as well as the potential impact of a range of historical and hypothetical forward-looking systemic stress scenarios.

Supplementing the stress testing described above, risk management works with input from the businesses and finance to provide periodic updates to senior management and the Company's Board of Directors on significant potential exposures across the Company arising from risk concentrations, financial market participants and other systemic issues. These risk assessments are forward-looking exercises, intended to inform senior management and the Board of Directors about the potential economic impacts to the Company that may occur, directly or indirectly, as a result of hypothetical scenarios, based on judgmental analysis from independent risk managers.

Market Risk

Market risk is the risk to earnings or capital from adverse changes in market factors. Price risk losses arise from fluctuations in the market value of trading and non-trading positions resulting from changes in interest rates, credit spreads, foreign exchange rates, equity and commodity prices, and in their implied volatilities. The Company's trading results are particularly exposed to movements in these market factors.

The Company's derivative transactions are principally in the equity, interest rate, credit, FX and commodity markets. Most of the counterparties to the Company's derivative transactions are banks and other financial institutions.

Market risk is measured through a complementary set of tools, including factor sensitivity limits, Value at Risk (VaR) and stress testing. In addition the Company has a defined risk appetite framework which is supplemented by regular stress testing and daily monitoring against the Company's VaR limit with monthly and quarterly reporting to senior management and the Board of Directors respectively.

Each business that uses the Company in client facing transactions is required to establish, with approval from the independent market risk management function, a market risk limit framework for identified risk factors. This framework must clearly define approved risk profiles, include permitted product lists, and must remain within the parameters of Citi's overall risk appetite. The established limits are monitored by market risk management.

In all cases, the businesses are ultimately responsible for the market risks taken and for remaining within their defined limits. Management of this process begins with the employees who work most closely with the Group's customers, products and markets and extends up to the senior executives who manage these businesses with a complementary aggregation up to the country level.

The Company's VaR reports are circulated daily for monitoring of: (i) the VaR usage against the overall VaR limit; (ii) the standalone VaR by market risk factor; (iii) the component Value at Risk (CVaR) contribution to total VaR; and (iv) the stressed VaR. As well as an overall VaR limit, the Company has factor sensitivity limits in place for each market risk factor that are monitored daily. Factor sensitivities are defined as the change in the value of a position for a defined change in a market risk factor (e.g. the change in the value of a Treasury bill for a one basis point change in interest rates). It is the responsibility of each business to seek to ensure that factor sensitivities are calculated and reported for all relevant risks taken within a trading portfolio.

30. Financial instruments and risk management (continued)

Market Risk (continued)

Exposure that approaches or exceeds limit or trigger levels is escalated within market risk management and to the Company's Market Risk Manager and Legal Entity Risk Manager, with necessary actions taken.

Where the Equities business is concerned, an ex-ante stress loss based escalation framework has been put in place to cover all concentrated trades, including accelerated equity offerings, equity underwritings, rights offerings and special situation (event-driven) transactions. Transactions with estimated stress losses above defined levels require escalation to the EMEA Chief Risk Officer, the Company's Chief Executive Officer and to the Company's board.

VaR Methodology

VaR estimates the potential decline in the value of a position or a portfolio, under normal market conditions, over a specified holding period and confidence level. The VaR methodology developed and applied at Citi at a global level is also used at subsidiary level, including the Company. The Citi standard is a one-day holding period, at a 99 per cent confidence level. The VaR methodology incorporates the factor sensitivities of the trading portfolio and the volatilities and correlations of those factors. The Company's VaR is based on the volatilities of, and correlations between, a wide range of market risk factors, including factors that track the specific issuer risk in debt and equity securities. VaR statistics can be materially different across firms due to differences in portfolio composition, differences in VaR methodologies, and differences in model parameters. Citi believes that VaR statistics can be used more effectively as indicators of trends in risk taking within a firm, rather than as a basis for inferring differences in risk taking across firms.

Citi and the Company use Monte Carlo simulation, which they believe is conservatively calibrated to incorporate the greater of short-term (most recent month) and long-term (three years) market volatility. The Monte Carlo simulation involves approximately 300,000 market factors, making use of 180,000 time series, with market factors updated daily and model parameters updated weekly.

VaR Limitations

Although extensive back-testing of VaR hypothetical portfolios is performed, with varying concentrations by industry, risk rating and other factors, the VaR measure cannot necessarily provide an indication of the potential size of loss when it occurs. Hence a varied set of factor sensitivity limits and stress tests are used, in addition to VaR limits.

A VaR limit is in place for the Company, to ensure that any excesses are discussed and resolved between risk officers and the business and entity management. This limit is complemented by the factor sensitivity triggers defined above.

Although it provides a valuable guide to risk, VaR should also be viewed in the context of its limitations:

- the use of historical data as a proxy for estimating future events may not encompass all potential events, particularly those of an extreme nature;
- the use of a one day holding period assumes that all positions can be liquidated or their risks offset in one day. This may not fully reflect the market risk arising at times of severe illiquidity, when a one day holding period may be insufficient to fully liquidate or hedge positions;
- the use of a 99% confidence level, by definition, does not take into account losses that might occur beyond this confidence level;
- VaR is calculated on the basis of exposures outstanding at close of business and therefore does not necessarily reflect intra-day exposures; and
- VaR is unlikely to reflect loss potential on exposures that only arise under significant market movements.

30. Financial instruments and risk management (continued)

Market Risk (continued)

Stress testing is performed on portfolios on a weekly basis to estimate the impact of extreme market movements. Stress testing is performed on individual portfolios, as well as on aggregations of portfolios and businesses, as appropriate. It is the responsibility of independent market risk management, in conjunction with the businesses, to develop stress scenarios, review the output of periodic stress testing exercises, and use the information to make judgments concerning the on-going suitability of exposure levels and limits.

The following table summarises market risk by disclosing the Company's average Economic VaR during the reporting period on a month-end basis, together with the VaR as at 31 December, broken down into component Value at Risk (CVaR). CVaR represents the correlation or diversification adjusted standalone VaR contribution from a particular sub-portfolio, and to the overall 31 December VaR.

	2017 $ Million					
	Equity risk	Interest rate risk	Foreign exchange risk	Commodity risk	Credit Risk	Overall VaR
Average	4.5	5.3	6.8	3.2	6.5	26.3
As at 31 December	3.8	7.9	9.2	1.8	4.6	27.3
Peak	7.0	12.6	9.3	6.2	6.5	31.2

	2016 $ Million					
	Equity risk	Interest rate risk	Foreign exchange risk	Commodity risk	Credit Risk	Overall VaR
Average	5.0	5.7	1.8	3.4	7.4	23.3
As at 31 December	1.4	5.3	1.1	1.3	9.6	18.7
Peak	12.6	10.4	3.0	7.1	12.1	28.0

30. Financial instruments and risk management (continued)

Liquidity risk

The Company defines liquidity risk as the risk that it will not be able to meet efficiently both expected and unexpected current and future cash flow and collateral needs without adversely affecting either daily operations or its financial condition.

Citi operates as a centralised treasury model, where the overall balance sheet is managed by Treasury, through its Global Franchise and Regional Treasurers. The EMEA Regional Treasurer is supported by the UK Treasurer who is responsible for the Company's balance sheets and liquidity profile. The UK Treasurer oversees the EMEA Legal Entity Management team which includes a liquidity management team responsible for managing CGML's liquidity on a day to day basis. The liquidity management team is specifically responsible for the Company's daily funding, liquidity risk management, liquidity stress testing, and provision of oversight to the Fixed Income and Equity Finance desks (including setting and monitoring limits).

The Company adheres to the Citi Global Liquidity Risk Management Policy which requires it to define its liquidity risk appetite and operate limit and trigger structures to ensure compliance. The Company is also required to comply with the European Union CRD IV Delegated Act, which sets out certain regulatory qualitative and quantitative standards for managing liquidity. The Company's liquidity position is calculated and reported to senior management on a daily basis and reviewed formally by the UK ALCO committee and Board of Directors.

Funding and Liquidity Objectives

Adequate liquidity and sources of funding are essential to Citi's businesses. Funding and liquidity risks arise from multiple factors, many of which are beyond Citi's control, such as disruptions in the financial markets, changes in key funding sources, credit spreads, alterations to Citi's credit ratings and political and economic conditions across the globe.

Citi's funding and liquidity objectives are to maintain adequate liquidity to:

(i) fund its existing asset base;
(ii) grow its core businesses;
(iii) maintain sufficient excess liquidity, structured appropriately, to enable operation under a wide variety of market conditions, including both short and long term market disruptions; and
(iv) satisfy regulatory requirements.

These Citi-wide primary liquidity objectives have been adopted by CGML and approved as part of its Liquidity Risk Management Policy.

CGML funds itself through a combination of equity, long-term subordinated debt, long-term and short-term unsecured intercompany borrowings, structured notes through Citigroup Global Markets Funding Luxembourg (CGMFL), a Luxembourg-domiciled structured notes issuance subsidiary of CGML, and secured financing. Long-term structural liquidity is provided through subordinated debt, stockholders equity, and intercompany loans with greater than 1 year to maturity. Day-to-day funding fluctuations are managed through short-term intercompany loans, typically from the parent.

Citigroup employs a single face to the market approach for long term benchmark unsecured borrowing. Structural liquidity is originated primarily through issuance of long term debt by the parent company, Citigroup Inc. and is passed down stream to CGML and other broker dealer entities via explicit intercompany lending transactions or investment in subsidiaries.

In order to meet its internal liquidity-related stress testing requirements and ratio hurdles, the Company holds a pool of liquid assets including highly liquid government bonds. This asset pool is reviewed on a daily basis and adjusted as necessary to maintain CGML's key liquidity ratios and metrics. Increases to the asset pool are typically funded through increased unsecured long term borrowing from CGML's parent.

30. Financial instruments and risk management (continued)

Liquidity risk (continued)

Liquidity Risk Management Framework

The Company's liquidity risk management framework is defined by Citi's Global Liquidity Risk Management Policy (the Policy). The Policy establishes the standards for defining, measuring, limiting and reporting liquidity risk to ensure the transparency and comparability of liquidity risk taking activities and the establishment of an appropriate risk appetite.

The Policy is owned by the Citi Treasury Chief Risk Officer and is applicable to Citigroup Inc. and its consolidated subsidiaries. The Policy and any material amendments to it must be approved by the Citigroup Board of Directors.

As a part of the global framework, the Company is required to prepare a detailed plan of its liquidity position which also considers the forecast of future business activities. This plan is called the Funding and Liquidity Plan (FLP) and it addresses strategic liquidity issues and establishes the parameters for identifying, measuring, monitoring and limiting liquidity risk and sets forth key assumptions for liquidity risk management.

In summary, the FLP is a strategic implementation of the global framework and is divided into the following components:

- Contingency Funding Plan (CFP) tested annually;
- Intra-day liquidity risk management plan; and
- Balance Sheet Funding and Liquidity Plan.

The Company's FLP is prepared annually and the liquidity profile is monitored on an on-going basis and reported daily to key stakeholders including CGML's Treasurer, Treasury CRO and UK ALCO members. Liquidity risk is monitored using various ratios and limits in accordance with the Liquidity Risk Management Policy for Citi. The FLP includes a forecast of CGML's balance sheet and liability metrics as well as an overview of the current secured financing market conditions as observed by the Finance desks. As part of the FLP, liquidity limits, liquidity ratios and assumptions for periodic stress tests are reviewed and approved by the UK ALCO, Citi Treasurer and Treasury CRO.

Citi maintains a series of contingency funding plans on a consolidated basis as well as for individual entities, including the Company. The Contingency Funding Plan (CFP) is a key component of the Global Framework and it incorporates the management plan of contingent actions in the event of a crisis. The Company's CFP includes the "playbook" for addressing liquidity and funding challenges in crisis situations, triggers, procedures, roles and responsibilities, a communication plan and a key contact list to manage a liquidity event. The CFP defines a crisis committee responsible for decision making and execution of contingency plans to address both short-term and longer term disruptions in funding sources.

Funding and Liquidity Risk Governance

The UK Asset and Liability Committee (ALCO) is the primary governance committee for CGML's balance sheet management. Among its key responsibilities are:

- Country oversight of market and liquidity risks, transfer pricing and balance sheet management across businesses;
- Evaluation of capital adequacy, and oversight of regulatory constraints;
- Oversight of balance sheet trends and mix;
- Oversight of liquidity levels, structure, metrics and policies, including Contingency Funding Plans;
- Review and approval of the summary Annual Funding and Liquidity Plan;
- Oversight of local regulatory requirements related to the balance sheet, including liquidity and market risk regulations;
- Monitoring and management of liquidity risk;
- Adherence to capital standards and determination of dividend repatriation; and
- Ensuring prudent balance sheet management for each legal entity.

30. Financial instruments and risk management (continued)

Liquidity risk (continued)

Citi's UK management team and the UK ALCO monitor changes in the economic environment and any corresponding impact on the asset quality of Citi's local and consolidated balance sheets, including CGML. The UK ALCO also functions as a forum for senior management to ensure adherence to corporate wide policies and procedures, regulatory requirements and rating agency commitments.

The membership of the UK ALCO includes the UK Citi Country Officer (CCO), CGML Chief Executive Officer (CEO) (chair), UK Country Finance Officer (CFO), UK Treasurer, EMEA Regional Treasurer, UK Risk Officer, Independent Liquidity Risk Manager, Finance Desk Heads and other key business and functional heads.

The UK ALCO meets on a monthly basis.

CGML's Risk Committee reviews the Liquidity Risk Management Policy and the Company's Internal Liquidity Adequacy Assessment Process ('ILAAP') document and approves the Liquidity Risk Management Framework, the Funding and Liquidity Plan, the Contingency Funding Plan and any relevant CGML-specific liquidity policies.

Liquidity Stress Testing and Scenario Analysis Framework

The Company's use of stress testing and scenario analysis is intended to quantify the potential impact of a liquidity event on the Company's balance sheet and liquidity position, and to identify viable funding alternatives that can be utilised. These scenarios include:

- potential significant changes in key funding sources;
- market triggers (such as credit rating downgrades);
- changes to uses of funding; and
- political and economic conditions, including stressed market conditions as well as Company-specific events.

Some tests span liquidity events over a full year, while others may cover a more intense shock over a shorter period such as 30 days. These tests can identify potential mismatches between liquidity sources and uses over a variety of time horizons, and liquidity limits are set accordingly. The stress tests and potential mismatches may be calculated with varying frequencies, with several important tests performed daily. They are also performed for the material currencies that constitute CGML's balance sheet.

CGML's stress testing framework seeks to ensure that sufficient contingent liquidity is maintained (the liquidity pool of highly liquid assets mentioned above) after considering the impact of key liquidity risk.

Internal Liquidity Risk Management Metrics

From an internal perspective, the Company uses two stress tests to monitor its liquidity position. The first stress test covers a 12 month survival horizon in a highly stressed market disruption scenario, whilst the other covers 30 days in a severely stressed market disruption scenario with a loss of confidence in Citi.

Highly Stressed Market Disruption Scenario (Referred to as S2) – This scenario assumes market, credit and economic conditions are moderately to highly stressed with potential further deterioration covering a one year period.

Loss of Confidence/Severe Market Disruption Scenario (Referred to as RLAP) **–** This is a stressed cash flow scenario used to measure the short term (30 calendar days) survival horizon under a severe loss of confidence (idiosyncratic event) and severe market disruption.

These metrics are calculated and monitored on a universal currency basis and in the most material currencies that constitute CGML's balance sheet (EUR, GBP and USD).

Stress Test	**RLAP**	**S2**
Time Horizon	30 days	1 year
Calculation	Liquid assets to net cash outflows	Liquid assets to net cash outflows

30. Financial instruments and risk management (continued)

Liquidity risk (continued)

Maturity analysis of financial instruments

The following table assigns the Company's assets and liabilities to a combination of the relevant contractual and/or behavioural maturity groupings based on the remaining period from the balance sheet date. It should be noted that in managing liquidity risk, management uses certain assumptions based on a combination of contractual and behavioural maturity profiles, as shown below. The majority of the financial instruments disclosed below are presented on a contractual basis, with the exception of derivatives, inventory and securities sold but not yet purchased. Due to the nature of the business, behavioural maturity is considered the best reflection of the liquidity of these financial instruments.

31 December 2017	Total $ Million	On demand $ Million	3 months & less $ Million	3 - 12 months $ Million	1 – 5 years $ Million	More than 5 years $ Million
Cash	2,953	2,953	-	-	-	-
Collateralised financing transactions at amortised cost	70,939	23,727	35,456	11,711	45	-
Derivatives	149,409	149,409	-	-	-	-
Inventory	56,757	56,757	-	-	-	-
Collateralised financing transactions at fair value	64,516	9,782	44,691	8,557	684	802
Financial assets classed as available for sale	59	-	-	-	-	59
Cash collateral pledged	22,071	-	22,071	-	-	-
Trade debtors	10,254	-	10,254	-	-	-
Other debtors	51	-	51	-	-	-
Total financial assets	377,009	242,628	112,523	20,269	728	861

	Total $ Million	On demand $ Million	3 months & less $ Million	3 - 12 months $ Million	1 – 5 years $ Million	More than 5 years $ Million
Bank loans and overdrafts	16,461	661	4,970	338	8,180	2,312
Collateralised financing transactions at amortised cost	51,340	11,755	25,837	13,172	576	-
Derivatives	156,511	156,511	-	-	-	-
Securities sold but not yet purchased	42,779	-	42,779	-	-	-
Collateralised financing transactions at fair value	57,000	5,134	46,622	4,730	319	195
Cash collateral held	20,549	-	20,549	-	-	-
Trade creditors	11,925	-	11,925	-	-	-
Other creditors and accruals	1,134	-	1,134	-	-	-
Subordinated loans	4,012	-	-	-	-	4,012
Total financial liabilities	361,711	174,061	153,816	18,240	9,075	6,519
Net liquidity gap	15,298	68,567	(41,293)	2,029	(8,347)	(5,658)
Cumulative liquidity gap		68,567	27,274	29,303	20,956	15,298

30. Financial instruments and risk management (continued)

Liquidity risk (continued)

31 December 2016	Total $ Million	On demand $ Million	3 months & less $ Million	3 - 12 months $ Million	1 – 5 years $ Million	More than 5 years $ Million
Cash	3,738	428	3,310	-	-	-
Collateralised financing transactions at amortised cost	56,221	12,315	34,667	9,035	204	-
Derivatives	167,634	167,634	-	-	-	-
Inventory	36,613	36,613	-	-	-	-
Collateralised financing transactions at fair value	51,452	5,152	39,000	6,529	90	681
Financial assets classed as available for sale	31	-	-	-	-	31
Cash collateral pledged	21,992	-	21,992	-	-	-
Trade debtors	7,146	-	7,146	-	-	-
Other debtors	9	-	9	-	-	-
Total financial assets	344,836	222,142	106,124	15,564	294	712

	Total $ Million	On demand $ Million	3 months & less $ Million	3 - 12 months $ Million	1 – 5 years $ Million	More than 5 years $ Million
Bank loans and overdrafts	10,454	1,019	6,152	2,216	314	753
Collateralised financing transactions at amortised cost	33,511	11,109	12,497	9,104	801	-
Derivatives	170,258	170,258	-	-	-	-
Securities sold but not yet purchased	44,654	-	44,654	-	-	-
Collateralised financing transactions at fair value	35,781	4,912	27,348	3,263	258	-
Cash collateral held	22,595	-	22,595	-	-	-
Trade creditors	8,680	-	8,680	-	-	-
Other creditors and accruals	988	-	988	-	-	-
Subordinated loans	4,585	-	-	-	-	4,585
Total financial liabilities	331,506	187,298	122,914	14,583	1,373	5,338
Net liquidity gap	13,330	34,844	(16,790)	981	(1,079)	(4,626)
Cumulative liquidity gap		34,844	18,054	19,035	17,956	13,330

30. Financial instruments and risk management (continued)

Liquidity risk (continued)

The table below assigns the Company's liabilities to relevant maturity groupings based on the remaining contractual future undiscounted cash flows up to maturity. The amounts disclosed in the table are the contractual undiscounted cash flows, whereas the Company manages liquidity risk based on a combination of contractual and behavioural maturity profiles. Derivatives are excluded from the table as these are held for trading purposes. As such, the intention is not to hold these positions to settlement over the period of contractual maturity. Cash collateral held, securities sold not yet purchased, trade creditors, and other creditors and accruals are excluded because they are deemed to be three months or less and are thus very short term.

31 December 2017	Contractual value $ Million	On demand $Million	3 months & less $ Million	3 - 12 months $ Million	1 – 5 years $ Million	More than 5 years $ Million
Bank loans and overdrafts	17,342	661	5,042	517	8,601	2,521
Collateralised financing transactions at amortised cost	51,454	11,755	25,890	13,230	579	-
Collateralised financing transactions at fair value	57,041	5,134	46,622	4,761	320	204
Subordinated loans	4,640	-	20	59	316	4,245
Total financial liabilities	130,477	17,550	77,574	18,567	9,816	6,970

31 December 2016	Contractual value $ Million	On demand $Million	3 months & less $ Million	3 - 12 months $ Million	1 – 5 years $ Million	More than 5 years $ Million
Bank loans and overdrafts	10,514	1,004	6,086	2,222	377	825
Collateralised financing transactions at amortised cost	33,578	11,109	12,522	9,144	803	-
Collateralised financing transactions at fair value	35,804	4,912	27,348	3,285	259	-
Subordinated loans	5,182	-	20	60	322	4,780
Total financial liabilities	85,078	17,025	45,976	14,711	1,761	5,605

Credit risk

Credit risk is the potential for financial loss resulting from the failure of a borrower or counterparty to honour its financial or contractual obligations.

Credit risk arises in many of the Company's business activities, including:

- sales and trading;
- derivatives;
- securities transactions;
- settlement;
- when Citi acts as an intermediary on behalf of its clients and other third parties; and
- when acting as underwriter or within a capital raising capacity.

Credit risk arises from the Company's activities in OTC derivatives markets and reverse repurchase agreements as well as securities lending transactions and margin lending. The Company's credit exposure on derivatives and foreign exchange contracts is primarily to professional counterparties in the global financial sector, including banks, investment banks, hedge funds, insurance companies and asset management companies.

The Company enters into derivative transactions principally to enable customers to transfer, modify or reduce their credit, equity, interest rate and other market risks. In addition, the Company uses derivatives, and other instruments, as an end user to manage the risks to which the Company is exposed.

30. Financial instruments and risk management (continued)

Credit risk (continued)

Credit risk also arises from settlement and clearing activities, when the Company transfers an asset in advance of receiving its counter-value or advances funds to settle a transaction on behalf of a client. Concentration risk, within credit risk, is the risk associated with having credit exposure concentrated within a specific client, industry, region or other category.

Credit risk is one of the most significant risks the Company faces as an institution. As a result, Citi has a well-established framework in place for managing credit risk across all businesses. This includes a defined risk appetite, credit limits and credit policies, both at the business level as well as at the firm-wide level. Citi's credit risk management also includes processes and policies with respect to problem recognition, including "watch lists," portfolio review, updated risk ratings and classification triggers. The framework is supplemented by regular stress testing and monitoring of exposures, with monthly and quarterly reporting to the senior management and the Board of Directors respectively.

During 2017, the Company implemented a concentration risk management framework which included the introduction of risk limits by relationship, country and industry.

The credit process is based on a series of fundamental policies, including:

- joint business and independent risk management responsibility for managing credit risks;
- a single centre of control for each credit relationship to coordinate credit activities with that client;
- a requirement for a minimum of two authorised credit officer signatures on extensions of credit, one of which must be from a sponsoring credit officer in the business and the other from a credit officer in independent credit risk management;
- consistent risk rating standards, applicable to every Citi obligor and facility; consistent standards for credit origination documentation and remedial management; and
- portfolio limits to ensure diversification and maintain risk/capital alignment.

Large exposure limit reports are circulated daily that show the Company's exposure to various counterparty groupings as a proportion of its own funds. Regulations require that the Company does not exceed specified limits for its non trading book exposures. Within a certain percentage below the maximum permitted level, the Regulatory Reporting group conducts initial analysis and provides a breakdown of exposures to credit risk management. At or above the maximum permitted level, the credit risk management team takes action and escalates to the front office in order to reduce exposure to that counterparty and thereby bring exposure back within permitted levels. Similar reporting is carried out against internal limits for the trading book exposures.

Wrong-way risk is an aggravated form of concentration risk and arises when there is a strong correlation between the counterparty's probability of default and the mark-to-market value of the underlying transaction. This is monitored at a Company level, and includes circulation of a monthly report that identifies CDS based, OTC or securities financing transactions (SFTs) that generate specific wrong-way risk. Wrong-way risk is mitigated through the use of enforceable netting agreements and margining.

The Company seeks to restrict its exposure to credit losses by entering into master netting arrangements with most counterparties with which it undertakes a significant volume of transactions. Master netting arrangements do not generally result in an offset of balance sheet assets and liabilities, as transactions are usually settled on a gross basis. However, the credit risk associated with favourable contracts is reduced by a master netting arrangement to the extent that if an event of default occurs, all amounts with the counterparty are terminated and settled on a net basis. Many of these arrangements also provide for the calling and posting of variation margin or collateral, further reducing the Company's exposures. The internal measurement of exposure on each credit facility takes into account legally enforceable netting and margining arrangements – both in terms of current exposure and in terms of the simulated calculation of potential future exposure.

30. Financial instruments and risk management (continued)

Credit risk (continued)

The following table presents the maximum exposure to credit risk, before taking account of any collateral held or other credit enhancements (where such credit enhancements do not meet offsetting requirements). It also illustrates the impact on the balance sheet of offsetting, master netting agreements and cash and non cash collateral.

2017	**Gross exposure**	**Amounts set off on the balance sheet**	**Net exposure**	**Impact of master netting agreements**	**Cash collateral**	**Securities collateral**	**Net exposure**
Assets							
Derivatives	150,149	(740)	149,409	(122,664)	(20,549)	(6,196)	-
Collateralised financing transactions	157,155	(21,700)	135,455	(23,043)	-	(112,412)	-
	307,304	(22,440)	284,864	(145,707)	(20,549)	(118,608)	-
Liabilities							
Derivatives	157,251	(740)	156,511	(122,664)	(22,071)	(4,826)	6,950
Collateralised financing transactions	130,040	(21,700)	108,340	(23,043)	-	(85,297)	-
	287,292	(22,440)	264,851	(145,707)	(22,071)	(90,123)	6,950

2016	**Gross exposure**	**Amounts set off on the balance sheet**	**Net exposure**	**Impact of master netting agreements**	**Cash collateral**	**Securities collateral**	**Net exposure**
Assets							
Derivatives	172,375	(4,741)	167,634	(137,782)	(22,595)	(3,276)	3,981
Collateralised financing transactions	115,435	(7,762)	107,673	(12,987)	-	(94,686)	-
	287,810	(12,503)	275,307	(150,769)	(22,595)	(97,962)	3,981
Liabilities							
Derivatives	174,999	(4,741)	170,258	(137,782)	(21,992)	(2,499)	7,985
Collateralised financing transactions	77,054	(7,762)	69,292	(12,987)	-	(56,305)	-
	252,053	(12,503)	239,550	(150,769)	(21,992)	(58,804)	7,985

30. Financial instruments and risk management (continued)

Credit risk (continued)

The offset amounts for the impact of master netting agreements for Derivatives in the above tables relate to exposures where the counterparty has an offsetting derivative exposure with the Company and a master netting agreement is in place. These amounts do not qualify for net presentation for accounting purposes as settlement may not actually be made on a net basis.

The collateralised financing transactions offset adjustment relates to balances arising from repurchase and reverse repurchase transactions. The offsets relate to balances where there is a legally enforceable right of offset in the event of counterparty default and consequently a net exposure for credit risk management purposes. However as there is no intention to settle individual transactions on a net basis under normal circumstances, they do not qualify for net presentation for accounting purposes. Credit risk exposure is monitored on an asset basis except for positions which are specifically collateralised, normally in the form of cash.

As at 31 December the Company's third party credit exposure (mark to market plus potential future exposure as determined by the Company's internal measure) in relation to collateralised financing transactions and derivatives was distributed as shown in the table below (these exposures do not include derivative and collateralised financing transactions with other group undertakings). The following table shows CGML's exposures categorised by industry.

Industry	**2017**	**2016**
	%	**%**
Commercial and universal banks	41.7	43.5
Insurance and fund management (pension funds and mutual funds)	28.1	27.4
Brokers and investment banks	3.4	5.1
Other (including Corporates, SPVs and Hedge Funds)	26.8	24.0
	100	100

The credit quality of the Company's financial assets is maintained by adherence to Citi policies on the provision of credit to counterparties. The Company monitors the credit ratings of its counterparties with the table below presenting an analysis of the Company's trading inventory and derivative transactions by rating agency designation based on Standard & Poor, Moody's and Fitch ratings as at 31 December:

	Government bonds		**Non-government bonds**		**Derivatives**	
	2017	**2016**	**2017**	**2016**	**2017**	**2016**
	%	**%**	**%**	**%**	**%**	**%**
AAA / AA / A	68.0	63.0	73.0	72.0	46.3	40.8
BBB	27.0	33.0	17.0	17.0	3.7	9.6
BB / B	5.0	4.0	8.0	8.0	1.4	0.6
CCC or below	-	-	1.0	1.0	-	-
Central counterparty (unrated)	-	-	-	-	20.0	22.0
Unrated	-	-	1.0	2.0	28.6	27.0
	100.0	100.0	100.0	100.0	100.0	100.0

As discussed above the maximum credit risk is mitigated through the use of collateral, netting arrangements and the application of credit limits.

30. Financial instruments and risk management (continued)

Country Risk

Country risk is the risk that an event in a country (precipitated by developments within or external to that country) will impair the value of Citi's franchise or will adversely affect the ability of obligors within that country to honour their obligations to Citi. Country risk events may include sovereign defaults, banking defaults or crises, currency crises and/or political events.

The country designation in Citi's risk management systems is based on the country to which the client relationship, taken as a whole, is most directly exposed with regard to economic, financial, socio-political or legal risks. This includes exposure to subsidiaries within the client relationship that are domiciled outside of the country.

Citi assesses the risk of loss associated with certain of the country exposures on a regular basis, with the country concentration limits reviewed as and when economic performance is viewed as deteriorating. These analyses take into consideration alternative scenarios that may unfold, as well as specific characteristics of the Company's portfolio, such as transaction structure and collateral and the Company's exposure in these countries may vary over time, based upon its franchise, client needs and transaction structures.

Pension Risk

The Company's defined benefit schemes are measured on an actuarial basis, with the key assumptions being inflation, discount rate, mortality, and investment returns. Return on assets is an average of expected returns weighted by asset class.

Mortality assumptions are based upon the relevant standard industry and national mortality tables. Discount rates are based on specific corporate bond indices which reflect the underlying yield curve of each scheme. Management judgement is required in estimating the rate of future salary growth. All assumptions are unbiased, mutually compatible and based upon market expectations at the reporting date.

Further information about the Company's Pension schemes is contained in Note 8 'Pension'.

Operational risk (unaudited)

Operational Risk is the risk of loss resulting from inadequate or failed internal processes, systems, human factors or from external events.

It includes reputation and franchise risks associated with Citi's business practices or market conduct. It also includes the risk of failing to comply with applicable laws, regulations, ethical standards or Citi policies.

Operational Risk does not encompass strategic risk or the risk of loss resulting solely from authorised judgments made with respect to taking credit, market, liquidity or insurance risk.

The objective is to keep operational risk at appropriate levels relative to the characteristics of Citi's businesses, the markets in which it operates, its capital and liquidity, and the competitive, economic and regulatory environment.

Citi maintains an Operational Risk Management (ORM) framework with a Governance Structure to ensure effective management of Operational Risk across Citi. The Governance Structure presents the Three Lines of Defence as previously described in Risk Management Overview and Culture.

30. Financial instruments and risk management (continued)

Operational risk (unaudited) (continued)

To anticipate, mitigate and control operational risk, Citi maintains a system of policies and has established a consistent framework for monitoring, assessing and communicating operational risks and the overall effectiveness of the internal control environment across Citi. As part of this framework, Citi has established a Manager's Control Assessment (MCA) programme which helps managers to self-assess key operational risks and controls and to identify and address weaknesses in the design and effectiveness of internal controls that mitigate significant operational risks.

The ORM Framework establishes a foundation on which the activities of Businesses, Regions and Functions, the resulting operational risks and the associated controls are identified, periodically assessed, subject to corrective action, appropriately documented and communicated. Specifically, the ORM Framework establishes minimum standards for consistent identification, measurement, monitoring, reporting, and management of operational risk across Citi.

The process established by the ORM Framework is expected to lead to effective anticipation and mitigation of operational risk and improved operational risk loss experience and includes the following steps:

- identify and assess Key Operational Risks (KORs);
- design controls to mitigate identified risks;
- establish Key Risk Indicators (KRIs);
- implement a process for early problem recognition and timely escalation;
- produce comprehensive operational risk reporting; and
- ensure that sufficient resources are available to actively improve the operational risk environment and mitigate emerging risks.

As new products and business activities are developed, processes are designed, modified or sourced through alternative means and operational risks are considered.

In addition, Operational Risk Management proactively assists the businesses, operations and technology and the other independent control groups in enhancing the effectiveness of controls and managing operational risks across products, business lines and regions, and facilitates the management of operational risk at a Citi and Company level.

Measurement

To support advanced capital modelling and management, each business is required to capture relevant operational risk event information. A localised version of the Citi risk capital model for operational risk has been developed and applied against CGML. The PRA has approved this model, including the associated capital allocation, for use within the Company as an "Advanced Measurement Approach". It uses a combination of internal and external loss data to support statistical modelling of capital requirement estimates, which are then adjusted to incorporate qualitative aspects of the operational risk and control environment.

To enhance its operational risk management, CGML has implemented a forward looking scenario analysis programme to identify and quantify emerging operational risks, through a systematic process of obtaining opinions from business managers and risk management experts to devise reasoned assessments of the likelihood and loss impact of plausible, high severity operational risk losses. This development has been integrated into the operational risk capital assessment for CGML.

30. Financial instruments and risk management (continued)

Operational risk (unaudited) (continued)

Key Operational Risks (KORs) are derived from an evaluation of operational risk exposure on a residual risk basis considering its current business strategy, substantial emerging risks and other relevant factors which include assessment of the four Basel operational risk data elements i.e. internal losses, external losses, scenario analysis, output from Internal Audit Assessments and from self-assessments results from the Manager's Control Assessment (MCA). The identified KORs for CGML include those set out below. The CGML KORs noted below are in the process of being incorporated into the Citi-level global operational risk appetite framework approved in 4Q 2017. Risks will align to the Citi-wide global risk taxonomy that is being developed for operational and compliance risk.

Anti-Money Laundering (AML) and Sanctions Non-Compliance Risk

Local and international Anti-Money Laundering (AML) and Sanctions requirements impact the activities carried out by the Company and its clients. Following the development of Sectoral Sanctions to address the political situation in Ukraine, Citi has developed an enhanced control infrastructure around activities that may be affected by applicable sanctions regimes. Regulatory requirements concerning AML controls continue to focus particularly on customer due diligence and suspicious activity monitoring, and Citi continues to implement enhancements in these areas.

Conduct Risk

Citi is exposed to the risk of improper conduct through prohibited and manipulative practices by individual employees, collusive practices across a group of employees within and across market participants, and misconduct that harms customers or the integrity of the markets. Citi's exposure to conduct risk resulted in the issuance of a Citi-wide Conduct Risk Policy which sets out a framework through which Citi manages, minimises, and mitigates its significant conduct risks, and describes the responsibilities of each of the three lines of defence for complying with the policy.

Cyber Risk

Citi is exposed to cyber/ information security risk through hacking of Citi or third party systems containing Citi's data, and denial of service attacks on Citi and third party servers.

The cyber security threat landscape is rapidly evolving with increasingly sophisticated attacks for gain (e.g. denial of service, account takeover) on Citi, our clients and third party applications. Citi's Information Security programme strategy is built on a deep understanding of the threat environment through the work of the Global Information Security (GIS) Cyber Intelligence Centre (CIC). External benchmarks indicate that Citi appears to be well placed to deal with current threats. However, due to the ever-changing evolution of the threat landscape, Citi continues to invest in its identification, prevention and detection capabilities.

Geopolitical Risk

Geopolitical risk is the risk of financial impact and /or the inability to continue with business due to geopolitical instability and /or changes in the geopolitical environment (e.g. capital controls, impact of Brexit, Middle East and Russia political instability) and dealing with the impact of "flight to quality" requiring due diligence in compressed timeframes. In addition geopolitical instability also puts Citi at risk of terrorism-related events. Citi has established a comprehensive programme to meet the organisational change requirements resulting from Brexit and has well established and tested processes in place to mitigate the impact of terrorism related risk events.

Internal Fraud (Unauthorised Trading Risk)

The risk of loss due to fraudulent activity such as unauthorised trading (rogue trading), mis-marking or payments fraud is a key risk for CGML. A number of initiatives are ongoing to enhance Citi's fraud prevention framework including rogue trading prevention and detection controls. These include the implementation of consistent Markets-wide controls, designed to identify and prevent unauthorised trading in the Markets business and Corporate Treasury.

30. Financial instruments and risk management (continued)

Operational risk (unaudited) (continued)

System Run Away Risk (Low Touch Activity Trading Risk)

System run away risk (low touch activity trading risk) is the risk of systemic controls' failure to prevent or limit loss exposure for highly automated transactions. This risk specifically includes elevated risk of breaks in high frequency/algorithmic electronic trading due to failure to keep technological capabilities up-to-date, the ability to respond quickly to operational risk events where increased duration is directly correlated to severity, and where response is compromised by fragmented infrastructure and substandard monitoring capabilities.

Citi has established a robust risk and control framework for Low Touch Activity and continues to ensure that enhanced controls are implemented to mitigate this risk.

Inaccurate Reporting and Data Management

Inaccurate reporting and data management risk is the risk that data may be of an insufficient quality to meet Citi's business, regulatory, financial reporting and customer needs resulting from either the business originator of data being unable to provide accurate, complete and timely records of business transactions and customer activities or from a subsequent processor of that data handling the data in an incorrect manner. The quality management inadequacies could also result in non-compliance to regulatory standards. Citi has identified and implemented a number of control enhancements to ensure that any such risks are identified and mitigated on a timely basis.

Model Risk Management

Citi is exposed to model risk through the use of incorrect or inaccurate models (such as failed or non-validated models) and incorrect uses of models (for example using the model beyond its approved use cases). Model risk may result in adverse outcomes including but not limited to financial losses (for instance inaccurate quantification of risks, loosening of lending standards) and regulatory criticism.

Third Party Vendor Management including Affiliates

Citi is exposed to third party risk through inconsistent or inadequate delivery of products or services that support core operational or client-facing processes, misconduct on the part of third parties (e.g., fraud), or failure by third parties to ensure that the contracted products or services are delivered to Citi in a safe and sound manner and in compliance with applicable laws, regulations and Citi policies

ORM liaises with Subject Matter Experts (SMEs) aligned to each KOR to define the risk for CGML and to identify appropriate metrics i.e. Key Indicators (KIs) to monitor KOR risk profiles. Given that CGML's business is almost entirely wholesale in nature with Institutional Client Group (ICG) clients, ICG Segment metrics are leveraged as far as possible.

30. Financial instruments and risk management (continued)

Regulatory risk and developments *(unaudited)*

Recast Markets in Financial Instruments Directive (MiFID II) and Regulation on Markets in Financial Instruments (MiFIR)

On 3 January 2018, MiFID II and MiFIR replaced the previous Markets in Financial Instruments Directive (**MiFID**), which came in to effect in 2007. Most provisions of MiFID II and MiFIR are now in force, and the related reforms have had a significant impact on a number of areas including:

- scope of exemptions;
- market structure;
- transparency requirements;
- transaction reporting;
- algorithmic trading;
- commodities;
- the third country regime;
- investment research; and
- supervision.

MiFIR has increased the transparency requirements for the equities market and introduced new transparency requirements for fixed income instruments and derivatives, with additional requirements including the publication of pre and post-trade transparency data to market via Approved Publication Arrangements. The scope of the original MiFID transaction reporting regime was extended by MiFIR, with a substantial amount of data to be reported to the National Competent Authorities via Approved Reporting Mechanisms across an extended range of asset classes. There are increased conduct of business requirements aimed at increasing investor protection to a broader range of clients, including expanded rules relating to inducements and the provision of investment research. Strengthened supervisory powers and administrative sanctions also apply.

As well as revising and enhancing some existing MiFID requirements, MiFID II and MiFIR have introduced new concepts and obligations including a new multilateral, discretionary trading venue for non-equity instruments, the Organised Trading Facility (OTF), and an extension of the Systematic Internaliser (SI) regime to non-equity instruments. There is a requirement for investment firms to trade shares admitted to trading on a Regulated Market or traded on a trading venue on a Regulated Market, Multilateral Trading Facility (MTF), SI or third country trading venue assessed as equivalent. There are new requirements for:

- commodity position limits and reporting;
- trading controls for algorithmic trading activities;
- an obligation to trade clearable derivatives on Regulated Markets, MTFs and OTFs; and
- the introduction of a harmonised EU regime for access to trading venues, CCPs and benchmarks.

European Commission proposed revisions to CRR/CRDIV, Banking Recovery and Resolution Directive (BRRD) and Single Resolution Mechanism Regulation (SRMR)

In November 2016, the European Commission issued proposed revisions to the CRR, CRDIV, BRRD and SRMR. These revisions build on existing EU banking rules and aim to complete the post-crisis regulatory agenda. They enable the regulatory framework to address any outstanding challenges to financial stability, while ensuring that banks can continue to support the real economy. The proposals are now under discussion between the European Commission, Council and Parliament and elements of the package will come into force at different stages; the earliest is estimated to be 2019.

The rule changes within the proposal include the European implementation of the TLAC rules, new risk-sensitive methods for calculating market risk and counterparty credit risk capital requirements (known as the Fundamental Review of the Trading Book and the Standardised Approach to Counterparty Credit risk), a binding Leverage Ratio, a Net Stable Funding Ratio and changes to the large exposures framework.

31. Capital management

As an EU regulated entity, CGML is required to hold sufficient regulatory capital to meet its Individual Capital Guidance, CRDIV buffers and any applicable buffers mandated by the PRA. The Company monitors its CET1, Tier 1, total capital ratios and overall capital adequacy daily. The externally mandated regulatory requirements also form part of the Company's internal capital management toolkit, with capital management constituting a key focus for a number of internal committees, in particular the UK ALCO. CGML's capital management framework encompasses a set of internal limits and escalations, defined using a red-amber-green structure. In accordance with these escalations, specified actions are taken and the responsible people are notified at each stage. In addition the UK ALCO and CGML Capital Committee are kept informed of any trigger breaches. CGML also has in place a risk appetite framework to manage the risks to which it is exposed through its business activities: these are both quantitative and qualitative. During 2017, CGML remained in compliance with all externally imposed capital requirements. Quantitative details of CGML's regulatory capital position are included in Section 4 of the Strategic Report.

The capital management of CGML is further explained in its Basel Pillar III disclosures document, which can be found at http://www.citigroup.com/citi/investor/reg.htm.

32. Registered charges

The Company has granted to various banks and other entities a number of fixed and floating charges over certain holdings in securities, properties, collateral and monies held by or on behalf of such banks or other entities.

33. Other commitments

a) Letters of credit

As at 31 December 2017, the Company had $26 million (2016: $19 million) of unsecured letters of credit outstanding from banks to satisfy collateral requirements under securities borrowing agreements and margin requirements.

b) Capital commitments

As at 31 December 2017, the Company had no capital commitments (2016: $nil).

34. Events after the reporting period

On 30 January 2018 CGML drew down $650 million of subordinated loan borrowings from Citigroup Financial Products Inc.

35. Group structure

The Company's immediate parent undertaking is Citigroup Global Markets Holdings Bahamas Limited (CGMHBL), a company registered at Ocean Centre, Montagu Foreshore, East Bay Street, and P.O. Box N3247, Nassau, Bahamas. The Company's ultimate parent company and ultimate controlling party is Citigroup Inc., registered at 1209 Orange Street, Wilmington, DE 19801 United States of America.

The audited consolidated financial statements of Citigroup Inc. are made available to the public annually in accordance with Securities and Exchange Commission regulations and may be obtained from http://www.citigroup.com/citi/investor/overview.html

36. Revenue analysis

As outlined in the Strategic Report, the Company is Citi's international broker dealer and management reviews its performance by geography in the same way as Citigroup Inc. reports its performance.

Citi is organised into four regions, Asia Pacific, EMEA, Latin America and North America.

	Asia Pacific	EMEA	Latin America	North America	Total Regional	Other / Corp	Total
Revenue by Region	**$ Million**	**$ Million**	**$ Million**	**$ Million**	**$ Million**	**$ Million**	**$ Million**
2017 Revenues	327	2,139	36	7	2,509	415	2,924
2016 Revenues	197	1,867	31	46	2,141	594	2,735
Increase (decrease) compared to prior year	130	272	5	(39)	368	(179)	189

37. Country by country reporting

The information relating to Country-by-Country reporting, required by Article 89 of Directive 2013/36/EU (Capital Requirements Directive), will be published at http://www.citigroup.com/citi/investor/reg.htm.

38. Modern Slavery Act

The information relating to the Modern Slavery Act, as required by the Modern Slavery Act 2015, is published at http://www.citigroup.com/citi/investor/data/uk_modern_slavery_statement.pdf