Citigroup Global Markets Limited Pillar 3 Disclosures

31 December 2021

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Introduction

Citigroup Global Markets Limited ("CGML" or "the Company") is a wholly owned, indirect subsidiary of Citigroup Inc. ("Citi"). It is Citi's international broker dealer, providing products and services for institutional clients. CGML acts as a market maker in equity, fixed income and commodity products across cash, over-the-counter ("OTC") derivatives and exchange traded markets, as well as a provider of investment banking capital markets and advisory services. CGML 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.

CGML is authorised by the Prudential Regulation Authority ("PRA") and regulated by the PRA and Financial Conduct Authority ("FCA"). CGML is also a Commodity Futures Trading Commission ("CFTC") and United States Securities Exchange Commission ("SEC") registered swap dealer, and is considered a Risk-Taking Operating Material Legal Entity in Citi's Global Resolution Plan.

As at 31 December 2021, CGML had five branch offices and four subsidiaries.

Subsidiaries
Citigroup Global Markets Europe AG (Germany)
Citi Global Wealth Management S.A.M. (Monaco)
Citigroup Global Markets Funding Luxembourg SCA
Citigroup Global Markets Funding Luxembourg GP S.a.R.L.

CGML's business falls within the Institutional Clients Group ("ICG") segment of Citi's operations and is almost entirely wholesale in nature, with a client base that encompasses corporates, institutions and governments. CGML's principal business activities are:

Global Rates and Currencies

Makes markets and facilitates client activity across interest rate products in traded markets, including sovereign and supranational bonds, inflation bonds, and interest rate, cross currency and inflation derivatives. The business conducts much of its client facing activity on CGML with some market risk transferred to other Citi affiliates.

Facilitates local and international client demand for flow foreign exchange ("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.

Global Spread Products

Provides clients with access to investment grade, high yield and distressed bond markets, as well as credit derivatives and structured credit products.

Global Equities Markets

Comprises:

- Equity Markets, undertakes market making in, and provides clients with exposure to, equities, convertible bonds, listed and OTC derivatives, structured products, securities financing, and electronic trading;
- Multi Asset Group, develops asset-based investment and hedging solutions for distributors and institutional investors, with a particular focus on insurance companies, asset managers (including hedge funds) and pension funds;
- Prime Finance, provides globally co-ordinated prime brokerage services to clients, including securities lending, margin financing, reporting, clearing, custody and structured financing solutions; and,
- 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.

Securities Services

Futures and OTC Clearing, which provides clients with access to global liquidity venues, global execution on all major futures exchanges, multi-asset clearing services on global central counterparties ("CCPs") and delivery of collateral solutions.

Global Commodities

Acts as a principal in commodity markets worldwide, providing risk management services to clients, acting as a liquidity provider and providing investor solutions and working capital facilities for commodity inventories.

Banking, Capital Markets and Advisory

Banking, Capital Markets and Advisory ("BCMA") provides structuring and syndication of securities and financing transactions in the bond capital markets and delivers equity and equity-linked solutions in financing acquisitions, funding capital expenditures, managing liabilities, monetising assets, and hedging exposures. The business also provides advisory services to clients in relation to mergers and acquisitions, corporate broking and the raising and restructuring of capital.

Overview of Pillar 3 disclosures

Regulatory framework for disclosure

The Capital Requirements Directive ("CRD IV") package, which came into effect on 1 January 2014 and implements the provisions of the Basel Capital Accord in the European Union ("EU"), mandates a framework of capital adequacy regulation for banks and investment firms incorporating three distinct pillars:

- Pillar 1 prescribes the minimum capital requirements for such firms;
- Pillar 2 addresses the associated supervisory review process; and,
- Pillar 3 specifies further public disclosure requirements in respect of their capital and risk profile.

These disclosures are made in accordance with Part 8 of the Capital Requirements Regulation ("CRR") as transposed through UK legislation. In addition, CGML has implemented the European Banking Authority ("EBA") final guidelines on revised Pillar 3 disclosures (EBA/GL/2016/11), amended in June 2017, which bring into force the disclosure of new quantitative tables to further enhance comparability and consistency across the industry.

These disclosures are prepared for CGML on a consolidated basis. As at 31 December 2021, CGME was the only material subsidiary of CGML. CGME is authorised and regulated on an individual basis by The Federal Financial Supervisory Authority ("BaFin") in Germany.

Frequency of disclosure

CGML publishes Pillar 3 disclosures quarterly, with a more comprehensive disclosure on an annual basis in line with the CRR and EBA requirements. CGML publishes its Pillar 3 disclosures at: **https://www.citigroup.com/citi/investor/reg.htm**

These Pillar 3 disclosures complement both the group level materials included in the Citigroup Inc. Annual Report, 10-K and CGML's own 2021 financial statements, both available at the same location.

Quantitative Disclosure

Where disclosures are not relevant or deemed immaterial to the activities of CGML, these have been omitted and detailed in Appendix 4. In addition, those rows and columns not relevant or reportable as nil have been omitted from prescribed tables.

Please note there may be instances where tables do not sum due to rounding.

Policy and Verification

In accordance with Article 431 (3) of the CRR, CGML's Pillar 3 disclosures are governed under Citi's Basel Public Disclosures Policy and associated Pillar 3 Standard, which together outline the principles and standards to be applied for preparing CGML's Pillar 3 disclosures. The firm operates within a framework of internal controls and procedures for assessing the appropriateness of this disclosure.

These disclosures are governed and approved by the CGML Board of Directors.

Regulatory Outlook

The UK's withdrawal from the EU

Post the UK's full withdrawal from the EU, it has on-shored relevant existing EU financial services legislation into UK law, including the CRR, CRD, Regulatory Technical Standards ("RTS") and Implementing Technical Standards ("ITS"). Additionally, during the period of reporting, the UK regulatory authorities used a temporary transitional power to delay or phase-in onshoring changes to UK regulatory requirements arising at the end of the transition period for a period of 15 months that ended 31 March 2022.

Basel Reforms

CGML will be impacted by a number of regulatory rule changes introduced by the Basel Committee on Banking Supervision ("BCBS") and other standard setters that have been legislated for in Europe by CRR II/CRD V. Following the UK's departure from the EU, the UK has on-shored certain parts of the CRR II/CRD V regulation and has published rules to implement other elements of CRR II in the UK.

Key elements in CRR II/CRD V include changes to Counterparty Credit Risk ("SA-CCR"), the Large Exposures framework, the Leverage Ratio, Net Stable Funding Ratio ("NSFR"), Minimum Requirements for Own Funds and Eligible Liabilities ("MREL") and the Fundamental Review of the Trading Book ("FRTB").

The PRA has published final rules in policy statement PS 22/21 to implement the Basel III standards in the UK covering areas such as Counterparty Credit Risk and Large Exposures. These rules will be implemented in the UK from 1 January 2022. In conjunction with the Financial Policy Committee ("FPC"), it has also published final rules in PS21/21 to change the UK leverage ratio framework, bringing investment firms such as CGML in scope. Under these rules, CGML will become subject to a minimum leverage ratio of 3.25% from 1 January 2023.

The final phase of the Basel III reforms includes the Standardised Approach to Credit Risk ("SA-CR"), the Standardised Approach to Operational Risk, Standardised Approach to Credit Valuation Adjustment ("SA-CVA") and the new Output Floor. A consultation on the UK implementation of these rules is expected to be published in the second half of 2022. These along with FRTB are expected to become binding requirements in the future with the PRA's consultation anticipated to provide clarified implementation timelines.

Key Metrics

Table 1: Key Metrics (KM1)

		31 December 2021	30 September 2021	30 June 2021	31 March 2021	31 December 2020
	Available capital	**$ million**	$ million	$ million	$ million	$ million
1	Common Equity Tier 1 (CET1)	**22,639**	22,576	22,573	20,793	16,379
2	Tier 1	**26,939**	26,876	24,873	23,093	18,679
3	Total Capital	**29,539**	29,476	29,473	27,693	23,279
	Risk-weighted assets					
4	Total risk-weighted assets (RWA)	**156,069**	159,669	155,146	151,629	147,376
	Risk-based capital ratios as a percentage of RWA					
5	Common Equity Tier 1 ratio (%)	**14.5%**	14.1%	14.5%	13.7%	11.1%
6	Tier 1 ratio (%)	**17.3%**	16.8%	16.0%	15.2%	12.7%
7	Total capital ratio (%)	**18.9%**	18.5%	19.0%	18.3%	15.8%
	Additional CET1 buffer requirements as a percentage of RWA					
8	Capital conservation buffer requirement (%)	**2.50%**	2.50%	2.50%	2.50%	2.50%
9	Countercyclical buffer requirement (%)	**0.07%**	0.07%	0.07%	0.06%	0.04%
10	Bank G-SIB and/or D-SIB additional requirements (%)	**0.00%**	0.00%	0.00%	0.00%	0.00%
11	Total of bank CET1 specific buffer requirements (%)	**2.57%**	2.57%	2.57%	2.56%	2.54%
12	CET1 available after meeting the bank's minimum capital requirements (%)	**7.9%**	7.7%	8.6%	7.7%	5.1%
	Basel III Leverage Ratio [1]					
13	Total Basel III leverage ratio measure	**485,652**	522,977	489,157	476,531	453,499
14	Basel III leverage ratio (%)	**5.5%**	5.1%	5.1%	4.8%	4.1%
	Liquidity Coverage Ratio (LCR) [2]					
15	Total HQLA	**23,145**	30,206	28,898	28,205	30,864
16	Total net cash outflow	**13,696**	13,098	12,062	12,107	11,293
17	LCR ratio (%)	**169%**	231%	240%	233%	273%

[1] Leverage ratio exposure is disclosed on a fully phased-in basis in accordance with the EU delegated act.
[2] The LCR Pillar 1 only and the daily average is calculated for CGML solo entity, as a consolidated LCR is not monitored on a daily basis.

As at 31 December 2021, CGML's Common Equity Tier 1 ("CET1") ratio was 14.5%, an increase of 4.4% year on year. The primary driver is an increase in total capital as the Company continued to execute on its capital strategy with an incremental increase of $5.5 billion in CET1 capital, and $2.0 billion increase in Tier 1 capital in the form of an Additional Tier 1 Note, partially offset by a $8.7 billion increase in RWA as a result of market volatility and client led activity.

CGML's leverage ratio increased 1.4% over the year to 5.5% as at 31 December 2021. This results from CGML's increased overall level of Tier 1 capital, partially offset by an increase in leverage exposures across both securities financing transactions ("SFTs") and derivatives.

In addition, CGML's liquidity coverage ratio ("LCR") was higher in 2020 to provide sufficient headroom given market volatility. This was reduced in 2021 as markets stabilised.

Risk Management

Effective risk management is of primary importance to CGML's operations. CGML's risk management process has been designed to monitor, evaluate and manage the principal risks it assumes in conducting its activities.

Citi operates under an Enterprise Risk Management ("ERM") Framework to ensure that all of Citi's risks are managed appropriately and consistently across Citi and at an aggregated, enterprise-wide level. The ERM Framework details the principles used to support effective enterprise-wide risk management across the end-to-end risk management lifecycle.

The underlying pillars of the framework encompass:

- Culture - the core principles and behaviours that underpin a strong culture of risk awareness, in line with Citi's Mission and Value Proposition, and Leadership Principles;
- Governance - the committee structure and reporting arrangements that support the appropriate oversight of risk management activities at the Board and Executive Management Team levels;
- Risk Management - the end-to-end risk management cycle including the identification, measurement, monitoring, controlling and reporting of all risks including emerging, growing, idiosyncratic or otherwise material risks, and aggregated to an enterprise-wide level; and,
- Enterprise Programs - the key risk management programs performed across the risk management lifecycle for all risk categories; these programs also outline the specific roles played by each of the lines of defence in these processes.

The CGML Risk Management Framework has been established to ensure that all CGML's risks are managed appropriately and consistently. The UK Chief Risk Officer owns the CGML Risk Management Framework and is responsible for ensuring that the framework is approved by the UK Risk Management Executive Committee on an annual basis.

CGML's objective is to take prudent risks in support of Citi's aggregate strategy to serve as a trusted partner to its clients, consistent with Citi's Mission and Value Proposition and commitment to Responsible Finance, and to ensure that the risks taken are within our risk appetite, are supported by sufficient capital and liquidity, and are identified, understood, quantified, mitigated and communicated, in line with CGML's Risk Capacity and Risk Appetite Framework.

Risk Capacity and Appetite Framework

Citi's Risk Appetite Policy establishes a holistic Risk Appetite Framework in order to clearly and consistently communicate the types and levels of risk the firm is willing to take within the context of the firm's articulated business strategy. The risk appetite framework established through the policy integrates many existing processes at Citi. Given the diversified nature of Citi's businesses, Citi's limit framework is business and product specific. Each business is required to develop a risk appetite framework specific to its business strategy, activities and products, and each risk taking or operating material legal entity ("MLE"), such as CGML, is required to develop a risk appetite framework that is specific to the business strategy, activities and products for the legal entity.

CGML's Risk Capacity and Risk Appetite Framework sets a network of high-level boundaries, set by the CGML Board, within which management has discretion to operate. The Risk Capacity and Risk Appetite Framework is aligned with CGML's strategy and sized in order to allow the entity to execute the strategy within prudential boundaries of risk-taking. Approval for the CGML Risk Capacity and Risk Appetite Framework is refreshed annually, at a minimum.

The CGML Risk Committee reviews and recommends the CGML Risk Capacity and Risk Appetite Framework to the CGML Board for approval. Any Board member, CGML CEO, EMEA CFO, UK CFO, EMEA CRO and UK CRO can request a refresh at any time for any reason, including for material changes in the risk profile or operating environment.

CGML's Risk Capacity and Risk Appetite Framework consists of quantitative components and principle-based qualitative components accompanied by risk appetite statements and metrics.

Quantitative Risk Appetite

Quantitative components consist of the following:

- Base Case Capital - CGML ensures that it maintains a sufficient capital excess above and beyond its Pillar 2A, CRD IV and PRA buffer requirements under business-as-usual conditions in order to accommodate volatility, on both a current and forward-looking basis;
- Risk capacity - allocated to market risk, credit risk, operational risk and pension risk, together with a risk capacity buffer. Utilisation of risk capacity is measured by internal risk capital metrics, which are a measure of how much risk the Board believes it is capable of taking based on internal measures of risk capital, rather than regulatory capital. A risk capacity buffer is held to compensate for risk and business aspects not wholly captured in internal risk capital and to allow for volatility in the metric over time; and,
- Stress loss limits and triggers - at entity level, and for market risk and counterparty credit risk.

In assessing risk capacity, there are a number of factors that CGML management and the Board will consider at their discretion, including the maximum amount of risk considered appropriate given current capital levels, planned capital actions, the business environment, opportunities for growth and other factors, and the size of the risk capacity buffer. The allocations are based upon CGML managements and the Board of Directors' ("Board") view. This is then augmented or reduced where it is decided that an increase or reduction in risk should be taken, to help drive the entity's strategy and provide a benchmark for risk and business decisions. These allocations are based largely on management judgment and incorporate known forward looking events and management's recognition that increases in one risk type can impact another, for example increased market risk could create increased counterparty credit risk, and that growth in any of these risks could increase operational risk.

The CGML Board holds management accountable for ensuring that CGML's risk profile remains within the components of the Risk Capacity and Risk Appetite Framework.

Qualitative Risk Appetite

The CGML Board has adopted the Citi Risk Appetite Principles outlined below given their global applicability. Given CGML's critical role in implementing Citi's strategy, CGML must be aligned with Citi's Risk Appetite Principles, whilst ensuring that the local assurance mechanisms are in place in order to ensure compliance.

With respect to qualitative risk appetite, the activities that Citi engages in must be consistent with Citi's Mission and Value Proposition and key principles, including Citi's commitment to Responsible Finance.

Citi's Mission and Value Proposition is to serve as a trusted partner to our clients by responsibly providing financial services that enable growth and economic progress and requires employees to ensure that their decisions pass three tests:

- Are in our clients' interests;
- Create economic value; and,
- Are always systemically responsible.

Responsible Finance means conduct that is transparent, prudent and dependable, and delivers better outcomes for our clients and society. Citi engages in activities that involve uncertainty. The foundation of Citi's Risk Culture is taking intelligent risk with shared responsibility, without forsaking individual accountability.

- Taking Intelligent Risk means we must identify, measure, aggregate risks, and establish tolerances based on a full understanding of concentrations and "fat tail" risk. For risks that are difficult to quantify, we monitor metrics that are indicative of a safe and sound risk culture, compare them to thresholds and trends, and rely on professional judgment following a defined framework of assessment;

- Shared responsibility means we collectively bear responsibility to consider, seek input on and escalate concerns, and leverage knowledge across and within the 'three lines of defence; and,
- Individual accountability means we must each adhere to policies and standards, actively manage risk, identify issues, escalate concerns and make fully informed decisions that take into account all risks to Citi.

Citi demonstrates a safe and sound risk culture, and assesses and manages risk, such as operational, compliance, strategic, reputational, conduct and legal risks, by:

- Setting an appropriate tone from the top, through Citi's Mission and Value Proposition, the principle of Responsible Finance and Citi's global, business and regional communications strategy, which work together to establish the values expectations for the firm;
- Setting appropriate standards, through Citi's Code of Conduct, Leadership Standards and global, business and local policies and procedures, which work together to set the behavioural and other conduct standards for employees of the firm;
- Establishing a robust risk management and governance framework including risk policies, risk limits and metrics including early warning triggers where appropriate, concentrations and a defined protocol for reporting, escalating and resolving limit breaches and other risk management issues;
- Requiring partnership, open dialogue, escalation and transparency among the three lines of defence, including input by the second line of defence in risk-taking decisions and representation by control functions on senior management committees;
- Establishing comprehensive talent management processes, such as Citi's annual talent review process and key talent development programs;
- Establishing comprehensive training programs, through risk, compliance and leadership training programs, such as the Chief Country Officer Risk training and Citi's Ethics and Leadership training;
- Establishing processes for evaluating accountability, including through Citi's covered employee review process through which employees who are able to take material risks for the firm are independently reviewed by second line of defence control functions; and
- Establishing comprehensive performance management and compensation programs that measure and evaluate performance based on goals achieved, balanced against the values, attitudes, competencies and behaviours, including risk behaviours used in achieving such goals; and making compensation and rewards decisions in line with the values and behavioural expectations of the firm.

Principal Risks

CGML's principal risk types are summarised as follows:

- Credit risk is the risk of loss resulting from the decline in credit quality (or downgrade risk) or failure of a borrower, counterparty, third-party or issuer to honour its financial or contractual obligations;
- Market risk (Trading and Non-Trading): Market risk of trading portfolios is the risk of loss arising from changes in the value of Citi's assets and liabilities resulting from changes in market variables, such as equity and commodity prices or credit spreads. Market risk of non-trading portfolios is the risk to current or projected financial condition and resilience arising from movements in interest rates and resulting from repricing risk, basis risk, yield curve risk and options risk;
- Liquidity risk is the risk that Citi will not be able to efficiently meet both expected and unexpected current and future cash flow and collateral needs without adversely affecting either daily operations or financial conditions of Citi;
- Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. It includes legal risk, which is the risk of loss (including litigation costs, settlements and regulatory fines) resulting from the failure of Citi to comply with laws, regulations, prudent ethical standards and contractual obligations in any aspect of Citi's business, but excludes strategic and reputation risks (see below);
- Compliance risk is the risk to current or projected financial condition and resilience arising from violations of laws, rules or regulations, or from non-conformance with prescribed practices, internal policies and procedures or ethical standards;
- Reputation risk is the risk to current or projected financial conditions and resilience arising from negative public opinion; and,
- Strategic risk is the risk of a sustained impact (not episodic impact) to Citi's core strategic objectives as measured by impacts on anticipated earnings, market capitalisation, or capital, arising from the external factors affecting the Company's operating environment; as well as the risks associated with defining the strategy and executing the strategy, which are identified, measured and managed as part of the Strategic Risk Framework at the Enterprise Level.

CGML's business falls within the ICG segment of Citi's operations and is almost entirely wholesale in nature. CGML has a major international presence as a dealer, market maker and underwriter in equity and fixed income securities and offers risk-based solutions to producers, consumers and investors in commodity markets.

CGML also provides advisory services to a wide range of corporate, institutional and government clients. CGML's trading activities encompass cash, exchange traded and OTC derivatives markets. CGML does not originate securitisations or engage in leveraged finance transactions.

CGML's main counterparties, which are also key clients of Citi globally, are banks, investment firms, investment managers, insurers, hedge funds, public sector institutions and corporates.

Risk Management Responsibilities

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.

Additionally, Citi evaluates employees' performance against a series of 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, also help Citi to execute its Mission and Value Proposition.

Whilst the management of risk is the collective responsibility of all employees, CGML uses a lines of defence model as a key component of its Risk Management Framework to manage its risks. The lines of defence model bring together risk-taking, risk oversight and risk assurance under one umbrella and provides an avenue for risk accountability of first line of defence, a construct for effective challenge by the second line of defence (Independent Risk Management and Independent Compliance Risk Management), and empowers independent risk assurance by the third line of defence (Internal Audit). In addition, Citi has enterprise support functions that support safety and soundness across Citi. Each of the lines of defence and enterprise support functions, along with the Board, are empowered to perform relevant risk management processes and responsibilities in order to manage Citi's risks in a consistent and effective manner.

Citi assigns accountability into the following 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: Citi's independent Risk and Compliance functions establish and monitor 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 that governance and controls are effective

Furthermore, the EMEA Chief Risk Officer ("CRO") is the UK Senior Manager for Risk and together with the UK CRO (who is also the Company CRO) and other Risk UK Senior Manager delegates are responsible for the independent review and challenge of the risks facing CGML, including market risk, counterparty credit risk, credit risk, operational risk and liquidity risk. With respect to Compliance Risk, CGML has a dedicated Compliance Officer with direct access to the Board and Board Audit Committee members. The CGML Compliance Officer also has a matrix reporting line to the EMEA Chief Compliance Officer, who is the UK Senior Manager for Compliance.

CGML has through its Risk Management Framework and escalation guidelines developed protocols and processes for prompt and consistent escalation of matters or issues across both financial and non-financial risk types. The early recognition, escalation and resolution of issues or concerns is key to mitigate risks and is critical to CGML's business model. Timely escalation enables the UK Senior Manager to make an informed assessment on the legal entity impact, underlying root causes and required corrective actions. In addition to the timely escalation protocols and process, CGML also has an integrated series of committees across the risk types, that consists of both first line business and second line expertise in their memberships in order to provide oversight of the management and escalation of risks to both the CGML Risk Committee and the CGML Board.Risk Management Infrastructure

CGML senior management consider the risk management infrastructure as described in this document as being adequate to capture and measure the risks taken on a business as usual basis as a result of the entity's business profile and strategy. In October 2020, Citigroup Inc. and Citibank entered into consent orders with the Federal Reserve Board ("FRB") and Office of the Comptroller of the Currency ("OCC") that require Citigroup Inc. and Citibank to make improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls. These improvements will result in continued significant investments by Citi during 2022 and beyond, as an essential part of Citi's broader transformation efforts to enhance its infrastructure, governance, processes and risk and controls. As CGML utilises Citi's overarching systems for risk management purposes, CGML is also expected to benefit from the improvements programme.

Stress Testing

The Citi CRO is responsible for monitoring and controlling major risk exposures and concentrations across Citi. This includes the aggregation of 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 CGML level.

Stress tests are undertaken across Citi and CGML, 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 and CGML and their 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, the UK CRO and Risk Management works with input from the businesses and Finance to provide periodic updates to senior management and the CGML Board on significant potential exposures across CGML 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 about the potential economic impacts to CGML that may occur, directly or indirectly, as a result of hypothetical scenarios, based on judgmental analysis from independent risk managers.
The stress testing and risk assessment exercises are a supplement to the standard limit-setting and risk capital exercises, as these processes incorporate events in the marketplace and within CGML that impact the firm's view of the form, magnitude, correlation and timing of identified risks that may arise. In addition to enhancing awareness and understanding of potential exposures within CGML, the results of these processes serve as the starting point for the management of risk and mitigation strategies.

Governance Forums and Committees

CGML's Board of Directors has overall responsibility for the stewardship of the Company's business and, as a result, is primarily responsible for safeguarding its profitability, financial solvency and assets and for ensuring that it complies with all legal and regulatory requirements, subject to necessary delegations. Further details of the Board can be read in Appendix 1.

Committees of the Board include the CGML Risk Committee, the CGML Audit Committee, the CGML Remuneration Committee (further detailed on page 54), which functions as a committee of the Board regarding the remuneration of the Company's employees and material risk takers, and the Nomination Committee, which functions as a committee of the Board to review and issue recommendations for nominations for the appointment of directors of the company.

There are a number of governance and control committees that escalate issues to the CGML Board, CGML Audit Committee or CGML Risk Committee. Members of CGML management sit on all of these committees. The following chart highlights the main components of CGML's governance structure, within Citi's regional and UK management and governance framework during 2021.

CGML Risk Committee

The CGML Risk Committee is a standing committee of the Board of Directors and operates within its charter approved by the Board. The purpose of the Committee is to assist the Board in fulfilling its responsibility with respect to:

- CGML's credit, market, liquidity, operational, compliance, reputation, strategic and emerging risk;
- Aligning CGML's risks with the strategy, capital adequacy and the macroeconomic environment
- Developing a strategy to manage these risks
- Overseeing management and their responsibility for executing CGML's Risk Management, Treasury and Merger & Acquisition ("M&A") policies
- Overseeing compliance with CGML's risk management framework including CGML Board approved policies and practices adopted by CGML for the management of its risks
- Evaluating whether incentives provided by the remuneration system take into consideration risk, capital, liquidity and the likelihood and timing of earnings

The Committee shall comply with all local legal and regulatory requirements concerning membership and independence, including:

- The Committee shall comprise at least three members of the Board, all of which shall be Independent Non-Executive Directors. The Committee's membership consists of William Fall, Chair, Sally Clark and Jonathan Moulds.
- Each member shall meet the independence, experience and expertise requirements of the FCA and PRA and have sufficient time to discharge the responsibilities of the Committee
- The members of the Committee and the Committee Chair shall be appointed by, and may be removed by, the Board
- Committee membership and the position of Committee Chair shall be reviewed on a periodic basis and be updated as required
- The EMEA CRO, the UK CRO, the CGML CEO, the UK CFO and the UK Chief Compliance Officer and the EMEA

Head of Operational Risk shall be permanent attendees at meetings of the Committee. Other members of the Board of CGML have the right to attend meetings of the Committee. Other non-members or other representatives of the Risk function, Compliance and Internal and External Audit, may be invited to attend all or part of any meeting as and when appropriate and necessary

The Directors of CGML receive regular reports on any risk matters that need to be brought to their attention via standing forums. In addition, ad-hoc notifications take place via the CGML CEO or UK CRO where escalation is required to the Board, depending on materiality, the criteria for assessing which has been previously presented to and approved by the CGML Risk Committee. The CGML Risk Committee meets at a minimum quarterly. During 2021 it held seven meetings.

CGML Audit Committee

The effectiveness of CGML's internal control system is reviewed regularly by the Directors and the CGML Audit Committee, which receives reports of assessments undertaken by the Internal Audit function. Certain aspects of the internal control system are also subject to regulatory supervision, the results of which are monitored closely by the directors and senior management.

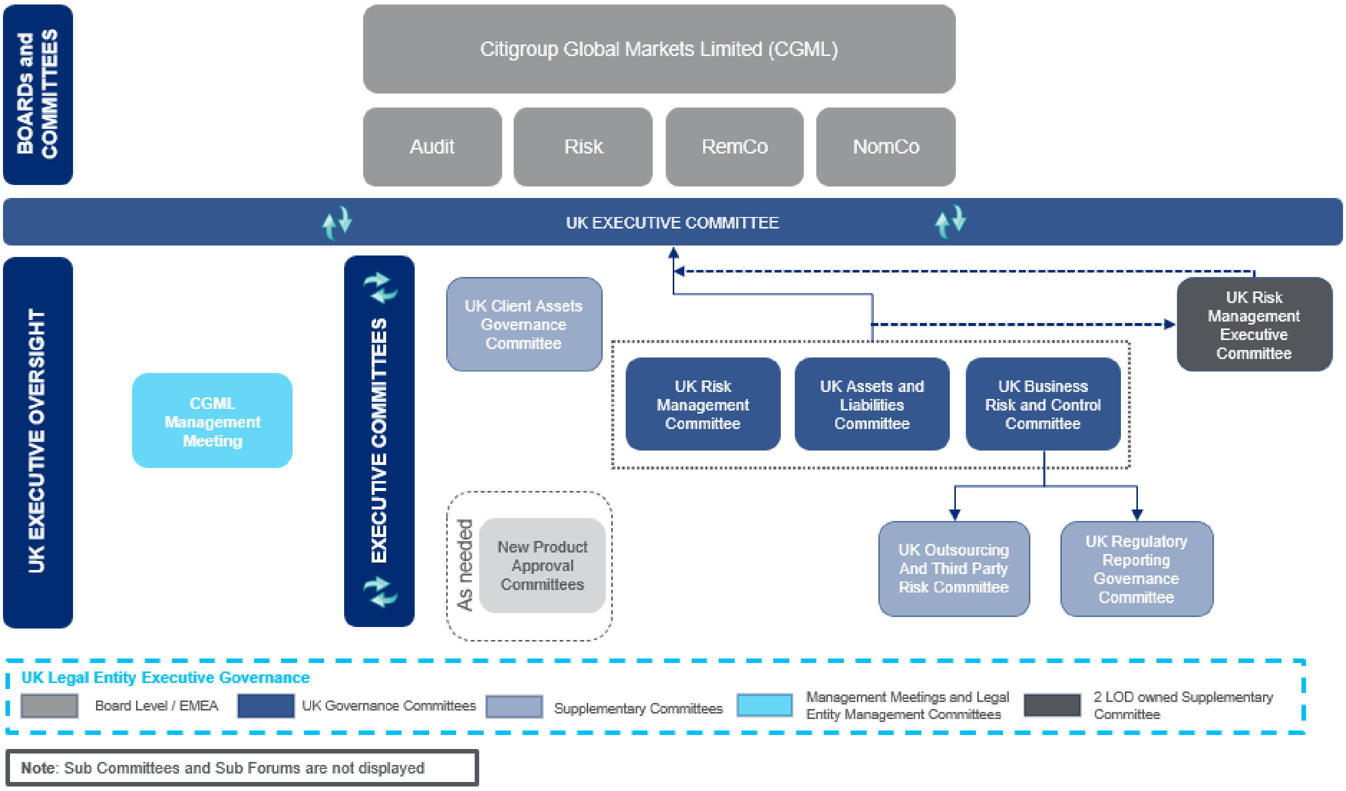
Citi has an established Managers Control Assessment ("MCA") programme to help managers self-assess key operational risks and controls and to identify and address weaknesses in the design and effectiveness of internal controls that mitigate significant operational risks. The CGML Audit Committee and Directors are also responsible for monitoring the preparation of CGML's financial statements and for reviewing and assessing the independence of the statutory auditor, in particular in the provision by the auditor of additional services to CGML. The CGML Audit Committee meets at a minimum quarterly. During 2021 it held seven meetings.

CGML Nomination Committee

The purpose of the CGML Nomination Committee is to review succession planning, skillset of the Board of Directors and the executive. The CGML Nomination Committee makes recommendations for nominations for the appointment of Directors to the Board of CGML taking into account the Companies Act 2006, UK regulatory requirements and any applicable internal regulations of CGML. The CGML Nomination Committee held four meetings during 2021.

New Products and Services

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



Regulatory Framework for Disclosure

These Pillar 3 Disclosures for 31 December 2021 are prepared in accordance with regulatory capital adequacy concepts and rules, while the financial statements for solo entities are prepared in accordance with International Financial Reporting Standards ("IFRS"). This section is prepared using CGML's consolidated Financial Reporting Standards ("FINREP"), as CGML's financial statements are prepared on a stand-alone basis.

As permitted under section 401 of the Companies Act 2006, consolidated financial statements have not been prepared as the Company is a wholly owned subsidiary of the ultimate parent, Citigroup Inc. which prepares consolidated financial statements under US Generally Accepted Accounting Principles ("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.

The tables presented in this section show an outline of the basis of consolidation for regulatory purposes. It provides the breakdown of the carrying amounts reported under the scope of regulatory consolidation to the different risk categories. This section enables users to identify the allocation of the regulatory scope of consolidation into the different risk frameworks laid out in Part Three of the CRR.

Table 2: Outline of the Differences in the Scopes of Consolidation (Entity by Entity) (LI3)

		Method of Regulatory Consolidation				
Name of the Entity	Method of Accounting Consolidation	Full Consolidation	Proportional Consolidation	Neither Consolidated nor Deducted	Deducted	Description of the Entity
Citigroup Global Markets Limited (CGML)	Fully Consolidated [1]	X				Investment Firm
Citigroup Global Markets Europe AG (Germany)	Fully Consolidated [1]	X				Investment Firm
Citi Global Wealth Management S.A.M (Monaco)	Not Consolidated[2]				X	Investment Firm
Citigroup Global Markets Funding Luxembourg SCA	Fully Consolidated [1]	X				Investment Firm
Citigroup Global Markets Funding Luxembourg GP S.a.R.L.	Not Consolidated[2]				X	Investment Firm

[1]The method of accounting consolidation represents the consolidation approach used for FINREP.
[2] Entities below materiality threshold have not been consolidated for FINREP.

Table 3: Differences between Accounting and Regulatory Scopes of Consolidation and the Mapping of Financial Statement Categories with Regulatory Risk Categories (LI1)

			Carrying values of items				
	Carrying values as reported in published financial statements[1]	Carrying values under scope of regulatory consolidation	Subject to the credit risk framework[2]	Subject to the CCR framework	Subject to the securitisation framework[3]	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Assets							
Financial assets at amortised cost: Cash at bank and in hand	9,302	9,302	9,302	-	-	-	-
Financial assets at amortised cost: Collateralised financing transactions	75,617	75,617	-	75,617	-	75,617	-
Financial assets at fair value through profit or loss - derivatives	186,496	186,496	-	186,496	-	186,496	-
Financial assets at fair value through profit or loss - inventory	66,132	66,132	-	66,132	-	66,132	-
Financial assets designated at fair value through profit or loss	87,072	87,072	-	87,072	-	87,072	-
Equity securities held for investment	104	104	104	-	-	-	-
Pension	2,396	2,396	1,854	-	-	-	542
Other Assets	70,009	70,009	6,220	63,788	1	13,723	279
Total assets as at 31 December 2021	497,127	497,127	17,480	479,105	1	429,040	821
Liabilities							
Financial liabilities at amortised cost: bank loans and overdrafts	9,033	9,033	-	-	-	-	9,033
Financial liabilities at amortised cost: Collateralised financing transactions	58,935	58,935	-	58,935	-	58,935	-
Financial liabilities at fair value through p&l - derivatives	195,334	195,334	-	195,334	-	195,334	-
Financial liabilities at fair value through p&l - securities sold but not yet purchased	63,486	63,486	-	63,486	-	63,486	-
Financial liabilities designated at fair value through p&l	50,192	50,192	-	50,192	-	50,192	-
Other Liabilities	82,859	82,859	-	40,180	-	22,039	20,640
Subordinated Loans	8,600	8,600	-	-	-	-	8,600
Total liabilities as at 31 December 2021	468,439	468,439	-	408,127	-	389,985	38,274

[1]Carrying value under published financial statements is based on FINREP values.
[2]Items subject to credit risk framework: Carrying values included in this column is based on banking book assets.
[3] Items subject to securitisation framework: Carrying value included in this column show the banking book securitisation positions. Trading book securitisation positions are included under the market risk framework in line with EBA requirements.

Table 4: Main Sources of Differences between Regulatory Exposure Amounts and Carrying Values in Financial Statements (LI2)

This table provides a reconciliation between assets carrying values under the regulatory scope of consolidation as per Table 3 and the exposures used for regulatory purposes, split as per the regulatory risk framework.

			Items subject to		
		Total	Credit risk framework	CCR framework	Securitisation framework
		$ million	$ million	$ million	$ million
1	**Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)[1]**	**496,586**	**17,480**	**479,105**	**1**
2	Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	**408,127**	**-**	**408,127**	**-**
3	Total net amount under the regulatory scope of consolidation	**88,459**	**17,480**	**70,978**	**1**
6	*Differences due to different netting rules and collateral usage[2]*	**58,373**	**(3,757)**	**62,130**	**-**
10	**Exposure amounts considered for regulatory purposes as at 31 December 2021**	**146,832**	**13,724**	**133,107**	**1**

[1] In the absence of financial statements, the assets carrying value amount is based on consolidated FINREP amounts.
[2] Differences primarily attributable to carrying value for assets under IFRS differ from exposure for regulatory reporting purposes, such as modelled exposures, potential future exposure ("PFE") for counterparty credit risk and netting under master netting agreement. Carrying value does not take into account Credit Risk Mitigation ("CRM") or regulatory volatility adjustments such as currency and maturity mismatch.

Table 5: Balance Sheet Reconciliation

This table provides a reconciliation of audited shareholders' equity to regulatory capital as at 31 December 2021.

	Accounting Balance Sheet [1]	Own Funds
	$ million	$ million
Shareholders funds as reported in the balance sheet		
Called up share capital	**19,999**	**19,999**
Other equity instruments	**4,300**	**4,300**
Retained earnings and other reserves [2]	**4,389**	**4,082**
Total shareholders funds as reported in the balance sheet	**28,688**	**28,380**
Common Equity Tier 1 (CET1) capital: regulatory adjustments		
Additional value adjustments (negative value)		**(620)**
Intangible assets (net of related tax liabilities) (negative amount)		**(244)**
Defined-benefit pension fund assets (negative amounts)		**(542)**
Exposure amount of the following items which qualify for a RW of 1250 %, where the institution opts for the deduction alternative		**(35)**
of which: securitisation positions (negative amount)		**(26)**
of which: free deliveries (negative amount)		**(9)**
CET1 capital elements or deductions - other		**(0)**
Total Regulatory deductions		**(1,441)**
Tier 1 capital (T1 = CET1 + AT1 - Deductions)		**26,939**
Subordinated liabilities qualifying as Tier 2		**2,600**
Total regulatory own funds as at 31 December 2021		**29,539**

[1] In the absence of CGML consolidated financial statements, accounting balance sheet column is based on consolidated FINREP amounts.
[2] Own funds do not reconcile to the accounting balance sheet, primarily due to inability to recognise interim unaudited profits in Own Funds per Article 26(2) of the CRR.

Own Funds

Table 6: Own Funds Disclosure

This template is prepared per Annex I of the final 'Implementing technical standards with regard to disclosure of own funds requirements for institutions' (Commission implementing regulation- EU 1423/2013).

		31 December 2021	31 December 2020
		$ million	$ million
Common Equity Tier 1 (CET1) capital: Instruments and reserves			
1	Capital Instruments and the related share premium accounts	**19,999**	1,500
2	Retained earnings	**2,894**	2,152
3	Accumulated other comprehensive instruments (and other reserves)	**1,187**	13,601
5a	Independently reviewed interim profits net of any foreseeable charge or dividend		
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**24,080**	17,253
Common Equity Tier 1 (CET1) capital: regulatory adjustments			
7	Additional value adjustments (negative value)	**(620)**	(443)
8	Intangible assets (net of related tax liabilities) (negative amount)	**(244)**	(213)
15	Defined-benefit pension fund assets (negative amounts)	**(542)**	(193)
20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	**(35)**	(17)
20c	*- of which: securitisation positions (negative amount)*	**(26)**	(3)
20d	*- of which: free deliveries (negative amount)*	**(9)**	(14)
24	CET1 capital elements or deductions - other	**-**	(7)
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	**(1,441)**	(874)
29	**Common Equity Tier 1 (CET1) capital**	**22,639**	16,379
Additional Tier 1 (AT1) capital: instruments			
30	Capital instruments and the related share premium accounts	**4,300**	2,300
31	*- of which: classified as equity under applicable accounting standards*	**4,300**	2,300
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**4,300**	2,300
Additional Tier 1 (AT1) capital: regulatory adjustments			
43	**Total Regulatory Adjustments to Additional Tier 1 (AT1) Capital**	**-**	-
44	**Additional Tier 1 (AT1) capital**	**4,300**	2,300
45	**Tier 1 capital (T1 = CET1 + AT1)**	**26,939**	18,679
Tier 2 (T2) capital: instruments and provisions			
46	Capital instruments and the related share premium accounts	**2,600**	4,600
51	Tier 2 (T2) capital before regulatory adjustments	**2,600**	4,600
57	Total regulatory adjustments to Tier 2 (T2) capital		
58	**Tier 2 (T2) capital**	**2,600**	4,600
59	**Total capital (TC = T1 + T2)**	**29,539**	23,279
60	**Total risk weighted assets**	**156,069**	147,376
Capital ratios and buffers			
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	**14.5%**	11.1%
62	Tier 1 (as a percentage of total risk exposure amount)	**17.3%**	12.7%
63	Total capital (as a percentage of total risk exposure amount)	**18.9%**	15.8%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer expressed as a percentage of risk exposure amount)	**7.07%**	7.04%
65	*- of which: capital conservation buffer requirement*	**2.50%**	2.50%
66	*- of which: countercyclical buffer requirement*	**0.07%**	0.04%
67	*- of which: systemic risk buffer requirement*	**0.00%**	0.00%
67a	*- of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer*	**0.00%**	0.00%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	**7.9%**	5.1%
Amounts below the thresholds for deduction (before risk weighting)			
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	**801**	1,077
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10 % threshold and net of eligible short positions)	**3,884**	-
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	**251**	202

During the year, CGML increased its total capital by $6.3 billion to $29.5 billion as at 31 December 2021. This primarily resulted from execution of the Company's capital strategy. Furthermore, on 31 December 2021, the Company issued bonus shares to its immediate parent, Citigroup Global Markets Holdings Bahamas Limited, converting $18.5 billion in capital reserves to share capital.

The main features, terms and conditions of CGML's capital instruments are outlined in Appendix 2.

Capital Requirements and Buffers

CGML complies with the minimum Pillar 1 capital requirements in accordance with Article 92 of the CRR. The capital requirements consist primarily of credit risk, counterparty credit risk, credit valuation adjustment, securitisation, market risk, large exposures and operational risk.

CGML uses a combination of standardised and internal model approaches, in line with its regulatory permissions, to calculate such capital requirements. The table below provides information by risk category, the approaches used to calculate Exposure at Default ("EAD") and Risk Weighted Assets ("RWA").

Risk Category	Definitions	Regulatory Exposure Calculation Methods	Risk Weight Assets Approach
Credit Risk	Credit risk is the risk that counterparties may be unable or unwilling to make a payment or fulfil contractual obligations. This may be characterised in terms of an actual default or by deterioration in a counterparty's credit quality. The former case may result in an actual and immediate loss, whereas in the latter case, future losses may become more likely.	Credit Risk exposures are captured as accounting value, net of general and specific credit risk adjustments.	CGML uses the standardised approach to determine credit and counterparty credit risk capital requirements, based on External Credit Assessment Institution ("ECAI") ratings for calculating RWAs, further detailed in table 28.
Counterparty Credit Risk	Counterparty credit risk is the risk that the counterparty to a transaction will default before the final settlement of the transaction's cash flows.	CGML adopts three methods for calculating CCR exposures: • Internal model method ("IMM") - applies to OTC derivatives as approved by the regulator; • Current exposure method ("CEM") - applies to exchange traded derivatives and non-IMM approved OTCs; • Financial collateral comprehensive method ("FCCM") - applies to Securities Financing Transactions ("SFT") (Further details outlined in Counterparty Credit Risk section).	
Credit Valuation Adjustment	The CVA represents a portfolio-level adjustment to reflect the risk premium associated with the counterparty's non performance risk.	CGML uses a combination of Advanced and Standardised calculations for CVA.	Standardised Approach: computation includes factors based on ECAI ratings and effective maturity Advanced Approach: the computation of expected exposure is based on our IMM model and the calculation of the CVA requirement is then generated utilising VaR.
Securitisation	A securitisation is a transaction or scheme where the associated credit risk of the exposure or pool of exposures is tranched, where key features include: • the tranching reflects subordination of the distribution of losses on the transaction or scheme; • the payments in the transaction or scheme rely on the exposure or pool of exposures' performance.	Securitised exposures from traditional securitisations are captured as the accounting value after relevant specific credit risk adjustments for on-balance sheet securitisation position for both trading and non-trading book exposures.	Under the revised securitisation framework, CGML risk weights relevant positions using the Standardised Approach ("SEC-SA") and External Ratings Based Approach ("SEC-ERBA").
Market Risk	Market risk is the risk to earnings from adverse changes in market factors such as interest rates, equity prices, commodity prices, foreign exchange rates, credit spreads and their implied volatilities.	Market Risk positions are based on accounting values and notionals in both trading and non-trading books.	CGML uses a Value at Risk ("VaR") model to calculate market risk capital requirements for the majority of its trading portfolio under an Internal Model Permission granted by the PRA. The permission covers VaR, Stressed VaR ("SVaR") and the Incremental Risk Charge ("IRC"). For residual positions, these are captured under Standardised Approach ("SA").
Large Exposures	Large exposures captures single name concentration risk. Any exposure to a counterparty or group of connected counterparties which is equal to or exceeds 10% of the firm's eligible capital constitutes a large exposure.	Exposures are broadly consistent with the assessment of credit and counterparty credit risk in the trading and non-trading books. Issuer risk exposures are also included.	Large Exposure capital requirements are calculated on the trading book excess.
Operational Risk	Operational risk captures the loss resulting from inadequate or failed internal processes, people and systems or from external events.	CGML uses a combination of Advanced Measurement Approach (AMA) and Standardised Approach. AMA is based on a permission granted by the PRA. Under standardised approach, activities are divided into individual business lines for calculation of operational risk.	Operational Risk uses a combination of Standardised Approach and AMA in line with CGML's regulatory permissions.

Table 7: Overview of RWA (OV1)

		31 December 2021	30 September 2021	31 December 2021
		RWAs	RWAs	Minimum capital requirements
		$ million	$ million	$ million
1	**Credit risk (excluding CCR)**	6,063	5,937	485
2	Of which the standardised approach	6,063	5,937	485
3	Of which the foundation IRB (FIRB) approach	-	-	-
4	Of which the advanced IRB (AIRB) approach	-	-	-
5	Of which equity IRB under the simple risk-weighted approach or the IMA	-	-	-
6	**CCR**	72,187	79,941	5,775
7	Of which mark to market	23,721	26,368	1,898
7a	Of which Financial collateral comprehensive method (for SFTs)	29,220	33,561	2,338
8	Of which original exposure	-	-	-
9	Of which the standardised approach	-	-	-
10	Of which internal model method ("IMM")	12,417	13,014	993
11	Of which risk exposure amount for contributions to the default fund of a CCP	360	392	29
12	Of which CVA	6,469	6,605	518
13	**Settlement risk**	257	332	21
14	**Securitisation exposures in the banking book**	2	1	0
15	Of which internal ratings-based approach ("SEC-IRBA")	-	-	-
16	Of which external ratings-based approach ("SEC-ERBA")	2	1	0
17	Of which internal assessment approach (IAA)	-	-	-
18	Of which standardised approach ("SEC-SA")	-	-	-
19	**Market risk**	57,681	53,281	4,614
20	Of which the standardised approach	31,532	28,777	2,523
21	Of which Internal Model Approach ("IMA")	26,149	24,505	2,092
22	**Large exposures**	-	-	-
23	**Operational risk**	19,879	20,177	1,590
24	Of which basic indicator approach		-	-
25	Of which standardised approach	566	577	45
26	Of which advanced measurement approach	19,313	19,600	1,545
27	**Amounts below the thresholds for deduction (subject to 250% risk weight)**	-	-	-
28	**Floor adjustment**	-	-	-
29	**Total**	156,069	159,669	12,486

Credit Risk

Credit risk RWAs increased $0.1 billion with no material drivers over the quarter.

Counterparty Credit Risk

Counterparty credit risk RWAs reduced by $7.7 billion primarily as a result of market movements during the quarter and seasonal reductions in business.

Market Risk

The increase in market risk RWAs of $4.4 billion primarily reflects increased exposures impacting both the standardised calculation and the time series used in the internal model approach.

Operational Risk

Operational risk RWAs fell by $0.3 billion driven by parameter changes in the advanced measurement approach.

Table 8: RWA Flow Statements of CCR Exposures under the IMM (CCR7)

This table presents a flow statement explaining changes in the CCR RWAs determined under the IMM for Counterparty Credit Risk.

		RWAs	Capital requirements
		$ million	$ million
1	**RWAs as at 30 September 2021**	13,014	1,041
2	Asset size	124	(10)
3	Credit quality of counterparties	(48)	(4)
4	Model updates (IMM only)	(674)	(54)
5	Methodology and policy (IMM only)	-	-
6	Acquisitions and disposals	-	-
7	Foreign exchange movements	-	-
8	Other	-	-
9	**RWAs as at the 31 December 2021**	12,417	993

During the fourth quarter, CCR RWAs under the IMM decreased by $0.6 billion driven primarily by model updates due to LIBOR transition.

Table 9: RWA Flow Statements of Market Risk Exposures under the IMA (MR2-B)

The table presents a flow statement explaining variations in the market risk RWAs.

		VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWAs	Total capital requirements
		$ million	$ million	$ million	$ million	$ million	$ million	$ million
1	**RWAs as at 30 September 2021**	6,976	13,089	4,440	-	-	24,505	1,960
1a	*Regulatory adjustment*	(4,641)	(8,095)	(56)	-	-	(12,791)	(1,023)
1b	*RWAs at the previous quarter-end*	2,335	4,994	4,384	-	-	11,714	937
2	Movement in risk levels	(298)	(403)	(1,242)	-	-	(1,943)	(155)
3	Model updates/changes	15	(136)	-	-	-	(121)	(10)
4	Methodology and policy	-	-	-	-	-	-	-
5	Acquisitions and disposals	-	-	-	-	-	-	-
6	Foreign exchange movements	-	-	-	-	-	-	-
7	Other	-	31	-	-	-	-	3
8a	*RWAs at the end of the reporting period*	2,052	4,487	3,142	-	-	9,681	774
8b	*Regulatory adjustment*	4,852	10,524	1,092	-	-	16,468	1,317
8	**RWAs as at 31 December 2021**	6,904	15,011	4,234	-	-	26,149	2,092

RWAs under the IMA approach increased by $1.6 billion. This is attributed to an increase in exposures impacting the SVaR, observed in the time series used in the calculation as shown through the Regulatory Adjustment lines, partially offset by a decrease in VaR and IRC.

Pillar 2

Pillar 2 in the Basel Framework is to capture risks that are not fully captured or considered under Pillar 1, including assessment of internal risk management processes and governance.

Pillar 2 comprises Pillar 2A and Pillar 2B:

- Pillar 2A considers any risk not adequately captured by the Pillar 1 framework. The risk categories covered under Pillar 2A are specific to CGML based on the nature and size of its business;
- Pillar 2B capital buffer is determined based on PRA guidance on the capital buffer required to withstand the impact of a severe downside stress on its ability to meet its total capital requirement.

To assess the adequacy of capital to support current and expected future activities, the firm produces regular capital forecasts for CGML, taking into account both expected business conditions and a variety of stressed scenarios. On at least an annual basis CGML prepares an Internal Capital Adequacy Assessment Process ("ICAAP") document, setting out its risk appetite, capital requirements and associated policies and procedures. Through its Supervisory Review and Evaluation Process ("SREP"), the PRA has set CGML a fixed Pillar 2A capital requirement of $3.348 billion, with this equivalent to a Total Capital Requirement (Pillar 1 plus Pillar 2A capital requirements) of 10.15% as at 31 December 2021.

Capital Buffers

Under CRD IV, CGML is required to hold additional capital buffers including the capital conservation buffer (2.5%) and the institution-specific countercyclical buffer, the latter for which is detailed in Appendix 3.

Capital Management

CGML's capital management is centred on current and prospective business activities, risk profile, risk appetite, as well as meeting regulatory capital requirements and changing regulatory landscape.

CGML actively monitors its capital position, with an emphasis placed on ensuring strong capital and leverage ratios, as well as maintaining robust excesses over minimum total capital requirements. All such metrics are monitored on a daily, monthly and quarterly basis in line with Global capital policies and standards. CGML has an established internal Management Action Trigger framework, calibrated to ensure that the entity holds a sufficient capital excess to permit timely management decisions in case of short-term stresses.

For CGML there are both legal entity capital usage and business specific regulatory capital targets. These targets are also subject to daily monitoring, shared across the business and senior management on a daily basis.

Full Balance Sheet, Net Income, Regulatory Capital and Leverage re-forecasts are performed semi-annually in line with Citigroup planning cycles. These forecasts are owned by the businesses together with the regional Markets head.

All the aforementioned tools are monitored and controlled through the bi-weekly UK Capital Forum and monthly UK Asset and Liability Committee ("ALCO").

The UK Capital Forum makes recommendations for approval, proposals for consideration, and notifications of relevance to the UK ALCO.

The UK ALCO is the primary balance sheet and liquidity governance committee of CGML which meets monthly, and responsibilities include:

- The UK ALCO committee's remit includes oversight of CGML's balance sheet management, liquidity and capital levels, local regulatory requirements related to the Balance Sheet, oversight of market and foreign exchange risks of non-trading portfolios, and monitoring of Treasury management limits, targets and ratios.
- The committee reviews and approves key regulatory documents such as ICAAP and Internal Liquidity Adequacy Assessment Process ("ILAAP") before these are submitted to the Board for approval.
- The committee ensures adherence to capital standards, determines dividend repatriation, and monitors local capital hedging and investment.
- CGML senior management through UK ALCO monitors changes in the economic environment and any corresponding impact on the asset quality of CGML's balance sheet and the prudential adequacy of CGML.
- Membership of the UK ALCO includes the CGML Chief Executive Officer & UK Chief Country Officer (Chair), UK CFO, UK Treasurer, UK CRO, Independent Treasury Market Risk and other key business and functional heads.

There are no current or foreseen material practical or legal impediment to the prompt transfer of own funds or repayment of liabilities among CGML and its subsidiaries.

Leverage

The leverage ratio is a measure which allows for the assessment of an institutions' exposure to the risk of excessive leverage. It is a simple non-risk based measure to reinforce the risk based capital framework. The Basel III Framework ensures broad and adequate capture of both the on and off-balance sheet sources of banks and investment firms' leverage and aims to constrain the build-up of excess leverage in the financial sector.

CGML currently calculates the leverage ratio in accordance with the Commission Delegated Regulation (EU) 2015/62. The PRA and FPC have published their Policy Statement (PS21/21) on the UK leverage ratio framework. Under these rules, CGML will become subject to a minimum leverage ratio of 3.25% from 1 January 2023 and follows the PRA and FPC's rules on leverage ratio disclosures from 1 January 2022.

CGML manages its leverage ratio through the use of the Management Action Trigger framework, with daily monitoring in place to maintain a robust leverage ratio. Furthermore, both actuals and forecasted leverage exposures and ratios are reported to the UK Capital Forum and UK ALCO monthly.

Table 10: Summary Reconciliation of Accounting Assets and Leverage Ratio Exposures (LRSUM)

This table summarises the total leverage exposure, comprising of the total assets in FINREP and other regulatory adjustments for leverage purposes.

		31 December 2021	31 December 2020
		$ million	$ million
1	Total assets as per published financial statements[1]	**497,127**	558,426
4	Adjustments for derivative financial instruments	**(31,486)**	(130,580)
5	Adjustment for securities financing transactions (SFTs)	**33,761**	30,622
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	**-**	-
7	Other adjustments - differences in Statutory and Regulatory consolidation	**(13,750)**	(4,969)
8	**Leverage ratio total exposure measure**	**485,652**	453,499

[1] Total assets as per published financial statements is based on CGML's FINREP for 31 December 2021.

Table 11: Leverage Ratio Common Disclosure (LRCOM)

This table shows a more granular breakdown of the leverage exposures and the leverage ratio calculation.

		31 December 2021	31 December 2020
		$ million	$ million
On-balance sheet exposures (excluding derivatives and SFTs)			
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	**135,595**	143,696
2	(Asset amounts deducted in determining Tier 1 capital)	**(1,402)**	(431)
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)**	**134,193**	143,266
Derivative exposures			
4	Replacement cost associated with *all* derivatives transactions (i.e. net of eligible cash variation margin)	**9,202**	13,647
5	Add-on amounts for PFE associated with *all* derivatives transactions (mark- to-market method)	**139,465**	104,020
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	**(31,503)**	(24,925)
8	(Exempted CCP leg of client-cleared trade exposures)	**(13,556)**	(13,851)
9	Adjusted effective notional amount of written credit derivatives	**727,403**	509,879
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	**(676,002)**	(463,820)
11	**Total derivatives exposures (sum of lines 4 to 10)**	**155,010**	124,950
SFT exposures			
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	**248,602**	242,562
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	**(76,468)**	(80,677)
14	Counterparty credit risk exposure for SFT assets	**24,316**	23,398
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	**196,449**	185,284
Other off-balance sheet exposures			
17	Off-balance sheet exposures at gross notional amount	**-**	-
18	(Adjustments for conversion to credit equivalent amounts)	**-**	-
19	**Other off-balance sheet exposures (sum of lines 17 and 18)**	**-**	-
Capital and total exposure measure			
20	**Tier 1 capital**	**26,939**	18,679
21	**Leverage ratio total exposure measure** (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	**485,652**	453,499
Leverage ratio			
22	**Leverage ratio**	**5.5%**	4.1%
Choice on transitional arrangements and amount of derecognised fiduciary items			
EU-23	Choice on transitional arrangements for the definition of the capital measure	**Fully phased in**	
	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) No 575/2013	**Fully phased in**	

CGML's Leverage ratio increased to 5.5% as at 31 December 2021, driven by planned capital actions throughout 2021, offsetting effects of increasing leverage exposures primarily driven by greater derivative exposures.

Table 12: Split-up of On-Balance Sheet Exposures (Excluding Derivatives, SFTs and Exempted Exposures) (LRSplit)

		31 December 2021	31 December 2020
		$ million	$ million
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	104,092	118,771
EU-2	Trading book exposures	90,622	108,283
EU-3	Banking book exposures, of which:	13,470	10,487
EU-4	Covered bonds	-	-
EU-5	Exposures treated as sovereigns	2,669	1,686
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	-	-
EU-7	Institutions	7,624	2,046
EU-8	Secured by mortgages of immovable properties	-	-
EU-9	Retail exposures	-	-
EU-10	Corporate	2,030	2,380
EU-11	Exposures in default	-	-
EU-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	1,147	4,376

Total Loss Absorbing Capacity

From January 2019, systemically important banks were required to hold additional long-term debt which could be made available to absorb losses from a failing institution, known as Total Loss Absorbing Capacity ("TLAC").

In the EU these requirements were introduced under CRR II as the Minimum Requirement for Own Funds and Eligible Liabilities ("MREL"), with effect from June 2019. MREL is a requirement for firms to maintain a minimum amount of loss-absorbing resources over and above the own funds requirements. This helps to ensure that when firms fail, the resolution authority ("the Bank of England") can use a firm's own financial resources to absorb losses and recapitalise the business so it can continue to provide critical functions without the need to rely upon public funds and without threatening financial market stability. MREL resources can take the form of regulatory capital ("own funds") and certain types of debt liabilities ("eligible liabilities") that will be written down and/or converted to equity if a firm is likely to fail.

As at 31 December 2021, CGML is subject to a minimum internal MREL requirement of the higher of 16% of RWA or 6% of leverage exposures, both subject to a 90% scalar. CGML monitors its MREL excess daily in line with the internal management action trigger framework, with further monthly reporting to the UK Capital Forum and the UK ALCO.

Table 13: TLAC Key Metrics (KM2)

The following table outlines the summary information about TLAC available, and TLAC requirements applied, at consolidated group level.

	31 December 2021	30 September 2021	30 June 2021	31 March 2021	31 December 2020
	$ million	$ million	$ million	$ million	$ million
Total loss absorbing capital (TLAC) available	**35,539**	33,476	33,473	33,693	29,279
Risk-weighted assets (RWA) and leverage exposure measure for TLAC purposes					
Total RWA adjusted as permitted under the TLAC regime	**156,069**	159,669	155,146	151,629	147,376
Leverage exposure measure	**485,652**	522,977	489,157	476,531	453,499
TLAC ratios and buffers					
TLAC (as a percentage of RWA adjusted as permitted under the TLAC regime)	**23%**	21%	22%	22%	20%
TLAC (as a percentage of leverage exposure)	**7.3%**	6.4%	6.8%	7.1%	6.5%

Table 14: TLAC composition (TLAC1)

The table below provides details of the composition of CGML's internal TLAC eligible instruments. CGML, as a material subsidiary of a non-EU GSII under Article 92b of CRR II, makes these disclosures in accordance with point (b) of Article 430 (1), Article 437a and point (h) of Article 447.

		31 December 2021	31 December 2020
		$ million	$ million
Regulatory capital elements of TLAC and adjustments			
1	**Common Equity Tier 1 (CET1) capital**	**22,639**	16,379
2	Additional Tier 1 (AT1) capital before TLAC adjustments	**4,300**	2,300
3	AT1 capital ineligible as TLAC as issued out of subsidiaries to third parties	**-**	-
4	Other adjustments	**-**	-
5	**AT1 instruments eligible under the TLAC framework**	**4,300**	2,300
6	Tier 2 (T2) capital before TLAC adjustments	**2,600**	4,600
7	Amortised portion of Tier 2 instruments where remaining maturity > 1 year	**-**	-
8	Tier2 capital ineligible as TLAC as issued out of subsidiaries to third parties	**-**	-
9	Other adjustments	**-**	-
10	**Tier2 instruments eligible under the TLAC framework**	**2,600**	4,600
11	**TLAC arising from regulatory capital**	**29,539**	23,279
Non-regulatory capital elements of TLAC			
12	Internal TLAC instruments issued directly by the entity and subordinated to excluded liabilities	**6,000**	6,000
13	Internal TLAC instruments issued directly by the entity which are not subordinated to excluded liabilities but meet all other TLAC Term Sheet requirements	**-**	-
17	**TLAC arising from non-regulatory capital instruments before adjustments**	**6,000**	6,000
Non-regulatory capital elements of TLAC: adjustments			
18	TLAC before deductions	**35,539**	29,279
19	Deductions of exposures between MPE resolution groups that correspond to items eligible for TLAC (not applicable to single point of entry G-SIBs)	**-**	-
20	Deduction of investments in own other TLAC liabilities	**-**	-
21	Other adjustments to TLAC	**-**	-
22	**TLAC after deductions**	**35,539**	29,279
Risk-weighted assets (RWA) and leverage exposure measure for TLAC purposes			
23	Total RWA adjusted as permitted under the TLAC regime	**156,069**	147,376
24	Leverage exposure measure	**485,652**	453,499
TLAC ratios and buffers			
25	TLAC (as a percentage of RWA adjusted as permitted under the TLAC regime)	**23%**	20%
26	TLAC (as a percentage of leverage exposure)	**7.3%**	6.5%
27	CET1 (as a percentage of RWA) available after meeting the entity's minimum capital and TLAC requirements [1]	**8.4%**	5.1%
28	Bank-specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss-absorbency requirement, expressed as a percentage of RWA)	**2.57%**	2.54%
29	Of which: capital conservation buffer requirement	**2.50%**	2.50%
30	Of which: bank-specific countercyclical buffer requirement	**0.07%**	0.04%
31	Of which: higher loss-absorbency requirement	**-**	-

[1] Basis of calculation has been modified to reflect CGML's internal MREL requirement for both current and prior period.

Table 15: TLAC Creditor Ranking (TLAC2)

The following table provides a breakdown of eligible instruments in the creditor hierarchy of CGML.

		Creditor ranking				
		(most junior) 1	2	3	(most senior) 4	Total as at 31 December 2021
		$ million	$ million	$ million	$ million	$ million
1	Is the resolution entity the creditor/investor? (yes or no)	Yes	Yes	Yes	Yes	-
2	Description of creditor ranking	Ordinary Shares	AT1	Subordinated Loans	Senior Subordinated Loans	
3	Total capital and liabilities net of credit risk mitigation	19,999	4,300	2,600	6,000	32,899
4	Subset of row 3 that are excluded liabilities	-	-	-	-	0
5	Total capital and liabilities less excluded liabilities (row 3 minus row 4)	19,999	4,300	2,600	6,000	32,899
6	Subset of row 5 that are eligible as TLAC	19,999	4,300	2,600	6,000	32,899
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	-	-	-	1,500	1,500
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	-	-	-	-	0
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	-	-	1,600	4,500	6,100
10	Subset of row 6 with residual maturity ≥ 10 years, but excluded perpetual securities	-	-	1,000	-	1,000
11	Subset of row 6 that is perpetual securities	19,999	4,300	-	-	24,299

Credit Risk

Credit risk is the risk of loss resulting from the decline in credit quality (or downgrade risk) or failure of a borrower, counterparty, third-party or issuer to honour its financial or contractual obligations.

CGML has a major international presence as a dealer, market maker and underwriter in equity and fixed income securities and offers risk-based solutions to producers, consumers and investors. CGML also provides advisory services to a wide range of corporate, institutional and government clients. CGML's trading activities encompass cash, exchange traded and OTC derivative markets. CGML does not originate securitisations or engage in leveraged finance transactions as principal.

CGML's business is almost entirely wholesale in nature, falling within the ICG segment of Citi's operations. CGML's major counterparties are banks, investment banks, investment managers, insurers, public sector, corporates, funds and hedge funds.

CGML utilises Citi's over-arching organisation, with its multi-dimensional risk oversight, people, processes and systems in order to ensure robust oversight of the material risks.

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. Citi's credit risk management also includes processes and policies with respect to problem recognition, including 'watchlists', 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 senior management and the Board of Directors respectively, through the established governance processes.

CGML's risk management framework documents the risk management approach used to ensure robust management of the material risks facing the CGML legal entity. The ICG Risk Manual is the primary ICG-level policy governing the approach to the taking of credit risk on CGML and the approaches to managing both credit risk and counterparty credit risk are described in the CGML Risk Management Framework.

An explanation of Citi's approach to managing credit risk can be found in "Managing Global Risk – Credit Risk" in Citi's 31 December 2021 Form 10-K, available at:
https://www.citigroup.com/citi/investor/reg.htm

Table 16: Credit Risk Capital Requirements

	EAD $ million	RWAs $ million	Capital requirements $ million
Credit Risk	13,724	6,063	485

Credit Risk Measurement

Credit risk consists of five different credit risk types - direct, contingent, market-sensitive, clearing, and settlement. The types represent the category of credit facility that is used to monitor Citi's risk and are influenced by the financial accounting standards that apply to Citi's products and services. Direct, contingent, settlement and clearing risk types have a maximum potential for loss, which is 100% of the granted credit or facility amount. Market-sensitive credit risk, Pre-Settlement Exposure ("PSE") is calculated based on an expectation of potential exposure to an obligor. This calculation is performed via models or via use of credit exposure factors which are applied to the notional based on product and tenor risks.

Direct credit risk exposures primarily arise as a result of activity in the ICG businesses as well as Corporate Treasury that include deposits or placements with banks.

Market-sensitive counterparty credit risk exposures primarily arise from OTC derivative contracts, repo-style transactions and eligible margin loans. The exposure is the potential for loss should a counterparty be unable to perform its future obligations, such as to deliver a security for which a fixed price will be paid, to make a series of payments over time under a derivative contract or to maintain agreed margin equity behind a futures or SFT.

Methodology Used to Assign Credit Risk Limits

The process for approving a counterparty's credit risk exposure limit is guided by:

- Core credit policies;
- Procedures and standards;
- Experience and judgement of credit risk professionals; and
- The amount of exposure at risk

Citi credit risk limits have several parameters, including a value, the type of risk and the type of product or products that the limit covers. The risk type is the same as in the institution's risk measurement model.

The credit process is grounded in 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, which coordinates credit activities with each client;
- Portfolio limits to ensure diversification and in order to maintain risk/capital alignment;
- A minimum of two authorised credit officer signatures required on most extensions of credit, one of which must be from a credit officer in Credit Risk Management;
- Risk rating standards, applicable to every obligor and facility; and
- Consistent standards for credit origination documentation and remedial management.

Credit risk principles, policies and procedures typically require:

- A comprehensive analysis of the proposed credit exposure or transaction;
- Review of external agency ratings (where appropriate); and
- Financial and corporate due diligence, including support, management profile and qualitative factors.

The responsible credit officer completes a review of the financial condition of the counterparty to determine the client's business needs and compare that to the risk that Citi might be asked to extend. During consideration of a credit extension, the credit officer will assess ways to mitigate the risk through legal documentation, parental support or collateral. The process includes the determination of maximum potential exposure after recognition of netting agreements and collateral as appropriate.

While internal ratings are the starting point in establishing credit assessments, a range of factors, such as quality of management and strategy, nature of industry and regulatory environment, among others, are also taken into consideration for obligor limits and approval levels.

Once the analysis is completed and the product limits are determined, anti-tying and franchise risk is reviewed, after which the approval process takes place. The total facility amount, including direct, contingent and PSE, is aggregated and the credit officer reviews the approved tables within policy that appoint the appropriate level of authority needed to review and approve the facility.

As exposure to credit risk on derivatives is also impacted by market volatility, which may impair the ability of clients to satisfy their obligations to Citi, credit risk analysts conduct daily monitoring versus limits and any resulting issues are escalated to credit officers and business management as appropriate.

Internal Obligor Risk Ratings

For Citi's wholesale exposures, internal credit ratings are used in determining approval levels, risk capital and reserves. Each wholesale obligor is assigned an Obligor Risk Rating ("ORR") that reflects the one-year Probability of Default ("PD") of the obligor. Each wholesale facility is assigned a Facility Risk Rating ("FRR") that reflects the expected loss rate of the facility, the product of the one-year PD and the expected loss given default ("LGD") associated with the facility characteristics.

The ORRs are used for longer-term credit assessments for large credit relationships, which form the basis for obligor limits and approval levels. ORRs are established through an integrated framework that combines quantitative and qualitative tools, calibrated and tested across economic cycles, with risk manager expertise of customers, markets and industries. ORRs are generally expected to change in line with material changes in the PD of the obligor. Rating categories are defined consistently across wholesale credit by ranges of PDs and are used to calibrate and objectively test rating models and the final ratings assigned to individual obligors.

Risk Parameter Estimates

Independently validated models and, in limited cases, external agency ratings establish the starting point in the obligor rating process. The use of external agency ratings in establishing an internal rating occurs when agency ratings have been reviewed against internal rating performance and definitions, and is generally limited to ratings of BBB+/Baa1 or higher.

Internal rating models include statistically derived models and expert judgement rating models. The statistical models are developed by an independent analytical team in conjunction with independent Risk Management. The analytical team resides in Credit and Operational Risk Analytics ("CORA"), which is part of the corporate-level independent risk group. The statistical rating models cover Citi's corporate segment and certain other activities are based on statistically significant financial variables. Expert judgement rating models, developed by independent Risk Management, cover industry or obligor segments where there are limited defaults or data histories, or highly specialised or heterogeneous populations.

To the extent that Risk Management believes the applicable model does not capture all the relevant factors affecting the credit risk of an obligor, discretionary adjustments may be applied to derive the final ORR, within limits defined by policy. For larger obligors, the final ORRs are derived through the use of a scorecard that is designed to capture the key risks for the segment.

The ICG Risk Manual requires an annual comprehensive analysis of each obligor and all proposed credit exposures to that obligor and independent Risk Management periodically reviews exposures across the trading book and banking book portfolios to ensure compliance with various limit and concentration criteria. Quarterly reviews are also conducted of certain high-risk exposures.

For risk management purposes, an internal ratings based approach is used. For UK regulatory capital purposes, CGML does not have an Internal Ratings Based model permission from the PRA.

Table 17: Credit Quality of Exposures by Exposure Class and Instrument (CR1-A)

The below table provides a comprehensive picture of the credit quality of CGML's on-balance sheet and off-balance sheet exposures.

	Gross carrying values of						
	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Standardised approach	-	-	-	-	-	-	
Central governments or central banks	-	2,669	-	-	-	-	2,669
Institutions	-	7,742	-	-	-	-	7,742
Corporates	-	2,988	-	-	-	-	2,988
Claims in institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-
Equity exposures	-	108	-	-	-	-	108
Other exposures	-	218	-	-	-	-	218
Total standardised approach at 31 December 2021	-	13,724	-	-	-	-	13,724
Of which: Loans	-	1,158	-	-	-	-	1,158
Of which: Debt Securities	-	-	-	-	-	-	-

	Gross carrying values of						
	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Standardised approach							
Central governments or central banks	-	1,686	-	-	-	-	1,686
Institutions	-	2,077	-	-	-	-	2,077
Corporates	-	2,924	-	-	-	-	2,924
Claims on institutions and corporates with a short- term credit assessment	-	3,210	-	-	-	-	3,210
Equity exposures	-	101	-	-	-	-	101
Other exposures	-	621	-	-	-	-	621
Total standardised approach at 31 December 2020	-	10,619	-	-	-	-	10,619
Of which: Loans	-	2,031	-	-	-	-	2,031
Of which: Debt Securities	-	-	-	-	-	-	-

Table 18: Credit Quality of Exposures by Industry or Counterparty Types (CR1-B)

The table provide a picture of the credit quality of CGML's on-balance sheet and off-balance sheet exposures by industry or counterparty types.

	Gross carrying values of						
	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net values
	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Mining and quarrying	-	260	-	-	-	-	260
Manufacturing	-	1	-	-	-	-	1
Electricity, gas, steam and air	-	77	-	-	-	-	77
Wholesale and retail trade	-	823	-	-	-	-	823
Financial and insurance activities	-	12,263	-	-	-	-	12,263
Real estate activities	-	3	-	-	-	-	3
Public administration and defence, compulsory social security	-	296	-	-	-	-	296
Total as at 31 December 2021	-	13,724	-	-	-	-	13,724

	Gross carrying values of						
	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net values
	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Mining and quarrying	-	111	-	-	-	-	111
Manufacturing	-	-	-	-	-	-	-
Electricity, gas, steam and air	-	-	-	-	-	-	-
Wholesale and retail trade	-	-	-	-	-	-	-
Financial and insurance activities	-	10,205	-	-	-	-	10,205
Real estate activities	-	6	-	-	-	-	6
Public administration and defence, compulsory social security	-	296	-	-	-	-	296
Total as at 31 December 2020	-	10,619	-	-	-	-	10,619

Table 19: Credit Quality of Exposures by Geography (CR1-C)

This table provide a picture of the credit quality of CGML's on-balance sheet and off-balance sheet exposures by geography.

	Gross carrying values of						
	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net values
	$ million	$ million	$ million	$ million	$ million	$ million	$ million
EMEA	-	7,595	-	-	-	-	7,595
United Kingdom	-	5,114	-	-	-	-	5,114
Ireland	-	656	-	-	-	-	656
Germany	-	482	-	-	-	-	482
Belgium	-	338	-	-	-	-	338
Finland	-	277	-	-	-	-	277
Luxembourg	-	263	-	-	-	-	263
Switzerland	-	188	-	-	-	-	188
France	-	168	-	-	-	-	168
Other Countries	-	110	-	-	-	-	110
North America	-	5,201	-	-	-	-	5,201
United States	-	4,289	-	-	-	-	4,289
Canada	-	912	-	-	-	-	912
Other countries	-	0	-	-	-	-	0
APAC	-	916	-	-	-	-	916
Singapore	-	630	-	-	-	-	630
Other countries	-	286	-	-	-	-	286
LATAM	-	12	-	-	-	-	12
Total as at 31 December 2021[1]	-	13,724	-	-	-	-	13,724

	Gross carrying values of						
	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net values
	$ million	$ million	$ million	$ million	$ million	$ million	$ million
EMEA	-	6,171	-	-	-	-	6,171
United Kingdom	-	4,376	-	-	-	-	4,376
Ireland	-	407	-	-	-	-	407
Germany	-	427	-	-	-	-	427
Belgium	-	75	-	-	-	-	75
Finland	-	230	-	-	-	-	230
Luxembourg	-	320	-	-	-	-	320
Switzerland	-	6	-	-	-	-	6
France	-	163	-	-	-	-	163
Other Countries	-	168	-	-	-	-	168
North America	-	4,143	-	-	-	-	4,143
United States	-	3,658	-	-	-	-	3,658
Canada	-	486	-	-	-	-	486
Other countries	-	0	-	-	-	-	0
APAC	-	266	-	-	-	-	266
Singapore	-	2	-	-	-	-	2
Other countries	-	263	-	-	-	-	263
LATAM	-	39	-	-	-	-	39
Total as at 31 December 2020[1]	-	10,619	-	-	-	-	10,619

[1]Prior year geographical area comparatives amended to be in line with the 2021 geographical breakdown.
Exposures to countries representing less than 1% of the total exposure value are summarised under "Other Countries".

Credit Quality of Assets

The IFRS 9 impairment standard applies to any debt instruments measured at amortised cost or at fair value through other comprehensive income and also to off-balance sheet loan commitments and financial guarantees. The standard requires an estimation of an expected credit loss (“ECL”) that is 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 considers the time value of money.

ECL will be measured on each reporting date according to a three-stage expected credit loss impairment model, under which each financial asset is classified in one of the stages below:

- Stage 1 – From initial recognition of a financial asset to the date on which the asset has experienced a significant increase in credit risk relative to its initial recognition, a loss allowance is recognised equal to the expected credit losses resulting from defaults over the next 12 months. Interest is calculated based on the gross carrying amount of the asset; and,
- Stage 2 – Following a significant increase in credit risk relative to the risk at initial recognition of the financial asset, a loss allowance is recognised equal to the full credit losses expected over the remaining life of the asset. Interest is calculated based on the gross carrying amount of the asset.

The credit losses for financial assets in Stage 1 and Stage 2 are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Group expects to receive).

- Stage 3 – When a financial asset is considered to be credit-impaired, a loss allowance equal to the full lifetime expected credit losses will be recognised. Credit losses are measured as the difference between the gross carrying amount and the present value of estimated future cash flows. Interest revenue is calculated based on the carrying amount of the asset, net of the loss allowance, rather than on its gross carrying amount.

Evidence that a financial asset is impaired includes observable data that comes to the attention of the Company such as:

- Significant financial difficulty of the issuer or obligor;
- A breach of contract, such as a default or delinquency in interest or principal payments;
- It becomes probable that the borrower will enter bankruptcy or other financial reorganisation;
- The disappearance of an active market for that financial asset because of financial difficulties; or
- Observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the portfolio, including:
  - adverse changes in the payment status of borrowers in the portfolio; and
  - national or local economic conditions that correlate with defaults on the assets in the portfolio.

Because of the nature of business activities and the financial assets on the Company’s balance sheet (high credit quality reverse repo asset loans and short-term trade receivables), the recognition of expected credit losses has a minimal impact. For the vast majority of its exposures, the Company has taken advantage of practical expedients allowed by IFRS 9 in which either: (a) lifetime expected credit losses are recognised irrespective of changes in credit risk (applicable to receivables such as trade date or brokerage receivables), or (b) twelve-month expected credit losses are recognised where credit risk is low at the reporting date (applicable to reverse repos and securities borrowed).

Table 20: Credit quality of performing and non-performing exposures by past due days

		Gross carrying amount/nominal amount											
		Performing exposures			Non-performing exposures								
	$ million		Not past due or past due ≤ 30 days	Past due[1] > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which default-ed
1	**Loans and advances**	**1,158**	**1,158**	-	-	-	-	-	-	-	-	-	-
5	*Other financial corporations*	**1**	**1**	-	-	-	-	-	-	-	-	-	-
6	*Non-financial corporations*	**1,157**	**1,157**	-	-	-	-	-	-	-	-	-	-
22	**Total as at 31 December 2021**	**1,158**	**1,158**	-	-	-	-	-	-	-	-	-	-

		Gross carrying amount/nominal amount											
		Performing exposures			Non-performing exposures								
	$ million		Not past due or past due ≤ 30 days	Past due1 > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which default-ed
1	Loans and advances	2,031	2,031	-	-	-	-	-	-	-	-	-	-
5	*Other financial corporations*	800	800	-	-	-	-	-	-	-	-	-	-
6	*Non-financial corporations*	1,231	1,231	-	-	-	-	-	-	-	-	-	-
22	Total as at 31 December 2020	2,031	2,031	-	-	-	-	-	-	-	-	-	-

[1]A financial asset is past due when a counterparty has failed to make a payment when the payment was contractually due.

Table 21: Performing and non-performing exposures and related provisions

	$ million	Gross carrying amount/nominal amount						Accumulated impairment[1], accumulated negative changes in fair value due to credit risk and provisions[1]						Accumulated partial write-off	Collateral and financial guarantees received	
		Performing exposures			Non-performing exposures			Performing exposures			Non-performing exposures				On performing exposures	On non-performing exposures
			Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3			
1	**Loans and advances**	**1,158**	**1,158**	-	-	-	-	-	-	-	-	-	-	-	-	-
5	*Other financial corporations*	**1**	**1**	-	-	-	-	-	-	-	-	-	-	-	-	-
6	*Non-financial corporations*	**1,157**	**1,157**	-	-	-	-	-	-	-	-	-	-	-	-	-
22	**Total as at 31 December 2021[1]**	**1,158**	**1,158**	-	-	-	-	-	-	-	-	-	-	-	-	-

	$ million	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions[1]						Accumulated partial write-off	Collateral and financial guarantees received	
		Performing exposures			Non-performing exposures			Performing exposures			Non-performing exposures				On performing exposures	On non-performing exposures
			Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3			
1	Loans and advances	2,031	2,031	-	-	-	-	-	-	-	-	-	-	-	-	-
5	*Other financial corporations*	800	800	-	-	-	-	-	-	-	-	-	-	-	-	-
6	*Non-financial corporations*	1,231	1,231	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Total as at 31 December 2020[1]	2,031	2,031	-	-	-	-	-	-	-	-	-	-	-	-	-

[1]A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred.

Risk Concentrations

Concentration risk is the risk associated with having exposure concentrated on a specific client, industry, region or group of obligors that are sensitive to the same economic, financial or business developments. CGML Risk Management analyses risk concentrations on a monthly basis.

To manage concentration of risk within credit risk, Citi has in place a concentration management framework consisting of industry limits, obligor limits and single-name triggers. Independent Risk Management reviews concentration of risk across Citi's regions and businesses to assist in managing this type of risk.

Relationship Group

The Total Facilities Amount ("TFA") is set by relationship group which is typically the parent company and all its subsidiaries. This aggregation is critical to ensure that credit risk can be managed holistically. Credit lines are established between one client legal entity and one Citi legal entity. The CGML Risk Management Framework, sets a level of TFA for the aggregate CGML credit lines above which higher level approval is required. This takes into account the size of CGML relative to Citigroup as a whole, but also recognises the largely collateralised nature of the business carried out on CGML. Where the aggregate amount of facilities made available to the relationship by CGML is in excess of the limits or thresholds, further approval of those aggregate facilities (not the full relationship TFA) must be granted by a Risk Senior Credit Officer who is also a UK Material Risk Taker ("MRT").

Industry Type

In addition, a set of limits or thresholds have been put in place for CGML to monitor its exposure to industries and to countries. The industry limits are expressed as percentages of the aggregate PSE accounted for by different industry types, e.g. public sector entities, banks, hedge funds. The exposures to these industries are measured monthly and any exceptions are escalated to the UK CRO for notification to the CGML Risk Committee. The purpose of industry limits on CGML is to serve as an early warning device to alert management to changes in the sectoral composition of the entire CGML counterparty portfolio.

Country

CGML's clients are located around the world and are embedded in Citi's global franchise. The purpose of reviewing the country concentrations is to highlight where CGML may have exposures to clients in very low rated countries.

Country Risk limits have been set as a function of the country 'watchlist' system with gradings indicating the riskiness of that country. These gradings align closely with ratings attributed to the countries where Citi does business.

A new CGML Country Risk Notional Limit Framework was established in the first quarter of 2021. Countries are segmented into three groups ("Tiers"), based on explicit criteria, with headroom per country limits calibrated according to their tier, historic utilisation, and CGML concentration thresholds. Limits are reviewed annually.

The country limit or threshold applicable to any specific country is a percentage of CGML's aggregate PSE exposure as determined by the country's 'watchlist' grading. CGML's exposure to a country, as measured by the aggregate exposure to counterparties domiciled in that country, is tested against these limits on a monthly basis and any exception is notified to the UK CRO for notification to the CGML Risk Committee. It should be noted that these limits act as triggers for escalation and review, not as absolute ceilings.

Shadow Banking Entities

The EBA defines Shadow Banking Entities as entities that:

- Carry out credit intermediation activities, defined as bank-like activities involving maturity transformation, liquidity transformation, leverage, credit risk transfer or similar activities; and,

- Are neither within the scope of prudential consolidation nor subject to solo prudential requirements under specified EU legislation (or equivalent third country legal frameworks). Entities referred to in Article 2(5) and Article 9(2) of Directive 2013/36/EU, as well as other entities as defined in the EBA Guidelines, EBA/GL/2015/20 ('excluded undertakings'), are not to be regarded as shadow banking entities.

CGML has set an internal limit on the aggregate EAD to Shadow Banking Entities at a defined proportion of eligible capital. In the event that the limit is breached, CGML's approach is for the UK CRO to report the breach to the CGML Risk Committee, together with an explanation for the breach and either a plan to reduce exposure back within the limit, or a justification as to why it is appropriate to risk-accept the exposure level.

The framework for the management of Shadow Banking exposure also requires that limits are set at the individual counterparty level. The approach for any counterparty identified as a Shadow Banking Entity is two-fold.

- Firstly, it will have been subject to the normal credit review and credit risk limit setting processes as set out under the ICG Risk Manual. The credit risk limits provided to the entity will have been set taking into account its characteristics, including the nature of its trading activities. These credit risk limits are set using the methodologies commensurate with CGML's IMM permissions using PFE metrics, PSE and not EAD, and are monitored under normal ICG procedures; and,
- Additionally, there is an EAD threshold expressed as a percentage of eligible capital for intercompany and for third-party exposures, applicable to all the counterparties identified as Shadow Banking Entities. As with an aggregate limit breach, any counterparty breaching this limit will be subject to a review which: (i) investigates the nature of the trades which have given rise to the exposure; (ii) further reviews the nature of the counterparty to determine how the entity will come back within the EAD limit and whether risk mitigation is required; or (iii) provides a justification as to why it is appropriate to risk-accept the exposure level.

The limit has been set at a level which is sufficiently low to be protective to CGML's capital base, but not so low as to result in a number of entities being caught under their normal trading pattern.

Table 22: Total and Average Net Amount of Exposures (CRB-B)

The table below provide a breakdown of credit risk exposures pre-credit conversion factor ("CCF") and CRM by exposure class and average over the last four quarters. Average net exposure values are calculated by aggregating the last four-quarter ends of the year and dividing it by four.

	Net value of exposures at the end of the period		Average net exposures over the period	
	31 December 2021	31 December 2020	**31 December 2021**	31 December 2020
	$ million	$ million	**$ million**	$ million
Standardised approach				
Central governments or central banks	**2,669**	1,686	**2,265**	1,149
Institutions	**7,742**	2,077	**6,586**	934
Corporates	**2,988**	2,924	**3,320**	3,257
Claims on institutions and corporates with a short-term credit assessment	**-**	3,210	**-**	2,276
Equity exposures	**108**	101	**137**	92
Other exposures	**218**	621	**578**	485
Total Standardised approach	**13,724**	10,619	**12,886**	8,194

Year-end exposures as well as average net exposures increased across most exposures classes compared to prior year end, especially in case of Institutions and Central government exposures, offset by the decrease in claims on institutions and corporates with a short-term credit assessment. Majority of the increase is attributed to a rise in third-party cash exposures.

Table 23: Concentration of Exposures by Industry (CRB-D)

This table provide a breakdown of exposures pre CCF and CRM by industry or counterparty types and exposure classes.

	Mining and quarrying	Manufacturing	Electricity, gas, steam & air conditioning supply	Wholesale and retail trade	Financial and insurance activities
	$ million	$ million	$ million	$ million	$ million
Standardised approach					
Central governments or central banks	-	-	-	-	2,372
Institutions	-	-	-	-	7,742
Corporates	260	1	77	823	1,824
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	
Equity exposures	-	-	-	-	107
Other exposures	-	-	-	-	218
Total as at 31 December 2021	260	1	77	823	12,263

	Real estate activities	Public administration & defence; compulsory social security	Information and communication	Total
	$ million	$ million	$ million	$ million
Standardised approach				
Central governments or central banks	-	296	-	2,669
Institutions	-	-	-	7,742
Corporates	3	-	0	2,988
Claims on institutions and corporates with a short-term credit assessment	-	-	-	0
Equity exposures	-	-	0	108
Other exposures	-	-	-	218
Total as at 31 December 2021	3	296	0	13,724

Table 23: Concentration of Exposures by Industry (CRB-D) (continued)

	Mining and quarrying	Manufacturing	Electricity, gas, steam & air conditioning supply	Wholesale and retail trade	Financial and insurance activities
	$ million	$ million	$ million	$ million	$ million
Standardised approach					
Central governments or central banks	-	-	-	-	1,389
Institutions	-	-	-	-	2,077
Corporates	111	-	-	-	2,807
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	3,210
Equity exposures	-	-	-	-	101
Other exposures	-	-	-	-	621
Total as at 31 December 2020	111	-	-	-	10,205

	Real estate activities	Public administration & defence; compulsory social security	Information and communication	Total
	$ million	$ million	$ million	$ million
Standardised approach				
Central governments or central banks	-	296	-	1,686
Institutions	-	-	-	2,077
Corporates	6	-	0	2,924
Claims on institutions and corporates with a short-term credit assessment	-	-	-	3,210
Equity exposures	-	-	0	101
Other exposures	-	-	-	621
Total as at 31 December 2020	6	296	0	10,619

Exposures rose with most counterparty types, particularly in finance and insurance activities and wholesale and retail trade.

Table 24: Geographical Breakdown of Exposures (CRB-C)

This table provide a breakdown of credit risk exposures pre CCF and CRM by geographical areas and exposure classes. Exposures to countries representing less than 1% of the total exposure value are summarised under "Other Countries".

		Of which:								
	EMEA	United Kingdom	Ireland	Germany	Belgium	Finland	Luxemb-ourg	Switzerla-nd	France	Other Countries
	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Standardised approach										
Central governments or central banks	**2,669**	**2,669**	-	-	-	-	-	-	-	-
Institutions	**2,679**	**561**	**655**	**405**	**338**	**277**	**263**	**5**	**161**	**13**
Corporates	**1,923**	**1,585**	**0**	**77**	-	-	-	**183**	**7**	**71**
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-
Equity exposures	**107**	**82**	-	-	-	-	**0**	-	-	**25**
Other exposures	**218**	**218**	-	-	-	-	-	-	-	-
Total as at 31 December 2021[1]	**7,595**	**5,114**	**656**	**482**	**338**	**277**	**263**	**188**	**168**	**110**

		Of which:				Of which:			
	North America	United States	Canada	Other countries	APAC	Singapore	Other countries	LATAM	Total
	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Standardised approach									
Central governments or central banks	-	-	-	-	-	-	-	-	**2,669**
Institutions	**5,023**	**4,273**	**750**	-	**33**	-	**33**	**7**	**7,742**
Corporates	**177**	**15**	**162**	**0**	**884**	**630**	**253**	**5**	**2,988**
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-	**108**
Other exposures	-	-	-	-	-	-	-	-	**218**
Total as at 31 December 2021[1]	**5,201**	**4,289**	**912**	**0**	**916**	**630**	**286**	**12**	**13,724**

Table 24: Geographical Breakdown of Exposures (CRB-C) (continued)

		Of which:								
	EMEA	United Kingdom	Ireland	Germany	Belgium	Finland	Luxembo-urg	Switzerla-nd	France	Other Countries
	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Standardised approach										
Central governments or central banks	1,686	1,665	-	21	-	-	-	-	-	-
Institutions	1,134	279	24	406	-	230	1	6	163	26
Corporates	1,852	1,734	0	-	-	-	-	-	-	117
Claims on institutions and corporates with a short-term credit assessment	778	-	383	-	75	-	319	-	-	77
Equity exposures	101	77	-	-	-	-	-	-	-	23
Other exposures	621	620	-	-	-	-	-	-	-	1
Total as at 31 December 2020[1]	6,171	4,376	407	427	75	230	320	6	163	244

		Of which:				Of which:			
	North America	United States	Canada	Other countries	APAC	Singapore	Other countries	LATAM	Total
	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Central governments or central banks	-	-	-	-	-	-	-	-	1,686
Institutions	934	589	346	-	5	2	3	3	2,077
Corporates	811	811	0	-	227	1	226	35	2,924
Claims on institutions and corporates with a short-term credit assessment	2,397	2,257	140	--	34	-	34	1	3,210
Equity exposures	-	-	-	-	-	-	-	-	101
Other exposures	-	-	-	-	-	-	-	-	621
Total as at 31 December 2020[1]	4,143	3,658	486	-	266	2	263	39	10,619

[1]Prior year comparatives amended to be in line with the 2021 geographical breakdown and with CR1-C table.

Credit risk exposure increased by $3.1 billion mainly due to the following key geographical areas:

- EMEA exposures grew by $1.4 billion with the largest increase being in the Institutions and in the central governments or central banks exposure class and the majority of the increase being in the UK;
- Exposures in North America region increased by $1.1 billion due to increases in both US and Canada, particularly in the institutional exposures, primarily driven by third-party cash exposures; and
- Due to discontinuation of short-term credit ratings, claims on institutions and corporates with a short-term credit assessment decreased for all regions and countries, as those exposures got reclassified into institution and corporate exposures.

Table 25: Maturity of Exposures (CRB-E)

The table below provide a breakdown of net exposures pre CCF and CRM by residual maturity and exposure classes.

	Net exposure value					
	On demand	**≤ 1 year**	**> 1 year ≤ 5 years**	**> 5 years**	**Undated**	**Total**
	$ million	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**
Central governments or central banks	**2,372**	**296**	**-**	**-**	**-**	**2,669**
Institutions	**6,891**	**851**	**-**	**-**	**-**	**7,742**
Corporates	**611**	**2,377**	**-**	**-**	**-**	**2,988**
Claims on institutions and corporates with a short-term credit assessment	**-**	**-**	**-**	**-**	**-**	**-**
Equity exposures	**-**	**-**	**-**	**108**	**-**	**108**
Other exposures	**-**	**170**	**-**	**-**	**48**	**218**
Total standardised approach as at 31 December 2021	**9,874**	**3,695**	**-**	**108**	**48**	**13,724**

	Net exposure value					
	On demand	**≤ 1 year**	**> 1 year ≤ 5 years**	**> 5 years**	**Undated**	**Total**
	$ million	$ million	$ million	$ million	$ million	$ million
Central governments or central banks	1,389	296	-	-	-	1,686
Institutions	1,865	212	-	-	-	2,077
Corporates	306	2,618	-	-	-	2,924
Claims on institutions and corporates with a short- term credit assessment	3,210	-	-	-	-	3,210
Equity exposures	-	-	-	101	-	101
Other exposures	1	595	-	-	25	621
Total standardised approach as at 31 December 2020	6,771	3,722	-	101	25	10,619

Exposures rose across almost all maturity categories, with the greatest increase being in exposures on demand due to higher third-party cash exposures compared to prior year end. There is no significant change in the distribution of exposures between maturity classes.

Credit Risk Mitigation

As part of its risk management activities, the firm uses various risk mitigants to hedge portions of the credit risk in its portfolio, in addition to outright asset sales. Credit risk mitigation, including netting, collateral and other techniques, is important to Citi in the effective management of its credit risk exposures.

The utilisation of collateral is of critical importance in the mitigation of risk. In-house legal counsel, in consultation with approved external legal counsel, will determine whether collateral documentation is enforceable and gives the firm the right to liquidate or take possession of collateral in a timely manner in the event of the default, insolvency, bankruptcy or other defined credit event of the obligor.

Table 26: CRM Techniques – Overview (CR3)

This table shows the extent of the use of CRM techniques

		Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
		$ million	$ million	$ million	$ million	$ million
1	Total loans	1,158	-	-	-	-
2	Total debt securities	-	-	-	-	-
3	**Total exposures as at 31 December 2021**	1,158	-	-	-	-
4	Of which defaulted	-	-	-	-	-

		Exposures unsecured – Carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
		$ million	$ million	$ million	$ million	$ million
1	Total loans	2,031	-	-	-	-
2	Total debt securities	-	-	-	-	-
3	Total exposures as at 31 December 2020	2,031	-	-	-	-
4	Of which defaulted	-	-	-	-	-

Table 27: Standardised Approach – Credit Risk Exposure and CRM Effects (CR4)

The below table shows the effect of CCF and CRM techniques applied on total on-balance sheet and off-balance sheet credit risk exposures, across exposure classes. RWA density is expressed as total risk weighted exposures divided by exposures post CCF and post CRM.

	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWAs	RWA density
	$ million	$ million	$ million	$ million	$ million	$ million
Exposure classes						
Central governments or central banks	2,669	-	2,669	-	741	28%
Institutions	7,742	-	7,742	-	1,804	23%
Corporates	2,988	-	2,988	-	3,067	103%
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-%
Equity	108	-	108	-	108	101%
Other exposures	218	-	218	-	342	157%
Total as at 31 December 2021	13,724	-	13,724	-	6,063	44%

	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWAs	RWA density
	$ million	$ million	$ million	$ million	$ million	$ million
Exposure classes						
Central governments or central banks	1,686	-	1,686	-	741	44%
Institutions	2,077	-	2,077	-	479	23%
Corporates	2,924	-	2,924	-	2,924	100%
Institutions and corporates with a short-term credit assessment	3,210	-	3,210	-	1,340	42%
Equity	101	-	101	-	102	101%
Other exposures	621	-	621	-	772	124%
Total as at 31 December 2020	10,619	-	10,619	-	6,358	60%

RWAs increased across most exposure classes in line with the increase of the related exposures with the exception of central government RWAs and RWA density. The decrease in RWA density for central governments or central banks is attributed to an increase in exposures receiving 0% risk weight.

Use of External Credit Ratings under the Standardised Approach for Credit Risk

Under the Standardised approach, ratings assigned by ECAIs are used in the calculation of RWAs. Credit assessments applied to central governments and central banks, institutions, corporate, and equity exposure classes in the trading book and banking book alike, as determined by the PRA in accordance with the requirements of CRD IV. CGML uses ratings assigned by Standard and Poor's, Moody's and Fitch Ratings for credit risk calculations. Risk weightings are assigned to each exposure depending on its credit quality step and other factors, including exposure class and maturity.

Table 28: Risk Weightings by Credit Quality Step

						Institution (Includes Banks)		
Credit Quality Step	**Standard & Poor's**	**Moody's**	**Fitch**	**Corporates**	**Governments and Central Banks**	**Sovereign Method**	**Maturity > 3 months**	**Maturity ≤ 3 months**
1	AAA to AA-	Aaa to Aa3	AAA to AA-	20%	0%	20%	20%	20%
2	A+ to A-	A1 to A3	A+ to A-	50%	20%	50%	50%	20%
3	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-	100%	50%	100%	50%	20%
4	BB+ to BB-	Ba1 to Ba3	BB+ to BB-	100%	100%	100%	100%	50%
5	B+ to B-	B1 to B3	B+ to B-	150%	100%	100%	100%	50%
6	CCC+ and below	Caa1 and below	CCC+ and below	150%	150%	150%	150%	150%

Table 29: Standardised Approach – Risk Weighted (CR5)

This table provides the breakdown of CGML's credit risk exposures under the standardised approach by exposure class and risk weighting.

	Risk weight																	
	0%	**2%**	**4%**	**10%**	**20%**	**35%**	**50%**	**70%**	**75%**	**100%**	**150%**	**250%**	**370%**	**1250%**	**Others**	**Deduct-ed**	**Total**	**Of which: unrated**
	$ million	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**
Exposure classes																		
Central governments or central banks	**2,372**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**296**	**-**	**-**	**-**	**-**	**2,669**	**296**
Institutions	**-**	**-**	**-**	**-**	**6,894**	**-**	**846**	**-**	**-**	**1**	**0**	**-**	**-**	**-**	**-**	**-**	**7,742**	**1,748**
Corporates	**-**	**-**	**-**	**-**	**-**	**-**	**12**	**-**	**-**	**2,807**	**170**	**-**	**-**	**-**	**-**	**-**	**2,988**	**2,813**
Institutions and corporates with a short-term credit assessment	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Equity	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**107**	**-**	**1**	**-**	**-**	**-**	**-**	**108**	**107**
Other items	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**134**	**-**	**83**	**-**	**-**	**-**	**-**	**218**	**218**
Total as at 31 December 2021	**2,372**	**-**	**-**	**-**	**6,894**	**-**	**858**	**-**	**-**	**3,049**	**170**	**380**	**-**	**-**	**-**	**-**	**13,724**	**5,182**

	Risk weight																	
	0%	**2%**	**4%**	**10%**	**20%**	**35%**	**50%**	**70%**	**75%**	**100%**	**150%**	**250%**	**370%**	**1250%**	**Others**	**Deduct-ed**	**Total**	**Of which: unrated**
	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Exposure classes																		
Central governments or central banks	1,389	-	-	-	-	-	-	-	-	-	-	296	-	-	-	-	1,686	317
Institutions	-	-	-	-	1,866	-	211	-	-	0	-	-	-	-	-	-	2,077	1,869
Corporates	-	-	-	-	-	-	-	-	-	2,924	0	-	-	-	-	-	2,924	2,924
Institutions and corporates with a short-term credit assessment	-	-	-	-	883	-	2,328	-	-	250	3	-	-	-	-	-	3,210	-
Equity	-	-	-	-	-	-	-	-	-	101	-	1	-	-	-	-	101	101
Other items	-	-	-	-	-	-	-	-	-	520	1	101	-	-	-	-	621	621
Total as at 31 December 2020	1,389	-	-	-	2,749	-	2,539	-	-	3,545	1	397	-	-	-	-	10,619	5,833

Exposures in the 0% risk weight band increased by $1.0 billion due to an increase in central governments or central bank cash exposures. There is a significant increase in the exposures with 20% risk weight due to a rise in institutional intercompany and third-party cash exposures.

Counterparty Credit Risk

Counterparty credit risk is the risk that the counterparty to a transaction will default before the final settlement of the transaction's cash flows.

Counterparty credit risk is one of the most significant risks that Citi faces as an institution. Counterparty credit risk arises in many of CGML's businesses and as a result of activities including:

- Securities transactions;
- Derivatives;
- Securities Financing Transactions;
- When CGML acts as an intermediary on behalf of its clients and other third parties; and,
- When acting as underwriter (not on a best-efforts basis) or within a capital raising capacity.

CGML's counterparty credit risk largely arises from its SFT and OTC derivative counterparties. It will also arise from clearing and settlement exposure. As CGML's counterparty credit risk is substantially margined or secured, with the exception of short-term FX transactions, some Commodities business or certain trades approved on a case-by-case basis, CGML only hedges a limited amount of its counterparty exposure.

CGML has an established framework in place for managing credit and counterparty credit risk across all businesses that includes a defined risk appetite, credit limits and credit policies. Please refer to Page 21.

Approach to calculate capital requirements

Risk Category	Methods for Calculating Exposure	Application
Derivatives	Mark-to-Market Method	Under mark to market approach, exposures are calculated using Current Exposure Method ("CEM",) which is the replacement cost plus regulatory add-ons for Potential Future Exposure ("PFE") to capture market volatility. This method applies to all derivatives not calculated under IMM.
	IMM	IMM applies to all derivatives provided for in the PRA modelled permission. These derivative exposures are calculated as the standard supervisory alpha factor of 1.4 multiplied by the Effective Expected Positive Exposure ("EEPE"), modelled using the Monte Carlo simulation.
Securities Financing Transactions ("SFT")	Financial Collateral Comprehensive Method ("FCCM")	Under FCCM, the exposure value is calculated as positive difference in the exposure value of securities, commodities or cash sold, posted or lent and the value of securities, commodities or cash received in return, and applying regulatory haircuts for security volatility adjustments and any applicable currency mis-matches.

Risk Measurement

For internal risk management, risk measurement is a function of three elements:

- PFE – reflects expected counterparty credit exposure over a specified period of time calculated at some level of confidence;
- PD – the probability of default of a counterparty over a one year period; and,
- LGD - the ratio of the loss on an exposure due to the default of a counterparty to the amount outstanding at default.

Counterparty credit risk is calculated at least daily and at times selectively refreshed intraday to be compared to counterparty limits. When the risk is below the limit, the difference is available at the start of the next day to accept incremental business and risk. When risk has exceeded the limit, it is reported to the credit officer for the client whose limit is exceeded and to the senior credit officer in charge of the portfolio of clients to which that client belongs.

Counterparty credit exposure is generally expressed as the current mark-to-market, net of margin, reflecting the net value owed to Citi by a given counterparty, plus the potential future exposure calculated using Monte Carlo simulation which estimates the amount that a counterparty may owe over the life of a transaction (or a portfolio of transactions) calculated to a 97.7% degree of statistical confidence for modelled exposure, or via Credit Exposure Factors ("CEFs") applied to the notional based on product type and tenor.

The risk associated with these counterparty credit exposures is a function of the creditworthiness of the obligor, as well as the terms and conditions of the specific obligation. Citi assesses the risk associated with its credit exposures on a regular basis through its loan loss reserve process, as well as through regular stress testing at the company, business, geography and product levels. In addition, Citi also recognise CVA in the valuation of its OTC derivatives. These stress testing processes typically estimate potential incremental credit costs that would occur as a result of either downgrades in the credit quality or defaults of the obligors or counterparties.

The process of ensuring that all facilities are properly captured and approved is audited on a regular basis by Fundamental Credit Review ("FCR"). FCR is an independent credit review function that assesses the effectiveness of credit risk management and the ability to identify, monitor and mitigate current and emerging credit risks across the firm. Citi uses a global risk reporting system to manage credit exposure to its wholesale obligors and counterparties.

Stress testing

CGML's stress testing infrastructure provides the ability to apply various stress scenarios to counterparty positions, portfolios and transactions. The stress results and impact of changes on counterparty risk exposure improves understanding of the risk profile of a counterparty and assists in diagnosing their vulnerabilities to specific market events.

The core CCR stress testing scenarios are the Global Systemic Stress Testing ("GSST") scenarios, which include both hypothetical and historical scenarios. The Stress Testing and Risk Capital Council is responsible for developing the stress scenarios and for reviewing them annually in order to ensure that they remain appropriate in light of current and anticipated market conditions. Each Credit Risk team can use further scenarios that are relevant for their specific industry and portfolio.

Ad-hoc market event scenarios can be developed as required with input from Market Risk and ERM. The resulting risk factor shocks are consumed in the stress testing infrastructure relevant to the event and the impacts are analysed by the relevant functions before presenting to senior management forums.

Table 30: Analysis of CCR Exposure by Approach (CCR1)

This table provide a comprehensive view of the methods used by CGML to calculate CCR regulatory requirements and the main parameters used within each method. This excludes CVA charges or exposures cleared through a CCP.

		Notional $ million	Replacement cost/current market value[1] $ million	Potential future credit exposure[1] $ million	EEPE $ million	Multiplier $ million	EAD post CRM $ million	RWAs $ million
1	Mark to market	-	6,231	37,895	-	-	39,316	23,439
2	Original exposure	-	-	-	-	-	-	-
3	Standardised approach	-	-	-	-	-	-	-
4	IMM (for derivatives and SFTs)	-	-	-	13,098	1.4	18,338	12,112
5	Of which securities financing transactions	-	-	-	-	-	-	-
6	Of which derivatives and long settlement transactions	-	-	-	13,098	1.4	18,338	12,112
7	Of which from contractual cross-product netting	-	-	-	-	-	-	-
8	Financial collateral simple method (for SFTs)	-	-	-	-	-	-	-
9	Financial collateral comprehensive method (for SFTs)	-	-	-	-	-	47,892	28,926
10	VaR for SFTs	-	-	-	-	-	-	-
11	**Total as at 31 December 2021**	-	-	-	-	-	-	64,477

		Notional $ million	Replacement cost/current market value[1] $ million	Potential future credit exposure[1] $ million	EEPE $ million	Multiplier $ million	EAD post CRM $ million	RWAs $ million
1	Mark to market	-	1,961	24,455	-	-	27,235	16,282
2	Original exposure	-	-	-	-	-	-	-
3	Standardised approach	-	-	-	-	-	-	-
4	IMM (for derivatives and SFTs)	-	-	-	11,633	1.4	16,286	10,588
5	Of which securities financing transactions	-	-	-	-	-	-	-
6	Of which derivatives and long settlement transactions	-	-	-	11,633	1.4	16,286	10,588
7	Of which from contractual cross-product netting	-	-	-	-	-	-	-
8	Financial collateral simple method (for SFTs)	-	-	-	-	-	-	-
9	Financial collateral comprehensive method (for SFTs)	-	-	-	-	-	50,622	34,984
10	VaR for SFTs	-	-	-	-	-	-	-
11	Total as at 31 December 2020	-	-	-	-	-	-	61,854

The counterparty credit risk RWA increased by $2.6 billion to $64.5 billion at 31 December 2021 due to the following:

- Derivatives RWA increased $8.7 billion year-on-year as a result of increased client activity and market volatility.
- RWA for SFTs under financial collateral comprehensive method reduced $6.1 billion through 2021 primarily reflecting improved credit quality of counterparties.

Credit and Funding Valuation Adjustments

Credit valuation adjustments ("CVA") and funding valuation adjustments ("FVA") are applied to the relevant population of OTC derivative instruments where adjustments to reflect counterparty credit risk, own credit risk and term funding risk are required to estimate fair value. This principally includes derivatives with a base valuation (e.g. discounted using overnight indexed swap ("OIS")) requiring adjustment for these effects, such as uncollateralised interest rate swaps.

The CVA represents a portfolio-level adjustment to reflect the risk premium associated with the counterparty's ("assets") or Citi's ("liabilities") non-performance risk. The FVA represents a market funding risk premium inherent in the uncollateralised portion of a derivative portfolio and in certain collateralised derivative portfolios that do not include standard credit support annexes ("CSAs"), such as where the CSA does not permit the reuse of collateral received. Citi's FVA methodology leverages the existing CVA methodology to estimate a funding exposure profile. The calculation of this exposure profile considers collateral agreements in which the terms do not permit the Company to reuse the collateral received, including where counterparties post collateral to third-party custodians.

Citi's CVA and FVA methodologies consist of two steps:

- First, the 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 and sources of funding, including pledged cash or other collateral and any legal right of offset that exists with a counterparty through arrangements such as netting agreements. Individual derivative contracts that are subject to an enforceable master netting agreement with a counterparty are aggregated as a netting set 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 and term funding risk, rather than using the current recognised net asset or liability as a basis to measure the CVA and FVA.
- Second, for CVA, 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. Generally, counterparty CVA is determined using CDS spread indices for each credit rating and tenor. For certain identified netting sets where individual analysis is practicable (e.g. exposures to counterparties with liquid CDSs), counterparty specific CDS spreads are used. For FVA, a term structure of spreads is applied to the expected funding exposures (e.g. the market liquidity spread used to represent the term funding premium associated with certain OTC derivatives. 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.

Table 31: Credit Valuation Adjustment (CVA) Capital Charge (CCR2)

The following table provides a view of CVA regulatory calculations with a breakdown by standardised and advanced approach.

		31 December 2021		31 December 2020	
		Exposure value	**RWAs**	**Exposure value**	**RWAs**
		$ million	**$ million**	$ million	$ million
1	Total portfolios subject to the advanced method	**9,671**	**3,266**	9,723	3,128
2	(i) VaR component (including the 3× multiplier)	**-**	**984**	-	1,111
3	(ii) SVaR component (including the 3× multiplier)	**-**	**2,282**	-	2,017
4	All portfolios subject to the standardised method	**9,260**	**3,203**	6,484	2,790
5	**Total subject to the CVA capital charge**	**18,931**	**6,469**	16,207	5,918

Table 32: Standardised Approach – CCR Exposures by Regulatory Portfolio and Risk (CCR3)

The following table provides a breakdown on the risk-weighting of Counterparty Credit Risk exposures according to the standardised approach.

		Risk weight									
		0%	**2%**	**4%**	**20%**	**50%**	**100%**	**150%**	**Others**	**Total**	**Of which: unrated**
		$ million	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**
1	Central governments or central banks	**6,017**	**-**	**-**	**1,800**	**372**	**43**	**-**	**-**	**8,232**	**7,532**
2	Regional government or local authorities	**44**	**-**	**-**	**1,683**	**-**	**125**	**-**	**-**	**1,852**	**125**
3	Public sector entities	**562**	**-**	**-**	**667**	**11**	**150**	**-**	**-**	**1,389**	**161**
4	Multilateral development banks	**30**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**30**	**3**
5	International organisations	**583**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**583**	**-**
6	Institutions	**-**	**25,726**	**5,801**	**8,536**	**35,192**	**526**	**-**	**-**	**75,780**	**25,988**
7	Corporates	**-**	**-**		**788**	**2,874**	**41,037**	**341**	**-**	**45,040**	**38,750**
8	Retail	**-**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**-**
9	Institutions and corporates with a short-term credit assessment	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
10	Other items	**-**	**-**	**-**	**-**	**-**	**-**	**201**	**-**	**201**	**181**
10b	Claims in the form of CIU	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
11	**Total as at 31 December 2021**	**7,236**	**25,726**	**5,801**	**13,474**	**38,449**	**41,880**	**542**	**-**	**133,107**	**72,740**

		Risk weight									
		0%	**2%**	**4%**	**20%**	**50%**	**100%**	**150%**	**Others**	**Total**	**Of which: unrated**
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
1	Central governments or central banks	4,268	-	-	1,161	19	4,602	-	-	10,049	8,228
2	Regional government or local authorities	87	-	-	1,503	-	130	-	-	1,720	10
3	Public sector entities	402	-	-	1,046	-	177	-	-	1,625	373
4	Multilateral development banks	195	-	-	-	-	-	-	-	195	-
5	International organisations	-	-	-	-	-	-	-	-	-	-
6	Institutions	-	21,165	3,432	6,256	26,955	439	-	-	58,247	16,329
7	Corporates	-	-	-	1,213	3,438	37,543	90	-	42,285	36,010
8	Retail	-	-	-	-	-	-	-	-	-	-
9	Institutions and corporates with a short-term credit assessment	-	-	-	276	882	82	356	-	1,597	-
10	Other items	-	-	-	-	-	-	167	-	167	142
10b	Claims in the form of CIU	-	-	-	-	-	-	-	-	-	-
11	Total as at 31 December 2020	4,952	21,165	3,432	11,455	31,295	42,973	614	-	115,885	61,092

Total exposures increased by $17.2 billion, with a rise in institutional exposures of $17.5 billion offset by decrease in exposures towards central governments or central banks. Majority of the increase being in the 50% risk weight band related to increased institutional OTC derivative exposures.

Collateral

Citi's policies and procedures cover management and governance of financial assets (including securing and valuing collateral) utilised for the purpose of mitigating the credit risk of OTC derivatives, repo-style transactions and eligible margin loans. Specifically, businesses are required to establish standard eligibility criteria for collateral usage and review processes for approving non-standard collateral. Industry standard legal agreements combined with internal reviews for legal enforceability are used to achieve a perfected security interest in the collateral.

Additionally, Risk Management establishes guidelines on appropriate collateral haircuts related to repo-style transactions and eligible margin loans. A haircut is the percentage of reduction in current market value applicable to each type of collateral and is largely based on liquidity and price volatility of the underlying security. Potential correlations between the exposure and the underlying collateral are reflected through the setting of appropriately greater haircuts.

Collateral Management

Collateral management refers to all systems, methods, processes, controls, data collection and Operations and Technology systems that are used to take, manage, value, maintain and realise collateral held for mitigation purposes.

The primary objectives of collateral management at Citi are:

- Risk mitigation;
- Operational efficiency in the use of collateral;
- Robust documentation on such collateral;
- A collateral structure that optimises its use;
- Efficiency and accuracy of reporting;
- Liquidity management;
- Capital allocation; and,
- Market competitiveness.

Collateral reports are prepared monthly for SFT and OTC exposures and are reviewed by the UK CRO, in particular for changes in the profile or composition of collateral, concentrations and unusual or concerning securities.

CGML undertakes almost exclusively margined business with its counterparties. Netting is generally permitted for both SFTs and OTC derivatives.

The majority of the collateral taken by CGML against OTC derivatives and SFT exposures is in the form of cash or G10 sovereign bonds. Margin requirement for non-centrally cleared derivatives ("MRNCCD") is the recent regulation that establishes Initial Margin ("IM") and Variation Margin ("VM") requirements for non-centrally cleared derivatives entered into after the effective date of the regulation. The rules require two-way IM posting and daily VM exchange for certain types of counterparty and for certain products defined as in scope.

Collateral considered eligible includes

- IM: cash, sovereign debt, government-sponsored debt, investment grade debt including corporate bonds, equities, gold, and shares of certain funds with appropriate haircuts
- VM: cash for trades between swap dealers; same types of collateral as IM for trades between swap dealers and financial end users

Occasionally, with appropriate agreement, other forms of collateral may be accepted.

CGML has established a Collateral Risk Governance Committee ("CRGC") to support CGML's ability to appropriately manage risks associated with collateral positions for all businesses relevant to CGML. The CRGC is mandated with monitoring and mitigating risks that may arise from CGML collateral positions. This includes risks associated with managing large, concentrated, volatile or illiquid collateral positions as well as positions giving rise to wrong way risk, and ensuring there is appropriate oversight of risk associated with collateral positions.

Types of Collateral

The majority of the collateral taken by CGML against OTC derivative exposures is in the form of cash. Other collateral, such as corporate bonds, municipal bonds, U.S. agency securities and mortgage-backed securities, may also be pledged as collateral for OTC derivative transactions.

Collateral is generally posted to secure the net open exposure of OTC derivative transactions at a counterparty level, whereby the receiving party is free to co-mingle or re-hypothecate such collateral in the ordinary course of business. Collateral posted to open and maintain a master netting agreement with a counterparty in the form of cash and securities may from time to time be segregated in an account at a third-party custodian pursuant to a tri-party account control agreement.

In respect of SFTs, the majority of the collateral is in the form of cash, long-term and short-term debt securities; or public equity securities. Occasionally, with appropriate agreement, other forms of collateral may be accepted.

Master Netting Agreements

Credit risk from derivatives is mitigated where possible through netting agreements whereby derivative assets and liabilities with the same counterparty can be offset. Citi policy requires all netting arrangements to be legally documented. International Swaps and Derivatives Association ("ISDA") master agreements are Citi's preferred manner for documenting OTC derivatives.

In-house legal counsel will also approve relevant jurisdictions and counterparty types for netting purposes. Off-balance sheet netting and netting of collateral against the exposure is permitted if legal counsel determine that the firm has these rights. Netting is generally permitted across SFTs, OTC derivatives and Exchange Traded Derivatives.

The agreements provide the contractual framework within which dealing activities across a full range of OTC products are conducted, and contractually bind both parties to apply close-out netting across all outstanding transactions covered by an agreement if either party defaults, or other predetermined events occur.

Citi considers the level of legal certainty regarding enforceability of its offsetting rights under master netting agreements and credit support annexes to be an important factor in its risk management process. For example, Citi generally transacts much lower volumes of derivatives under master netting agreements where Citi does not have the requisite level of legal certainty regarding enforceability.

Valuation of Collateral

Collateral valuations must be completed daily for SFTs, OTC derivatives and margin lending by the relevant operations units and collateral/margin departments. Collateral haircuts are applied in a number of circumstances, such as where there is a material positive correlation between the credit quality of the counterparty and the value of the collateral, or where there are currency or maturity mismatches. The firm has systems and procedures for requesting and promptly receiving additional collateral for transactions whose terms require maintenance of collateral values at specified thresholds as documented in the respective legal agreements.

Margining Procedures

Daily margin procedures are established for managing margin calls, which is considered best practice in order to maintain an appropriate level of collateral coverage reflecting market value fluctuations. Trades are reconciled on a regular basis that is consistent with regulatory and industry best practice guidelines and margin dispute processes are in place. Procedures are established surrounding collateral substitution and collateral re-use/re-hypothecation. Limits and concentration monitoring are utilised to control Citi's collateral concentrations to different types of asset classes. Additionally, for eligible margin loans, procedures are established to ensure an appropriate level of allowance for credit losses.

The firm has procedures in place to ensure that appropriate information is available to support the collateral process and that timely and accurate margin calls feed correctly into the margin applications from upstream systems. Key to the process is a daily credit exposure report as well as reports identifying counterparties that have not met their requirement for additional collateral to satisfy specified initial margin amounts and variation margin thresholds. In addition, there is firm wide risk reporting of counterparty exposures at an individual and an aggregate level.

Table 33: Impact of Netting and Collateral Held on Exposure Values (CCR5-A)

The table provides an overview of the impact of netting and collateral held on exposures for SFT and derivatives, including exposures arising from transactions cleared through a CCP.

		Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
		$ million	$ million	$ million	$ million	$ million
1	Derivatives[1]	265,987	211,148	54,840	47,556	7,284
2	SFTs	519,961	-	519,961	504,856	15,105
3	Non-eligible collateral under the CRR				56,073	
4	**Total as at 31 December 2021**	**785,948**	**211,148**	**574,800**	**608,485**	**22,388**

		Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
		$ million	$ million	$ million	$ million	$ million
1	Derivatives[1]	300,782	257,199	43,583	36,352	7,231
2	SFTs	539,140	0	539,140	528,107	11,033
3	Non-eligible collateral under the CRR				68,341	
4	Total as at 31 December 2020	**839,922**	**257,199**	**582,723**	**632,800**	**18,264**

[1] The aggregation of derivatives gross positive fair value has been revised, with 31 December 2020 being restated to be on a consistent basis.

Collateral Concentrations

Cash and sovereign government bonds are the predominant form of collateral accepted in respect of margined OTC derivative transactions and SFTs at 31 December 2021. The below table shows the breakdown of all types of collateral of posted or received by CGML to support or reduce Counterparty Credit Risk exposures related to derivative transactions or SFTs, including transactions cleared through a CCP.

Table 34: Composition of Collateral for Exposures to CCR (CCR5-B)

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
	$ million	$ million	$ million	$ million	$ million	$ million
Cash	-	33,518	-	40,652	176,168	252,573
Sovereign Debt	222	5,917	1,297	7,213	247,147	191,365
Corporate Bonds	211	4,884	296	4,537	17,895	22,114
Equities	286	43	4	-	61,684	51,622
Other	1	2,474	-	1,188	1,963	2,287
Total as at 31 December 2021	**719**	**46,837**	**1,596**	**53,590**	**504,856**	**519,961**

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
	$ million	$ million	$ million	$ million	$ million	$ million
Cash	-	24,670	-	39,070	196,977	255,304
Sovereign Debt	409	6,217	1,066	4,520	245,773	209,332
Corporate Bonds	93	1,733	426	2,430	17,220	19,556
Equities	220	19	1	-	65,520	51,312
Other	-	2,991	-	-	2,617	3,636
Total as at 31 December 2020	722	35,630	1,493	46,020	528,107	539,140

Wrong Way Risk

CGML incurs both General Wrong Way Risk ("GWWR") and Specific Wrong Way Risk ("SWWR") in its business.

Wrong Way Risk ("WWR") arises when there is a strong correlation between the counterparty's probability of default and the credit exposure on the underlying transaction.

SWWR arises when the exposure to a particular counterparty is positively correlated with the probability of default of the counterparty where there is close relationship between the counterparty and the underlying exposure.

Transactions are flagged as SWWR when the counterparty and underlying security or reference asset are mapped to the same parent.

For SFTs, where the underlying security received by Citi is identified as SWWR, the PSE calculation uses the recovery rate as provided by iCVA (a depository of information including industry, rating, credit curve recovery rate, etc, and can be used to proxy the recovery rate for a similar asset).

To monitor and control of the overall volume of SWWR trades and collateral booked in CGML, a SWWR notional limit is established on SFT transactions and OTC derivatives and hence aims to restrict the aggregate notional or 'cash delivered' on SWWR transactions in CGML.

CGML identifies the propensity to GWWR in SFT transactions using a rules-based approach which considers common attributes such as region, country and industry between the counterparty and the issuer of the security. A transaction is identified as GWWR if any one of the four attributes are common between the counterparty and issuer, and categorises GWWR transactions into a high, medium and low GWWR category.

To monitor and control the level of GWWR in CGML, the following limits have been established:

- A portfolio-level GWWR stress loss limit across all CGML counterparties with SFT and OTC derivative positions. The GWWR stress loss measurement reflects the impact of general market factors shocks on the counterparties under a given stress scenario and severely stresses the probability of default of counterparties giving rise to GWWR;
- Country notional WWR limit for DSFTs and stress loss limits to control the total GWWR stress loss at the country level across all SFT and OTC derivative positions in CGML; and,
- Any trades with specific or material general WWR are subject to approval.

CGML has established a Wrong Way Risk (WWR) Council to identify, monitor and control CGML's exposure to WWR. The Council is mandated with monitoring and controlling the WWR which may arise from SFT and OTC positions through a Pillar 2A capital add-on and reviewing and approving the GWWR Pillar 2A add-on for SFTs and OTC derivatives.

Other forms of Credit Risk Mitigation

CGML does not generally use credit derivatives to mitigate its counterparty risk exposure, but Citi does use credit derivatives for this purpose when exposure is viewed at a global level, and such hedging is carried out by certain US affiliate companies. CGML does not use eligible credit derivatives as exposure hedges to any exposures currently including IMM positions.

Table 35: Credit Derivatives Exposures (CCR6)

The table below illustrates the extent of CGML's exposures to credit derivative transactions broken down between derivatives bought or sold.

	Credit derivative hedges[1]		Other credit derivatives	
	Protection bought	**Protection sold**	**Protection bought**	**Protection sold**
	$ million	**$ million**	**$ million**	**$ million**
Notionals as at 31 December 2021 [2]				
Single-name credit default swaps	-	-	237,272	237,122
Index credit default swaps	-	-	459,806	454,973
Total return swaps	-	-	134	4,025
Credit options	-	-	27,434	27,684
Other credit derivatives	-	-	3,600	3,600
Total notionals	-	-	728,246	727,403
Fair values				
Positive fair value (asset)	-	-	2,085	19,313
Negative fair value (liability)	-	-	(19,125)	(2,448)

	Credit derivative hedges[1]		Other credit derivatives	
	Protection bought	**Protection sold**	**Protection bought**	**Protection sold**
	$ million	$ million	$ million	$ million
Notionals as at 31 December 2020 [2]				
Single-name credit default swaps	-	-	245,326	247,451
Index credit default swaps	-	-	261,982	257,092
Total return swaps	-	-	397	360
Credit options	-	-	6,689	4,976
Other credit derivatives	-	-	-	-
Total notionals	-	-	514,393	509,879
Fair values				
Positive fair value (asset)	-	-	1,365	11,885
Negative fair value (liability)	-	-	(12,196)	(1,363)

[1] CGML does not use credit derivatives for credit risk mitigation purposes.

[2] The aggregation of credit derivatives has been revised to align to the future adoption and requirements of CRR II, with 31 December 2020 being restated to be on a consistent basis.

Notional value of credit derivatives increased by $213.9 billion to $728.2 billion for protection bought and by $217.5 billion to $727.4 billion for protection sold, primarily due to increases in index credit default swaps.

Central Counterparties

CCPs are authorised to clear several product classes, including listed and OTC financial and commodity derivatives, cash equities, bonds and other products such as repos, and play central role in processing financial transactions and managing exposures to diverse risks inherent in those transactions. CCPs centralise the handling of transactions and positions of counterparties, honour the obligations created by the transactions, and require adequate collateral from their members as margin and as contributions to default funds.

Table 36: Exposures to CCPs (CCR8)

This table provide a summary of CGML's exposures to CCPs, including types of exposures and related capital requirements.

	As at 31 December 2021		As at 31 December 2020	
	EAD post CRM	**RWAs**	**EAD post CRM**	**RWAs**
	$ million	**$ million**	$ million	$ million
Exposures to QCCPs (total)		1,241		1,151
Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	19,521	721	16,774	439
(i) OTC derivatives	8,254	263	9,284	266
(ii) Exchange-traded derivatives	8,148	163	3,996	98
(iii) SFTs	3,120	295	3,494	75
(iv) Netting sets where cross-product netting has been approved	-	-	-	-
Segregated initial margin	-	-	-	-
Non-segregated initial margin	8,040	161	4,968	99
Prefunded default fund contributions	1,309	360	1,072	612
Alternative calculation of own funds requirements for exposures	-	-	-	-

During 2021 CGML's exposure to CCPs increased by $2.7 billion. Initial margin increased compared to prior year driven by higher market volatility.

Market Risk

Market risk is the risk to earnings from adverse changes in market factors such as interest rates, equity prices, commodity prices, foreign exchange rates, credit spreads and their implied volatilities.

CGML faces market risk across both its trading and non-trading positions. Under the Citi Mark-to-Market Policy, each business is required to establish a market risk limit framework for identified risk factors, with approval from the Market Risk Management function. This framework must clearly define approved risk profiles, include Permitted Product Lists ("PPLs"), follow the NPAC approval process for complex products and remain within the parameters of Citi's overall risk appetite, with the established limits monitored by Market Risk Management.

Market risk is managed through limits and principles laid out in CGML's Risk Capacity and Appetite Framework, governed by the CGML Risk Committee and CGML Board of Directors.

Price risks are measured in accordance with established standards to ensure consistency across businesses and the ability to aggregate risk. Citi's market risk limit framework consists of Tier 0/1 limits, Tier 2 limits and Tier 3 limits and management triggers. Tier 0/1 limits are generally the most significant limits for Citi overall and include limits on trading exposures in certain larger countries. Tier 2 limits are generally set at a product group level or in some cases at a desk, regional or legal entity level (as is the case for CGML). Tier 3 limits and management triggers are desk-level limits or triggers on non-material risk factors. For CGML, Tier 3 management triggers are set at the business level.

Responsibility for hedging or otherwise mitigating market risk lies in the first instance with the business originating the risk and the management of this process begins with the employees who work most closely with CGML'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. Risks taken must be commensurate with the risk appetite of the firm as set by senior management.

Approach to calculate capital requirements

CGML uses a combination of standardised approach and Internal Model Approach ("IMA") to capitalise for Market Risk. Under IMA, CGML uses a Value at Risk ("VaR") model to calculate market risk capital requirements in line with the IMA permission granted by the PRA. The permission covers general market risk and issuer specific risk for a number of Fixed Income, Equities and Commodities businesses. In addition to VaR based capital requirements, CGML is further capitalises in respect of Stressed VaR ("SVaR") and the Incremental Risk Charge ("IRC").

Non-proprietary details of the scope of CGML's IMA permission are available in the Financial Services Register on the FCA website.

Table 37: Market Risk under Standardised Approach (MR1)

		31 December 2021		31 December 2020	
		RWAs	**Capital requirements**	RWAs	Capital requirements
		$ million	**$ million**	$ million	$ million
	Outright products				
1	Interest rate risk (general and specific)	**14,319**	**1,146**	10,415	833
2	Equity risk (general and specific)	**8,915**	**713**	5,548	444
3	Foreign exchange risk	**3,721**	**298**	2,906	232
4	Commodity risk	**473**	**38**	471	38
	Options				
5	Simplified approach	**-**	**-**	-	-
6	Delta-plus method	**-**	**-**	-	-
7	Scenario approach	**3,517**	**281**	4,819	386
8	Securitisation (specific risk)	**587**	**47**	655	52
9	**Total**	**31,532**	**2,523**	24,814	1,985

Market risk RWAs under standardised approach increased by $6.7 billion, with the primary drivers being a $3.9 billion increase in interest rate risk and a $3.3 billion increase in equity risk. These increases were partially offset by a decrease in option exposures.

Table 38: Market Risk under IMA (MR2-A)

		As at 31 December 2021		As at 31 December 2020	
		RWAs	**Capital requirements**	RWAs	Capital requirements
		$ million	**$ million**	$ million	$ million
1	**VaR (higher of values a and b)**	**6,904**	**552**	6,177	494
(a)	Previous day's VaR (Article 365(1) of the CRR (VaRt-1))		**164**		149
(b)	Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 of the CRR		**552**		494
2	**SVaR (higher of values a and b)**	**15,011**	**1,201**	13,034	1,043
(a)	Latest SVaR (Article 365(2) of the CRR (SVaRt-1))		**359**		342
(b)	Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x multiplication factor (ms) (Article 366 of the CRR)		**1,201**		1,043
3	**IRC (higher of values a and b)**	**4,234**	**339**	6,046	484
(a)	Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR)		**251**		471
(b)	Average of the IRC number over the preceding 12 weeks		**339**		484
5	**Other**	**-**	**-**	-	-
6	**Total**	**26,149**	**2,092**	25,257	2,021

Market Risk's RWA's calculated under IMA increased by $0.9 billion primarily driven by increase in both VaR and SVaR due to market volatility and increased overall exposures, offset by a decrease in IRC.

Market Risk Measurement

The independent market risk management function monitors CGML's market risk daily through a comprehensive system of limits and triggers, with monitoring reported to monthly and quarterly to senior management and the CGML Board of Directors respectively.

For traded product price risk, all traded risk exposures are aggregated daily. Price risk in Citi's trading portfolios is monitored using a series of measures and covers, but not limited to, the below market factors.

Market Factor	Description
Interest rate risk (general and specific)	Risk arising from fluctuations in the level of interest rates due to monetary policies and impacts prices of interest rate sensitivities assets
Equity risk (general and specific)	Risk arising from fluctuations in equity prices, volatilities and dividend yields
Foreign exchange risk	Risk arising from fluctuations in foreign exchange rates and impacts transactions denominated in a currency other than the domestic currency of CGML
Commodity risk	Risk arising from fluctuations in the prices of commodities
Credit spread risk	Risk arising from fluctuations between yields of various debt instruments

Risk factor sensitivities

CGML has factor sensitivity limits in place for a number of market risk factors 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 ensure that factor sensitivities are calculated and reported for all relevant risks taken within a trading portfolio.

Value at Risk

The VaR model is designed to capture potential market losses at a 99% confidence level over a one day holding period. The capital requirement is based on the VaR measure over a ten day holding period. CGML uses a one day VaR for internal management reporting purposes. For one day VaR both volatility and correlation parameters are estimated from one day returns history and for ten day VaR volatility is scaled up of one day VaR but correlation are still from one day returns history.

The key components of the VaR model are the variance/covariance matrix of market variables and the sensitivity of Citi's trading portfolio to those variables. The variance/covariance matrix is calibrated using three years of market data, with some volatilities adjusted up to capture fat tail effects at a 99% confidence level over a one day period, and others adjusted up to capture short-term spikes in volatility. Market variations simulated from the matrix by a Monte Carlo methodology are applied to the set of factor sensitivities to generate a forecast distribution of one day profit and loss, from which the VaR can be computed. The factor sensitivities are designed to capture all material market risks on each trading asset, both linear and non-linear in nature. Risk exposure feeds, comprising factor sensitivities, are fed from each trading unit at the end of the day and stored in internal systems.

The risk factor covariance matrix used in the VaR calculation is updated on a monthly basis. Additionally, to reflect current market conditions, volatility of major market factors is updated on an intra-month basis through scaling factors. The covariance matrix for SVaR is reviewed on a quarterly basis to ascertain whether the underlying stress period requires updating.

Revaluation grids are used for nonlinear positions. Ten day VaR/SVaR numbers are calculated directly from ten day volatility estimates. Production and reporting take place on a daily basis and for any requested sub-portfolio or market factor.

The covariance matrix used for the VaR calculation is calibrated using risk factor time series data from three years of recent history, except for commodities, where 18 months of historical data is used. A mixed approach (of relative or absolute returns, depending on the risk factor) is used in the VaR and SVaR models when simulating movements in risk factors. The volatility model is a Hybrid Exponentially Weighted Moving Average ("H-EWMA") approach using the maximum of the three year Fat Tail Scaled ("FTS") volatility and the Exponentially Weighted Moving Average ("EWMA") volatility estimation over an effective window of one month. In this way, both long and short (recent) historical windows are considered in this combined approach in order to achieve a prudent volatility estimation.

Exposure that exceeds limit or trigger levels is escalated within Market Risk Management and to CGML's Market Risk Manager and the UK CRO, with necessary actions taken.

In relation to Equities, an ex-ante stress loss-based escalation framework is in place to cover all block trades, accelerated equity offerings, equity underwritings, rights offerings and special situation (event-driven) transactions. Transactions with estimated stress losses above certain levels require escalation to the UK CRO, the CGML Chief Executive Officer and the CGML Board.

Stressed VaR

SVaR estimates the potential decline in the value of a position or a portfolio under stressed market conditions. CGML's SVaR methodology incorporates the factor sensitivities of the trading portfolio with the volatilities and correlations of those factors under stressed conditions and is expressed as the risk to the firm over a one-day holding period, at a 99% confidence level.

Citi's Monte Carlo VaR/SVaR model incorporates a full covariance matrix. The volatilities and correlations are built from thousands of market factors with actual time series from the last three years for VaR and a one-year stress period for SVaR. Proxy rules exist for market factors that do not have a sufficiently long time series or where the relevant data are inappropriate for matrix construction (e.g. due to gaps, unreliable sources, or too short a history). Aggregation of VaR/SVaR components by market factors or portfolios is fully integrated into the model.

CGML bases the stress period selection on a broad set of market factors that represent all assets held by CGML. The market factor selection is based on the materiality of risk. A common stress period is selected as the covariance matrix calibrated from this period maximises VaR for CGML's portfolio, in accordance with PRA Supervisory Statement SS13/13.

The stressed period selection is reviewed by Market Risk Management, Market Risk Analytics and the IMA Control Committee at least on a quarterly basis and is reported to the PRA quarterly.

Incremental Risk Charge

IRC is a measure of potential losses due to default and credit migration risk over a one-year time horizon at a one-tailed, 99.9% confidence level under the assumption of constant positions.

A Monte Carlo in-house 6-factor copula model is used for the correlations between issuers. The correlation depends mainly on the risk rating, region and industry sector of the issuer, and thus provides a richer correlation structure than what has been observed with 1-factor copula models.

The model is calibrated annually to the public data of over 20,000 companies maintained within Citi's databases and has been the subject to ongoing independent model validation. The migration and default of each issuer are modelled consistently by a single normal random variable which is mapped to the inverse normal cumulative distribution of the transition matrix to determine whether a migration or a default happens. The transition matrix is based on publicly available data from rating agencies. The scope of the issuers that is used for the calibration of the model encompasses the full spectrum of relevant trading products. The model accepts as inputs the jump-to-default amounts and the spread sensitivities from every debt issuer with interest rate exposure in Citi's systems. Recovery rates are also simulated with their parameters properly calibrated to market data.

A fixed one-year liquidity horizon is used consistently across all positions. The approach also includes positions that have maturities of less than one year, and for such positions the time of default is determined and the P&L effect is estimated accordingly.

The IRC model, which is used to calculate the incremental risk capital over a one-year time horizon at a one–tailed 99.9% confidence level, is consistent with regulatory requirements and meets the required soundness standard. A model validation and internal governance framework is in place to monitor the model's performance on an on-going basis to ensure that it continues to meet the required soundness standard.

The IRC model has been validated to provide an independent assessment of technical and functional soundness. The validation includes testing performed on the underlying data and the mathematical framework by the model developer as well as additional independent testing designed by the model validator. The model parameters are calibrated on the long-term averages of through-the-cycle data, taking into account periods of significant market stress.

Back-testing is not feasible as the IRC model captures default losses at a very high confidence level (99.9%), which is in line with regulatory standards. However, the accuracy and internal consistency of data and parameters used for the IRC model and modelling processes have been independently validated to ensure the technical and functional soundness of the model.

Risks Not in VaR ("RNIVs")

To the extent that a material risk is not adequately captured in the VaR model, CGML derives and documents RNIVs as Pillar 1 add-ons to appropriately buffer the risks.

RNIV capital add-ons are calculated as follows:

- VaR type RNIVs – For each relevant risk factor, the VaR based add-on is calculated as the standalone VaR equivalent, scaled to a ten day holding period. A stressed VaR based add-on is also calculated with the stressed period identified corresponding to the one used for Stressed VaR;
- Stressed RNIVs – For some risk factors, RNIVs are based on stress tests (Stressed RNIVs), for such cases, CGML calibrates shocks to at least the same confidence level as would be the case were the risk to be included in the VaR framework.

RNIVs and Stressed RNIVs are calculated by market risk managers and the identification, quantification and reporting of existing RNIVs, as well as potentially new risks, is monitored by Market Risk Analytics on a monthly basis.

Table 39: IMA Values for Trading Portfolios (MR3)

This table displays the values (maximum, minimum, average and end of the reporting period) resulting from the different elements of the regulatory capital charge.

	CGML Solo		CGME Solo	
	31 December 2021	31 December 2020	**31 December 2021**	31 December 2020
	$ million	$ million	**$ million**	$ million
VaR (10 day 99%)				
Maximum value	**139**	127	**30**	33
Average value	**98**	69	**20**	16
Minimum value	**67**	42	**11**	8
Period end	**91**	60	**18**	9
SVaR (10 day 99%)				
Maximum value	**393**	260	**104**	83
Average value	**238**	150	**55**	49
Minimum value	**139**	61	**21**	25
Period end	**237**	182	**55**	44
IRC (99.9%)				
Maximum value	**497**	567	**0**	2
Average value	**336**	454	**0**	0
Minimum value	**202**	329	**0**	0
Period end	**237**	471	**0**	0

Back-testing

The accuracy of the VaR model is assessed through daily back-testing performed by VaR Operations with oversight from Market Risk Management. The back-testing results for CGML's in-scope businesses, both in aggregate and at individual business level, are reported quarterly to the PRA.

Back-testing is the comparison of VaR to profit and loss results and is conducted on a daily basis, at both legal entity and business levels. In line with regulatory requirements, Citi performs back-testing against both actual profit or loss and hypothetical profit or loss (the daily profit or loss that would arise from a constant trading portfolio) at both levels in order to ensure that the firm's VaR model meets supervisory standards for the measurement of regulatory capital. Under normal and stable market conditions, Citi would expect the number of days where trading losses exceed its VaR to be no more than two or three occasions per year. Periods of unstable market conditions could increase the number of these exceptions. Please refer to Table 40 below.

Stress Testing

Citi performs stress testing on a regular basis to estimate the impact of extreme market movements. It is performed on individual positions and trading portfolios, as well as in aggregate and inclusive of multiple trading portfolios. Market Risk Management after consultations with the businesses, develops both systemic and specific stress scenarios, reviews the output of periodic stress testing exercises, and uses the information to assess the ongoing appropriateness of exposure levels and limits.

Citi uses two complementary approaches to market risk stress testing across all major risk factors (i.e. equity, foreign exchange, commodity, interest rate and credit spreads).

These are applied to valuation models to analyse the impact on the valuation of portfolios under stress:

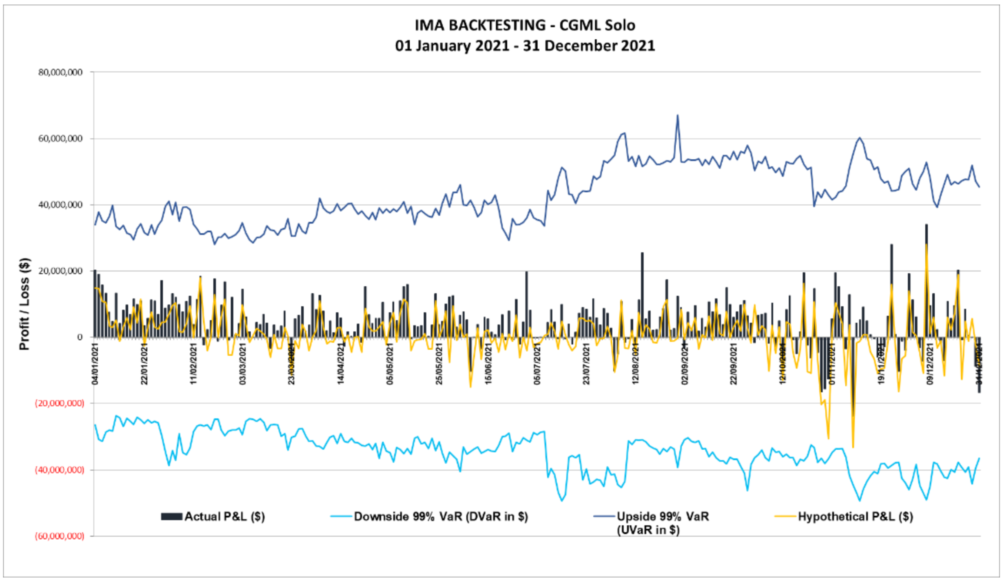
- Global Systemic Stress Testing ("GSST") – top-down systemic stresses; and,
- Business Specific Stress Testing ("BSST") for the ICG – bottom-up business specific stresses.

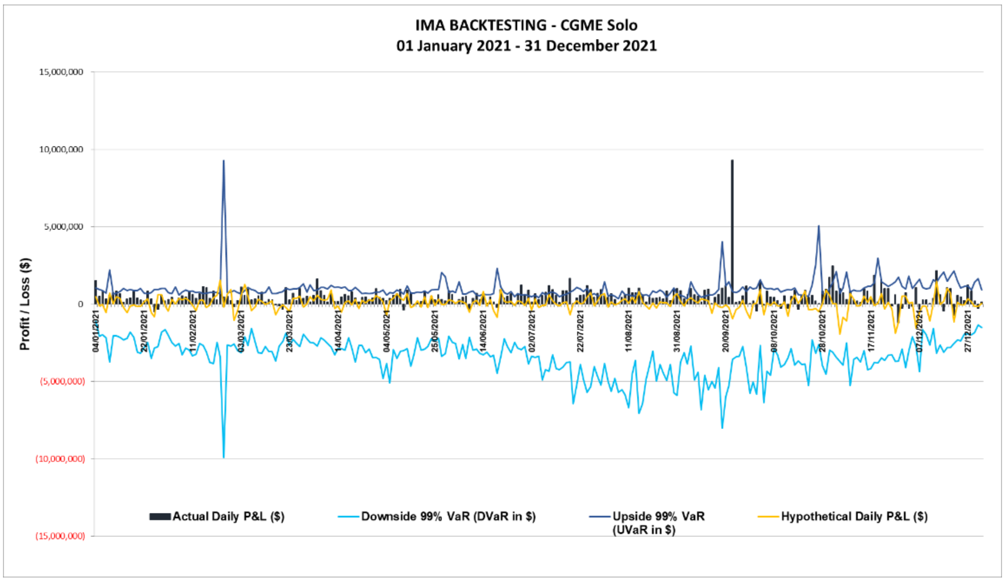
Global systemic stress tests are designed to quantify the potential impact of extreme market movements on a firm-wide basis and are constructed using both historical periods of market stress and projections of adverse economic scenarios. Business specific stress tests are designed to probe the risks of particular portfolios and market segments, especially those risks that are not fully captured in VaR and systemic stresses.

Both categories of stress testing can be based upon either a range of historical periods of market stress or purely hypothetical future market events. Ad hoc stress scenarios may be developed by Independent Market Risk Management in conjunction with the business to help manage the entity with respect to upcoming events.

Table 40: Comparison of VaR Estimates with Gains/Losses (MR4)

The following charts present a comparison of the results of the approved regulatory VaR model with both hypothetical and actual trading outcomes, in order to highlight the frequency and the extent of the back-testing exceptions and to give an analysis of the main outliers in back-tested results. The chart includes the back-testing results of the businesses that fall within the scope of CGML's IMA model permission. There was no hypothetical or Actual P&L exception for CGML or CGME during the year.





Note that the downside VaR in the figures is taken as the 100th worst loss out of 10,000 simulated daily P&Ls (1st percentile) from Citi's Monte Carlo VaR model. The upside VaR is taken to be the 100th best profit out of the 10,000 simulations (99th percentile). Hypothetical P&L is the P&L resulting from market moves on the opening portfolio, excluding all trading P&L, fees, commissions, financing and accruals.

CGML maintains the necessary systems, controls and documentation to demonstrate appropriate standards in respect of valuation, reporting and valuation adjustments

Total revenues of the trading business consist of:

- Customer revenue, which includes spreads from customer flow activity and gains on positions; and
- Net interest income.

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Valuation Methodology

Valuation methodologies used in CGML for trading book positions are documented and in line with the regulatory requirements set out in article 105 of the CRR. Fair valued positions in CGML are revalued daily using the evidence of the market whenever possible. If a market-based valuation is not possible, then positions are marked to model using input parameters sourced from the market wherever possible or sourced using appropriately prudent assumptions where not possible.

Market prices and model inputs used in the valuation process for securities and derivatives required to be measured at Fair Value are reviewed by an independent function and where required, adjustments are made to the valuations in the books and records.

Valuation adjustments ("VA's") are taken to ensure that positions represent Fair Value. These include Bid-Offer, Liquidity and Model Valuation adjustments.

It is recognised that there are a range of plausible alternative valuations that can be used for CGML's fair value inventory. Prudent Valuation additional valuation adjustments ("AVAs") are required to achieve a 90% confidence that the portfolio can be exited at that valuation or better. These include, where relevant, market price uncertainty, close out cost, model risk, unearned credit spreads, investing and funding costs, concentration, future administrative costs, early termination, and operational risk AVAs.

The largest AVAs in CGML relate to equity derivatives, followed by rates derivatives, credit derivatives, commodity derivatives and fixed income securities. CGML calculates AVAs and deducts them from CET1 Capital in line with the requirements of Article 105(14) of the CRR.

Table 41: Prudent Valuation Adjustments (PV1)

The following table provides a comprehensive view of Prudent Valuation Adjustments with a breakdown between risk categories.

		Risk category					Category level AVA - Valuation uncertainty				
	Category level Additional Valuation Adjustments AVA	**Equity**	**Interest Rates**	**Foreign exchange**	**Credit**	**Commod -ities**	**Unearned credit spreads AVA**	**Investment and funding costs AVA**	**Total category level post-diversificat -ion[1]**	**Of which: Total core approach in the trading book**	**Of which: Total core approach in the banking book**
1	Market price uncertainty	**300**	**107**	**5**	**86**	**73**	**37**	**4**	**306**	**306**	**-**
3	Close-out cost	**212**	**28**	**3**	**52**	**26**	**-**	**-**	**161**	**161**	**-**
4	Concentrated positions	**-**	**-**	**-**	**-**	**14**	**-**	**-**	**14**	**14**	**-**
5	Early termination	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
6	Model risk	**104**	**-**	**-**	**-**	**1**	**3**	**-**	**54**	**54**	**-**
7	Operational risk	**26**	**8**	**-**	**7**	**5**	**-**	**-**	**47**	**47**	**-**
10	Future administrative costs	**34**	**25**	**2**	**19**	**9**	**-**	**-**	**88**	**88**	**-**
12	**Total adjustments as at 31 December 2021**	**675**	**168**	**11**	**164**	**128**	**40**	**4**	**669**	**669**	**-**
1	Market price uncertainty	270	96	4	142	36	55	5	207	207	-
3	Close-out cost	225	47	2	69	18	-	-	123	123	-
4	Concentrated positions	-	-	-	-	5	-	-	5	5	-
5	Early termination	-	-	-	-	-	-	-	-	-	-
6	Model risk	84	-	-	-	-	-	-	84	84	-
7	Operational risk	17	6	-	8	2	-	-	33	33	-
10	Future administrative costs	37	-	-	37	-	-	-	75	75	-
12	Total adjustments as at 31 December 2020	633	150	7	256	61	55	5	526	526	-

[1] For "Market price uncertainty", "Close-out cost" and "Model risk" a diversification benefit of 50% is applied as permitted by CRR.

Total AVA increased by $0.1 billion driven by a general increase in exposures, offset by the reduction in aggregation factor applied, from 66% to 50%, following the ending of the EBA "CRR Quick Fixes" on 1 January 2021.

Interest Rate Risk in the Banking Book

Interest Rate Risk in the Banking Book ("IRRBB") is risk that arise because interest rates in the banking book can vary significantly over time, and adversely affecting the capital and income capacity of CGML.

One of Citi's primary business functions is providing financial products that meet the needs of its customers. Banking book products such as available for sale securities, held to maturity portfolios and on and off-balance sheet commitments subject to accrual accounting are tailored to the customer's requirements with regard to tenor, index and rate type. Net Interest Revenue ("NIR") is the difference between the yield earned on the Non-Trading Book portfolio assets (including customer loans) and the rate paid on the liabilities (including customer deposits or borrowings). The NIR is affected by changes in the level of interest rates.

The risks in Citi's non-traded portfolios are estimated using a common set of standards that define, measure, limit and report the market risk. Each business is required to establish, with approval from independent Market Risk Management, a market risk limit framework that clearly defines approved risk profiles and is within the parameters of Citi's overall risk appetite. In all cases, the businesses are ultimately responsible for the market risks they take and for remaining within their defined limits. These limits are monitored by independent Market Risk Management and country and business ALCOs. Historically, CGML's business has almost entirely been trading book in nature with limited accrual interest rate risk.

Non-trading Book Risk Management

Citi's risk management framework establishes standards for measuring, managing, monitoring, and controlling market risk.

The risks arising through CGML's non-traded portfolios are estimated using a common set of standards that define, measure, limit and report interest rate risk.

Citi measures and monitors interest rate risk using both income and valuation metrics at least monthly. These metrics provide complementary views of the impact of interest rate risk on the balance sheet over varying time horizons. These are frequently updated for changing assumptions and differing outlooks based on economic trends, market conditions and business strategies. Thus, CGML's balance sheet position is continually monitored in order to maintain an acceptable level of exposure to interest rate changes in banking book. Interest rate sensitivity on CGML's banking book Balance Sheet is driven by SFT, namely repo, reverse repo, stock loans / borrow, and margin loans and hybrid debt.

Interest Rate Exposure ("IRE") is an income metric which measures the potential pre-tax impact on NIR for banking book positions due to defined shifts in interest rates over a specified reporting period. NIR is the difference between the accrued interest income earned on assets and the interest expense paid on liabilities. Factors such as changes in volumes, margins and the impact of prior-period pricing decisions are not captured by this measure and it assumes that businesses make no additional changes in pricing or balances in response to unanticipated rate changes.

IRE metric assumes an instantaneous parallel change to forward interest rate curves. The model applies floors to shocked market rates. The main model assumptions are: (i) 12 month and 24 month ahead time horizon; and (ii) Various balance sheet simulation used such as Spot static, Plan static and Dynamic.

The following are valuation metrics that measure the impact of interest rate changes on the firm's capital:

- Economic Value of Equity ("EVE"): The net of the economic value of all relevant on- and off- balance sheet assets, less the economic value of all relevant on- and off-balance sheet liabilities, using present value calculations that discount cash flows derived from the current positions; and,
- Economic Value Sensitivity ("EVS"): EVS is defined as the sensitivity of current EVE to fluctuations in interest rates. EVS is computed as the difference in EVE between a shocked rate scenario and a base case rate scenario. The base case scenario reflects prevailing market conditions such as current yield curves.

EVS metric assumes an instantaneous parallel change to forward interest rate curves. The model applies floors to shocked market rates. The main model assumptions are: (i) Spot balance sheet used for lifetime run-off with no new business; (ii) balances are adjusted for assumed behavioural profiles (i.e. non-defined maturity products).

The following table shows the IRE and EVS measures as of 31 December 2021 assuming a 100bp up/down parallel shift in the yield curve. A positive IRE/EVS indicates a potential increase in earnings/economic value while a negative IRE/EVS indicates a potential decline in earnings/economic value. IRE and EVS are calculated on a monthly basis.

Table 42: Sensitivity of Economic Value and Net Interest Revenue

$ million	Interest rate exposure		Economic Value Sensitivity	
Currency	**+100bps**	**-100bps**	**+100bps**	**-100bps**
USD	-176	102	299	-289
EUR	328	-3	42	0
Other	289	-196	2	-9
Total as at 31 December 2021	441	-97	343	-298

Securitisation

CGML's securitisation activities fall within the ICG business segment. Within ICG, securitisation activity is conducted within Global Cross Asset Financing and Securitisation ("Global Structured Finance") and Global Spread Products. CGML only has exposures as an investor at 31 December 2021. There are no re-securitisation exposures and no assets awaiting securitisation. To calculate RWA for securitisation positions, CGML uses ratings assigned by Standard and Poor's, Moody's and Fitch Ratings, as detailed in Table 28.

Global Structured Finance

The Global Structured Finance ("GSF") group underwrites securitisations of financial assets primarily for financial institutions across EMEA. GSF business is focused on securitising consumer assets, auto loans, trade receivables and SME/middle market loans. The desk originates and distributes (via bank loan syndication and capital markets) secured risk based mainly on tranching and rating of that risk. GSF carries out asset-backed lending into bankruptcy-remote Special Purpose Vehicle ("SPV") borrowers, with security provided over ring-fenced assets sold into the SPV. The loan financing itself takes place on Citi's bank chain vehicles.

GSF's client base is very targeted in terms of industry, size, and geography. Clients include:

- Banks and captive auto finance lenders: typically for funding diversification. Citi would either provide its own balance sheet (private warehouse) or place bonds with investors (public securitisations). The underlying assets securing the facility are typically unsecured consumer loans, credit card receivables, SME loans, auto loans and equipment leases, cessione del quinto dello stipendio in Italy;
- Corporates: Underlying assets include accounts receivables, shipping loans; and,
- Specialist finance companies and asset managers: these Clients are non-banks and are typically backed by private equity clients of Citi.

Global Spread Products

The EMEA Global Spread Products' ("GSP-Markets") business model is primarily comprised of two types of activity, market making in asset backed securities ("ABS") and non-recourse financing of assets including consumer debt, auto loans, real estate and mortgage loan portfolios, with a consequent exit through a loan sale or securitisation. GSP-Markets' ABS trading desk uses CGML to book market risk.

The Financing and Securitisation desks have no exposure on CGML although CGML will act as an underwriter and arranger of consumer asset, commercial real estate and residential real estate securities issuances.

The ABS desk actively trades new issuances, existing ABS, Commercial Mortgage-Backed Securities ("CMBS") and Residential Mortgage-Backed Securities ("RMBS") securities. Trading activities on ABS, CMBS and RMBS are carried out on CGML.

The Commercial Real Estate ("CRE") team within the GSP Financing and Securitisation team is focused on financing of commercial real estate backed projects, non-performing loan portfolio financing, acquisition of performing/re-performing commercial real estate portfolios. One of the exit strategies includes the issuance of commercial mortgage-backed securities ("CMBS") which can be arranged and distributed through CGML. The loan financing itself only takes place on Citi's bank chain vehicles.

The ABS and Residential Real Estate team within GSP Financing and Securitisation primarily finances acquisitions of performing and re-performing residential mortgage and ABS portfolios, as well as financing of warehouse loans for originators. The primary exit strategy includes issuance of RMBS / ABS which can be arranged and distributed through CGML. The loan financing itself only takes place on Citi's bank chain vehicles. The team originates, structures and distributes RMBS and ABS from CGML.

Accounting Policies for Securitisation Activity

CGML holds securitisation positions including trading of existing assets backed securities, commercial or residential mortgage-backed securities. Under IFRS, these positions including synthetic and traditional securitisation are held for trading purposes and will be classified as "Financial assets at fair value through profit or loss".

Trading assets 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.

Risk Management

Citi has a well-established risk management framework for securitisations.

Credit Risk Managers are responsible for:

- Determining the ICG's risk appetite for securitisation transactions;
- Approving extensions of credit and ensuring data capture associated with those extensions of credit is accurate;
- Monitoring and managing credit extensions to be within Citi's risk appetite and limits; and,
- Working with the respective businesses in the allocation of credit to optimise returns.

Market Risk Managers are responsible for:

- Ensuring that securitisation transactions, booked in the trading book, are consistent with the businesses' mandate and represent an adequate risk/reward balance;
- Approving securitisation transactions that are booked in the trading book and ensuring data capture associated with those securitisation transactions is accurate; and,
- Ongoing monitoring of market risk associated with securitisation transactions that are booked in the trading book.

The business operates under an approved permitted products list which applies at the desk level. All major generic sources of risk and stress losses are covered by the desk's limit structures, with granularity within these limit structures further enhanced through product-types, country risk and ratings requirements. Concentration limits may also exist by obligor name, depending on the business.

Stress testing

Stress testing is completed in various formats, including weekly stress tests via Citi's GSST 'top-down' systemic stresses, monthly risk reports and annual exercises. In addition, Risk Management performs ad hoc stress tests when considered necessary.

For those risks not fully captured in VaR or the linear stresses, a BSST is developed and produced in conjunction with the linear stresses. The BSSTs are reviewed at least quarterly to ensure relevance and completeness.

Table 43: Securitisation Exposures in the Trading Book (SEC2)

The following tables set out the aggregate amount of securitisation positions held in the trading book by CGML as at 31 December 2021.

		31 December 2021			31 December 2020		
		Institution acts as investor			Institution acts as investor		
		Traditional Non-STS	**Synthetic**	**Sub-total**	Traditional Non-STS	Synthetic	Sub-total
		$ million	**$ million**	**$ million**	$ million	$ million	$ million
1	**Retail (total)**	**223**	**1**	**224**	308	1	309
2	residential mortgage	**183**	**1**	**184**	292	1	293
3	credit card	**4**	**-**	**4**	11	-	11
4	other retail exposures	**37**	**-**	**37**	5	-	5
5	re-securitisation	**-**	**-**	**-**	-	-	-
6	**Wholesale (total)**	**34**	**0**	**34**	30	-	30
7	loans to corporates	**-**	**-**	**0**	1	-	1
8	commercial mortgage	**34**	**-**	**34**	27	-	27
9	lease and receivables	**-**	**-**	**-**	-	-	-
10	other wholesale	**-**	**-**	**0**	2	-	2
11	re-securitisation	**-**	**-**	**-**	-	-	-
12	**Other[1]**	**54**	**-**	**-**	-	-	-
13	**Total**	**311**	**1**	**312**	338	1	339

[1] Other category includes positions held in liquidity and money market funds.

Table 44: Securitisation Exposures in the Trading Book – bank acting as investor (SEC4)

		Exposure values (by risk weight bands)					**Exposure values (by regulatory approach)**			
		≤20% RW	**>20% to <50% RW**	**>50% to <100% RW**	**>100% to <1250% RW**	**1250% RW**	**SEC-IRBA**	**SEC-ERBA**	**SEC-SA**	**1250%**
		$ million	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**
2	**Traditional securitisation**	**108**	**10**	**16**	**122**	**0**	**-**	**205**	**52**	**0**
3	Of which securitisation	**108**	**10**	**16**	**122**	**0**	**-**	**205**	**52**	**0**
4	Of which retail underlying	**102**	**9**	**16**	**96**	**0**	**-**	**177**	**46**	**0**
6	Of which wholesale	**7**	**1**	**0**	**26**	**-**	**-**	**27**	**6**	**-**
8	Of which re-securitisation	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
14	**Other[2]**	**28**	**-**	**-**	**-**	**25**	**-**	**28**	**-**	**25**
9	**Synthetic securitisation**	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**-**	**-**
10	Of which securitisation	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**-**	**-**
11	Of which retail underlying	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**-**	**-**
1	**Total as at 31 December 2021**	**137**	**11**	**16**	**122**	**25**	**-**	**234**	**52**	**25**
2	Traditional securitisation	101	57	61	117	1	-	283	54	1
3	Of which securitisation	101	57	61	117	1	-	283	54	1
4	Of which retail underlying	82	57	60	108	0	-	273	35	0
6	Of which wholesale	19	0	1	9	1	-	10	19	1
8	Of which re-securitisation	-	-	-	-	-	-	-	-	-
14	Other[2]	-	-	-	-	-	-	-	-	-
9	Synthetic securitisation	-	1	-	-	-	-	1	-	-
10	Of which securitisation	-	1	-	-	-	-	1	-	-
11	Of which retail underlying	-	1	-	-	-	-	1	-	-
1	Total as at 31 December 2020	101	58	61	117	1	-	284	54	1

		RWA				**Capital charge after cap**			
		SEC-IRBA	**SEC-ERBA and SEC-IAA**	**SEC-SA**	**1250%[1]**	**SEC-IRBA**	**SEC-ERBA and SEC-IAA**	**SEC-SA**	**1250%[1]**
		$ million	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**	**$ million**
2	Traditional securitisation	**-**	**574**	**8**	**-**	**-**	**46**	**1**	**-**
3	Of which securitisation	**-**	**574**	**8**	**-**	**-**	**46**	**1**	**-**
4	Of which retail underlying	**-**	**454**	**7**	**-**	**-**	**36**	**1**	**-**
6	Of which wholesale	**-**	**120**	**1**	**-**	**-**	**10**	**0**	**-**
8	Of which re-securitisation	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
14	Other[2]	**-**	**4**	**-**	**-**	**-**	**0**		**-**
9	Synthetic securitisation	**-**	**0**	**-**	**-**	**-**	**0**		**-**
10	Of which securitisation	**-**	**0**	**-**	**-**	**-**	**0**		**-**
11	Of which retail underlying	**-**	**0**	**-**	**-**	**-**	**0**		**-**
1	**Total as at 31 December 2021**	**-**	**578**	**8**	**-**	**-**	**46**	**1**	**-**
2	Traditional securitisation	-	642	12	-	-	51	1	-
3	Of which securitisation	-	642	12	-	-	51	1	-
4	Of which retail underlying	-	612	9	-	-	49	1	-
6	Of which wholesale	-	31	3	-	-	2	0	-
8	Of which re-securitisation	-	-	-	-	-	-	-	-
14	Other[2]	-	0	0	-	-	-	-	-
9	Synthetic securitisation	-	0	0	-	-	0	-	-
10	Of which securitisation	-	0	0	-	-	0	-	-
11	Of which retail underlying	-	0	0	-	-	0	-	-
1	Total as at 31 December 2020	-	643	12	-	-	51	1	-

[1] Securitisation exposures with 1250% risk weight are deducted from own funds, therefore no RWA or Capital charge applies for these positions.
[2] Other category includes positions held in liquidity and money market funds.

Table 45: Securitisation Exposures in the Non-Trading Book (SEC1)

The following tables set out the aggregate amount of securitisation positions held in the banking book by CGML as at 31 December 2021.

		31 December 2021			31 December 2020		
		Institution acts as investor			Institution acts as investor		
		Traditional Non-STS	Synthetic	Sub-total	Traditional Non-STS	Synthetic	Sub-total
		$ million	$ million	$ million	$ million	$ million	$ million
1	**Retail (total), of which:**	1	-	1	10	-	10
2	Residential mortgage	1	-	1	10	-	10
3	Credit card	-	-	-	-	-	0
4	Other retail exposures	-	-	-	-	-	0
5	Re-securitisation	-	-	-	-	-	0
6	**Wholesale (total), of which:**	1	-	1	5	-	5
7	Loans to corporates	-	-	-	-	-	0
8	Commercial mortgage	1	-	1	5	-	5
9	Lease and receivables	-	-	-	-	-	0
10	Other wholesale	-	-	-	-	-	0
11	Re-securitisation	-	-	-	-	-	0
12	**Total**	1	-	1	15	-	15

Table 46: Securitisation Exposures in the Non-Trading Book – bank acting as investor (SEC4)

		Exposure values (by risk weight bands)					Exposure values (by regulatory approach)			
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	SEC-IRBA	SEC-ERBA	SEC-SA	1250%
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
2	**Traditional securitisation**	-	-	-	1	1	-	1	0	-
3	Of which securitisation	-	-	-	1	1	-	1	0	-
4	Of which retail underlying	-	-	-	1	-	-	1	-	-
6	Of which wholesale	-	-	-	-	1	-	0	0	-
8	Of which re-securitisation	-	-	-	-	-	-	-	-	-
9	**Synthetic securitisation**	-	-	-	-	-	-	-	-	-
1	**Total as at 31 December 2021**	-	-	-	1	1	-	1	0	-
2	Traditional securitisation	-	1	-	11	2	-	13	-	2
3	Of which securitisation	-	1	-	11	2	-	13	-	2
4	Of which retail underlying	-	1	-	7	1	-	9	-	1
6	Of which wholesale	-	-	-	4	1	-	4	-	1
8	Of which re-securitisation	-	-	-	-	-	-	-	-	-
9	Synthetic securitisation	-	-	-	-	-	-	-	-	-
1	Total as at 31 December 2020	-	1	-	11	2	-	13	-	2

		RWA				Capital charge after cap			
		SEC-IRBA	SEC-ERBA and SEC-IAA	SEC-SA	1250%[1]	SEC-IRBA	SEC-ERBA and SEC-IAA	SEC-SA	1250%[1]
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
2	Traditional securitisation	-	2	-	-	-	0	-	-
3	Of which securitisation	-	2	-	-	-	0	-	-
4	Of which retail underlying	-	2	-	-	-	0	-	-
6	Of which wholesale	-	-	-	-	-	-	-	-
8	Of which re-securitisation	-	-	-	-	-	-	-	-
9	Synthetic securitisation	-	-	-	-	-	-	-	-
1	**Total as at 31 December 2021**	-	2	-	-	-	0	-	-
2	Traditional securitisation	-	78	-	-	-	6	-	-
3	Of which securitisation	-	78	-	-	-	6	-	-
4	Of which retail underlying	-	57	-	-	-	5	-	-
6	Of which wholesale	-	21	-	-	-	2	-	-
8	Of which re-securitisation	-	-	-	-	-	-	-	-
9	Synthetic securitisation	-	-	-	-	-	-	-	-
1	Total as at 31 December 2020	-	78	-	-	-	6	-	-

[1] Securitisation exposures with 1250% risk weight are deducted from own funds, therefore no RWA or Capital charge applies for these positions.

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. It includes legal risk, which is the risk of loss (including litigation costs, settlements and regulatory fines) resulting from the failure of the firm to comply with laws, regulations, prudent ethical standards and contractual obligations in any aspect of the firm's business but excludes strategic and reputation risks. Citi also recognises the impact of operational risk on reputation risk associated with Citi's business activities.

Operational Risk Management proactively assists the Businesses, Operations, Technology and other independent control groups through enhancing the effectiveness of controls and managing operational risks across products, business lines and regions. Furthermore, operational risks are considered as new products and business activities are developed, and processes are designed, modified or sourced through alternative means.

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

Operational Risk Framework

Citi's Operational Risk Management ("ORM") Policy establishes a consistent Operational Risk Management Framework designed to balance strong corporate oversight with well-defined independent Risk Management, for assessing and communicating operational risk and the overall effectiveness of the internal control environment across the organisation. This framework is applied at the CGML level, together with Key Operational Risks ("KORs") that have been identified as being specifically relevant for the entity and are a component of the CGML Risk Management Framework. This framework is consistent with Citi's Three Lines of Defence approach to risk management.

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. As part of this framework, Citi has established a 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 the effective anticipation and mitigation of operational risks, and improved operational risk loss experience which includes the following steps:

- Identify and assess KORs;
- Design controls to mitigate identified risks;
- Establish Key Indicators ("KIs");
- 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, with their associated processes are redeveloped and designed, modified or sourced risk types along with increases in the level of operational risk and its effect on the Risk Appetite is considered.

Measurement of Operational Risk

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 for CGML. The PRA has approved this model, including the associated capital allocation, for use as an Advanced Measurement Approach ("AMA"). 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 as well as scenario analysis estimates.

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. Scenario results are used to create a management overlay to CGML's operational risk capital model estimates. An AMA model change request is currently pending with the PRA, if approved this will allow scenario analysis impact to be included in the capital model outputs removing the overlay mentioned above.

In addition, there are various governance forums for escalation and reporting of internal control, compliance, regulatory and risk issues, including operational risk loss events.

Table 47: Operational Risk RWA

	31 December 2021		31 December 2020	
	RWA	Capital requir-ement	RWA	Capital require-ement
	$ million	$ million	$ million	$ million
Standardised approach	**566**	**45**	577	46
Advanced measurement approach	**19,313**	**1,545**	21,225	1,698
Total	**19,879**	**1,590**	21,802	1,744

Key Operational Risks

KORs are derived from an evaluation of operational risk exposure on a residual risk basis considering CGML's current business strategy, substantial emerging risks and other relevant factors including the assessment of: internal losses, external losses, scenario analysis, output from Internal Audit assessments and MCA results. The identified KORs for CGML include those set out below. These Risks are aligned to the updated Citi-wide global risk taxonomy that has been developed for operational and compliance risks.

ORM liaises with Subject Matter Experts ("SMEs") aligned to each KOR in order to define CGML's risk and to identify appropriate metrics i.e. KIs to monitor the profile of each KOR. Given that CGML's business is almost entirely wholesale in nature (falling within the ICG), segment metrics are leveraged as far as possible.

CGML KORs as at 31 December 2021:

- Money Laundering ("AML") and Sanctions Risk;
- Conduct Risk (covered by Market Practices and Customer/Client Protection Risk);
- Cyber Risk (including Information Security);
- Geopolitical Risk;
- Fraud & Theft (excluding Technology);
- ETrading Risk Management (covered by Conduct, Processing and Technology Risk);
- Reporting Risk (Financial Statement Reporting Risk / Regulatory and Management Reporting Risk);
- Data Management Risk;
- Third-Party Risk & Vendor Management including Affiliates;
- Model Risk; and,
- Processing Risk.

Stress Testing

CGML's operational risk scenario analysis programme is planned and executed in accordance with the global ORM Scenario Analysis Standards, an appendix to the ORM policy.

Scenario analysis provides a forward-looking view of operational risk that complements historical internal and external data. It is a systematic process to derive assessments for the potential loss impact of plausible, high severity and low frequency operational risk losses, i.e. 'fat-tailed' hypothetical events.

CGML scenarios are ratified by the CGML CEO through specific ratification sessions with onward notification to the UK Business Risk and Control Committee ("BRCC"). Scenario results are used to create a management overlay to CGML's operational risk capital model estimates, under governance provided by the CGML ALCO.

Scenario analysis is also used as a tool to strengthen Risk Management controls and to stimulate dialogue and gain greater insights into emerging and existing key risk

Liquidity

Liquidity risk is the risk that CGML will not be able to efficiently meet both expected and unexpected current and future cash flow and collateral needs without adversely affecting either daily operations or its financial condition.

CGML's liquidity risk appetite is set by CGML's Liquidity Risk Management Framework. The Framework adopts and adheres to Citigroup's Global Liquidity Risk Management Policy ("GLRM Policy"). Under the Policy, CGML is defined as an operating Material Legal Entity ("MLE"). As an MLE, CGML is required to maintain sufficient liquidity to meet all maturing obligations within 12 months under the Term Liquidity Stress Test ("TLST"). It must also meet the Resolution Liquidity Adequacy & Positioning ("RLAP") ratio stress metric used to measure the short-term (30 days) survival horizon under a severe market disruption stress scenario.

In addition, CGML is also required to comply with all the rules and regulations contained in relevant parts of the PRA Rulebook. Under these rules, CGML is required to maintain both Liquidity Coverage Ratio and the Net Stable Funding Ratio (effective from 1 January 2022) above 100% on a consolidated all-currency basis.

CGML's overall liquidity adequacy is determined based on both its adherence to the internal liquidity risk appetite as well as conformance with the regulatory PRA liquidity regime. As at 31 December 2021, this buffer, as per LCR eligibility criteria, equated to $35.3 billion.

As a result of the analysis conducted during the Internal Liquidity Adequacy Assessment Process ("ILAAP") the risks identified and assessed, and through the application of tools, limits and policies and liquidity stress tests, the management body concludes that CGML's liquidity risk management framework is appropriate for ensuring sufficient liquidity resources are in place on a forward-looking basis. This conclusion is based on a quantitative assessment of CGML's liquidity through examination of internal stress testing results and regulatory metrics and is further supported by CGML's overall liquidity risk management framework and governance structure. In addition, the management body considers the liquidity risk management infrastructure to be adequate to capture and measure the risks taken as a result of the entity's business profile and strategy.

Liquidity Risk Management Structure and Organisation

Citigroup operates a centralised treasury model, whereby the overall balance sheet is managed by Corporate Treasury. The EMEA Regional Treasurer is supported by the UK Treasurer who is responsible for the UK legal vehicles balance sheets and liquidity profile as well as those of CGML's subsidiaries. The UK Treasurer heads the UK Legal Entity Treasury group, which is responsible for managing CGML's liquidity on a day-to-day basis.

The Legal Entity Treasury team is specifically responsible for CGML's daily funding, liquidity risk management including intraday liquidity, liquidity stress testing, and for providing oversight to the Fixed Income and Equity Finance desks including setting and monitoring limits. The team is also responsible for managing the relationship with internal and external stakeholders. Internal stakeholders consist of Citi senior management and governance committees, the Finance desks and New York Corporate Treasury. External stakeholders comprise auditors, credit rating agencies and regulatory authorities. This team also provides oversight and governance for the team in Budapest, to ensure adherence to the overall liquidity risk management framework.

The Business Treasury team in London is responsible for managing the relationship with the businesses, enhancing balance sheet management and coordination, focusing on the intersection of interest rate risk, transfer pricing, Return on Assets ("RoA") / Return on Tangible Common Equity ("RoTCE"), liquidity, capital allocation, and balance sheet costing.

The Budapest team is an extension of the London Treasury teams reporting to both the EMEA ICG Business Treasurer and the UK Treasurer. Among the other EMEA-wide Corporate Treasury responsibilities, this team is involved in review and attestation of CGML's PRA liquidity reporting & internal liquidity reporting, monitoring & reviewing CGML's PRA reporting including the LCR, PRA110 Cash Flow Mismatch, NSFR, Asset Encumbrance and Additional Liquidity Monitoring Metrics ("ALMM").

The Regulatory Liquidity Reporting team in Budapest is part of the MLE Prudential Reporting team within Budapest Local Regulatory Reporting team and produces regulatory liquidity returns of CGML, such as PRA reporting of LCR, NSFR, Asset Encumbrance and ALMM and PRA 110 Cash Flow Mismatch.

In order to perform a risk-based review of rules and calculation logic, and support assessment of the quality of the completeness and accuracy of the regulatory returns, a new independent Quality Assurance Team has been set-up in Budapest CSC. This team has skilled individuals who will undertake regular post submission testing in line with an approved plan to determine the accuracy of reporting and compliance with the regulatory requirements.

EMEA Treasury follows Citigroup's site strategy in employing a central liquidity reporting and production team in Mumbai. The Mumbai EMEA Treasury Finance & Risk Shared Services ("FRSS") team is organised into three teams to cover: EU Bank Reporting, Broker Dealer Capital Markets Reporting and CEEMEA Reporting. CGML's internal liquidity reporting is produced by the Broker Dealer Capital Markets Reporting team

Strategies and Processes for Monitoring

CGML adopts the Citigroup GLRM policy which establishes the standards for defining, measuring, limiting and reporting liquidity risk. CGML's Liquidity Risk Management Framework sets CGML's liquidity risk appetite. The Framework adopts and adheres to the Policy. Under the Policy, CGML is defined as an operating MLE.

According to the Policy, CGML is required to prepare a detailed plan of its liquidity position which also considers a 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. The FLP is divided into the following component parts: Contingency Funding Plan ("CFP"), intra-day Liquidity Risk Management Plan and the Balance Sheet Funding and Liquidity Plan.

A combination of metric monitoring, triggers, limits and stress testing are utilised to identify and measure liquidity risk arising from various sources. Limits and triggers are used to control risks, whilst stress assumptions are used to calibrate the level of liquidity buffer required for CGML to maintain adequate liquidity under different stress scenarios. To provide for resilience under stress, CGML holds a buffer of liquid assets, which is comprised predominantly of US, EU and UK government bonds.

The liquidity position of CGML is calculated in Citi's strategic liquidity risk systems and reported to senior management daily and reviewed by the UK ALCO and CGML Board through the CGML Risk Committee. CGML's Risk Committee reviews the Liquidity Risk Management Policy and the ILAAP document and recommends it to CGML Board for final approval. CGML Board also approves the Liquidity Risk Management Framework, the Funding and Liquidity Plan, the Contingency Funding Plan and any relevant CGML-specific liquidity policies.

CGML has maintained adequate liquidity resources throughout the year to meet the minimum requirements set in both internal and external (regulatory) metrics.

Stress Testing

Stress testing is intended to quantify the likely impact of an event on the balance sheet and liquidity position and to identify viable contingent actions that can be utilised in a liquidity event. The internal stress testing scenarios are developed in accordance with the Citi's Liquidity Risk Management Policy. The Citigroup Liquidity Book of Assumptions provides the comprehensive set of assumptions used for the broker dealer vehicles, including CGML.

CGML uses stress testing and scenario analysis to quantify the likely impact to the 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 use of funding and political and economic conditions, including standard and stressed market conditions as well as firm-specific events

Due to the nature of the broker dealer business model and funding profile, this set of assumptions focuses on secured financing and maintaining CGML's core business franchise throughout the period of stress. The assumptions are considered appropriate for CGML given its business activities, scale, complexity and position within the wider group. The stress scenarios include realistic deterioration in secured funding sources and an inability to roll unsecured funding (sourced via its affiliate relationships). The scenarios also include a deterioration in CGML's credit ratings.

Stress testing assumptions developed are product specific and include consideration for expected behaviour of customers and the firm during stress. Funding and liquidity risks arise from multiple factors, such as the following:

- restriction of wholesale secured and unsecured funding through widening of haircuts, reluctance of counterparties to roll maturing transactions or lack of availability for financing for certain asset classes;
- intraday liquidity risk where correspondent banks and securities settlement agents or depositories withdraw or restrict secured or unsecured intraday credit facilities upon which the Company relies to make payments and settle its transactions;
- cross currency liquidity shortfalls arising from cash flow mismatches within a particular currency;
- potential outflows from off-balance sheet activities such as security versus security transactions, letters of credit or committed facilities;
- loss of liquidity from derivatives transactions due to asymmetric margining terms, legally agreed conditions such as rating downgrade triggers, margin calls due to large market revaluations or clearing house/exchange action, novation of liquidity accretive contracts away from the Company or increased operational diligence of certain counterparties;
- recognition that the Company may continue to provide funding to certain customers to preserve its franchise despite there being no legal obligation to do so; and
- incremental funding requirements of the Company's Prime Brokerage and Delta One businesses from loss of internal coverage and cross funding, inability to roll repo or increased repo haircuts.

CGML Liquidity Stress call, comprising Legal Entity Treasury, Independent Risk, Global Liquidity Management and Finance desks is established to review stress test results on a monthly basis which are also shared with the UK ALCO.

Concentration of Funding and Liquidity Sources

CGML's funding strategy is centred on maintaining a funding profile that is diversified by structure, tenor and currency. CGML closely monitors and manages the tenor of funding sources to ensure it can meet liquidity needs under different stress scenarios and different time horizons. CGML's primary funding sources include (i) repurchase agreements (ii) Structured Notes (iii) other short and long-term debt (including senior and subordinated debt) mainly issued by the parent, and (iv) stockholders' equity.

CGML is required to calculate the concentration exposures at a minimum on a monthly basis. Triggers must be established and approved by the Independent Risk Committee, UK ALCO, and Citi Global Liquidity Management for each of the concentration exposures. The UK ALCO must review the concentration triggers and any breaches to the triggers. Interim and permanent changes in concentration triggers for the CGML must be approved by the UK ALCO, the UK Treasurer or equivalent, Independent Risk Manager or equivalent, and Global Liquidity Management.

Derivative Exposures and Potential Collateral Calls

In the ordinary course of business, CGML enters into various types of derivative transactions, including bilateral transactions that are OTC and transactions settled via exchanges with central counterparties. CGML enters into derivatives contracts covering interest rate, foreign currency, commodity, equity and other market/credit risks for the purpose of trading and acting as a market maker or to hedge CGML's own risk profile. Derivative contracts are highly leveraged financial products and therefore may require additional liquidity support in a stressed environment. Such requirements are typically in the form of additional margin/collateral requirements that counterparties may ask CGML to post as per the terms of the contract. The nature of additional margin/collateral requirements depend upon the nature of stress (i.e. idiosyncratic vs. market-wide). During the life span of a derivatives transaction, Citi may be required to post initial margin or variation margin. The requirement to post margin can negatively impact Citi's funding and liquidity. In addition, ratings downgrades by the Rating Agencies may also have a negative impact on CGML's funding and liquidity due to reduced funding capacity and/or the need to post additional cash or securities collateral to counterparties.

CGML maintains liquidity reserves to counter potential liquidity outflows from derivatives activities under various stress scenarios.

Credit Rating Downgrade

Adequate liquidity and sources of funding are essential to Citi's businesses. Funding and liquidity risks arise from multiple factors, including a loss of liquidity from derivative transactions due to legally agreed conditions such as rating downgrade triggers.

Downgrade triggers can create a requirement for CGML to reserve additional liquidity in the event of rating agencies' downgrades of CGML. This can be present in both unsecured and secured derivative agreements. A typical downgrade trigger in unsecured agreements would require CGML to post variation margin on outstanding contract payable amounts, or in secured agreements, downgrade triggers may require CGML to post additional initial margin or segregate margin received.

CGML includes the potential impact of a credit rating downgrade in its stress testing and scenario models to quantify the effect on its liquidity position.

CGML carries out two internal liquidity stress tests daily.

- RLAP ratio: The RLAP scenario assumes a three-notch downgrade of long-term ratings and a one-notch downgrade of short-term ratings of CGML; and
- TLST – Long-term (one-year scenario): In TLST scenario CGML is assumes CGML's long and short-term ratings are downgraded by two and one notch, respectively from current levels.

In addition to the stress test scenarios, CGML has a robust monitoring and reporting framework to capture the potential liquidity impact of derivative downgrade triggers.

As at 31 December 2021, the potential value of the additional collateral pertaining to downgrade thresholds that CGML would need to post with counterparties in the event of a one-notch downgrade of its rating was $0.2 billion and a three-notch downgrade (on a cumulative basis) was $0.7 billion.

The Degree of Centralisation of Liquidity Management and Interaction between the Group's Units

CGML is part of a multi-entity and branch organisation that operates in multiple jurisdictions. Intragroup liquidity risk arises when there are significant exposures (from lending/borrowing or similar activities) to or from group companies and one or both sides fail to meet their obligations in a stressed environment. CGML's exposure to intercompany borrowing and lending activity is controlled via internal liquidity metrics and regulatory limits. Day-to-day funding fluctuations are managed through USD unsecured intercompany loans, typically in the overnight tenor from Citicorp LLC. To the extent that CGML utilises daily resources from other Citigroup affiliates, it is assumed for stress testing purposes that these funds will not be available during a stress. As such, liquidity reserves are held against daily funding dependencies.

The UK Treasurer, reports into EMEA regional Treasurer, and is responsible for the UK legal vehicles balance sheets and liquidity profile as well as those of CGML's subsidiaries.

Liquidity Coverage Ratio

The LCR metric aims to ensure that a firm has sufficient high quality liquid assets ("HQLA") held unencumbered to cover its liquidity needs in a 30-calendar day liquidity stress scenario. CGML complies with the Liquidity chapter of the PRA Rulebook for the calculation of LCR.

Total HQLA represents unencumbered, high-quality liquid assets held by a firm. The liquidity standards define HQLA in three asset categories: Level 1, Level 2A and Level 2B, and applies haircuts and limits to certain asset categories. As of 31 December 2021, CGML's HQLA substantially consist of Level 1 eligible securities and is diversified across our major operating currencies. A portion of Level 1 assets include withdrawable central bank reserves with the Bank of England in pound sterling.

CGML's main drivers of the LCR from the 12-month average values are addressed in the below sections. The most significant drivers of cash outflow amounts were secured wholesale funding, outflows related to derivative exposures and other contractual funding obligations. These outflows constituted majority of the LCR cash outflow amount. Secured wholesale funding transactions primarily include repurchase transactions and collateral swaps. Net derivative cash outflows are calculated with 30 calendar days scope for contractual payments and collateral that the entity will deliver to a counterparty as per the regulations.

Cash inflows are mainly driven by secured lending cash inflows. Secured lending transactions include reverse repurchase transactions and securities borrowed transactions. These inflows are subject to the 75% inflow cap.

In addition, the PRA may require a firm to hold additional HQLA for risks not covered in the Pillar 1 LCR, referred to as Pillar 2. These are identified by CGML and documented in the ILAAP that is then reviewed and assessed by the PRA as part of the Liquidity Supervisory Review Process ("L-SREP"). The total of HQLA reported in Table 48 includes HQLA held to cover both Pillar 1 and Pillar 2.

Currency Mismatch in the LCR

Cross-currency liquidity risk arises when there is a mismatch between the currency of assets and the currency of liabilities (e.g. local currency assets are funded by foreign currency liabilities). FX markets may be constrained in a crisis meaning that conversion from one currency to another cannot be guaranteed. This risk is common for international banks due to their cross-border operations and multi-currency approach to business. CGML manages its cross-currency risk through short and long-term strategies using FX swaps, multi-currency long-term funding and adjustment of the currency asset/liability mix. Material currencies are monitored through the establishment of FX capacity limits as well as material currency stress testing.

The LCR is calculated pursuant to the Delegated Act and reported on a consolidated basis and in significant currencies, EUR, GBP and USD. The majority of CGML's liquidity is held in USD, which can be readily converted to other currencies in the event of stress. To minimize liquidity mismatches, including currency mismatches in the LCR Delegated Act, CGML seeks to fund assets in the same currency and, at the same time, monitors the potential risk from foreign currency mismatches. To the extent mismatches arise, CGML employs currency limits framework to assess foreign currency capacity to meet funding needs and the ability to convert currencies to provide liquidity buffer under stress conditions. The framework incorporates currency matching of projected cash flows through applying discounts and size and tenor restrictions to determine the foreign currency capacity required to cover USD shortfalls as well as shortfalls in significant currencies under various volatility and stress scenarios. If the offset capacity is not sufficient to cover currency shortfalls, appropriate actions are taken to reduce the mismatch. The capacity and assumptions are determined by Citi's Independent Risk function.

Table 48: Liquidity Coverage Ratio Disclosure (LIQ1)

		Total unweighted value				Total weighted value			
		31 Dec 2021	30 Sept 2021	30 Jun 2021	31 Mar 2021	31 Dec 2021	30 Sept 2021	30 Jun 2021	31 Mar 2021
Number of data points used in the calculation of averages		12	12	12	12	12	12	12	12
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
HIGH-QUALITY LIQUID ASSETS									
1	Total high-quality liquid assets (HQLA)					35,295	34,893	33,263	31,369
CASH-OUTFLOWS									
2	Retail deposits and deposits from small business customers, of which	-	-	-	-	-	-	-	-
3	*Stable deposits*	-	-	-	-	-	-	-	-
4	*Less stable deposits*	-	-	-	-	-	-	-	-
5	Unsecured wholesale funding, of which	3,959	3,652	3,476	3,353	3,959	3,652	3,476	3,353
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	-	-	-	-	-	-	-	-
7	*Non-operational deposits (all counterparties)*	2,560	2,349	2,521	2,686	2,560	2,349	2,521	2,686
8	*Unsecured debt*	1,399	1,304	955	667	1,399	1,304	955	667
9	Secured wholesale funding	-	-	-	-	30,792	30,167	29,593	28,724
10	Additional requirements	8,978	8,284	8,221	8,312	8,232	7,736	7,654	7,576
11	*Outflows related to derivative exposures and other collateral requirements*	8,937	8,244	8,158	8,240	8,191	7,696	7,613	7,525
12	*Outflows related to loss of funding on debt products*	-	-	-	-	-	-	-	-
13	*Credit and liquidity facilities*	41	40	62	72	41	40	41	51
14	Other contractual funding obligations	39,369	37,616	35,378	32,667	6,656	6,152	5,521	5,213
15	Other contingent funding obligations	1,545	1,579	1,648	1,608	772	790	824	804
16	**TOTAL CASH OUTFLOWS**					50,411	48,497	47,069	45,670
CASH-INFLOWS									
17	Secured lending (e.g. reverse repos)	221,749	216,858	211,778	204,087	27,712	26,684	25,979	24,791
18	Inflows from fully performing exposures	1,777	1,844	1,936	1,625	1,777	1,844	1,936	1,625
19	Other cash inflows	9,139	8,757	8,104	7,649	9,139	8,757	8,104	7,649
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)	-	-	-	-	-	-	-	-
EU-19b	(Excess inflows from a related specialised credit institution)	-	-	-	-	-	-	-	-
20	**TOTAL CASH INFLOWS**	232,665	227,460	221,819	213,360	38,628	37,285	36,019	34,065
EU20a	***Fully exempt inflows***	-	-	-	-	-	-	-	-
EU20b	***Inflows Subject to 90% Cap***	-	-	-	-	-	-	-	-
EU20c	***Inflows Subject to 75% Cap***	167,085	162,967	158,277	151,718	38,628	37,285	36,019	34,065

		Total Adjusted Value			
21	**LIQUIDITY BUFFER**	35,295	34,893	33,263	31,369
22	**TOTAL NET CASH OUTFLOWS**	13,234	12,631	12,439	12,126
23	**LIQUIDITY COVERAGE RATIO (%)**[1]	268%	277%	268%	260%

[1] Pillar 1 LCR only

Asset Encumbrance

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

CGML's asset encumbrance disclosure provides supervisory authorities and investors with the necessary information on the level of asset encumbrance of the firm enabling to compare the reliance on secured funding and the degree of structural subordination of unsecured creditors and depositors across institutions. In addition, it allows regulators and investors to assess the firm's ability to handle liquidity stressed scenarios (when switching to secured sources of funding would be required). Asset encumbrance reporting is based on the UK GAAP balance sheet as at 31 December 2021. CGML discloses asset encumbrance on a consolidated entity level.

CGML does not issue covered bonds or asset back securities and therefore there is no incidence of over-collateralisation on the levels of encumbrance.

Table 49: Encumbered and Unencumbered Assets

		Carrying amount of encumbered assets		Fair value of encumbered assets[1]		Carrying amount of unencumbered assets		Fair value of unencumbered assets[1]	
		Total	of which notionally eligible EHQLA & HQLA	Total	of which notionally eligible EHQLA & HQLA	Total	of which EHQLA & HQLA	Total	of which EHQLA & HQLA
As at 31 December 2021		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
010	**Assets of the reporting institution**	**96,575**	**44,804**	**-**	**-**	**417,924**	**300**	**-**	**-**
030	Equity instruments	22,853	6,624	-	-	2,547	-	-	-
040	Debt securities	54,505	38,181	54,505	38,181	2,548	300	2,548	300
050	of which: covered bonds	2,030	-	2,030	-	248	-	248	-
060	of which: asset-backed securities	212	-	212	-	38	-	38	-
070	of which: issued by general governments	41,282	38,181	41,282	38,181	419	300	419	300
080	of which: issued by financial corporations	6,682	-	6,682	-	1,095	-	1,095	-
090	of which: issued by non- financial corporations	4,298	-	4,298	-	749	-	749	-
120	Other assets [2, 4]	19,216	-	-	-	412,829	-	-	-

[1] Fair value is the same as carrying value for Equity Instruments and Debt Securities

[2] The majority of unencumbered Other Assets relate to derivative instruments and cash loaned on reverse repo, while encumbered Other Assets represent cash margin posted.

[3] The median exposure values have been derived by interpolating months between the quarters.

[4] Other assets include assets that are not deemed available for encumbrance in the normal course of business (e.g. derivative assets, brokerage receivables payables etc.)

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

Table 50: Collateral Received

		Fair value of encumbered collateral received or own debt securities issued		Unencumbered: Fair value of collateral received or own debt securities issued available for encumbrance	
31 December 2021		Total	of which notionally eligible EHQLA and HQLA	Total	of which EHQLA and HQLA
		$ million	$ million	$ million	$ million
130	**Collateral received by the reporting institution**	283,904	208,246	55,343	36,072
140	Loans on demand	-	-	-	-
150	Equity instruments	55,545	11,033	3,783	577
160	Debt securities	228,360	197,213	36,693	35,496
170	of which: covered bonds	1,154	-	132	-
180	of which: asset-backed securities	2,467	-	100	-
190	of which: issued by general governments	204,354	197,213	35,635	35,496
200	of which: issued by financial corporations	11,779	-	371	-
210	of which: issued by non-financial corporations	9,504	-	446	-
220	Loans and advances other than loans on demand	-	-	14,867	-
230	Other collateral received	-	-	-	-
240	**Own debt securities issued other than own covered bonds or asset-backed securities**	-	-	-	-
241	**Own covered bonds and asset-backed securities issued and not yet pledged**	-	-	-	-
250	**Total assets, collateral received and own debt securities issued**	380,479	253,050	-	-

Table 51: Sources of Encumbrance

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
31 December 2021		$ million	$ million
010	Carrying amount of selected financial liabilities	340,377	135,292

Other Risks

Financial Risk

Non-trading Book Equity Exposures

CGML has a small number of equity investments which are held outside the trading book. This category includes investments in clearing houses, exchanges and other strategic investments which are required to be held for membership, access or relationship purposes, and which are otherwise not traded. They are carried on the balance sheet at fair value under the requirements of IFRS 9. The market price is deemed to be the fair value for exchange traded equities.

Table 52: Non-trading Book Equity Exposures

	31 December 2021	31 December 2020
	$ million	$ million
Investments Held at Fair Value	108	101
Investments Held at Cost	-	-
Total	**108**	101

Non-financial Risk

Enterprise Resilience

Citi's Continuity of Business ("CoB") Policy and Standards require all Citi businesses, including those businesses under CGML, to implement a CoB Programme that includes Assessment processes, Business Recovery Planning, Crisis Management Planning, Testing, Maintenance, Quality Review, Training, Monitoring and Reporting. All businesses under CGML are regularly monitored and reported to ensure successful compliance of all CoB requirements.

On Operational Resilience, Citi has developed and implemented a new, group-wide framework for Operational Resilience in response to regulation globally on this topic. For UK legal entities in scope, both PRA and FCA, require firms to complete framework implementation by 31 March 2022, including obtaining relevant board approval of their Critical Business Services ("CBS"), impact tolerances and self-assessment. CGML's implementation of Citi's Operational Resilience Framework is on track to meet the UK regulatory requirements and deadline.

Reputation Risk

With respect to reputation risk, a Citi-wide (including an EMEA-based) Reputation Risk Committee composed of regional senior management (including the EMEA CRO) reviews practices involving potentially significant reputation or franchise issues. This committee reviews 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, including those noted below, ensure that product risks are identified, evaluated and determined to be appropriate for Citi and its customers, and incorporate the necessary approvals, controls and accountabilities.

Climate Change Risk

Climate change presents short-term and long-term risks to Citi and to its clients and customers, with the risks expected to increase over time. Climate risk refers to the risk of loss arising from climate change and is divided into physical risk and transition risk:

- Physical risk considers how chronic and acute climate change (e.g., increased storms, drought, fires, floods) can directly damage physical assets (e.g., real estate, crops) or otherwise impact their value or productivity;
- Transition risk considers how changes in policy, technology, and market preference to address climate change (e.g., carbon price policies, power generation shifts from fossil fuels to renewable energy) can lead to changes in the value of assets, commodities and companies.

Climate risk is an overarching risk that can act as a driver of other types of risk in the Citi risk taxonomy, such as credit risk from obligors exposed to high climate risk, reputational risk from increased stakeholder concerns about financing high carbon industries, and operational risk from physical climate risks to Citi's facilities.

Citi currently identifies climate risk as an "emerging risk" within its Risk Governance Framework. Emerging risks are risks or thematic issues that are either new to the landscape, or in the case of climate risk, existing risks that are rapidly changing or evolving in an escalating fashion, which are difficult to assess due to limited data or other uncertainties.

With the increased importance and focus on climate risk, Citi has continued to enhance its governance of climate risk and integrate climate considerations into the priorities of Citigroup's and CGML's Board of Directors and senior management.

Citi, and CGML, have invested significantly in climate risk management, including a global/centralised team in Risk Management working exclusively on climate risk.

Citi has established a senior-executive level Climate Risk Steering Group to provide guidance, feedback and support with regards to the integration of climate risk management. This group receives regular updates from the Climate Risk Working Group which includes representation from UK legal entities and comprises of workstreams focused on: Scenario Analysis, Climate Risk Identification and Assessments and Data Strategy.

Citi first established its Environmental and Social Risk Management ("ESRM") Policy in 2003, as part of Citi's broader credit risk management policy, applicable to all Citi entities globally. The ESRM Policy provides the framework for how Citi identifies, mitigates, and manages the potential environmental and social risks (including climate risks) associated with clients' activities that could lead to credit or reputation risks to the firm. It guides how Citi evaluates lending, underwriting and advisory in environmentally sensitive and/or high-carbon sectors, and presents opportunities for Citi to engage clients on solutions to thematic risks.

In March 2021, Citi committed to net zero greenhouse gas emissions by 2050, which includes net zero associated with our financing by 2050 and net zero for its own operations by 2030. As part of this commitment, Citi released our initial plan for how we intend to achieve net zero by 2050, with a focus on the Energy and Power sectors. As a Citi wide commitment, CGML will participate in Citi's Net Zero implementation, and Citi has already taken significant steps to reduce its carbon footprint in the UK, such as installing solar panels on its UK data centre in 2021.

Climate risk is on the regular agenda of the CGML Board and CGML Board Risk Committee. To ensure appropriate governance around financial risks from climate change, the CGML Board continues to have oversight of the integration of climate risk within CGML and receive frequent progress updates from management.

Remuneration Statement

The remuneration section of this disclosure is prepared at the CGML level and covers all jurisdictions in which CGML operates.

The remuneration policy disclosed herein applies to all business lines within all subsidiaries and branches of the Company, including those located in third countries.

Remuneration Governance

CGML Remuneration Committee ("CGML RemCo")

The CGML RemCo and is a standing committee of the CGML Board from which it derives its authority. The CGML RemCo met 9 times in 2021.For the 2021 performance year the CGML RemCo comprised the following members:

Member Name	Role	Additional information
Jonathan Moulds	Chair	Independent Non-Executive Director. Member from 14 June 2021 and appointed Interim Chair effective from 19 November 2021.
William Fall	Member	Independent Non-Executive Director. Appointed as a member 18 May 2021.
Alex Wynaendts	Chair	Independent Non-Executive Director. Member from 24 June 2021. Appointed Chair effective 16 August 2021 and resigned 19 November 2021.
Diana Taylor	Chair	Independent Non-Executive Director. Resigned as Chair 16 August 2021.
Cyrus Ardalan	Member	Independent Non-Executive Director. Resigned as member 4 November 2021.
Richard Goulding	Member	Independent Non-Executive Director. Resigned as member 29 January 2021.

For part of 2021, the CGML RemCo comprised of two members on an interim basis following the resignation of the CGML RemCo Chair and the Regulator was informed accordingly.

The detailed roles and responsibilities of the CGML RemCo are set out in its Charter as delegated and approved by the Board, and which are maintained by the Company Secretary.

The CGML RemCo has responsibility for the oversight of the design and implementation of the Company's Remuneration Policy to ensure that the remuneration practices do not promote excessive risk taking, evaluate compliance with this policy and assess whether these remuneration practices are creating the desired incentives for managing risk, capital and liquidity, and that the remuneration policy is gender neutral.

The CGML RemCo has delegated responsibility from the Board for the review and if authorised, approval of proposed decisions regarding remuneration of employees and in particular MRTs. When reviewing such decisions, the CGML RemCo shall take into account relevant guidance and the long-term interest of shareholders, investors and other stakeholders in the Company and the public interest.

When considering the key principles in the Remuneration Policy, the CGML RemCo shall review compliance by the Company with its regulatory obligations, including those under the Capital Requirements Directive 2013/36/EU ("CRD V"), the EBA Guidelines on Sound Remuneration Policies, national regulations and the Remuneration Part of the PRA Rulebook, the FCA SYSC 19D Remuneration Code.

The Remuneration Policy is subject to review at least annually, as Citi refines its remuneration policies and practices at global, regional and entity levels or as required by law or regulation. In 2021 the Remuneration Policy, remuneration guidelines and associated processes were reviewed and updated in response to CRD V, the revised Regulatory Technical Standards ("RTS") and updated national regulations. In particular, this included revisions to the approach on how to define categories of staff whose professional activities have a material impact on an institution's risk profile and deferral structure for MRTs (including deferral length, malus / clawback periods, retention periods and method for calculating de minimis).

The CGML RemCo operates with on-going support and guidance from multiple stakeholders including Human Resources, Finance, Independent Risk Management, Independent Compliance Risk Management ("ICRM"), Legal and Internal Audit who all perform necessary roles in various aspects of remuneration processes and policy. This includes identifying, collating and measuring conduct and risk information for inclusion in the performance and accountability processes.

The CGML RemCo also includes cross-membership with the Risk Committee and the Audit Committee.

The remuneration policy and practices are subject to annual independent review which focuses on the design and operation of Citi's policies, processes, controls, and compliance with regulatory requirements. The CGML RemCo is empowered to draw upon internal and external expertise and advice as it determines appropriate. It has the ability to review the appointment of external remuneration consultants that the Board and/or the CGML RemCo may decide to engage for advice or support. The CGML RemCo did not engage independent consultants in 2021, but Clifford Chance, Ernst & Young and Willis Towers Watson, have advised on various remuneration matters for 2021, where required.

Global Remuneration Committee

The RemCo acts as the remuneration committee of the Company, whereas the Personnel and Compensation Committee ("P&C Committee") fulfils the same role at the Group level.

The P&C Committee is a duly constituted committee of the Board of Directors of the US parent company, Citigroup Inc. and oversees Citi's global remuneration policies and practices.

Citi's global compensation principles are developed and approved by the P&C Committee in consultation with management, independent consultants and Citi's senior risk officers, HR and the relevant functions. The P&C Committee draws on the considerable experience of the Non-Executive Directors of the Board of Citigroup Inc. and is empowered to draw upon internal and external expertise and advice as it determines appropriate.

It annually reviews the compensation structures for senior executives of Citi and a number of highly compensated and/or regulated individuals, in accordance with guidelines established by the P&C Committee and provides oversight of the design and structure of incentive programs globally in the context of risk management.

The P&C Committee's Terms of Reference ("ToR") are documented in the P&C Committee Charter, which establishes the scope and mandate of the P&C Committee's responsibilities and the general principles governing the remuneration policy of the firm globally.

The latest Charter is available online:
https://www.citigroup.com/citi/investor/data/percompcharter.pdf
In 2021 oversight of the implementation of Citi's accountability, forfeiture and clawback policies have been added to the Charter as an additional P&C Committee responsibility in order to reinforce the relationship between compensation and risk and control.

P&C Committee members are all Independent Non-Executive Directors of Citi who are selected and appointed based on their background in business generally, and in remuneration, corporate governance and/or regulatory matters specifically. They are also chosen for their capability to fulfil their responsibilities as P&C Committee members. The P&C Committee includes cross-membership with the Risk Management Committee, the Ethics, Conduct & Culture Committee and the Audit Committee, as well as the Nomination, Governance & Public Affairs Committee and the Operations & Technology Committee.

EMEA Remuneration Oversight Group

The EMEA Remuneration Oversight Group ("EMEA ROG") is a management group that sits below the CGML RemCo and is designed to provide EMEA-wide remuneration oversight, advice and governance support to the CGML RemCo. The roles and responsibilities of the EMEA ROG are formalised in its ToR and membership is designed to enhance cross-regional insight and consistency.

Material Risk Takers

CGML annually identifies its MRTs and maintains a record of those identified. This process captures the categories of individuals whose professional activities are determined as having a material impact on the Company's risk profile.

CGML identifies MRTs principally using its understanding of the criteria for identification as set out in CRD V, the Commission Delegated Regulation (EU) No 2021/923 and the EBA Regulatory Technical Standards ("RTS") for MRT identification. Appropriate judgement will be exercised when considering who should be captured as an MRT.

Those captured include, but are not limited to:

- Members of the management body ("MB") or senior management;
- Those with managerial responsibility over Control Functions or Material Business Units ("MBU") and certain direct / matrix reports;
- Individuals in receipt of significant remuneration in the preceding financial year; and,
- Staff members or categories of staff having an impact on an institution's risk profile that is comparably as material as that of the staff members referred to above.

When applying quantitative criteria based on staff members' remuneration, the fixed and variable remuneration awarded for the preceding financial year is taken into account.

Citi's Compensation Philosophy

Employee compensation is a critical tool for Citi to attract and retain top talent and successfully execute our corporate goals. Citi's compensation policies and practices are designed to appropriately balance the incentives offered to employees who take risks to achieve financial and competitive performance objectives and the need to prudently manage those risks along with other imperatives.

The Company's Compensation Philosophy is consistent with Citi's Compensation Philosophy which is available online at: https://www.citigroup.com/citi/investor/data/comp_phil_policy.pdf. The Compensation Philosophy describes Citi's approach to balancing six primary objectives that Citi's compensation programs and structures are designed to achieve.

Citi's (and therefore the Company's) Compensation Philosophy is closely linked to the ongoing work on embedding appropriate culture, including through the Citi Mission and Values Proposition and the Citi Leadership Principles. The Compensation Philosophy also sets out Citi's commitment to managing risk through its compensation programs, and management receives clear direction from the P&C Committee to use discretion in awarding incentive compensation consistently with risk mitigation principles. Citi's Compensation Philosophy applies to all of its foreign subsidiaries and branches, save where exceptions are required by local law.

Citi's Compensation Philosophy was updated in 2021 as Citi's principal compensation objectives have been updated to reinforce the relationship between compensation and risk and control. In particular, specific principles have been added to emphasise that incentive compensation should:

a) reinforce a business culture based on accountability, achieving excellence and maintaining the highest ethical and control standards through Citi's Leadership Principles, and
b) encourage prudent individual and group decision-making in regard to risk consistent with applicable regulatory guidance and Citi's Mission and Value Proposition Statement.

Citi's Mission, Values Proposition

Citi's Mission, Values Proposition and Leadership Principles are reflective of Citi's business strategy and objectives, and feed into Citi's reward programs and performance assessment approach.

Citi's Mission and Values Proposition states that Citi serves as a trusted partner to its clients by responsibly providing financial services that enable growth and economic progress, and that everything undertaken by its employees:

- Is in clients' interests;
- Creates economic value; and,
- Is always systemically responsible.

Citi incorporates the reinforcement of positive behaviours in line with the Mission and Values Proposition into Global employee reward programs.

MiFID II

In line with the requirements of MiFID II Delegated Regulation of 25 April 2016 ("MiFID II"), Citi considers and seeks to ensure that its remuneration practices, performance assessment of its staff and resulting remuneration is consistent with its duty to treat clients fairly.

Design and Structure of Remuneration

Citi aims to implement a broadly consistent global philosophy and framework in relation to its remuneration policies and practices. Remuneration Policy is non-discriminatory and gender neutral, and Citi seeks to operate all remuneration policies and practices in a non-discriminatory way.

Fixed Remuneration

Fixed remuneration is set appropriately to attract, retain and motivate employees in line with market practices. Fixed remuneration primarily reflects an employee's professional experience and organisational responsibilities as set out in the employee's job description and terms of employment, and includes the following elements:

- Salary;
- Pension and other non-cash benefits that are offered to employees as part of their overall reward package;
- Role Based Allowances ("RBA") forming part of the package for a limited number of roles.

In line with regulatory requirements, RBAs are granted to a limited number of roles. The rationale for granting an RBA must be clearly articulated by reference to the eligibility criteria, including details on the responsibilities and scope of the role. RBAs and are subject to additional approvals. All of these elements are classified as fixed remuneration on the basis of the EBA Guidelines (including that they do not depend on performance).

Variable Remuneration

Citi operates a fully flexible remuneration policy, including the possibility of not paying variable remuneration. Variable incentive compensation is discretionary and subject to individual, business and firm performance. It is also subject to appropriate performance adjustment mechanisms. Citi's Discretionary Incentive and Retention

Award Plan ("DIRAP") is the scheme under which employees are awarded discretionary variable remuneration and applies globally. It is designed to incentivise, reward and retain employees based on their current and prospective performance and contribution.

All MRTs are eligible to participate in the DIRAP (with the exception of external Independent Non-Executive Directors and Non-Executive Directors who were not employed by Citi in any other capacity).

Deferrals and Retention Periods

Awards made under the DIRAP are typically awarded in cash, deferred cash, Citi equity and/or deferred Citi equity. Variable remuneration is not paid through vehicles or methods that might facilitate non-compliance with CRD V or CRR II.

Awards made under DIRAP are subject to mandatory deferral periods where the individual's total annual variable compensation awarded under DIRAP exceeds globally set thresholds. The Citi standard or 'default' deferral policy period is pro-rated over four years which it considers proportionate to the risks. Typically, at least 50% of deferred awards are made in the form of Citi equity or, in certain circumstances, share-linked instruments and are therefore inherently performance-based.

In 2021 Citi has reviewed the period over which incentives are deferred in line with the updated PRA and FCA Remuneration Codes. In particular, the minimum deferral period for Standard MRTs has been extended from three to four years, deferral periods for non-Higher Paid Risk Manager MRTs and Senior Manager MRTs have been updated, and de minimis criteria have been revised to align with the updated PRA requirements.

For MRTs at least 50% of the upfront and deferred components of variable remuneration are delivered in equity. Citi believes that awarding equity and deferred awards is an effective means of aligning employee interests with those of shareholders and other stakeholders.

MRTs are subject to deferral rates of between 40% and 100% of total variable remuneration, with a minimum 60% deferral being employed when total variable remuneration is a particularly high amount in line with regulatory requirements. Deferred awards to Standard MRTs typically vest over at least four years; deferred awards to Risk Manager MRTs[1] typically vest over five years and deferred awards to Senior Manager MRT vest over seven years.

Deferral periods for non-higher paid Risk Manager MRTs and Senior Manager MRTs are reduced to 4 years and 5 years respectively, provided they are not members of the management body or senior management. Deferred equity awards for MRTs are subject to a further retention period post-vesting:

- For Standard MRTs and MRTs who are members of the management body or a member of senior management those awards are typically subject to a twelve-month retention period; and,
- For Risk Manager MRTs and Senior Manager MRTs, not being members of the management body or a member of senior management, those awards are subject to a six-month retention period;

Starting from 2021, no retention period is applied to deferred cash awards.

Citi does not pay dividends on deferred equity or interest on deferred cash to MRTs. MRTs are eligible to receive a supplemental award delivered in cash, which is based on a pre-determined rate and the period from award to the end of the retention period. Consistent with deferred cash awards, supplemental awards are subject to deferral and retention periods, as well as Performance Based Vesting, malus and clawback conditions.

[1] Risk-Manager MRTs are identified by the PRA by reference to particular qualitative criteria in Commission Delegated Regulation (EU) No 2021/923.

Ratio of Variable to Fixed Remuneration

Citi seeks to balance the components of reward between fixed and variable, and short and long-term components. An annual review of the balance between fixed and variable remuneration takes place and, where required, adjustments are made to the fixed element of pay to ensure that an appropriate balance continues to be maintained on an on-going basis.

Citi has obtained formal shareholder approval for a maximum fixed to variable ratio of 1:2 for MRTs and applies this in the Company and all relevant business areas, where relevant member state regulations allow.

De-minimis

In line with point b of Article 94(3) of CRD V, the Company avails of the opportunity of derogation from the requirements set out in Article 94(1) (l) and (m) and in the second paragraph (o) for MRTs whose annual variable remuneration does not exceed GBP 44,000 and does not represent more than one third of their total annual remuneration.

For 2021 performance year 33 MRTs benefitted from this derogation with their remuneration totalling £9.44 million in fixed and £0.52 million variable.

MRTs who fall within *de-minimis* thresholds, may still be subject to deferrals under other applicable regulations or under Citi's standard mandatory deferral structure.

Performance Adjustment Measures on Remuneration

Performance Based Vesting

Deferred awards subject to MRT deferral schedules have Performance Based Vesting ("PBV") conditions as an additional ex-post adjustment mechanism that may result in the cancellation of all or part of unvested amounts. These conditions ensure an appropriate balance for risk and aligns the actual pay-out to employees with business performance.

The PBV for deferred equity awards is formulaic with the pay-out contingent on future performance. The trigger for application of a pay-out reduction is the emergence of pre-tax losses in the "reference business"[2] for the calendar year ending immediately prior to the vesting date of a given tranche of deferred equity.

Deferred cash and supplemental awards are subject to discretionary PBV, which may result in cancellation of all or part of unvested awards where an employee has significant responsibility for a Material Adverse Outcome ("MAO"), such as events which lead to serious financial or reputational harm to Citi.

Malus and Clawback

All deferred remuneration awarded to MRTs is subject to pre-vesting adjustment ("Malus") provisions.

Citi's award documentation also provides that Citi may at any time during a certain period require repayment or otherwise recover an amount corresponding to some or all of the immediate cash or stock, or deferred cash or stock award made to MRTs ("Clawback"). Clawback of vested portion of cash, stock and supplemental awards, is possible for up to seven years from the date of the award for impacted MRTs, or potentially up to ten years for Senior Manager MRT.

If the Company determines that it is appropriate to recover or require repayment of some or all of the award, then it may offset and/or make deductions from an individual's salary or from any other sums due to them from the Company or any associated company.

Malus and Clawback provisions can apply in circumstances envisaged in regulations such as, there is reasonable evidence that an MRT was responsible for, or participated in, misconduct that

[2] The reference businesses are Global Consumer Banking, Institutional Clients Group or Citigroup (for all other employees outside the other two groups).

resulted in significant losses in connection with their employment, conduct responsible for Citi or their business unit suffering a material failure of risk management, or they failed to meet appropriate standards of fitness and propriety.

Capital and Liquidity Planning

To ensure that awards, pay out and vesting of variable remuneration is not detrimental to maintaining a sound capital base, the financial soundness and liquidity of the Company is considered in advance of the year end remuneration cycle.

Link between Pay and Performance

Remuneration is determined by a combination of factors which include firm, business and individual performance / contribution. Individual performance ratings reflect both 'What' outcomes have been achieved and 'How' they were achieved. Performance ratings then guide bonus decision-making.

Determination of Bonus Pools

Bonus pools are determined at a global level. Provisional bonus pools will be created based on the need for franchise continuity and also economic profit, measured on a risk-adjusted basis (including an explicit capital charge). Senior management of Citi will make discretionary risk adjustments to determine final bonus pools.

Citi uses a number of implicit and explicit risk-adjusted metrics and other measures of risk management to ensure that incentive compensation recommendations are aligned with risk-adjusted performance. This includes the use of capital measures and returns on those capital measures as key metrics, as well as risk appetite ratios and other metrics related to compliance and controls performance. The process for determining incentive compensation pools includes ex-ante adjustment to take into account the level of risks taken to achieve results, thereby limiting incentives for employees to take imprudent risks.

The level of any bonus pool is based on various quantitative and qualitative factors and discretionary considerations, including:

- Year over year business performance;
- Performance compared with plan for the current year;
- Performance against key risks (including conduct risk, operational risk, etc.) and control objectives;
- Compensation pay-out ratios and amounts accrued for incentives;
- Performance relative to peers;
- Market compensation relative to peers;
- Events that occurred during the year; this includes positive and negative events;
- Specific goals or objectives noted in the executive scorecards;
- Stakeholder feedback;
- Socio-political environment.

Individual Performance

Citi's various performance and accountability processes align Citi's remuneration practices with overall strategy, objectives, values and long-term interests. They reinforce achievement of goals and expected behaviour to ensure appropriate accountability, performance and compensation outcomes.

One of Citi's compensation principles is to "compensate employees based on the achievement of goals, embodiment of Citi's Leadership Principles, and risk-adjusted performance demonstrated over time, balanced with appropriate recognition for short-term results and contributions".

The performance assessment of employees is based on individual goals (the 'What') and on how these have been achieved based on an assessment against Citi's Leadership Principles (the 'How'). Employees receive two performance ratings, one for each of the 'What' and the 'How'.

In 2021 Citi launched new Citi Leadership Principles, against which employee performance is assessed. These Citi Leadership Principles represent the qualities, behaviours and expectations that Citi employees must exhibit to deliver on Citi's mission of enabling growth and economic progress, and they will contribute to creating a culture that drives client excellence, controls excellence and operational excellence.

The Leadership Principles for performance year 2021 are outlined below:

Leadership Principles	
We Take Ownership	**We challenge one another to a higher standard in everything we do.** • Greets change with optimism, curiosity and resilience. • Speaks up with candour and welcomes challenge from others. • Learns from experiences, adapts and improves. • Prioritises the greater good when contributing to honouring group decisions.
We Deliver with Pride	**We strive for client excellence, controls excellence and operational excellence.** • Simplifies, standardises and clarifies work. • Holds self and others accountable for managing risk with appropriate controls. • Creates long-term value by fixing root causes. • Takes pride in always doing the right thing.
We Succeed Together	**We value and learn from difference perspectives to surpass stakeholder expectations.** • Breaks down barriers to deliver the best of Citi. • Measures performance through the lens of our stakeholders. • Invests in colleagues from all backgrounds. • Shows empathy for colleagues, clients and communities.

Goal setting is an opportunity to ensure employees understand how their work aligns with the priorities of their team, business or group, and Citi. Goals reflect these priorities as well as the Citi Leadership Principles required to achieve them. As business priorities evolve, goals are reviewed and revised, and Citi asks managers to review goals to ensure they appropriately reflect the individual employee's role and responsibilities and are aligned to the strategic priorities of the team and business as a whole.

Employees and managers are encouraged to solicit feedback from a variety of key stakeholders to inform self and manager assessments. Managers should provide coaching and feedback throughout the year on progress relative to goals and how they are being accomplished as defined by the Leadership Principles.
To ensure goal setting is consistent and goals are properly aligned to the strategy of the organisation, Citi operates a top-down goal setting approach. First the organisational strategic goals are set, followed by the objective of each business, followed by individual teams and finally rolling down to the Individual employee.

The goal setting process is not designed to be a one-time process but rather an ongoing process whereby goals can be adjusted to reflect changing priorities and relies on manager supervision and intervention. Where a manager determines that goals are not aligned to an individual's roles and responsibilities, or to the strategic objectives of the organisation, the goals of the individual can be amended or new/additional goals can be cascaded by the Manager.
Employees are also subject to a range of enhanced performance assessment and accountability processes. Citi's conduct, risk performance and accountability processes and framework continue to be refined, with further enhancements implemented for 2021 which included:

- Launching Leadership Principles contributing to creating a culture that drives controls excellence;
- Cascading of a Risk and Control goal to reinforce a robust risk and control culture;
- Introducing enhanced behavioural assessment for certain MRTs with the Global Risk Control Assessment process;
- Enhancing the Accountability Framework Impact Grid to ensure more consistent impacts for similar discipline or risk and control breaches;
- Enhancing communications to managers and other stakeholders of the Accountability Framework.

Other Key Remuneration Policies

Guarantees

Citi has guidelines in place with respect to guarantees that apply to all employees across the EMEA region, including employees of the Company. These guidelines provide that guaranteed incentive awards for employees can only be made in exceptional circumstances, in the context of recruitment, and with reference to the first year of service and provided the Company has a sound and strong capital base. As part of the governance framework, the award of guarantees requires review and approval by the CGML RemCo.

Buyouts

Depending on the terms of the award(s) at the previous employer, a buyout can be provided where outstanding deferred remuneration is actually reduced or revoked by the previous employer, as a consequence of the individual joining the Company, and where the Company (or if permissible the immediate parent) has a sound and strong capital base. Among other criteria, the value of the buyout must be less than or equal to the variable remuneration which has been forfeited, and any buyout must comply with requirements for variable pay, including for deferral, retention, pay out in instruments and clawback arrangements.

Retention Payments

Retention awards can be made only in exceptional circumstances, for example: during a major restructuring, during a merger process, or where a business is winding down or being sold and particular key staff need to be retained on business grounds. In addition, retention payments can only be made where the employing entity (or if permissible the immediate parent) has a sound and strong capital base. Any retention payments for MRTs are subject to additional review and approval.

Severance

Severance payments are subject to appropriate governance and approvals. Citi's severance payment guidelines are in line with EBA Guidelines and provide that severance:

- Should not provide for a disproportionate reward, but should represent appropriate compensation for early termination of employment;
- Should not reward failure, misconduct or be paid where immediate termination of the employment contract is permitted. ("Failure" is to be assessed on a case-by-case basis);
- Are not paid to employees transferring between Citi legal entities, unless required by law;
- Should only be paid where there is a redundancy situation or in exceptional circumstances where a severance payment may need to be paid, for example in order to mitigate a legal risk or a franchise risk, and subject to pre-approval in accordance with the relevant Guidelines.

Severance pay is based on a number of factors including labour law requirements, statutory rights, and the terms of any collective or workplace agreements which vary country by country.

Remuneration of Control Function Employees

Whilst remuneration levels are influenced by Citi's overall performance, individual compensation for employees in Functions is determined by reference to performance against objectives relevant to their function and assessed within their respective functions.

Citi maintains the independence of the compensation process for key functions (e.g. ICRM and Independent Risk Management) to minimise any scope for potential conflicts of interests and no business has the potential to influence individual awards in the Functions.

Employees engaged in Functions have direct reporting lines that are separate from the business and those reporting lines within the Functions are responsible for the reward of those employees both in terms of year-end compensation, salary increases and promotion. Citi ensures performance management and compensation decisions for independent Function personnel are directed by Function management, and not the business unit.

Functions are allocated a bonus pool separate from the revenue generating businesses, and decisions about allocations of those pools are made within the Functions themselves.

Dual Regulated MRTs

For MRTs who are subject to MRT rules for multiple legal entities in different jurisdictions, the regime regarded as more stringent will generally apply. This includes rules related to deferral length, post vesting retention periods and malus / clawback arrangements. The remuneration policy for the relevant jurisdiction should be referenced for full details on award structures and regulatory requirements.

Stockholding Requirements

Certain senior executives are subject to stock ownership commitments, further aligning the executives' interests with those of shareholders. In addition, vesting of deferred awards does not accelerate upon termination of employment except in the case of death. This ensures executives' interests remain aligned with those of shareholders even after termination of employment.

Personal Hedging

Citi has trading policies that limit hedging strategies that might otherwise undermine the risk alignment effects of their remuneration arrangements. Citi's Code of Conduct applies to all Citi employees and states that, when considering personal investments in Citi securities, an individual must avoid any personal trade or investment in a security, derivative, futures contract, commodity, or other financial instrument if the trade or investment might affect or appear to affect the individual's ability to make unbiased business decisions for Citi.

Employees are prohibited from engaging in personal hedging strategies or taking out remuneration or liability related contracts of insurance that undermine or may undermine any risk alignment effects of their remuneration arrangements.

Citi's Personal Trading & Investment Policy ("PTIP") prohibits "Covered Persons", which include MRTs as defined in the PTIP, and related persons from hedging in any manner (other than currency hedges) unvested restricted stock or deferred stock awarded under Citi's Capital Accumulation Program.

Disclosure Requirements

The remuneration statement and tables have been prepared with due consideration of, but not limited to, the remuneration reporting obligations set out in:

- Article 450, CRR II;
- Article 17, Commission Implementing Regulation (EU) 2021/637;
- CRD V; and,
- EBA implementing technical standards on public disclosures by institutions of the information referred to in titles ii and iii of part eight of regulation (EU) no 575/2013 EBA Guidelines on Sound Remuneration Policies.

Table 53: Remuneration awarded for the financial year (REM1)

		GBP million [1]	MB Supervisory function [2]	MB Management function [3]	Other senior management [4]	Other identified staff [5]
1	Fixed remuneration	**Number of identified staff [6]**	4	5	8.0	561.4
2		**Total fixed remuneration [7]**	0.8	5.9	7.4	271.5
3		Of which: cash-based	0.8	5.7	7.2	255.8
UK-4a		Of which: shares or equivalent ownership interests	-	-	-	-
5		Of which: share-linked instruments or equivalent non-cash instruments	-	-	-	-
UK-5x		Of which: other instruments	-	-	-	-
7		Of which: other forms [8]	-	0.2	0.3	15.7
9	Variable remuneration	**Number of identified staff**	-	5	8	546
10		**Total variable remuneration [9]**	-	4.1	11.1	307.5
11		Of which: cash-based	-	2.0	5.3	146.3
12		*Of which: deferred*	-	1.5	4.3	102.6
UK-13a		Of which: shares or equivalent ownership interests [10]	-	2.1	5.8	160.8
UK-14a		*Of which: deferred*	-	1.7	4.8	119.1
UK-13b		Of which: share-linked instruments or equivalent non-cash instruments	-	-	-	0.4
UK-14b		*Of which: deferred*	-	-	-	0.3
UK-14x		Of which: other instruments	-	-	-	-
UK-14y		*Of which: deferred*	-	-	-	-
15		Of which: other forms	-	-	-	-
16		*Of which: deferred*	-	-	-	-
17	**Total remuneration (2 + 10)**		0.8	10.0	18.5	579.1

Additional Notes

1. All non-GBP awards are converted using the European Commission exchange rates for December 2021.
2. The management body ("MB") in its Supervisory Function, includes external Non-Executive Directors and Independent Non-Executive Directors of the Board as at 31 December 2021, as the management body acting in its role of overseeing and monitoring management decision-making, as defined in point (8) of Article 3(1) CRD.
3. The MB in its Management Function reflects Executive Directors of the Board who are employed by the entity as at 31 December 2021, as members of the MB who are responsible for its management functions.
4. Senior management as defined in point (9) of Article 3(1) CRD, includes formal members of the UK Executive Committee, employed by CGML, its branches and subsidiaries as at 31 December 2021.
5. Other identified staff includes those individuals deemed to be Material Risk Takers (MRTs), whose professional activities have a material impact on the institution`s risk profile in accordance with the criteria set out in the Commission Delegated Regulation on identified staff implementing Article 94(2) CRD and where appropriate in addition based on institutions´ criteria. The population includes any MRTs employed by CGML, its branches and subsidiaries as at 31 December 2021. It excludes those individuals already captured under MB Supervisory function, MB Management function or other senior management.
6. Identified Staff is reported as headcount for the MB, with a full-time equivalent approach applied for Other Senior Management and Other Identified Staff.
7. Fixed remuneration in cash includes salary and role based allowances where applicable.
8. Fixed remuneration in other forms includes the value of pension and benefits.
9. Variable remuneration awarded in respect of 2021 performance year. In accordance with the shareholder approval obtained in 2021, the variable component of remuneration of an MRT for any one year can be set up to a maximum of 200% of the fixed remuneration.
10. Share-based awards are made in Citi shares and represent value at grant.

Table 54: Special payments to staff whose professional activities have a material impact on institutions' risk profile (identified staff) (REM2)

	GBP million [1]	MB Supervisory function	MB Management function	Other senior management	Other identified staff
	Guaranteed variable remuneration awards				
1	Guaranteed variable remuneration awards - Number of identified staff [2]	-	-	-	1
2	Guaranteed variable remuneration awards -Total amount	-	-	-	0.8
3	Of which guaranteed variable remuneration awards paid during the financial year, that are not taken into account in the bonus cap	-	-	-	-
	Severance payments awarded in previous periods, that have been paid out during the financial year				
4	Severance payments awarded in previous periods, that have been paid out during the financial year - Number of identified staff	-	-	-	-
5	Severance payments awarded in previous periods, that have been paid out during the financial year - Total amount	-	-	-	-
	Severance payments awarded during the financial year				
6	Severance payments awarded during the financial year - Number of identified staff [2]	-	-	-	15
7	Severance payments awarded during the financial year - Total amount [3]	-	-	-	2.8
8	Of which paid during the financial year	-	-	-	2.8
9	Of which deferred	-	-	-	-
10	Of which severance payments paid during the financial year, that are not taken into account in the bonus cap [4]	-	-	-	2.8
11	Of which highest payment that has been awarded to a single person	-	-	-	0.5

Additional Notes

1. All non-GBP awards are converted using the European Commission exchange rates for December 2021.
2. Identified Staff is reported as headcount for the MB, with a full-time equivalent approach applied for Other Senior Management and Other Identified Staff.
3. Severance payments reflect final amounts paid out to MRTs who terminated during 2021, which include redundancy payments and statutory severance.
4. None of these severance payments were taken into account in the ratio of variable to fixed remuneration for 2021 performance year, in line with Article 172 of the EBA Guideline on Sound Remuneration Policies.

Table 55: Deferred remuneration (REM3)

	Deferred and retained remuneration (1)	Total amount of deferred remuneration awarded for previous performance periods	Of which due to vest in the financial year 2,6	Of which vesting in subsequent financial years 3	Amount of performance adjustment made in the financial year to deferred remuneration that was due to vest in the financial year	Amount of performance adjustment made in the financial year to deferred remuneration that was due to vest in future performance years	Total amount of adjustment during the financial year due to ex post implicit adjustments (i.e. Changes of value of deferred remuneration due to the changes of prices of instruments) 4	Total amount of deferred remuneration awarded before the financial year actually paid out in the financial year 2	Total of amount of deferred remuneration awarded for previous performance period that has vested but is subject to retention periods 5
1	**MB Supervisory function**	-	-	-	-	-	-	-	-
2	Cash-based	-	-	-	-	-	-	-	-
3	Shares or equivalent ownership interests	-	-	-	-	-	-	-	-
4	Share-linked instruments or equivalent non-cash instruments	-	-	-	-	-	-	-	-
5	Other instruments	-	-	-	-	-	-	-	-
6	Other forms	-	-	-	-	-	-	-	-
7	**MB Management function**	17.5	1.4	16.1	-	-	(0.1)	0.7	0.5
8	Cash-based	8.3	0.4	8.0	-	-	-	0.3	-
9	Shares or equivalent ownership interests	9.1	1.0	8.1	-	-	(0.1)	0.3	0.5
10	Share-linked instruments or equivalent non-cash instruments	-	-	-	-	-	-	-	-
11	Other instruments	-	-	-	-	-	-	-	-
12	Other forms	-	-	-	-	-	-	-	-
13	**Other senior management**	18.0	3.7	14.4	-	-	(0.1)	2.8	0.9
14	Cash-based	8.2	1.2	7.0	-	-	-	1.2	-
15	Shares or equivalent ownership interests	9.9	2.5	7.4	-	-	(0.1)	1.6	0.9
16	Share-linked instruments or equivalent non-cash instruments	-	-	-	-	-	-	-	-
17	Other instruments	-	-	-	-	-	-	-	-
18	Other forms	-	-	-	-	-	-	-	-
19	**Other identified staff**	623.3	165.8	457.5	-	-	(1.2)	125.0	39.7
20	Cash-based	271.9	57.7	214.2	-	-	-	57.6	-
21	Shares or equivalent ownership interests	350.6	107.9	242.7	-	-	(1.2)	67.3	39.7
22	Share-linked instruments or equivalent non-cash instruments	0.8	0.2	0.6	-	-	(0.003)	0.2	0.05
23	Other instruments	-	-	-	-	-	-	-	-
24	Other forms	-	-	-	-	-	-	-	-
25	**Total amount**	658.8	170.9	487.9	-	-	(1.4)	128.4	41.1

Additional Notes

1. All non-GBP awards are converted using the European Commission exchange rates for December 2021.
2. Shares are considered paid when vested. The Fair Market Value ("FMV") is determined by the closing New York Stock Exchange stock price for Citigroup common stock the trading day immediately prior to the award's vest date.
3. Value of outstanding share awards is calculated using Citi closing share price as at 31 December 2021.
4. Total amount of adjustment during the year due to ex post implicit adjustments has been calculated using:
   a. the value at vesting minus the value at 1 January 2021 (or the value at award if awarded in 2021) in relation to amounts due to vest in the financial year; plus
   b. the value at 31 December 2021 minus the value at 1 January 2021 (or value at award if awarded in 2021) in relation to amounts vesting in subsequent financial years.
5. Value of shares has been calculated as of the vest date for the total outstanding deferred remuneration awarded for previous performance period that has vested but is under restriction as at 31 December 2021.
6. There were 510 beneficiaries of deferred remuneration awards due to vest in the financial year.

Table 56: 2021 Remuneration Banding for Annual Compensation of Individuals earning at least EUR 1 million (REM4)

	EUR [1]	Identified staff that are high earners as set out in Article 450(i) CRR [2,3]
1	1,000,000 to below 1,500,000	113
2	1,500,000 to below 2,000,000	41
3	2,000,000 to below 2,500,000	21
4	2,500,000 to below 3,000,000	17
5	3,000,000 to below 3,500,000	7
6	3,500,000 to below 4,000,000	9
7	4,000,000 to below 4,500,000	2
8	4,500,000 to below 5,000,000	4
9	5,000,000 to below 6,000,000	9
10	6,000,000 to below 7,000,000	1
11	7,000,000 to below 8,000,000	1
12	8,000,000 to below 9,000,000	1
13	9,000,000 to below 10,000,000	1
14	Greater than 10,000,000	3

Additional Notes
1. All non-EUR awards are converted using the European Commission exchange rates for December 2021.
2. The number of individuals reflects headcount those remunerated over EUR 1 million within the MRT population as at 31 December 2021.
3. Individuals included in above count are located across a number of countries i.e. France, Germany, Italy, Spain, South Africa, UAE, United Kingdom, Switzerland

Table 57: Information on remuneration of staff whose professional activities have a material impact on institutions' risk profile (identified staff) (REM5)

		Management body remuneration			Business areas [4]						
	GBP million [1]	MB Supervisory function [2]	MB Management function [3]	Total MB	Investment banking	Retail banking	Asset management	Corporate functions	Independent internal control functions	All other [5]	Total
1	**Total number of identified staff**										578.4
2	Of which: members of the MB [6]	4	5	9	-	-	-	-	-	-	-
3	Of which: other senior management [7]	-	-	-	1.0	-	-	1.0	1.0	5.0	-
4	Of which: other identified staff	-	-	-	513.4	-	-	9.0	10.0	29.0	-
5	**Total remuneration of identified staff**	0.8	10.0	10.8	516.2	-	-	12.6	5.3	63.6	-
6	Of which: variable remuneration [8,9]	-	4.1	4.1	273.3	-	-	7.2	2.0	36.2	-
7	Of which: fixed remuneration [10]	0.8	5.9	6.7	242.9	-	-	5.4	3.3	27.4	-

Additional Notes
1. All non-GBP awards are converted using the European Commission exchange rates for December 2021.
2. The Management Body (MB) in its Supervisory Function, includes external Non-Executive Directors and Independent Non-Executive Directors of the Board as at 31 December 2021, as the management body acting in its role of overseeing and monitoring management decision-making as defined in point (8) of Article 3(1) CRD.
3.The MB in its Management Function reflects Executive Directors of the Board who are employed by the entity as at 31 December 2021, as members of the MB who are responsible for its management functions.
4. The breakdown by business area includes any MRTs employed by CGML, its branches and subsidiaries as at 31 December 2021. It excludes those individuals already captured under MB Supervisory function or MB Management function.
5. All Other category includes all other employees who cannot be mapped into one of the other categories e.g. Other Institutional Clients Group and Citi Holdings.
6. MB is reported as headcount for the MB, with a full-time equivalent approach applied for senior management and other Identified Staff.
7. Senior management as defined in point (9) of Article 3(1) CRD, includes formal members of the UK Executive Committee, employed by CGML, its branches and subsidiaries as at 31 December 2021.
8. Variable remuneration awarded in respect of 2021 performance year. In accordance with the shareholder approval obtained in 2021, the variable component of remuneration of an MRT for any one year can be set up to a maximum of 200% of the fixed remuneration.
9. Share-based awards are made in Citi shares and represent value at grant.
10. Fixed remuneration includes salary and role based allowances where applicable, and the value of pension and benefits.

Business Conduct

Conduct Risk Management

Citi's Global Conduct Risk Management Policy and other related policy documents define Citi's enterprise-wide conduct risk management framework and detail the conduct risk management requirements, roles and responsibilities of each Line of Defence. Citi's definition of Conduct Risk is "the risk that Citi's employees or non-employees may – intentionally or through negligence – harm customers, clients, or the integrity of the markets, and thereby the integrity of the firm."

The conduct risk management framework enhances Citi's culture of compliance and control through the identification, assessment, monitoring, mitigation and escalation of Conduct Risks, in line with Citi's Mission of enabling growth and economic progress, and in support of Citi's Leadership Principles (i.e. qualities, behaviours and expectations required to create a culture that drives client excellence, controls excellence and operational excellence). Established in 2014, the Ethics, Conduct and Culture Committee, a standing committee of the Citigroup Board of Directors, oversees Citi's conduct risk management framework and Conduct Risk initiatives.

Citi uses a lines of defence construct to manage its risks, including Conduct Risk. In addition, all Lines of Defence owners, are responsible for, and accountable for managing the Conduct Risks inherent in, or arising from, their activities and material risks and for designing and implementing effective internal controls and maintaining processes for managing their Conduct Risks.

Key elements of the conduct risk management framework include requirements for: conduct risk governance, identification, assessment and management of conduct risks through Citi's risk assessment processes, embedding of conduct risk considerations in hiring, promotion, compensation and performance management; assessment of conduct risks in new product and service approval processes, conflicts of interest and complaints management, conduct risk training, disciplinary matters management and analysis, conduct risk reporting, and the prompt escalation of conduct risk concerns.

Conflict of Interest Management

Citi's Code of Conduct (the "Code") sets forth expectations with regards to avoiding actual or perceived Conflicts of Interest. The Code highlights some of the most common potential conflicts of interest and provides guidance on how to manage, mitigate and wherever possible, avoid the conflict.

Citi's Employment of Relatives Policy establishes minimum standards regarding the employment of immediate family members and other relatives of Citi employees throughout every phase of the employment relationship, such as recruiting, hiring, and internal transfers, unless those standards would conflict with applicable law in any country. This is in conjunction with the Anti-Bribery and Policy and the Global Anti-Bribery Hiring Procedures.

The Code sets expectations as to personal and related-party business dealings. There are additional responsibilities for Senior Leaders. Directors and senior executives of the Citigroup Inc. legal entity must follow all additional rules regarding pre-approvals of business transactions, as included in the Citi Policy on Related Party Transactions. Additionally, certain executives must adhere to disclosure requirements and limitations on lending relationships with Citi, as included in the Insider Lending Policy.

There are mandatory requirements through Citi's Gifts and Entertainment Standard, Citi outside Directorships and Business Interests Policy, Personal Trading Policy for Citi Access Persons, the Employee Personal Trading and Investment Policy for Citi Brokerage and Advisory Persons, the Client Conflicts of Interest Management Policy, the Citi Anti-Tying Policy, the Bank Affiliate Transactions Policy and the Global Consumer Fairness Policy.

The firm has in place systems and controls concerning Information Barriers which are designed to prevent potential inside information received by workers engaged in lending, investment banking or

merchant banking activities (private-side information) from being shared with those workers who trade or advise on trading in financial instruments based on publicly available information or who engage in investment management activities (public-side activities). We also use information barriers to address potential and actual conflicts of interest among business activities. Citi has established various information barriers and deal-team procedures within businesses engaging in certain private-side activities to prevent confidential information from being shared with individuals who are not authorized to know such information.

Internal Alerts and Reporting of Breaches

Citi's Code of Conduct affirms Citi's Mission and Value Proposition and sets forth Citi's minimum standards of ethics and professional behaviour. It provides an overview of key legal and regulatory requirements and select enterprise-wide policies that enforce those requirements, including the obligation of employees to promptly report and escalate concerns where they reasonably suspect or become aware of violations of law, regulation, rule, or breaches of internal policies as well as Citi's Code of Conduct. In addition, Citi's Escalation Policy explains who needs to escalate, what to escalate, when to escalate, to whom to escalate and how to follow up on escalations. It includes roles and responsibilities for the identification, investigation and resolution of these concerns, and for oversight of escalation requirements and processes.

Employees are encouraged to raise concerns to their managers in the first instance unless a potential conflict of interest exists. Employees may also raise concerns to any of the following:

- HR, employee, or labour relations representative;
- Internal legal counsel;
- ICRM Officer;
- Citi Security and Investigative Services; and,
- The Citi Ethics Office.

The Citi Ethics Office is responsible for administering Citi's Ethics Hotline, which employees across Citi and other third-parties can use to raise concerns. Reports to the Citi Ethics Office can be made anonymously to the extent permitted by applicable laws and regulations. All contacts to the Citi Ethics Office and related investigations are treated as confidentially as possible, consistent with the need to investigate the matter, and subject to applicable laws and regulation.

Citi prohibits any form of retaliatory action against anyone who raises concerns or questions regarding ethics, discrimination, or harassment matters; requests a reasonable accommodation for a disability, pregnancy, or religious belief; reports suspected violations of law, regulation, rule, or breach of policy, standard, procedure, or this Code; or participates in a subsequent investigation of such concerns. Employees who engage in retaliation against a colleague because he or she has raised a concern or question, asked for a reasonable accommodation, reported a violation, or been involved in an investigation, are subject to disciplinary action, up to and including termination of employment or other relationship with Citi.

Nothing in the Code prohibits an individual from communicating with government, regulatory, or self-regulatory agencies about possible concerns, or otherwise providing information to, filing a complaint with, or participating in investigations or proceedings with those agencies. Nor does the Code require an individual to notify Citi of any such communications.

Appendix 1: UK Senior Management and Board Disclosures

The following senior management disclosures are made in accordance with the CRR.

Board Composition, Role and Effectiveness

The selection criteria for the Non-Executive Directors of CGML are designed to ensure their independence and the provision of robust challenge to their executive counterparts.

CGML has a combination of Non-Executive Directors who are either:

- UK based and independent from any of Citi's businesses; or,
- On the parent company's Board (in order to provide direct linkage between the main and subsidiary boards), but who are independent within the standards applicable to the parent board.

All new Non-Executive Directors receive training on the Senior Managers and Certification Regime and Companies Act 2006 responsibilities, as well as Citi orientation for independent Non-Executive Directors.

The selection process for Non-Executive Directors is rigorous and consists of several interviews. The interviewers include the CEO of the relevant legal entity, the EMEA CEO and other Board members. All Board appointments are required to be formally recommended by the CGML Nomination Committee and approved by the CGML Board, followed by an application to the PRA and FCA for regulatory approval.

The recruitment process aims to select Non-Executive Directors with significant financial regulatory and industry expertise. This expertise is outlined in further detail in the biographical summaries later in this appendix.

In order to meet the UK Regulators expectations for legal entity focus, Citi also appoints a CEO for CGML.

All new Executive Directors of CGML are subject to but not limited to, the firm's interview selection criteria process pursuant to the firm's Leadership, Ethics and Culture, Competency and Technical Interview Guidelines standards. As with Non-Executive Directors of CGML, Executive Directors of CGML are subject to background screening pursuant to the PRA and FCA Fitness and Proprietary requirements.

Executive Directors of CGML benefit from the firm's mandatory training requirements including Leadership training programs. All Directors of CGML received induction training on the UK Accountability Regime.

Distinction Between the Roles of Executive and Non-executive Directors

A fundamental distinction is drawn between the roles of Executive and Non-Executive Directors. Non-Executive Directors do not have any business line responsibility but have oversight responsibilities consistent with the approach recommended in the Wates Principles and the Senior Managers and Certification Regime. Non-Executive Directors chair the board and committees, set the agendas for those meetings and determine any follow up actions. The Non-Executive Directors are also not limited in their oversight to specific business operations.

The resources used by the Non-Executive Directors in their role of challenging the business include:

- full and unhindered access to the business, which involves the receipt of detailed presentations given by business or control functions;
- support from the UK Company Secretariat; and
- technical training in the form of Board education sessions. These sessions cover a wide range of subjects including but not limited to capital and liquidity requirements, client money and assets regulations, anti-money laundering rules, regulation relating to anti-bribery and corruption, and recovery and resolution planning.

Diversity

The Board is committed to identifying and appointing the best qualified people to serve on the Board and to ensuring that the Board is comprised of individuals whose backgrounds reflect the diversity represented by our employees, customers and stakeholders. Effective December 2017 the CGML Diversity within the Management Body Policy was published and made publicly available through Citi's UK page as follows: http://www.citigroup.com/citi/about/countrypresence/united-kingdom.html

The Board aspired to have a composition in which female representation is at least 30% by 2025. As at 31 December 2021, 40% of the Board were female.

Table 58: Directorships held by Citigroup Global Markets Limited Board of Directors as of 31 December 2021

Name	Total Number of Directorships
Jonathan Moulds	9
Diana Taylor	5
Sally Clark	4
William Fall	5
James Bardrick	8
Leo Arduini	3
Frank Mannion	2
Deepak Jain	1
Anne-Maree Tassell	1
Zoe Wimborne	2
Total	40

Table 59: Membership held by Citigroup Global Markets Limited Board of Directors as of 31 December 2021

Name	Gender	Role	Duration of Board Membership
Jonathan Moulds	Male	Non-Executive Director – Chair	11 months
Diana Taylor	Female	Non-Executive Director	11 years 11 months
Sally Clark	Female	Non-Executive Director	11 months
William Fall	Male	Non-Executive Director	11 months
James Bardrick	Male	Executive Director – Chief Executive Officer	8 years 3 months
Leo Arduini	Male	Executive Director	5 years 9 months
Frank Mannion	Male	Executive Director	2 years 5 months
Deepak Jain	Male	Executive Director	2 years 4 months
Anne-Maree Tassell	Female	Executive Director	3 months
Zoe Wimborne	Female	Executive Director	7 months

Non-Executive Directors of CGML

Jonathan Moulds (Chair)

Jonathan Moulds joined Citi as a statutory Non-Executive Director in February 2021. Following PRA and FCA approval, he was appointed a Senior Independent Director. He relinquished this role to succeed Cyrus Ardalan as the Chair of CGML Board. He is also Chair of the Boards of two public companies: IG Group Holdings, a world leader in derivatives trading and an established member of the Financial Times Stock Exchange 250 Index ("FTSE 250") and Litigation Capital Management, one of Australia's most experienced and successful litigation funders. The company is Alternative Investment Market ("AIM") listed on the London Stock Exchange.

Jonathan most recently served as Group Chief Operating Officer of Barclays PLC. Prior to that, he was Head of Bank of America's European business until 2013 and became the CEO of Merrill Lynch International following the merger of the two institutions in 2008.

Jonathan holds a number of roles at organisations he has a personal interest in. He is the current Chair of the London Symphony Orchestra ("LSO") Advisory Board, as well as Chair of the LSO Development Board. Jonathan was awarded a CBE for services to philanthropy in the New Year's Honours list 2014.

Diana Taylor

Diana Taylor has been an independent director of Citigroup Inc. since July 2009. Diana also holds a directorship at Brookfield Asset Management.

From 2007 to 2014 Diana was managing director of Wolfensohn Fund Management L.P. Prior to this, from 2003 to 2007, she served as Superintendent of Banks of New York State Banking Department, where she also oversaw the regulation of the mortgage industry and money service businesses. Diana served as Governor Pataki's Deputy Secretary for Finance and Housing between 1996 and 1999. Other previous roles included several years in the energy business, first as Vice President of KeySpan Energy and then as Chief Financial Officer at the Long Island Power Authority. She was a founding partner and president of M.R. Beal & Company.

Diana started her career as an investment banker with Smith Barney, followed by roles with Lehman Brothers and Donaldson Lufkin & Jenrette.

Sally Clark

Sally Clark joined Citi as a statutory Non-Executive Director in February 2021 and following receipt of PRA and FCA approval was appointed the Chair of CGML Audit Committee.

Sally is also a Non-Executive Director at Metro Bank and is a Senior Advisor and Board member at ACIN. She was Chief Internal Auditor at Barclays from 2014 to 2019 having previously worked at the Royal Bank of Scotland ("RBS") Group from 2003-2012, and most recently as head of Operational Risk, Markets and International Banking. During her tenure at RBS, Sally held various audit roles in Wealth and Corporate Markets along with heading up Audit Strategy, Operations and Development. Prior to this, Sally spent 18 years at JP Morgan Chase where she became Audit Partner and Co-Head of Investment Banking Audit for EMEA.

Sally has extensive experience in training and development having spent three years as a training manager, delivering courses internally and externally to other banks and regulators, including South Asian Banks and the Federal Reserve Bank on derivatives, leasing, lending and risk management.

William Fall

William Fall joined Citi as a statutory Non-Executive Director in February 2021 and further to PRA and FCA approval was appointed the Chair of CGML Risk Committee.

Since 2020, William has held the role of Chair of Ambac UK, the international subsidiary of Ambac Financial Group, the New York Stock Exchange ("NYSE") listed insurance company, having previously been Non-Executive Director and a member of Risk and Audit Committee since 2017.

Additionally, since 2013, he has served as a Non-Executive Director and Member of the Campaign Board and of the Investment Committee of Historic Royal Palaces, a UK charity managing a portfolio of important historical buildings across the UK. He was Chair of Mitsubishi UFJ Financial Group ("MUFG") Europe from 2015 until 2020, having been Senior Independent Director and Chair of Board Risk Committee from 2014.

Previously, William was part of the management team brought into the RBS Group, following its partial Government nationalisation, and held the position of Global Co-Head of Institutional Banking. From 1995 until 2006, he worked for Bank of America in various senior leadership positions in Europe and the US, finally as International CEO between 2002 and 2006. William has broad international experience, both as an Executive and as a Non-Executive Director. He has considerable exposure to financial services activities in Latin America, Asia and Middle East and North Africa

Executive Directors of CGML

James Bardrick (Director and Chief Executive Officer of CGML)

James is Citi's Country Officer for the UK and Cluster Head for the UK, Jersey and Israel. He is Chief Executive of Citigroup Global Markets Limited and an Executive Director of Citibank UK Limited. James is also a Supervisory Board member of Citigroup Global Markets Europe AG in Frankfurt. He was Co-head of Citi's Corporate and Investment Banking business for EMEA from 2009 to 2014. James has been with the firm for 34 years and is a Senior Credit Officer.

James is a member of TheCityUK and Fixed Income Clearing Corporation ("FICC") Markets Standards Board Advisory Councils and was until recently a Board member of UK Finance and the Banking Standards Board. He also sits on the Bank of England's PRA Practitioner Panel. James is Chairman and a trustee of the Coggeshall Youth Work Project. He is Deputy Chairman of the UK Career Ready charity helping less privileged young people increase their aspirations and enter the world of work and sits on the Teach First Business Leaders Council.

Prior to joining Citi, he worked as an engineer and in marketing for GKN plc.

Leo Arduini

Leo Arduini is EMEA Head of Markets. He has over 33 years of experience in Global Markets, spanning a variety of trading, coverage, sales and management roles in different jurisdictions.

More recently, Leo was Global Head of Rates Sales in 2008–2010, was then appointed Citi Country Officer and Head of Markets for Italy in January 2010 and in March 2012 he became Head of Investor Sales, EMEA Markets, with responsibility for the sales coverage and distribution of Citi's global market product platform to Investor Clients across the EMEA region. In his current role, he is responsible for the overall strategy across the product platform of Markets jointly with the global products, and for the execution across the EMEA region, spanning over more than 40 countries.

Leo is a Supervisory Board member of Citigroup Global Markets Europe AG in Frankfurt, and a Board member of Association of Financial Markets in Europe ("AFME").

Prior to joining Citi, he has collaborated with Bocconi University and was Associate at Borsa Italiana (Italian Stock Exchange). He has also held positions in Fixed Income trading at San Paolo Finance (Now Banca Intesa Group), as a Board Member of MTS, as Head of Sales and Distribution at Caboto (Banca Intesa Group) and at Banca Monte Paschi Siena as General Manager of Finance and Global Markets. Leo took a degree cum laude in Business Administration, at Bocconi University Milan in 1987.

Frank Mannion

Frank Mannion has been EMEA Chief Financial Officer since January 2011. Frank is a qualified Chartered Accountant and has experience spanning over 30 years with Citi in various Finance roles, including Technology Finance Manager and Head of Capital Markets and Banking ("CMB") EMEA Product Control.

In September 2006, he was appointed CMB EMEA Regional Controller, responsible for Product Control, Controllers and Regulatory Reporting and subsequently in March 2008 he was appointed the Citi Regional Franchise Controller for EMEA with responsibility for over 800 people covering all the businesses. Frank is on the board of Bank Handlowy (Citi Handlowy) which is a Polish Bank based in Warsaw in the position of Vice Chairman of the Supervisory Board.

Deepak Jain

Deepak Jain was appointed the Regulatory Inventory Mapping Program Manager in October 2019. Prior to that he was Head of Operations & Technology ("O&T") and Chief Information Officer for the EMEA region.

Deepak has extensive experience of regional managerial positions including leading Operations and Technology teams in Australia, New Zealand and Japan spanning Corporate and Consumer businesses. Deepak was a senior technologist/CIO in Global Financial Markets / Banking with experience in London, New York, Hong Kong, Tokyo and Sydney. Prior to joining Citi in 2004, Deepak was the CIO of the Asia Pacific region for Dresdner Kleinwort Wasserstein. Deepak was previously a director of Citibank Europe PLC from September 2015 to September 2019 and Citibank UK Limited from April 2019 to September 2019.

Anne-Maree Tassell

Anne-Maree Tassell was appointed EMEA Head of Operations and Technology; and EMEA Chief Information Officer in October 2019 and joined the CGML Board in September 2021.

From 2014 Anne-Maree was Head of Operations and Technology for Australia and New Zealand. She worked at Schroder's Australia Limited from 1995 until it merged with Salomon Smith Barney Australia in 2000. Anne-Maree continued her career with Citigroup Global Markets in Sydney. She transferred to Hong Kong with Global Markets from 2006 to 2014.

Zoe Wimborne

Zoe Wimborne was appointed EMEA, Chief Risk Officer in December 2020 and was asked to join the CGML Board in May 2021.

Zoe re-joined Citi in 2020 from Morgan Stanley where she spent two years as EMEA Head of Lending/ Deputy Head of Credit Risk. Prior to this, Zoe was at Citi for several years in Risk Management where her roles included Chief Risk Officer for UK legal entities. She also led Citi's restructuring team (Institutional Remedial Management) in EMEA and Asia and she was heavily involved in the firm's Brexit planning. Prior to Citi, Zoe was at Barclays Investment Bank for a total of 18 years initially in leverage finance origination and then in a number of senior Risk roles.

Zoe also serves as a Non-Executive Director of Cifas, a not-for-profit fraud prevention membership organisation.

Board Composition Changes

Following an independent Board effectiveness review in 2020, the composition of the Board of Directors of Citigroup Global Markets Limited has been refreshed.

On 22 January 2021, Alex Wynaendts was appointed a statutory Non-Executive director of the Company and following receipt of approval from the PRA and the FCA approval was appointed as Chair of the CGML Remuneration Committee. On 19 November 2021, Alex resigned from Citi to undertake the role of Chair of Deutsche Bank. Jonathan Moulds was appointed as interim Chair of the CGML Remuneration Committee.

Additionally, Cyrus Ardalan resigned as a Non-Executive Director and Chair of CGML on 4 November 2021. He was succeeded by Jonathan Moulds following receipt of PRA and FCA approval.

Frank Mannion will retire from Citi and as an Executive Director of CGML with effect from 31 March 2022 and Diana Taylor will resign as an independent non-executive director of CGML with effect from 26 April 2022.

Appendix 2: Capital Instruments Main Features

The template is prepared using the format set out in Annex II of the final 'Implementing technical standards with regard to disclosure of own funds requirements for institutions' (Commission implementing regulation – EU 1423/2013).

Table 60: Capital Instruments main features

Capital Instruments main features		CET1	CET1	AT1	AT1	AT1	Tier 2	Tier 2	Tier 2
1	Issuer	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited
2	Unique identifier (e.g. Committee on Uniform Security Identification Procedures (CUSIP), International Securities Identification Number (ISIN) or Bloomberg identifier for private placement)	Private Placement	Private Placement	Private Placement	Private Placement	Private Placement	Private placement	Private placement	Private placement
3	Governing law(s) of the instrument	English Law	English Law	English Law	English Law	English Law	English Law	English Law	English Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for other TLAC-eligible instruments governed by foreign law)	NA	NA	NA	NA	NA	NA	NA	NA
4	Transitional Basel III rules	Common Equity Tier 1	Common Equity Tier 1	Additional Tier 1	Additional Tier 1	Additional Tier 1	Tier 2	Tier 2	Tier 2
5	Post-transitional Basel III rules	Common Equity Tier 1	Common Equity Tier 1	Additional Tier 1	Additional Tier 1	Additional Tier 1	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group and solo	Solo and Group	Solo and Group	Solo and Group	Solo and Group	Solo and Group	Solo and Group	Solo and Group	Solo and Group
7	Instrument type (types to be specified by each jurisdiction)	Ordinary shares	Ordinary shares	Perpetual Notes	Perpetual Notes	Perpetual Notes	Subordinated Loans	Subordinated Loans	Subordinated Loans
8	Amount recognised in regulatory capital (currency in millions, as of most recent reporting date)	US$1,500m	US$18,499m	US$1,800m	US$500m	US$2,000m	US$600m	US$1,000m	US$1,000m
9	Par value of instrument	US$1.00	US$1.00	US$1,800m	US$500m	US$2,000m	US$600m	US$1,000m	US$1,000m
10	Accounting classification	Shareholder's equity	Shareholder's equity	Liability – Fair value option	Liability – Fair value option	Liability – Fair value option	Liability – Amortised cost	Liability – Amortised cost	Liability – Amortised cost
11	Original date of issuance	21/12/1995	31/12/2021	20/06/2017	19/06/2018	16/09/2021	21/12/2018	21/12/2018	21/12/2018
12	Perpetual or dated	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual	Dated	Dated	Dated
13	Original maturity date	No Maturity	No Maturity	No Maturity	No Maturity	No Maturity	27/10/2028	24/01/2039	25/07/2028
14	Issuer call subject to prior supervisory approval	No	No	No	No	No	No	No	No
15	Optional call date, contingent call dates and redemption amount	NA	NA	NA	NA	NA	NA	NA	NA
16	Subsequent call dates, if applicable	NA	NA	NA	NA	NA	NA	NA	NA
	Coupons / dividends								
17	Fixed or floating dividend/coupon	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating
18	Coupon rate and any related index	Discretionary	Discretionary	7.23%	7.53%	5.36%	2.54% (3mth USD LIBOR + Sub fee + Tax Handling)	2.84% (3mth USD LIBOR + Sub fee + Tax Handling)	2.56% (3mth USD LIBOR + Sub fee + Tax Handling)
19	Existence of a dividend stopper	No	No	No	No	No	No	No	No
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Mandatory	Mandatory	Mandatory
21	Existence of step-up or other incentive to redeem	No	No	No	No	No	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	NA	NA	NA
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	NA	NA	NA	NA	NA	NA	NA	NA
25	If convertible, fully or partially	NA	NA	NA	NA	NA	NA	NA	NA
26	If convertible, conversion rate	NA	NA	NA	NA	NA	NA	NA	NA
27	If convertible, mandatory or optional conversion	NA	NA	NA	NA	NA	NA	NA	NA
28	If convertible, specify instrument type convertible into	NA	NA	NA	NA	NA	NA	NA	NA
29	If convertible, specify issuer of instrument it converts into	NA	NA	NA	NA	NA	NA	NA	NA
30	Write-down feature	No	No	Yes	Yes	Yes	Yes	Yes	Yes
31	If write-down, write-down trigger(s)	NA	NA	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.
32	If write-down, full or partial	NA	NA	Full	Full	Full	Full	Full	Full
33	If write-down, permanent or temporary	NA	NA	Permanent	Permanent	Permanent	Permanent	Permanent	Permanent
34	If temporary write-down, description of writeup mechanism	NA	NA	NA	NA	NA	NA	NA	NA
34a	Type of subordination	Contractual	Contractual	Contractual	Contractual	Contractual	Contractual	Contractual	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned).	As common equity, immediately subordinate to the instrument in the following column (AT1).	As common equity, immediately subordinate to the instrument in the following column (AT1).	Notes constitute direct, unsecured and subordinated obligations of the Issuer and are immediately subordinate to Tier 2 instruments.	Notes constitute direct, unsecured and subordinated obligations of the Issuer and are immediately subordinate to Tier 2 instruments.	Notes constitute direct, unsecured and subordinated obligations of the Issuer and are immediately subordinate to Tier 2 instruments.	Immediately subordinate to senior subordinated debt (Eligible liabilities)	Immediately subordinate to senior subordinated debt (Eligible liabilities)	Immediately subordinate to senior subordinated debt (Eligible liabilities)
36	Non-compliant transitioned features	No	No	No	No	No	No	No	No
37	If yes, specify non-compliant features	NA	NA	NA	NA	NA	NA	NA	NA

	Capital Instruments main features template	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities
1	Issuer	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited	Citigroup Global Markets Limited
2	Unique identifier (e.g. Committee on Uniform Security Identification Procedures (CUSIP), International Securities Identification Number (ISIN) or Bloomberg identifier for private placement)	Private placement	Private placement	Private placement	Private placement	Private placement
3	Governing law(s) of the instrument	English Law	English Law	English Law	English Law	English Law
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for other TLAC-eligible instruments governed by foreign law)	NA	NA	NA	NA	NA
4	Transitional Basel III rules	Eligible Liability	Eligible Liability	Eligible Liability	Eligible Liability	Eligible Liability
5	Post-transitional Basel III rules	Eligible Liability	Eligible Liability	Eligible Liability	Eligible Liability	Eligible Liability
6	Eligible at solo/group/group and solo	Solo and Group	Solo and Group	Solo and Group	Solo and Group	Solo and Group
7	Instrument type (types to be specified by each jurisdiction)	Senior Subordinated Loans	Senior Subordinated Loans	Senior Subordinated Loans	Senior Subordinated Loans	Senior Subordinated Loans
8	Amount recognised in regulatory capital (currency in millions, as of most recent reporting date)	US$1,500m	US$500m	US$500m	US$1,500m	US$2,000m
9	Par value of instrument	US$1,500m	US$500m	US$500m	US$1,500m	US$2,000m
10	Accounting classification	Liability – Amortised cost	Liability – Amortised cost	Liability – Amortised cost	Liability – Amortised cost	Liability – Amortised cost
11	Original date of issuance	27/12/2018	27/12/2018	03/07/2019	27/12/2018	07/12/2021
12	Perpetual or dated	Dated	Dated	Dated	Dated	Dated
13	Original maturity date	24/07/2028	29/09/2027	29/09/2027	21/03/2023	31/03/2031
14	Issuer call subject to prior supervisory approval	No	No	No	No	No
15	Optional call date, contingent call dates and redemption amount	NA	NA	NA	NA	NA
16	Subsequent call dates, if applicable	NA	NA	NA	NA	NA
	Coupons / dividends					
17	Fixed or floating dividend/coupon	Floating	Floating	Floating	Floating	Floating
18	Coupon rate and any related index	2.43% (3mth USD LIBOR + Sub fee + Tax Handling)	2.49% (3mth USD LIBOR + Sub fee + Tax Handling)	1.47% (3mth USD LIBOR + Sub fee + Tax Handling)	1.69% (3mth USD LIBOR + Sub fee + Tax Handling)	1.66% (SOFR + Sub fee + Tax Handling)
19	Existence of a dividend stopper	No	No	No	No	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
21	Existence of step-up or other incentive to redeem	No	No	No	No	No
22	Non-cumulative or cumulative	NA	NA	NA	NA	NA
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	NA	NA	NA	NA	NA
25	If convertible, fully or partially	NA	NA	NA	NA	NA
26	If convertible, conversion rate	NA	NA	NA	NA	NA
27	If convertible, mandatory or optional conversion	NA	NA	NA	NA	NA
28	If convertible, specify instrument type convertible into	NA	NA	NA	NA	NA
29	If convertible, specify issuer of instrument it converts into	NA	NA	NA	NA	NA
30	Write-down feature	Yes	Yes	Yes	Yes	Yes
31	If write-down, write-down trigger(s)	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.	Bank of England, Own Fund Instrument written off and Any resolution entity in Citi is under resolution.
32	If write-down, full or partial	Full	Full	Full	Full	Full
33	If write-down, permanent or temporary	Permanent	Permanent	Permanent	Permanent	Permanent
34	If temporary write-down, description of writeup mechanism	NA	NA	NA	NA	NA
34 a	Type of subordination	Contractual	Contractual	Contractual	Contractual	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned).	Immediately subordinate to senior unsecured obligations of the issuer	Immediately subordinate to senior unsecured obligations of the issuer	Immediately subordinate to senior unsecured obligations of the issuer	Immediately subordinate to senior unsecured obligations of the issuer	Immediately subordinate to senior unsecured obligations of the issuer
36	Non-compliant transitioned features	No	No	No	No	No
37	If yes, specify non-compliant features	NA	NA	NA	NA	NA

Appendix 3: Countercyclical Capital Buffer

The following table sets out CGML's countercyclical buffer requirement broken down by geographical distribution for 31 December 2021 in line with Article 440 of the CRR. Countries that have a Countercyclical buffer ("CCyB") requirement or have an own funds requirement greater than 2% of total CGML own funds requirement are disclosed separately, with remaining countries aggregated under 'Other countries'.

The FPC cut the UK CCyB rate to 0% in March 2020 in response to the Covid 19 pandemic to support the supply of credit. In December 2021, the FPC published an increase in the UK's countercyclical buffer rate to 1% effective 13 December 2022, with a further increase to 2% expected to be announced for 2023.

Table 61: Geographical Distribution of Countercyclical Capital Buffer

	General credit exposures	Trading book exposure		Securitisation exposure	Own funds requirements					
	Exposure value for SA	Sum of long and short position of trading book	Value of trading book exposure for internal models	Exposure value in the banking book	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitisa-tion exposures	Total	Own funds requireme-nt weights	Countercy-clical capital buffer rate
Breakdown by Country	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	%	%
United Kingdom	13,696	1,762	690	-	1,063	277	-	1,340	28.62	0.00
United States	4,956	883	464	-	379	96	-	475	10.15	0.00
Luxembourg	3,009	157	73	-	241	32	-	273	5.83	0.50
Singapore	3,255	64	5	-	261	7	-	267	5.71	0.00
Ireland	2,461	77	109	-	196	20	-	216	4.61	0.00
Switzerland	2,489	69	46	-	197	8	-	204	4.36	0.00
France	1,622	789	440	-	107	85	-	192	4.10	0.00
Netherlands	1,462	837	232	-	103	82	-	185	3.95	0.00
Hong Kong	1,939	158	0	-	155	23	-	178	3.80	1.00
Japan	2,163	703	23	-	142	33	-	175	3.73	0.00
Germany	1,453	238	416	-	114	52	-	165	3.53	0.00
Jersey	1,140	39	6	-	91	4	-	95	2.04	0.00
Norway	227	46	8	-	16	2	-	17	0.36	1.00
Czech Republic	3	24	4	-	0	2	-	2	0.05	0.50
Bulgaria	5	2	-	-	0	0	-	1	0.01	0.50
Slovakia	-	-	6	-	-	1	-	1	0.01	1.00
Other countries	8,674	2,651	1,118	1	692	204	0	896	19.14	0.00
Total	48,554	8,499	3,641	1	3,757	926	0	4,683	100	

Table 62: Countercyclical Capital Buffer

Total Risk Exposure Amount ($ million)	156,069
Institution Specific Countercyclical Buffer Rate	0.07%
Institution Specific Countercyclical Buffer Requirement ($ million)	109

Appendix 4: Omissions

Please see below a list of disclosures not included in CGML's Pillar 3.

Table 63: Non-disclosed tables

Table	Rationale
Credit Quality of Forborne Exposures	Templates excluded on the basis of immateriality or non-applicability
Collateral obtained by taking possession and execution processes	
Quality of forbearance	
Quality of non-performing exposures by geography	
Credit quality of loans and advances by industry	
Collateral valuation – loans and advances	
Changes in the stock of non-performing loans and advances	
Collateral obtained by taking possession and execution processes – vintage breakdown	
CR2-A: Changes in the Stock of General and Specific Credit Risk Adjustments	
CR2-B: Changes in the Stock of Defaulted and Impaired Loans and Debt Securities	
CR6: IRB – Credit risk exposures by exposure class and PD range	CGML does not have an IRB permission.
CR7: IRB – Effect on RWA of credit derivatives used as CRM techniques	
CR8: RWA flow statements of credit risk exposures under IRB	
CR9: IRB – Back-testing of probability of default (PD) per exposure class	
CR10: IRB – specialised lending and equities	
CCR4: IRB – CCR exposures by portfolio and PD scale	
TLAC3 – Resolution entity – creditor ranking at legal entity level	CGML is only required to disclose TLAC requirements on a material subgroup entity level
SEC3 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor	CGML acts only as an investor in its Securitisation book
SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments	

Abbreviations

Please refer to the below abbreviations used frequently throughout the document.

ABS	Asset Backed Securities
ALCO	Asset and Liability Committee
AMA	Advanced Measurement Approach
AVA	Additional Valuation Adjustment
BCMA	Banking, Capital Markets and Advisory
BSST	Business Specific Stress Test
CCF	Credit Conversion Factor
CCP	Central Counterparty Clearing House
CCyB	Countercyclical buffer
CDS	Credit Default Swap
CEM	Current Exposure Method
CEO	Chief Executive Officer
CET1	Common Equity Tier 1
CFO	Chief Finance Officer
CGME	Citigroup Global Markets Europe AG
CGML	Citigroup Global Markets Limited
CITI	Citigroup Inc.
CMBS	Commercial Mortgage-Backed Securities
CoB	Continuity of Business
CORA	Credit and Operational Risk Analytics
CRD	Capital Requirements Directive
CRE	Commercial Real Estate
CRGC	Collateral Risk Governance Committee
CRM	Credit Risk Mitigation
CRO	Chief Risk Officer
CRR	Capital Requirements Regulation
CSA	Credit Support Annex
CVA	Credit Valuation Adjustment
DIRAP	Discretionary Incentive and Retention Award Plan
EAD	Exposure at Default
EBA	European Banking Authority
ECAI	External Credit Assessment Institution
EEA	European Economic Area
EMEA	Europe, Middle East and Africa
EPE	Expected Positive Exposure
ERBA	External Ratings Based Approach
ERM	Enterprise Risk Management
ESG	Environmental, Social and Governance
ESRM	Environmental and Social Risk Management
EU	European Union
FCA	Financial Conduct Authority
FCCM	Financial Collateral Comprehensive Method
FINREP	Financial Reporting Standards
FLP	Funding and Liquidity Plan
FPC	Financial Policy Committee
FRTB	Fundamental Review of the Trading Book
FVA	Funding Valuation Adjustments
FX	Foreign Exchange
G10	Group of Ten (refers to the countries that have agreed to participate in the General Arrangements to Borrow (GAB))
GAAP	Generally Accepted Accounting Principles
G-SIB	Global Systemically Important Bank
GSM	Global Securitised Markets
GSF	Global Structured Finance
GSP	Global Spread Products
GSST	Global Systemic Stress Test
HR	Human Resources
ICAAP	Internal Capital Adequacy Assessment Process
ICG	Institutional Clients Group
ICRM	Independent Compliance Risk Management
IFRS	International Financial Reporting Standards
ILAAP	Internal Liquidity Adequacy Assessment Process
IM	Initial Margin
IMA	Internal Model Approach
IMM	Internal Models Method
IRC	Incremental Risk Charge
IRE	Interest Rate Exposure
ITS	Implementing Technical Standards
KEPSP	Key Employee Profit Sharing Plan
KOR	Key Operational Risks
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
LIBOR	London Interbank Offered Rate
MAO	Material Adverse Outcome
MAT	Management Action Tigger
MCA	Manager's Control Assessment
MLE	Material Legal Entity
MREL	Minimum Requirement for Own Funds and Eligible Liabilities
MRT	Material Risk Takers
NPAC	New Product Approval Committee
NIR	Net Interest Revenue
NSFR	Net Stable Funding Ratio
ORM	Operational Risk Management
ORR	Obligor Risk Rating
OTC	Over The Counter
P&C	Personnel and Compensation
PBV	Performance Based Vesting
PD	Probability of Default
PPL	Permitted Product List
PRA	Prudential Regulation Authority
PSE	Pre-Settlement Exposures
RBA	Role-Based Allowances
RemCo	Remuneration Committee
RLAP	Resolution Liquidity Adequacy Positioning
RMBS	Residential Mortgage-Backed Securities
ROG	Remuneration Oversight Group
RTS	Regulatory Technical Standards
RWA	Risk Weighted Assets
SA	Standardised Approach
SFT	Securities Financing Transaction
SPV	Special Purpose Vehicle
SVaR	Stressed Value at Risk
SWWR	Specific Wrong Way Risk
TFA	Total Facilities Amount
TLAC	Total Loss Absorbing Capacity
TLST	Term Liquidity Stress Test
ToR	Terms of Reference
VA	Valuation Adjustment
VaR	Value at Risk
VM	Variation Margin
WWR	Wrong Way Risk