Citigroup Global Markets Limited
Pillar 3 Disclosures

31 December 2022

Contents

Tables

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 ("MLE") in Citi's Global Resolution Plan.

As at 31 December 2022, CGML had four 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, financial institutions, institutional and other investors, as well as governments and public sector entities. CGML's principal business activities are outlined on page 1 and 2 of CGML's Financial Statements.

Regulatory framework for disclosure

Amending the Capital Requirements Directive ("CRD IV"), the Capital Requirements Directive ("CRD V") came into effect on 27 June 2019 and implements the provisions of the Basel Capital Accord in the European Union (EU) and 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.

Following the UK's departure from the EU, the UK has on-shored certain parts of the Capital Requirements Regulation ("CRR II") and CRD V and has published rules to implement elements of CRR II in the UK which came into effect on 1 January 2022. These disclosures are made in accordance with Part 8 of the CRR as amended by CRR II and transposed through UK legislation in line with the disclosure requirements detailed in the PRA Rulebook. In addition, CGML implemented the disclosure templates and instructions as set out in the final rules published by the PRA in Policy Statement 22/21.

These disclosures are prepared for CGML on a consolidated Group basis. As at 31 December 2022, Citigroup Global Markets Europe AG ("CGME") was the only material subsidiary of CGML. CGME is supervised by the European Central Bank ("ECB").

Means of disclosure

CGML is a non-listed large institution as defined by Article 4 (146 and 148) of the CRR and prepares disclosures in the manner set out in Article 433a (2) and 433a (3). CGML publishes Pillar 3 disclosures quarterly, with a more comprehensive disclosure on an annual basis.

CGML publishes its Pillar 3 disclosures at: https://www.citigroup.com/citi/investors/reg.htm

Disclosures for CGML's material subsidiary, CGME, are also published at the above location.

These Pillar 3 disclosures complement both the group level materials included in the CGML's 2022 Financial Statements, available at the same location, and Citigroup Inc. Annual Report and 10-K available at https://www.citigroup.com/global/investors/annual-reports-and-proxy-statements

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, rows and columns determined as not relevant or reportable as nil have in places been omitted from disclosures.

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 by the CGML Board of Directors ("CGML Board" or "Board") and were approved on 4 May 2023.

"We confirm that we have taken reasonable measures to ensure that the information presented in this disclosure complies with the requirements of Part 8 of on-shored Regulation (EU) No 575/2013 and its subsequent amendments (2019/876), and Section 4 of the PRA rulebook on Disclosure, and has been prepared in accordance with the internal processes, systems and controls as detailed in Citi's Basel Public Disclosure Policy and supporting Pillar 3 Standard."

Francisco Tobias
EMEA CFO

Zoe Wimborne
EMEA CRO

Regulatory Outlook

Basel Reforms

The Basel Committee on Banking Supervision ("BCBS") has proposed new regulations, often referred to as Basel 3.1, and covering a number of areas such as a new Standardised Approach to Credit Risk ("SA-CR"), a new Credit Valuation Adjustment ("CVA") framework, revisions to the approach to Securities Financing Transactions ("SFT"), further elements of Fundamental Review of the Trading Book ("FRTB"), the Output Floor and a new Standardised Approach to Operational Risk.

Her Majesty's Treasury ("HMT") and the Bank of England / PRA published their respective consultation papers on the Implementation of the Basel 3.1 standards at the end of November 2022. The paper from HMT will, among other things, revoke CRR Articles that will be replaced by the PRA's proposed rules and make any necessary amendments to ensure the coherence and continuity of the regime. The proposals in the Bank of England / PRA paper will revise the calculation of Risk Weighted Assets ("RWAs"), impacting both the measurement of risk in internal models and standardised approaches.

Standardised Approach to Credit Risk

This introduces two broad methodologies: one which allows the use of external ratings, and the other which requires firms to grade their exposures. It also introduces a specific framework for specialised lending, higher risk weights for equities and subordinated debt, and an override, based on our internal assessment of credit risk, to increase risk weights where the standard risk weights are deemed insufficient.

New CVA framework

A new Standardised Approach ("SA-CVA") is introduced that requires that firms have a CVA desk and have the ability to model exposure and calculate CVA sensitivities. Firms must obtain supervisory approval to apply this approach. The alternative is for firms to apply the Basic Approach ("BA-CVA") which has two versions: a simpler version for firms that do not hedge their CVA and a full version for those that do.

Revisions to the approach to Securities Financing Transactions

This revises the approach to SFTs under master netting agreements to allow greater recognition of diversification.

Fundamental Review of the Trading Book

CRR III implements FRTB as a binding requirement. Desk structures are expected to be significantly impacted and there is a strengthened trading vs non-trading book boundary.

Output Floor

Total RWAs are floored at 72.5% of a firm's RWAs under the standardised approaches ("SA"), this is phased in from 1 January 2025 with transitional multiplier increasing from 50% to 72.5% over 6 years.

Standardised Approach to Operational Risk

The new Standardised Approach replaces all the existing approaches in the Basel II framework (Basic Indicator Approach, the Standardised Approach and the Advanced Measurement Approach). The new standardised approach is based on a business indicator linked to the financial statements, the application of marginal coefficients which increase with size and an internal loss multiplier, which is expected to be set to 1.

Environmental, Social and Governance ("ESG") Risks

A new harmonised definition of the risks has been developed and firms have new reporting requirements to comply with. Some amendments to weightings have been proposed in the EU, and we anticipate further developments in the UK.

Cryptoasset exposures

The BCBS have published their final standard on the prudential treatment of these exposures. It divides cryptoassets into two broad groups:

- Group 1 consists of those that meet in full a set of classification conditions, these would be subject to at least equivalent risk-based capital requirements based on the risk weights of underlying exposures as set out in the existing Basel Capital Framework. Examples of cryptoassets in this group are tokenised traditional assets and cryptoassets with effective stabilisation mechanisms. Group 1 cryptoassets will be divided into a Group 1a, for tokenised traditional assets, and Group 1b, for cryptoassets with effective stabilisation mechanisms. Group 1a cryptoassets will generally be subject to similar rules to determine RWA as non-tokenised traditional assets. Institutions that have exposures to Group 1b cryptoassets must analyse their specific structures, identify all risks that could result in a loss and separately capitalise each risk; and,
- Group 2 consists of those that fail to meet any of the classification conditions (such as unbacked cryptoassets and stablecoins with ineffective stabilisation mechanisms). Since they pose additional and higher risks compared with Group 1 cryptoassets they would be subject to a newly prescribed conservative capital treatment. Group 2 cryptoassets will be divided into a Group 2a and Group 2b. The former may be subject to the Sensitivities-Based Method ("SBM"), but the risk weight will be 100%. The latter are subject to a 1,250% risk weight on the higher of the long and short for each cryptoasset held. Banks are subject to a threshold of 1% of Tier 1 capital on the amount of Group 2 cryptoassets they may hold, excesses to which the Group 2b treatment must be applied; this is based on the higher of gross long and short positions. All Group 2 assets will default to Group 2b treatment if a 2% threshold is breached.

Other changes include:

- An infrastructure risk add-on to cover the new and evolving risks of distributed ledger technologies of 0% but with flexibility for authorities to increase it based on observed weaknesses;
- Banks must notify supervisors of classification decisions and supervisors will have the power to override those decisions if they disagree with a bank's assessment; and,
- Stablecoin must be supervised and regulated by a supervisory authority that applies prudential capital and liquidity requirements.

The final standard also sets out a number of areas that will be subject to further review: Statistical tests and redemption risk test; Permissionless blockchains; Group 1b cryptoassets received as collateral; Group 2a criteria and degree of hedge recognition; and Calibration of the Group 2 exposure limit.

Key Metrics

Table 1: Key metrics template (UK KM1)

		31 December 2022	30 June 2022	31 December 2021
	Available own funds (amounts)	$ million	$ million	$ million
1	Common Equity Tier 1 ("CET1") capital	22,512	22,516	22,639
2	Tier 1 capital	26,812	26,816	26,939
3	Total capital	29,412	29,416	29,539
	Risk-weighted exposure amounts[1]			
4	Total risk-weighted exposure amount	148,373	164,372	156,069
	Capital ratios (as a percentage of risk-weighted exposure amount)			
5	Common Equity Tier 1 ratio (%)	15.2%	13.7%	14.5%
6	Tier 1 ratio (%)	18.1%	16.3%	17.3%
7	Total capital ratio (%)	19.8%	17.9%	18.9%
	Additional own funds requirements based on SREP (as a percentage of risk-weighted exposure amount)			
UK 7a	Additional CET1 SREP requirements (%)	1.3%	1.1%	1.2%
UK 7b	Additional AT1 SREP requirements (%)	0.4%	0.4%	0.4%
UK 7c	Additional T2 SREP requirements (%)	0.6%	0.5%	0.5%
UK 7d	Total SREP own funds requirements (%)	10.3%	10.0%	10.1%
	Combined buffer requirement (as a percentage of risk-weighted exposure amount)			
8	Capital conservation buffer (%)	2.5%	2.5%	2.5%
UK 8a	Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)	-	-	-
9	Institution specific countercyclical capital buffer (%)	0.4%	0.1%	0.1%
UK 9a	Systemic risk buffer (%)	-	-	-
10	Global Systemically Important Institution buffer (%)	-	-	-
UK 10a	Other Systemically Important Institution buffer	-	-	-
11	Combined buffer requirement (%)	2.9%	2.6%	2.6%
UK 11a	Overall capital requirements (%)	13.2%	12.6%	12.7%
12	CET1 available after meeting the total SREP own funds requirements (%)[2]	9.4%	7.9%	8.8%
	Leverage ratio[3]			
13	Total exposure measure excluding claims on central banks	414,076	422,522	485,652
14	Leverage ratio excluding claims on central banks (%)	6.5%	6.3%	5.5%
	Additional leverage ratio disclosure requirements[4]			
14a	Fully loaded ECL accounting model leverage ratio excluding claims on central banks (%)	-	-	-
14b	Leverage ratio including claims on central banks (%)	-	-	-
14c	Average leverage ratio excluding claims on central banks (%)	-	-	-
14d	Average leverage ratio including claims on central banks (%)	-	-	-
14e	Countercyclical leverage ratio buffer (%)	-	-	-
	Liquidity Coverage Ratio			
15	Total high-quality liquid assets ("HQLA") (Weighted value -average)	45,211	37,475	35,295
UK 16a	Cash outflows – Total weighted value	51,594	52,844	50,411
UK 16b	Cash inflows – Total weighted value	38,621	40,570	38,628
16	Total net cash outflows (adjusted value)	14,291	13,802	13,234
17	Liquidity coverage ratio ("LCR") (%)	317.8%	274.0%	267.8%
	Net Stable Funding Ratio[5]			
18	Total available stable funding	79,498	78,890	N/A
19	Total required stable funding	57,367	59,078	N/A
20	Net Stable Funding Ratio ("NSFR") (%)	138.9%	133.9%	N/A

[1] We identified an error in the calculation of Market Risk RWAs, understating RWAs under the Internal Model Approach by circa. $2 billion. This impact is not considered in the figures presented in this disclosure, though will be reflected in future disclosures.
[2] Prior period values restated in line with change in basis of preparation.
[3] Leverage ratio measure for 30 June 2022 and 31 December 2022 are disclosed based on the PRA's instructions coming into force from 1 January 2022 and exclude claims on central banks. The comparative of 31 December 2021 is disclosed based on CRR I rules and include claims on central banks.
[4] CGML is not a UK Leverage Ratio Capital Requirement ("LREQ") firm as at 31 December 2022 and in line with instructions included in Annex II of the PS 21/21 these rows are left blank.
[5] NSFR disclosures have been implemented from 1 January 2022 and are based on the PRA's NSFR templates and associated instructions which came into force at that time. N/A in 31 December 2021 indicates that the disclosure is new and no comparatives are being provided.

As at 31 December 2022, CGML's CET1 ratio stands at 15.2%, an increase of 0.7% year on year. This is driven by a $7.7 billion decrease in RWA primarily in market and counterparty credit risk as the result of client led activity and market volatility, which was partially offset by the day 1 impact of implementation of CRR II effective 1 January 2022.

CGML's leverage ratio increased 93bps over the year to 6.48% as at 31 December 2022, reflecting a $71.6 billion decrease in leverage exposures primarily due to greater derivatives netting achieved under the Standardised Approach for Counterparty Credit Risk ("SA-CCR") approach as introduced through CRR II on 1 January 2022.

In addition, CGML's liquidity coverage ratio increased in 2022 as CGML actively maintained a higher excess reflecting ongoing market volatility throughout the year.

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 primary 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 ("CRO") 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 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 Chief Executive Officer ("CEO"), EMEA Chief Finance Officer ("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's Management Action Trigger ("MAT") Framework defines the levels and actions necessary at specified capital excess thresholds and is inclusive of triggers defined for CET1, Tier 1 and Total Capital, MREL and Leverage;
- Risk capacity – allocated to market risk, credit risk, operational risk and pension risk, along 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 risk and business aspects not wholly captured in internal risk capital and 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. Risk appetites include additional categories for obligor-level and portfolio-level limits, concentration risk limits, industry and country risk limits and targeted limits on specific areas with limited risk appetite. Risk appetites are also defined for operational risk, compliance risk and liquidity risk.

In assessing risk capacity, there are a number of factors that CGML management and the CGML 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 CGML Board's 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.

Primary Risk Categories

CGML's primary risk categories 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 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 is covered by the UK Chief Country Compliance Officer, who reports regularly to the Board and Board Audit Committee members. The UK Chief Country 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 2023 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 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 CGML Board can be read in Appendix 1.

Committees of the Board include the CGML Risk Committee, the CGML Audit Committee, the CGML Remuneration Committee 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 2022.

CGML Risk Committee

The CGML Risk Committee is a standing committee of the CGML Board 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 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; and,
- 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; and,
- 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 CGML Board 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 2022 it held six meetings.

CGML Audit Committee

The effectiveness of CGML's internal control system is reviewed regularly by the Board 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 2022 it held six meetings.

CGML Nomination Committee

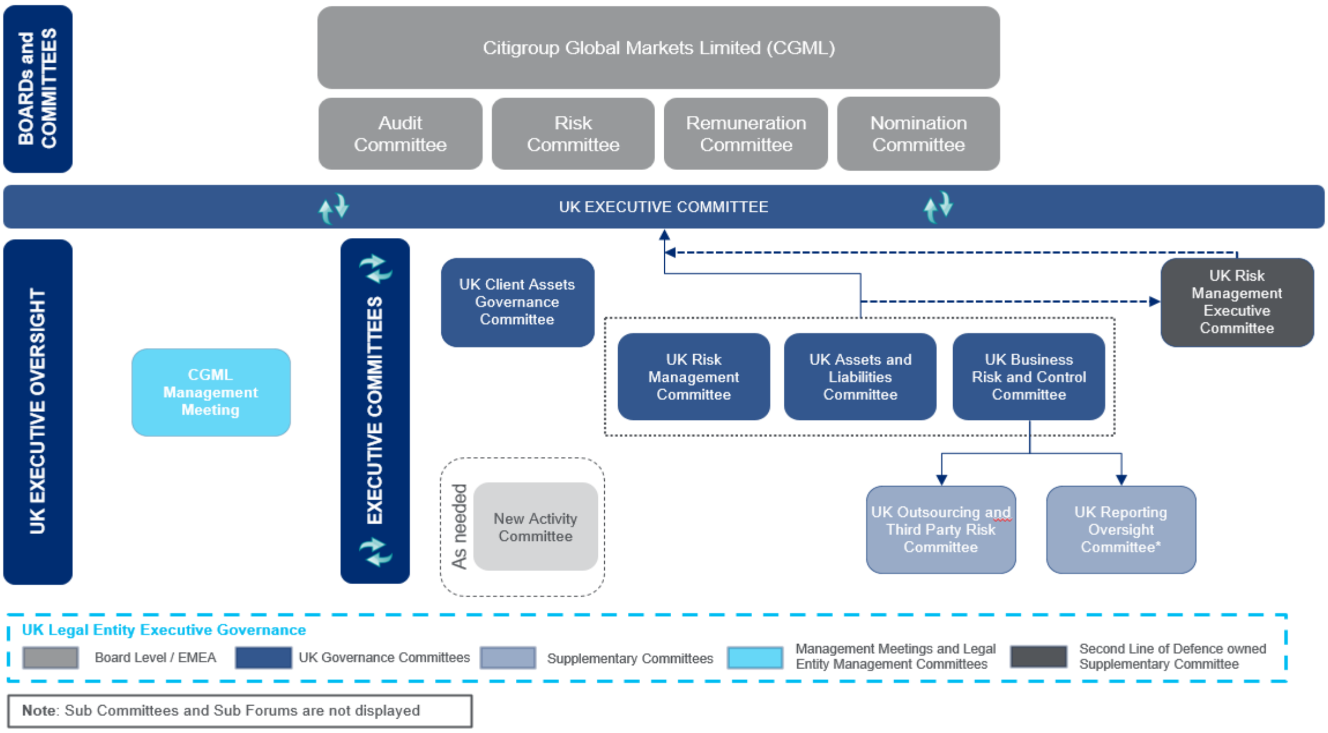
The purpose of the CGML Nomination Committee is to review succession planning, skillset of the Board of Directors and the executive. The Nomination Committee makes recommendations for nominations for the appointment of Directors to the Board of CGML taking into account the Companies Act 2006, UK regulatory requirements and any applicable internal regulations of CGML. The CGML Nomination Committee held four meetings during 2022.

New Activity Committee

The New Activity Committee 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.

CGML Remuneration Committee

The CGML Remuneration Committee is a standing committee of the CGML Board, further details of the committee can be found on page 50.



* Previously known as UK Regulatory Reporting Governance Committee

Linkage to Financial Reporting

These Pillar 3 Disclosures 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").

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-European Economic Area ("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.

Any references to accounting values or carrying values as published in financial statements within this disclosure represents CGML's consolidated Financial Reporting Standards ("FINREP").

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) (UK 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, and are deducted from capital in the regulatory consolidation.

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

			Carrying values of items				
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to the credit risk framework[1]	Subject to the CCR framework	Subject to the securitisation framework[2]	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	8,212	8,212	8,212	-	-	-	-
Financial assets at amortised cost: Collateralised financing transactions	92,966	92,966	-	92,966	-	92,966	-
Financial assets at fair value through profit or loss - derivatives	230,861	230,861	-	230,861	-	230,861	-
Financial assets at fair value through profit or loss - inventory	58,252	58,252	-	58,169	10	58,169	73
Financial assets designated at fair value through profit or loss	84,323	84,323	-	84,323	-	84,323	-
Equity securities held for investment	120	120	120	-	-	-	-
Pension	1,894	1,894	1,726	-	-	-	168
Other Assets	89,545	89,545	3,380	86,009	-	9,967	305
Total assets as at 31 December 2022	566,173	566,173	13,439	552,327	10	476,285	546
Liabilities							
Financial liabilities at amortised cost: bank loans and overdrafts	15,992	15,992	-	-	-	-	15,992
Financial liabilities at amortised cost: Collateralised financing transactions	59,984	59,984	-	59,984	-	59,984	-
Financial liabilities at fair value through p&l – derivatives	231,695	231,695	-	231,695	-	231,695	-
Financial liabilities at fair value through p&l – securities sold but not yet purchased	51,914	51,914	-	51,914	-	51,914	-
Financial liabilities designated at fair value through p&l	57,300	57,300	-	57,300	-	57,300	-
Other Liabilities	109,906	109,906	-	70,298	-	25,558	14,050
Subordinated Loans	11,100	11,100	-	-	-	-	11,100
Total liabilities as at 31 December 2022	537,892	537,892	-	471,191	-	426,452	41,142

[1]Items subject to credit risk framework: Carrying values included in this column are based on banking book assets.
[2]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 PRA requirements.

Table 4: Main Sources of Differences between Regulatory Exposure Amounts and Carrying Values in Financial Statements (UK 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	Securitisation framework	CCR framework	Market risk framework
		$ million	$ million	$ million	$ million	$ million
1	**Assets carrying value amount under the scope of regulatory consolidation (as per template LI1)**	565,627	13,439	10	552,327	476,285
2	**Liabilities carrying value amount under the regulatory scope of consolidation (as per template LI1)**	496,749	-	-	471,191	426,452
3	**Total net amount under the regulatory scope of consolidation**	68,878	13,439	10	81,136	49,834
4	**Off-balance-sheet amounts**	-	-	-	-	
5	*Differences in valuations[2]*	(745)	(745)	-	-	
6	*Differences due to different netting rules, other than those already included in row 2[1]*	11,153	-	-	11,153	
8	*Differences due to the use of credit risk mitigation techniques (CRMs)*	(151)	(151)	-	-	
11	*Other differences[3]*	37,071	502		36,569	
12	**Exposure amounts considered for regulatory purposes**	141,913	13,045	10	128,858	

[1] 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.

[2] Represents differences in netting for SFT transactions whereby balance sheet netting occurs where there is legal certainty to offset cashflows where balances are settled on a net basis. Collateral recognition recgonised in regulatory capital is achieve only where legal effective and enforceability is in place.

[3] Other differences represent discrepancies in the framework relating to the use of modelling approaches for regulatory purposes as well as regulatory adjustments due to collateral haircuts and prudent valuation adjustments for fair valued trading book positions for CGML.

Table 5: Reconciliation of regulatory own funds to balance sheet in the audited financial statements (UK CC2)

		Balance sheet as in published financial statements As at period end	Under regulatory scope of consolidation As at period end	Reference to UK CC1 template
	Assets - Breakdown by asset class according to the balance sheet in the published financial statements			
		$ million	$ million	
1	Financial assets at amortised cost: Cash at bank and in hand	8,212	8,212	
2	Financial assets at amortised cost: Collateralised financing transactions	92,966	92,966	
3	Financial assets at fair value through profit or loss - derivatives	230,861	230,861	
4	Financial assets at fair value through profit or loss - inventory	58,252	58,252	
4a	*of which: securitisation positions deducted from Own Funds*	*73*	*73*	(h)
5	Financial assets designated at fair value through profit or loss	84,323	84,323	
6	Equity securities held for investment	120	120	
7	Pension	1,894	1,894	
7a	*of which: Defined-benefit pension fund assets*	*168*	*168*	(f)
8	Other Assets	89,545	89,545	
8a	*of which: Intangible assets (net of related tax liability)*	*289*	*289*	(e)
8b	*of which: free deliveries (negative amount)*	*16*	*16*	(j)
9	**Total assets**	566,173	566,173	
	Liabilities - Breakdown by liability class according to the balance sheet in the published financial statements			
1	Financial liabilities at amortised cost: bank loans and overdrafts	15,992	15,992	
2	Financial liabilities at amortised cost: Collateralised financing transactions	59,984	59,984	
3	Financial liabilities at fair value through p&l - derivatives	231,695	231,695	
3a	*of which: Gains or losses on liabilities valued at fair value resulting from changes in own credit standing*	*96*	*96*	(g)
4	Financial liabilities at fair value through p&l - securities sold but not yet purchased	51,914	51,914	
5	Financial liabilities designated at fair value through p&l	57,300	57,300	
6	Other Liabilities	109,906	109,906	
7	Subordinated Loans	11,100	11,100	
7a	*of which: Tier 2 capital*	*2,600*	*2,600*	(c)
8	**Total liabilities**	537,892	537,892	
	Shareholders' Equity			
1	Called up share capital	19,999	19,999	(a)
2	Other equity instruments	4,300	4,300	(b)
3	Capital reserve	-	-	
4	Retained earnings and other reserves	3,983	3,983	(d)
4a	*of which: Other regulatory adjustments to CET1 capital (including IFRS 9 transitional adjustments when relevant)*	*115*	*115*	(i)
5	**Total shareholders' equity**	28,282	28,282	

Own Funds

Table 6: Composition of regulatory own funds (UK CC1)

This template is prepared in accordance with Annex VII of the PRA rulebook and presents CGML's consolidated capital resources as at 31 December 2022.

		31 December 2022 $ million	Reference to UK CC2 table	31 December 2021 $ million
Common Equity Tier 1 (CET1) capital: instruments and reserves				
1	Capital instruments and the related share premium accounts	19,999	(a)	19,999
2	Retained earnings	2,992	(d)	2,894
3	Accumulated other comprehensive income (and other reserves)	1,023	(d)	1,187
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	24,014		24,080
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
7	Additional value adjustments (negative amount)	(745)		(620)
8	Intangible assets (net of related tax liability) (negative amount)	(289)	(e)	(244)
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	(96)	(g)	
15	Defined-benefit pension fund assets (negative amount)	(168)	(f)	(542)
UK-20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	(89)		(35)
UK-20c	of which: securitisation positions (negative amount)	(73)	(h)	(26)
UK-20d	of which: free deliveries (negative amount)	(16)	(j)	(9)
27a	Other regulatory adjustments to CET1 capital *(including IFRS 9 transitional adjustments when relevant)*	(115)	(i)	-
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	(1,502)		(1,441)
29	**Common Equity Tier 1 (CET1) capital**	22,512		22,639
Additional Tier 1 (AT1) capital: instruments				
30	Capital instruments and the related share premium accounts	4,300		4,300
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	4,300	(b)	4,300
Additional Tier 1 (AT1) capital: regulatory adjustments				
44	**Additional Tier 1 (AT1) capital**	4,300		4,300
45	**Tier 1 capital (T1 = CET1 + AT1)**	26,812		26,939
Tier 2 (T2) capital: instruments				
46	Capital instruments and the related share premium accounts	2,600		2,600
51	**Tier 2 (T2) capital before regulatory adjustments**	2,600	(c)	2,600
Tier 2 (T2) capital: regulatory adjustments				
57	**Total regulatory adjustments to Tier 2 (T2) capital**	-		
58	**Tier 2 (T2) capital**	2,600		2,600
59	**Total capital (TC = T1 + T2)**	29,412		29,539
60	**Total Risk exposure amount**	148,373		156,069
Capital ratios and buffers				
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	15.2%		14.5%
62	Tier 1 (as a percentage of total risk exposure amount)	18.1%		17.3%
63	Total capital (as a percentage of total risk exposure amount)	19.8%		18.9%
64	Institution CET1 overall capital requirement (CET1 requirement in accordance with Article 92 (1) CRR, plus additional CET1 requirement which the institution is required to hold in accordance with point (a) of Article 104(1) CRD, plus combined buffer requirement in accordance with Article 128(6) CRD) expressed as a percentage of risk exposure amount)	8.7%		7.1%
65	of which: capital conservation buffer requirement	2.5%		2.5%
66	of which: countercyclical buffer requirement	0.4%		0.1%
68	**Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)**	9.4%		8.8%
Amounts below the thresholds for deduction (before risk weighting)				
72	Direct and indirect holdings of own funds and eligible liabilities 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)	1,311		801
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 17.65% thresholds and net of eligible short positions)	1		3,884
75	Deferred tax assets arising from temporary differences (amount below 17,65% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met)	337		251
Applicable caps on the inclusion of provisions in Tier 2		-		-
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)		-		-

CGML's total capital remained stable year on year with a $0.1 billion decrease reflecting a movement in regulatory adjustments to CET1.

Details of the main features, terms and conditions of CGML's capital instruments including eligible liabilities 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 in the trading book and operational risk.

CGML uses a combination of standardised and internal model approaches, in line with its regulatory permissions, to calculate its Pillar 1 capital requirements. The table below provides information by risk category, on the approaches used to calculate Exposure at Default ("EAD") and Risk Weighted Assets ("RWA"). Where own funds requirements are provided in these disclosures, this represents the total minimum capital charge of 8% of RWAs.

Risk Category	Definitions	Regulatory Exposure Calculation Methods	RWA 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 Counterparty Credit Risk ("CCR") exposures: • Internal model method ("IMM") - applies to OTC derivatives as approved by the regulator; • Standardised approach for counterparty credit risk ("SA-CCR") - applies to exchange traded derivatives and non-IMM approved OTC derivatives; and, • Financial collateral comprehensive method ("FCCM") - applies to Securities Financing Transactions("SFTs")	
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.
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 risk weighted exposure amounts (UK OV1)

		31 December 2022	31 December 2021	31 December 2022
		RWAs	RWAs	Total own funds requirements
		$ million	$ million	$ million
1	**Credit risk (excluding CCR)**	5,274	6,063	422
2	Of which the standardised approach	5,274	6,063	422
3	Of which the Foundation IRB (F-IRB) approach	-	-	-
4	Of which: slotting approach	-	-	-
UK 4a	Of which: equities under the simple risk weighted approach	-	-	-
5	Of which the Advanced IRB (A-IRB) approach	-	-	-
6	**Counterparty credit risk - CCR**[1]	71,778	72,187	5,742
7	Of which the standardised approach[2]	23,264	23,439	1,861
8	Of which internal model method (IMM)	13,254	12,112	1,060
UK 8a	Of which exposures to a CCP	3,936	1,241	315
UK 8b	Of which credit valuation adjustment - CVA	8,306	6,469	665
9	Of which other CCR	23,018	28,926	1,841
15	**Settlement risk**	681	257	54
16	**Securitisation exposures in the non-trading book (after the cap)**	54	2	4
17	Of which SEC-IRBA approach	-	-	-
18	Of which SEC-ERBA (including IAA)	54	2	4
19	Of which SEC-SA approach	-	-	-
UK 19a	Of which 1250% / deduction	-	-	-
20	**Position, foreign exchange and commodities risk (Market risk)**	47,396	57,681	3,792
21	Of which the standardised approach	27,316	31,532	2,185
22	Of which IMA	20,079	26,149	1,606
UK 22a	**Large exposures**	-	-	-
23	**Operational risk**	22,694	19,879	1,815
UK 23a	Of which basic indicator approach	-	-	-
UK 23b	Of which standardised approach	769	566	61
UK 23c	Of which advanced measurement approach	21,925	19,313	1,754
24	Amounts below the thresholds for deduction (subject to 250% risk weight)	842	627	67
25	**Other Risk Exposure Amounts**[3]	497	-	40
29	**Total**	148,373	156,069	11,870

[1] CCR comparative has been reallocated in line with the PRA's new CRR II template format coming into force from 1 January 2022.
[2] The Standardised Approach for CCR was implemented with CRR II coming into force from 1 January 2022 replacing the mark to market approach. The comparative is reported under the previous approach.
[3] Other risk exposure amounts include additional risk exposure amount due to Article 3 of CRR.

Credit Risk

Credit risk RWAs decreased $0.8 billion driven by decreases in third party loan exposures.

Counterparty Credit Risk

Counterparty credit risk RWAs decreased by $0.4 billion. Whilst a day one impact driven by the implementation of SA-CCR calculation method resulted in an increase in derivatives RWA, this was more than offset by other movements affected by market conditions.

Market Risk

Market risk RWAs decreased by $10.2 billion, reflecting lower RWAs on options under the standardised approach, whilst a reduction in Internal Model Approach ("IMA") is driven by a decrease in SVaR.

Operational Risk

Operational risk RWAs increased by $2.8 billion year on year driven by parameter changes under the advanced measurement approach.

Table 8: RWA flow statements of CCR exposures under the IMM (UK CCR7)

This table presents a flow statement explaining changes in the CCR RWAs determined under the IMM for Counterparty Credit Risk excluding exposures to Central Counterparty Clearing House ("CCP").

		RWA
		$ million
1	**RWA as at 31 December 2021**	12,417
2	Asset size	1,143
3	Credit quality of counterparties	(212)
4	Model updates (IMM only)	69
5	Methodology and policy (IMM only)	(2)
6	Acquisitions and disposals	-
7	Foreign exchange movements	-
8	Other	-
9	**RWA as at 31 December 2022**	13,415

CCR RWAs excluding CCPs under IMM increased by $1 billion primarily driven by market movements impacting the calculation of exposure.

Table 9: RWA Flow Statements of Market Risk Exposures under the IMA (UK MR2-B)
The table presents a flow statement explaining variations in the market risk RWAs.

		VaR	SVaR	IRC	Comprehensive risk measure	Other[1]	Total RWAs	Total own funds requirements
		$ million	$ million	$ million	$ million	$ million	$ million	$ million
1	**RWAs as at 31 December 2021**	4,729	12,439	4,059	-	4,922	26,149	2,092
1a	*Regulatory adjustment*	(3,362)	(8,797)	(1,092)	-	(3,217)	(16,468)	(1,317)
1b	*RWAs at the previous quarter-end*	1,367	3,642	2,967	-	1,705	9,681	774
2	Movement in risk levels	(179)	(1,185)	672	-	3,534	2,842	227
3	Model updates/changes	198	(449)	-	-	(1,402)	(1,653)	(132)
4	Methodology and policy	-	-	-	-	-	-	-
5	Acquisitions and disposals	-	-	-	-	-	-	-
6	Foreign exchange movements	-	-	-	-	-	-	-
7	Other	-	-	-	-	-	-	-
8a	*RWAs at the end of the disclosure period*	1,386	2,009	3,639	-	3,836	10,870	870
8b	*Regulatory adjustment*	2,126	3,081	1,074	-	2,930	9,209	737
8	**RWAs as at 31 December 2022**	3,512	5,089	4,713	-	6,765	20,079	1,606

[1]Other category includes Risks Not in VaR ("RNIV").

RWAs under the IMA approach decreased by $6.1 billion. This is attributed to a decrease in exposures impacting the VaR and SVaR, partially offset by an increase in RNIV's due to movement in risk levels.

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; and,
- 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 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 + Pillar 2A capital requirements) of 10.26% as at 31 December 2022.

Capital Buffers

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

Capital Management

CGML's capital management is centred on current and prospective business activities, risk profile, capital capacity, 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 Inc. 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; and,
- 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 is not an LREQ firm and 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 (UK LR1 – LRSum)

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

		31 December 2022	31 December 2021[1]
		$ million	$ million
1	Total assets as per published financial statements	566,173	497,127
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of prudential consolidation	-	-
3	(Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference)	-	-
4	(Adjustment for exemption of exposures to central banks)	(2,795)	-
5	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the total exposure measure in accordance with point (i) of Article 429a(1) of the CRR)	-	-
6	Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	-	-
7	Adjustment for eligible cash pooling transactions	-	-
8	Adjustment for derivative financial instruments	(119,073)	(31,486)
9	Adjustment for securities financing transactions (SFTs)	23,283	33,761
10	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	29	-
11	(Adjustment for prudent valuation adjustments and specific and general provisions which have reduced tier 1 capital (leverage))	-	-
UK-11a	(Adjustment for exposures excluded from the total exposure measure in accordance with point I of Article 429a(1) of the CRR)	-	-
UK-11b	(Adjustment for exposures excluded from the total exposure measure in accordance with point (j) of Article 429a(1) of the CRR)	-	-
12	Other adjustments	(53,542)	(13,750)
13	**Total exposure measure**	414,076	485,652

[1] The table follows the CRR II format effective 1 January 2022, however the comparative values are included on CRR I basis and are not restated.

Table 11: Split-up of on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures) (UK LR3 – LRSpl)

		31 December 2022	31 December 2021
		$ million	$ million
UK-1	**Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:**	157,904	104,092
UK-2	Trading book exposures	146,246	90,622
UK-3	Banking book exposures, of which:	11,659	13,470
UK-4	Covered bonds	-	-
UK-5	Exposures treated as sovereigns	3,557	2,669
UK-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	-	-
UK-7	Institutions	5,283	7,624
UK-8	Secured by mortgages of immovable properties	-	-
UK-9	Retail exposures	-	-
UK-10	Corporate	1,033	2,030
UK-11	Exposures in default	-	-
UK-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	1,785	1,147

Table 12: Leverage ratio common disclosure (UK LR2 – LRCom)

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

		31 December 2022 $ million
On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs, but including collateral)	138,450
2	Gross-up for derivatives collateral provided, where deducted from the balance sheet assets pursuant to the applicable accounting framework	-
3	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(35,397)
4	(Adjustment for securities received under securities financing transactions that are recognised as an asset)	-
5	(General credit risk adjustments to on-balance sheet items)	-
6	(Asset amounts deducted in determining tier 1 capital (leverage))	(1,187)
7	**Total on-balance sheet exposures (excluding derivatives and SFTs)**	101,865
Derivative exposures		
8	Replacement cost associated with SA-CCR derivatives transactions (i.e. net of eligible cash variation margin)	15,798
UK-8a	Derogation for derivatives: replacement costs contribution under the simplified standardised approach	-
9	Add-on amounts for potential future exposure associated with SA-CCR derivatives transactions	49,011
UK-9a	Derogation for derivatives: potential future exposure contribution under the simplified standardised approach	-
UK-9b	Exposure determined under the original exposure method	-
10	(Exempted CCP leg of client-cleared trade exposures) (SA-CCR)	(5,558)
UK-10a	(Exempted CCP leg of client-cleared trade exposures) (simplified standardised approach)	-
UK-10b	(Exempted CCP leg of client-cleared trade exposures) (original exposure method)	-
11	Adjusted effective notional amount of written credit derivatives	900,841
12	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(846,652)
13	**Total derivatives exposures**	113,441
Securities financing transaction (SFT) exposures		
14	Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	233,453
15	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(55,172)
16	Counterparty credit risk exposure for SFT assets	23,283
UK-16a	Derogation for SFTs: counterparty credit risk exposure in accordance with Articles 429e(5) and 222 of the CRR	-
17	Agent transaction exposures	-
UK-17a	(Exempted CCP leg of client-cleared SFT exposures)	-
18	**Total securities financing transaction exposures**	201,564
Other off-balance sheet exposures		
19	Off-balance sheet exposures at gross notional amount	-
20	(Adjustments for conversion to credit equivalent amounts)	-
21	(General provisions deducted in determining tier 1 capital (leverage) and specific provisions associated with off-balance sheet exposures)	
22	**Off-balance sheet exposures**	-
Excluded exposures		
UK-22a	(Exposures excluded from the total exposure measure in accordance with point I of Article 429a(1) of the CRR)	-
UK-22b	(Exposures exempted in accordance with point (j) of Article 429a(1) of the CRR (on- and off- balance sheet))	-
UK-22g	(Excluded excess collateral deposited at triparty agents)	-
UK-22k	**(Total exempted exposures)**	-
Capital and total exposure measure		
23	**Tier 1 capital (leverage)**	26,812
24	Total exposure measure including claims on central banks	416,871
UK-24a	(-) Claims on central banks excluded	(2,795)
UK-24b	**Total exposure measure excluding claims on central banks**	414,076
Leverage ratio		
25	Leverage ratio excluding claims on central banks (%)	6.5%
UK-25a	Fully loaded ECL accounting model leverage ratio excluding claims on central banks (%)	6.5%
UK-25b	Leverage ratio excluding central bank reserves as if the temporary treatment of unrealised gains and losses measured at fair value through other comprehensive income had not been applied (%)	-
UK-25c	Leverage ratio including claims on central banks (%)	6.4%
26	Regulatory minimum leverage ratio requirement (%)[1]	-
Additional leverage ratio disclosure requirements – leverage ratio buffers		
27	Leverage ratio buffer (%)	-
UK-27a	Of which: G-SII or O-SII additional leverage ratio buffer (%)	-
UK-27b	Of which: countercyclical leverage ratio buffer (%)	-
Additional leverage ratio disclosure requirements – disclosure of mean values		
28	Mean of daily values of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivable	-
29	Quarter-end value of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables	-
UK-31	Average total exposure measure including claims on central banks	-
UK-32	Average total exposure measure excluding claims on central banks	-
UK-33	Average leverage ratio including claims on central banks	-
UK-34	Average leverage ratio excluding claims on central banks	-

[1] In accordance with the requirements set in the PRA rulebook, CGML is not a LREQ firm as at 31 December 2022 and is not required to disclose row 26 to UK-34 of this template.

[2] No comparatives are disclosed given the changes in the leverage exposure reporting framework.

CGML's Leverage ratio increased to 6.5% as at 31 December 2022, primarily reflecting a $71.6 billion decrease in leverage exposures primarily due to greater derivatives netting achieved under the Standardised Approach for Counterparty Credit Risk ("SA-CCR") approach as introduced through CRR II on 1 January 2022.

Minimum Requirement for Own Funds and Eligible Liabilities

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"), or Minimum Requirement for Own Funds and Eligible Liabilities ("MREL") as implemented in the UK.

In the EU these requirements were introduced under CRR II as the MREL, with effect from June 2019. MREL requirements under CRR II were adopted to UK law by The Capital Requirements (Amendment) (EU Exit) Regulations 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 and certain types of debt liabilities (or eligible liabilities) that will be written down and/or converted to equity if a firm is likely to fail.

CGML, as a material subsidiary of a non-UK/non-EU Global Systemically Important Institution ("G-SII") 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. These tables have been prepared using the uniform format set out in the Basel Committee for Banking Supervision Standard on Pillar 3 disclosure requirements published in 2017. As at 31 December 2022, CGML is subject to a minimum CRR II internal MREL requirement of the higher of 18% of RWA or 6.75% of leverage exposures, both subject to a 90% scalar.

Table 13: TLAC composition (TLAC1)

The table below provides details of the composition of CGML's internal TLAC eligible instruments.

		31 December 2022 $ million	31 December 2021 $ million
Regulatory capital elements of TLAC and adjustments			
1	**Common Equity Tier 1 (CET1) capital**	22,512	22,639
2	Additional Tier 1 (AT1) capital before TLAC adjustments	4,300	4,300
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	4,300
6	Tier 2 (T2) capital before TLAC adjustments	2,600	2,600
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	2,600
11	**TLAC arising from regulatory capital**	29,412	29,539
Non-regulatory capital elements of TLAC			
12	Internal TLAC instruments issued directly by the entity and subordinated to excluded liabilities	8,500	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**	8,500	6,000
Non-regulatory capital elements of TLAC: adjustments			
18	TLAC before deductions	37,912	35,539
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**	37,912	35,539
Risk-weighted assets (RWA) and leverage exposure measure for TLAC purposes			
23	Total RWA adjusted as permitted under the TLAC regime	148,373	156,069
24	Leverage exposure measure	414,076	485,652
TLAC ratios and buffers			
25	TLAC (as a percentage of RWA adjusted as permitted under the TLAC regime)	25.6%	22.8%
26	TLAC (as a percentage of leverage exposure)	9.2%	7.3%
27	CET1 (as a percentage of RWA) available after meeting the entity's minimum capital and TLAC requirements	9.4%	8.4%
28	Bank-specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss-absorbency requirement, expressed as a percentage of RWA)	2.9%	2.6%
29	Of which: capital conservation buffer requirement	2.5%	2.5%
30	Of which: bank-specific countercyclical buffer requirement	0.4%	0.1%
31	Of which: higher loss-absorbency requirement	-	-

CGML's eligible liabilities increased by $2.5 billion as a result of new issuances during the second half of the year.

Table 14: 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 2022
		$ 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	8,500	35,399
4	Subset of row 3 that are excluded liabilities	-	-	-	-	-
5	Total capital and liabilities less excluded liabilities (row 3 minus row 4)	19,999	4,300	2,600	8,500	35,399
6	Subset of row 5 that are eligible as TLAC	19,999	4,300	2,600	8,500	35,399
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	-	-	-	-	-
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	-	-	-	1,000	1,000
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	-	-	1,600	7,500	9,100
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 CGML Board 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 2022 Form 10-K, available at: https://www.citigroup.com/citi/investor/reg.htm

Table 15: Credit Risk Own Funds Requirements

	EAD	RWAs	Own funds requirements
	$ million	$ million	$ million
Credit Risk (post CRM)	13,045	5,274	422

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, 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 UK regulatory capital purposes, CGML does not have an Internal Ratings Based model permission from the PRA.

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 16: Credit quality of performing and non-performing exposures by past due days (UK CQ3)

		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 defaul t-ed
005	**Cash balances at central banks and other demand deposits**	8,212	8,212	-	-	-	-	-	-	-	-	-	-
010	**Loans and advances**	177,289	177,289	-	-	-	-	-	-	-	-	-	-
020	Central banks	13,277	13,277	-	-	-	-	-	-	-	-	-	-
030	General governments	108	108	-	-	-	-	-	-	-	-	-	-
040	Credit institutions	14,219	14,219	-	-	-	-	-	-	-	-	-	-
050	Other financial corporations	149,685	149,685	-	-	-	-	-	-	-	-	-	-
220	**Total as at 31 December 2022**	185,501	185,501	-	-	-	-	-	-	-	-	-	-

[1]A financial asset is past due when a counterparty has failed to make agreed payments of principal and/or interest remain unpaid when the payment was contractually due. Exposures which are 90 days past due are treated as defaulted and classified as Stage 3 from an IFRS 9 perspective, as described above.

Table 17: Performing and non-performing exposures and related provisions (UK CR1)

		Gross carrying amount/nominal amount						Accumulated impairment[1], accumulated negative changes in fair value due to credit risk and provisions[1]						Accum -ulated 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
	$ million		Stage 1	Stage 2		Stage 2	Stage 3		Stage 1	stage 2		Stage 2	Stage 3			
005	**Cash balances at central banks and other demand deposits**	8,212	8,212	-	-	-	-	-	-	-	-	-	-	-	-	-
010	**Loans and advances**	177,289	177,289	-	-	-	-	-	-	-	-	-	-	-	153,674	-
020	Central banks	13,277	13,277	-	-	-	-	-	-	-	-	-	-	-	12,865	-
030	General governments	108	108	-	-	-	-	-	-	-	-	-	-	-	-	-
040	Credit institutions	14,219	14,219	-	-	-	-	-	-	-	-	-	-	-	13,569	-
050	Other financial corporations	149,685	149,685	-	-	-	-	-	-	-	-	-	-	-	127,240	-
220	**Total as at 31 December 2022**[1]	185,501	185,501	-	-	-	-	-	-	-	-	-	-	-	153,674	-

[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. The same definition applies to both accounting and regulatory definitions.

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 Inc. 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.

Countries are segmented into three groups (or Tiers), based on explicit criteria, with headroom per country limit 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 European Banking Authority ("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, this is reported 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 current 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 18: Maturity of Exposures (UK CR1-A)

The table below provide a breakdown of net exposures pre Credit Conversion Factor ("CCF") and CRM by residual maturity.

		Net exposure value					
		On demand	≤ 1 year	> 1 year ≤ 5 years	> 5 years	No stated maturity	Total
		$ million	$ million	$ million	$ million	$ million	$ million
1	Loans and advances	96,003	79,611	1,213	-	461	177,289
2	Debt securities	-	-	-	-	-	-
3	Total as at 31 December 2022[1]	96,003	79,611	1,213	-	461	177,289

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 19: CRM techniques overview: Disclosure of the use of credit risk mitigation techniques (UK CR3)

This table shows the extent of the use of CRM techniques for CGML.

		Unsecured carrying amount	Secured carrying amount			
				Of which secured by collateral	Of which secured by financial guarantees	Of which secured by credit derivatives
		$ million	$ million	$ million	$ million	$ million
1	Loans and advances	31,827	153,674	153,674	-	-
2	Debt securities	-	-	-	-	-
3	Total	31,827	153,674	153,674	-	-
4	*Of which non-performing exposures*	-	-	-	-	-
5	*Of which defaulted*	-	-	-	-	-

Table 20: Standardised approach – Credit risk exposure and CRM effects (UK 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	3,557	-	3,557	-	328	9%
Institutions	5,732	-	5,732	-	1,388	24%
Corporates	2,528	-	2,528	-	2,266	90%
Equity	1,060	-	909	-	910	100%
Other items	319	-	319	-	382	120%
Total as at 31 December 2022	13,196	-	13,045	-	5,274	40%

	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%
Equity	108	-	108	-	108	101%
Other items	218	-	218	-	342	157%
Total as at 31 December 2021	13,724	-	13,724	-	6,063	44%

RWAs decreased across most exposure classes in line with the decrease 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 attributable to increased exposures to 0% risk weighted central governments and central banks.

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 V. CGML uses ratings assigned by Standard and Poor's (S&P), 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 21: 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 22: Standardised approach (UK 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	Total	Of which unrated
	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Exposure classes																	
Central governments or central banks	3,426	–	–	–	–	–	–	–	–	–	–	131	–	–	–	3,557	762
Institutions	–	–	–	–	4,927	–	805	–	–	0	0	–	–	–	–	5,732	642
Corporates	–	–	–	–	0	–	792	–	–	1,467	269	–	–	–	–	2,528	1,469
Equity exposures	–	–	–	–	–	–	–	–	–	909	–	1	–	–	–	909	124
Other items	–	–	–	–	–	–	–	–	–	277	–	42	–	–	–	319	319
Total as at 31 December 2022	3,426	–	–	–	4,927	–	1,596	–	–	2,654	269	173	–	–	–	13,045	3,316

	Risk weight																
	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Total	Of which unrated
	$ 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
Equity exposures	–	–	–	–	–	–	–	–	–	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

Exposures in the 0% risk weight band increased by $1.1 billion due to an increase in cash deposits with central banks, while the decrease in the exposures with 20% risk weight is due to lower third-party cash exposures with institutions. In addition, unrated exposures decreased by $1.9 billion primarily as the result of lower third party cash and loan 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;
- SFTs;
- 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 foreign exchange ("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 22.

Approach to calculate capital requirements

Risk Category	Methods for Calculating Exposure	Application
Derivatives	SA-CCR	The exposure amount for a derivative contract is equal to an alpha factor of 1.4 multiplied by the sum of the replacement cost and the PFE of the netting set. The PFE portion consists of a multiplier and an aggregate add-on, which is derived from add-ons developed for each asset class. SA-CCR differentiates between margined and non-margined trades and recognises netting benefits. 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.
SFTs	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 Enterprise Stress Testing and Governance Committee is responsible for developing the GSST 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 23: Analysis of CCR Exposure by Approach (UK 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.

		Replacement cost (RC) $ million	Potential future exposure (PFE) $ million	EEPE $ million	Alpha used for computing regulatory exposure value $ million	Exposure value pre-CRM $ million	Exposure value post-CRM $ million	Exposure value $ million	RWA $ million
UK1	Original Exposure Method (for derivatives)	–	–	–	1.4	–	–	–	–
UK2	Simplified SA-CCR (for derivatives)	–	–	–	1.4	–	–	–	–
1	SA-CCR (for derivatives)	11,440	22,031	–	1.4	71,370	38,443	32,416	23,264
2	IMM (for derivatives and SFTs)	–	–	14,452	1.4	69,741	22,475	20,233	13,254
2a	*Of which securities financing transactions netting sets*	–	–	–	–	–	–	–	–
2b	*Of which derivatives and long settlement transactions netting sets*	–	–	14,452	–	69,741	22,475	20,233	13,254
2c	*Of which from contractual cross-product netting sets*	–	–	–	–	–	–	–	–
3	Financial collateral simple method (for SFTs)	–	–	–	–	–	–	–	–
4	Financial collateral comprehensive method (for SFTs)	–	–	–	–	370,533	40,682	40,682	24,547
5	VaR for SFTs	–	–	–	–	–	–	–	–
6	**Total as at 31 December 2022**	–	–	–	–	511,644	101,600	93,331	61,064

		Notional $ million	Replacement cost/current market value $ million	Potential future credit exposure $ 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

[1] Exposures report for 2021 reflect calculation under the mark-to-market method.

The counterparty credit risk RWA decreased by $3.4 billion to $61.1 billion as at 31 December 2022 due to the following:

- Derivatives RWA increased $1 billion from prior year primarily due to the implementation SACCR method under CRR II framework replacing the Mark to Market method.
- SFT RWAs calculated under the financial collateral comprehensive method decreased by $4.4 billion as result of client led activity.

CVA and Funding 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) 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; and

- 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 24: Transactions subject to own funds requirements for CVA risk (UK CCR2)

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

		31 December 2022		31 December 2021	
		Exposure value	RWA	Exposure value	RWA
		$ million	$ million	$ million	$ million
1	Total transactions subject to the Advanced method	13,031	2,699	9,671	3,266
2	*(i) VaR component (including the 3× multiplier)*	–	1,129	–	984
3	*(ii) stressed VaR component (including the 3× multiplier)*	–	1,570	–	2,282
4	Transactions subject to the Standardised method	12,282	5,608	9,260	3,203
UK 4	Transactions subject to the Alternative approach (Based on the Original Exposure Method)	–	–	–	–
5	**Total transactions subject to own funds requirements for CVA risk**	25,313	8,306	18,931	6,469

CGML's CVA RWA increased by $1.8 billion year-on-year. This resulted from implementation of SA-CRR method and the increase in exposures under the standardised method.

Table 25: Standardised approach – CCR exposures by regulatory exposure class and risk weights (UK 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
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
1	Central governments or central banks	4,386	–	–	2,374	1,003	54	–	–	7,817
2	Regional government or local authorities	63	–	–	0	–	1	–	–	64
3	Public sector entities	368	–	–	872	–	135	–	–	1,375
4	Multilateral development banks	–	–	–	–	–	–	–	–	–
5	International organisations	390	–	–	–	–	–	–	–	390
6	Institutions	–	26,202	5,983	10,746	29,774	1,340	–	–	74,045
7	Corporates	–	–	–	1,769	2,539	40,219	226	–	44,753
8	Retail	–	–	–	–	–	–	–	–	–
9	Institutions and corporates with a short-term credit assessment	–	–	–	–	–	–	–	–	–
10	Other items	–	–	–	0	–	–	412	–	412
11	**Total as at 31 December 2022**	5,207	26,202	5,983	15,762	33,316	41,749	638	–	128,858

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

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 at a collateral forum which the UK CRO or delegate attends in particular for changes in the profile or composition of collateral, concentrations and unusual or concerning securities.

CGML undertakes largely 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; and,
- 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 ("WWR"), 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, United States ("US") 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.

Collateral Concentrations

Cash and sovereign government bonds are the predominant form of collateral accepted in respect of margined OTC derivative transactions and SFTs as at 31 December 2022. 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 26: Composition of collateral for CCR exposures (UK CCR5)

This table shows the breakdown of all types of posted or received collateral by CGML to support or reduce Counterparty Credit Risk exposures related to derivative transactions or to SFTs

		Collateral used in derivatives transactions				Collateral used in securities financing transactions (SFTs)	
		Fair value of collateral received		Fair value of collateral posted		Fair value of collateral received	Fair value of collateral posted
		Segregated	Unsegregated	Segregated	Unsegregated		
	Collateral type	$ million	$ million	$ million	$ million	$ million	$ million
1	Cash	-	7,877	444	14,119	-	-
2	Debt	5,129	61,222	5,038	56,161	281,449	196,930
3	Equity	217	101	4	1	57,400	48,015
4	Other	-	17	1,469	1	2,625	5,048
5	**Total as at 31 December 2022**[1]	5,346	69,218	6,955	70,282	341,474	249,993

		Collateral used in derivatives transactions				Collateral used in securities financing transactions (SFTs)	
		Fair value of collateral received		Fair value of collateral posted		Fair value of collateral received	Fair value of collateral posted
		Segregated	Unsegregated	Segregated	Unsegregated		
	Collateral type	$ million	$ million	$ million	$ million	$ million	$ million
1	Cash	-	33,518	-	40,652	176,168	252,573
2	Debt	433	10,801	1,593	11,750	265,042	213,479
3	Equity	286	43	4	-	61,684	51,622
4	Other	1	2,474	-	1,188	1,963	2,287
5	Total as at 31 December 2021[1]	719	46,837	1,596	53,590	504,856	519,961

[1]The collateral type breakdown changed as the result of CRR II effective 1 January 2022. Comparative has been reallocated to align with the new table layout. Additionally, basis of preparation changed for Cash collateral.

Wrong Way Risk

CGML is exposed to General Wrong Way Risk ("GWWR") and Specific Wrong Way Risk ("SWWR") through its business activities. General Wrong Way Risk arises in counterparty credit risk transactions when there is a positive correlation between the counterparty's probability of default and the credit exposure on the underlying transaction or collateral supporting the transaction. SWWR arises when the exposure to a particular counterparty is positively correlated with the probability of default of the counterparty due to a legal connection between the counterparty and the underlying exposure or collateral. WWR which is not SWWR is deemed to be GWWR.

GWWR in financing-style transactions is identified using rules-based approaches to identify common attributes including region, country and industry between the counterparty and the underlying exposure or collateral. 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.

Reporting and limits are used to support the monitoring and control of WWR:

- A SWWR notional limit is used to control the aggregate notional or 'cash delivered' on SWWR SFT and OTC derivatives transactions;
- A portfolio-level GWWR stress loss limit to control aggregate GWWR across all CGML counterparties with SFT and OTC derivative positions. The WWR stress loss measurement reflects the impact of general market factors shocks on the counterparties under a given stress scenario and stresses the probability of default of counterparties giving rise to WWR;
- Aggregate country notional WWR limits for financing-style transactions exposed to WWR associated with countries deemed to be higher risk;
- Country GWWR stress loss limits to control the total GWWR stress loss at the country level across all SFT and OTC derivative positions; and,
- Monitoring of FX WWR generated at the aggregate country-level.

For transactions exposed to SWWR, internal and regulatory exposure calculations are adjusted to reflect the propensity for exposure to be maximised at the point of counterparty default.

Transactions generating SWWR or GWWR which meet a specific pre-defined criteria are subject to pre-trade approval. A WWR Council meets quarterly to provide governance and oversight of CGML's WWR exposure profile.

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.

Table 27: Credit Derivatives Exposures (UK CCR6)

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

		31 December 2022		31 December 2021	
		Protection bought	Protection sold	Protection bought	Protection sold
Notionals		$ million	$ million	$ million	$ million
1	Single-name credit default swaps	251,170	253,264	237,272	237,122
2	Index credit default swaps	628,892	631,292	459,806	454,973
3	Total return swaps	1,791	1,154	134	4,025
4	Credit options	15,666	15,631	27,434	27,684
5	Other credit derivatives	895	736	3,600	3,600
6	***Total notionals***	898,415	902,077	728,246	727,403
Fair values					
7	Positive fair value (asset)	3,936	9,904	2,085	19,313
8	Negative fair value (liability)	(10,138)	(3,663)	(19,125)	(2,448)

The total notional values of Credit Derivatives has increased year on year driven by an increase in market making trading volumes.

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 28: Exposures to CCPs (UK CCR8)

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

		31 December 2022[1]		31 December 2021	
		Exposure value	RWA	Exposure value	RWA
		$ million	$ million	$ million	$ million
1	**Exposures to QCCPs (total)**		3,887		1,241
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	42,592	3,142	19,521	721
3	(i) OTC derivatives	13,533	353	8,254	263
4	(ii) Exchange-traded derivatives	23,741	729	8,148	163
5	(iii) SFTs	5,318	2,060	3,120	295
6	(iv) Netting sets where cross-product netting has been approved	-	-	-	-
7	Segregated initial margin	3,073	-	-	-
8	Non-segregated initial margin	27,685	554	8,040	161
9	Prefunded default fund contributions	1,650	191	1,309	360
10	Unfunded default fund contributions	2,639	-	-	-
11	**Exposures to non-QCCPs (total)**		49		-
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	49	49	-	-
13	(i) OTC derivatives	0	0	-	-
14	(ii) Exchange-traded derivatives	-	-	-	-
15	(iii) SFTs	49	49	-	-
16	(iv) Netting sets where cross-product netting has been approved	-	-	-	-
17	Segregated initial margin	-		-	-
18	Non-segregated initial margin	-	-	-	-
19	Prefunded default fund contributions	-	-	-	-
20	Unfunded default fund contributions	-	-	-	-

[1] Basis of preparation changed following CRR II mapping guidance effective from 1 January 2022. Prior year comparative has not been restated.

Movement in exposures to QCCPs across 2022 is primarily driven by an underlying increase in exposures resulting from market movements, whilst more generally cleared activity has increased in volume.

Market Risk

Market risk 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 interest rates, exchange rates, equity and commodity prices or credit spreads.

CGML faces market risk across both its trading and non-trading positions. The Citi Mark-to-Market Risk Policy articulates principles and key requirements for defining, identifying, measuring, monitoring, managing and reporting Mark-to-Market ("MTM") risk.

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.

As outlined in the Citi MTM Risk Policy, Business units are responsible for complying with the Policy and for remaining within the approved independent Market Risk limits. Businesses are only permitted to take Market Risk exposure where it can be accurately and reliably measured, including at the CGML level.

Under the Citi MTM Risk Policy, any Desk or Business unit undertaking activity that is subject to MTM risk must have a Desk Mandate which describes the activities, such as the mission and strategy, the product types and usage, trading and hedging strategies, of each Desk.

In addition, any Desk or Business unit undertaking activity which gives rise to MTM Risk exposures must have one or more Permitted Product Lists defining the products and legal entities in which they are permitted to execute transactions. The PPLs must align with the appropriate Desk Mandate.

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 or Market Risk Concentration Limits cover the entire Market Risk Trading Risk Pool while Tier 1 or Market Risk Limits cover the Institutional Client Group division activities within Market Risk Trading Risk Pool. Tier 2 limits are set to cover specific Product or/and Business activities within Market Risk Trading Risk Pool 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 cover specific MTM Risk Desk activities within Market Risk for those risk factors that have been determined material for activities by the Desk and Market Risk. CGML has a Tier 2 Limit structure (Legal Entity level), and Tier 3 (Business Level) and Tier 4 (Desk Level) Management Triggers in place.

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 IMA to capitalise for Market Risk. Under IMA, CGML uses a 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 Fixed Income, Equities, Foreign-exchange and Commodities businesses depending on their position type and trading location. In addition to VaR based capital requirements, CGML further capitalises in respect of SVaR and the IRC.

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

Table 29: Market Risk under Standardised Approach (UK MR1)
This table displays CGML's components of own funds requirements under the standardised approach for market risk.

		31 December 2022 RWAs $ million	31 December 2021 RWAs $ million
	Outright products		
1	Interest rate risk (general and specific)	13,370	14,319
2	Equity risk (general and specific)	3,986	8,915
3	Foreign exchange risk	6,711	3,721
4	Commodity risk	602	473
	Options		
7	Scenario approach	1,987	3,517
8	Securitisation (specific risk)	660	587
9	**Total**	27,316	31,532

Market risk RWAs under standardised approach decreased by $4.2 billion year-on-year, with the primary drivers being a decrease in equity risk primarily due to lower capital requirements on options.

Table 30: Market risk under the Internal Model Approach (UK MR2-A)

		As at 31 December 2022		As at 31 December 2021	
		RWAs	Own funds requirements	RWAs	Own funds requirements
		$ million	$ million	$ million	$ million
1	**VaR (higher of values a and b)**	3,512	281	4,729	378
(a)	Previous day's VaR (VaRt-1)	-	111	-	109
(b)	Multiplication factor (mc) x average of previous 60 working days (VaRavg)	-	281	-	378
2	**SVaR (higher of values a and b)**	5,089	407	12,439	995
(a)	Latest available SVaR (SVaRt-1))	-	161	-	291
(b)	Multiplication factor (ms) x average of previous 60 working days (sVaRavg)	-	407	-	995
3	**IRC (higher of values a and b)**	4,713	377	4,059	325
(a)	Most recent IRC measure	-	291	-	237
(b)	12 weeks average IRC measure	-	377	-	325
5	**Other**[1]	6,765	541	4,922	394
6	**Total**	20,079	1,606	26,149	2,092

[1]Other category includes Risks Not in VaR ("RNIV"). Prior year comparative was reallocated in accordance with current year presentation.

CGML's Market Risk's RWA's calculated under IMA decreased by $6.1 billion compared to prior year end primarily driven by SVaR, largely as a result of planned exposure movements.

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 monthly and quarterly to senior management and the CGML Board 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

VaR is a statistical estimation of the potential decline in value of a position or a portfolio under normal market conditions, within a defined confidence level and over a specific time period.

Citi's 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 approach using the maximum of the three year Fat Tail Scaled volatility and the Exponentially Weighted Moving Average 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 CEO and the CGML Board.

Stressed VaR

SVaR is a VaR-based risk measure subject to the same confidence level and holding period applicable to the VaR-based measure, but with model inputs calibrated to historical data from a continuous 12-month period that reflects a period of significant financial stress appropriate to current portfolios.

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 at least quarterly by Market Risk Management, Market Risk Analytics and the CGML IMA Control Committee and is also 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 ("IRE") 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 Profit and Loss ("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

To the extent that a material risk is not adequately captured in the VaR model, CGML derives and documents Risks Not in VaR ("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 (VaR RNIV) is calculated as the standalone VaR equivalent, scaled to a ten day holding period. A stressed VaR (SVaR RNIV) based add-on is also calculated with the stressed period identified corresponding to the one used for Stressed VaR; and,
- Stressed RNIVs – For RNIVs that are based on stress tests (Stressed RNIVs), 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 methodologies are owned by Global Market Risk Management. The Market Risk Reporting Team is responsible for the calculation of capital buffers derived from RNIVs and SRNIVs risk following the PRA's requirements. The identification, quantification and reporting of existing RNIVs, as well as potentially new risks, is monitored by Risk Model Analytics on a monthly basis.

Table 31: IMA Values for Trading Portfolios (UK 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 2022	31 December 2021[1]	31 December 2022	31 December 2021[1]
	$ million	$ million	$ million	$ million
VaR (10 day 99%)				
Maximum value	154	139	33	37
Average value	102	88	14	19
Minimum value	64	51	4	10
Period end	105	91	6	18
SVaR (10 day 99%)				
Maximum value	313	393	81	117
Average value	158	217	39	58
Minimum value	65	135	10	21
Period end	148	237	13	55
IRC (99.9%)				
Maximum value	571	538	1	0
Average value	406	368	0	0
Minimum value	210	202	-	0
Period end	291	237	0	0

[1]With the CRR II requirements coming into force on 1 January 2022 this table is required to be prepared on an annual basis for CGML in accordance with Article 433a (2). As such the table covers the full year and comparative is on the same basis

Back-testing

The accuracy of allocated market risk capital derived from the VaR model is assessed through daily Back-testing performed by Market Risk Reporting (actual) and Market Risk Analytics (hypothetical) 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 graphs on Table 32 on the following page.

Stress Testing

Citi performs stress testing on a regular basis to estimate the impact of extreme market movements. It is performed at enterprise, regional, individual, risk pools, and business levels. 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 classified into 2 key categories:

- Global Systematic Stress Testing ("GSST"); and,
- Business Specific Stress Testing ("BSST").

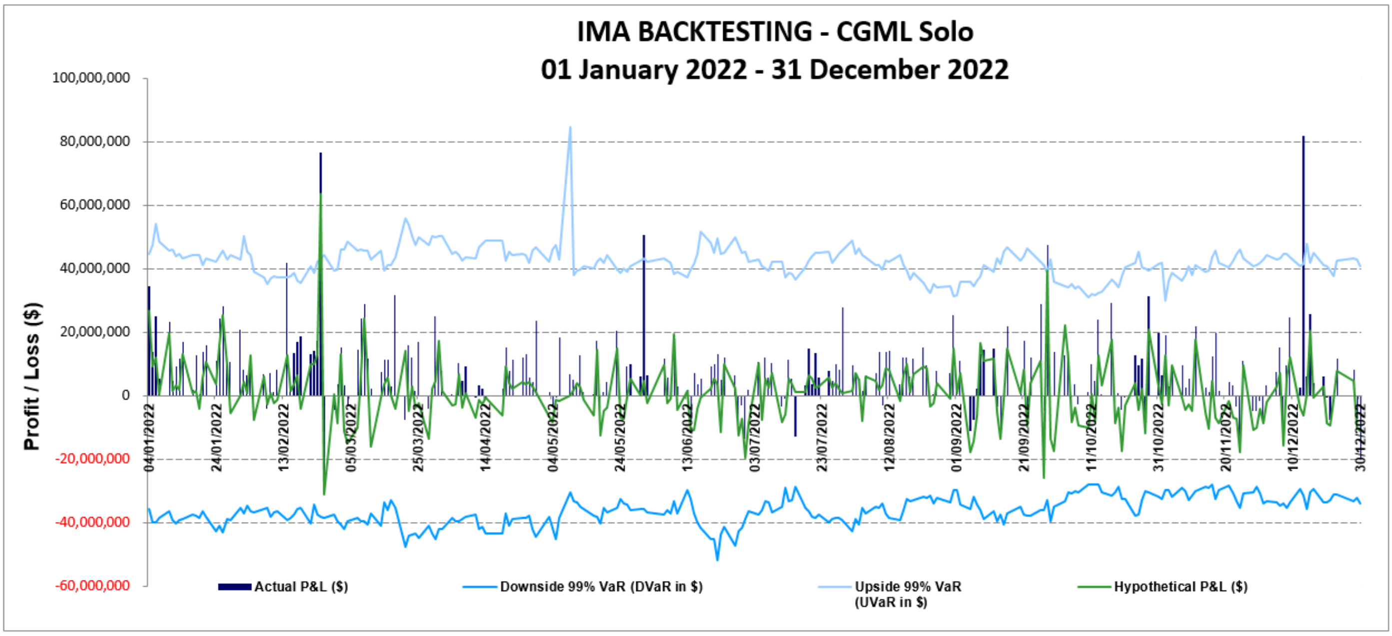
GSSTs are designed to quantify the potential impact of extreme market movements on a firm-wide basis and are performed at least monthly.

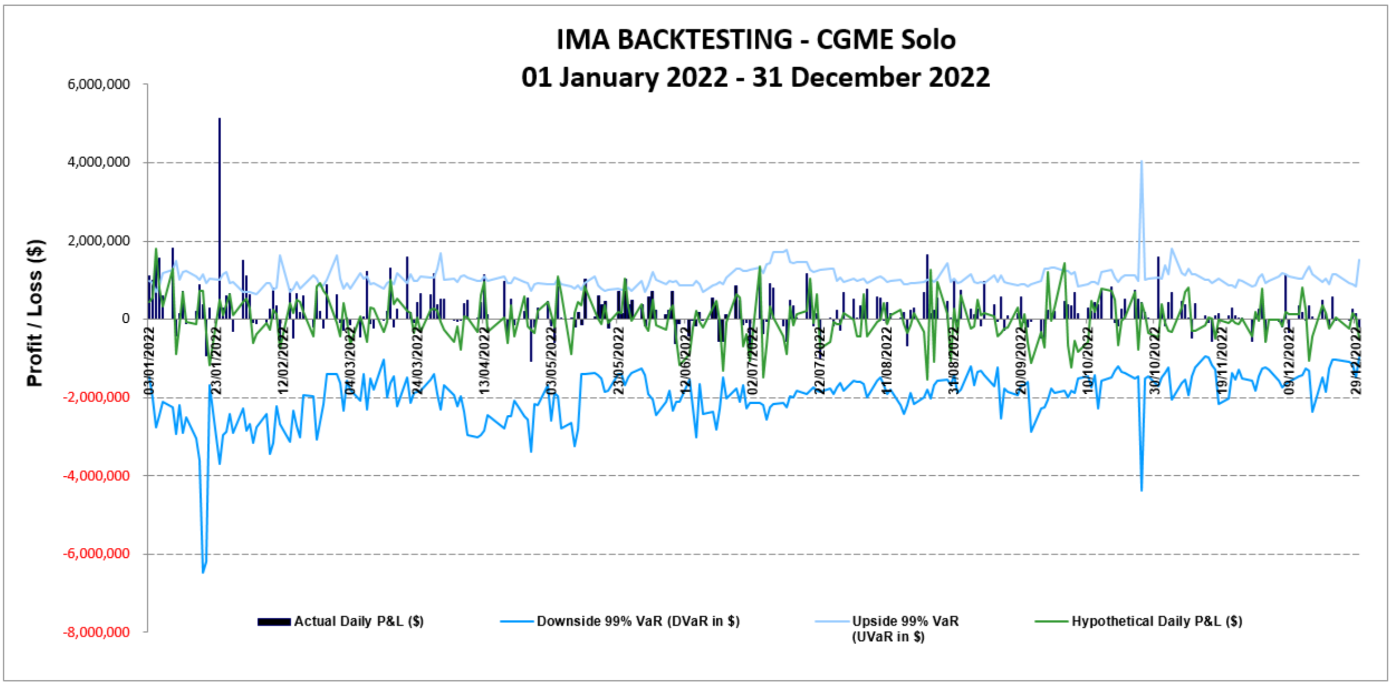
BSSTs are developed in response to business tailored or market-specific concerns and are performed periodically. Such stress scenarios are usually idiosyncratic in nature and are designed to probe the risks of each specific portfolio, particularly risks that are not fully captured by other risk measures like VaR or GSST.

Both categories of stress testing can be based upon 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 32: Comparison of VaR Estimates with Gains/Losses (UK 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.

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 rules supplementing Article 105 on standards for Prudential Valuation.

Table 33: Prudent Valuation Adjustments (UK PV1)

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

	Category level Additional Valuation Adjustments AVA	Risk category					Category level AVA - Valuation uncertainty		Total category level post-diversificat-ion[1]		
		Equity	Interest Rates	Foreign exchange	Credit	Commod-ities	Unearned credit spreads AVA	Investmen-t and funding costs AVA		Of which: Total core approach in the trading book	Of which: Total core approach in the banking book
1	Market price uncertainty	376	161	6	93	37	40	11	362	362	-
3	Close-out cost	146	28	3	89	23	-	-	144	144	-
4	Concentrated positions	-	1	-	1	7	-	-	9	9	-
5	Early termination	-	-	-	-	-	-	-	-	-	-
6	Model risk	140	0	-	0	0	8	-	74	74	-
7	Operational risk	26	11	0	10	3	-	-	51	51	-
10	Future administrative costs	69	24	0	9	2	-	-	104	104	-
12	**Total adjustments as at 31 December 2022**	-	-	-	-	-	-	-	745	745	-
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	-	-	-	-	-	-	-	669	669	-

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

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.

Interest Rate sensitivity on CGML's Banking Book Balance Sheet is driven by SFTs, namely repo, reverse repo, stock loans / borrow, and margin loans, hybrid debt and intercompany loans. The risks arising through CGML non-traded portfolios are estimated using a common set of standards that define, measure, limit and report the market risk

The primary risk in CGML's non-trading book is IRRBB. CGML uses a cashflow-based approach for the measurement, management and monitoring of IRRBB in line with industry best practice. CGML's measure of IRRBB from an earnings perspective is Interest Rate Exposure ("IRE"). IRE measures the potential pre-tax impact on Net Interest Revenue ("NIR") for non-trading book positions due to defined shifts in interest rates over a 12month period. NIR is the difference between the yield earned on the non-trading book portfolio assets and the rate paid on the liabilities. In addition, CGML measures Economic Value Sensitivity ("EVS") for its non-trading book. EVS captures the impact of interest rate changes on CGML's Economic Value of Equity ("EVE") and is calculated by discounting all interest rate sensitive instruments on the balance sheet using a base and stressed interest rate curve and calculating the difference.

UK ALCO approves the IRRBB risk appetite statements. UK ALCO consistently receive updates on IRRBB metrics, trends and details on various topics impacting IRRBB. Stress testing is performed for IRRBB, where systemic stresses are designed to quantify the potential impact of extreme market movements and are constructed using both historical periods of market stress and projections of adverse economic scenarios.

For internal IRRBB management, CGML uses four shocks to assess interest rate risk including: +/-100bps & +/-200bps scenarios. These are supplemented by the prescribed PRA shocks detailed in Table 34 on the following page.

Table 34: Quantitative information on IRRBB (UK IRRBB1)

	$ million	ΔEVE		ΔNII		Tier 1 capital	
		31 December 2022	31 December 2021	31 December 2022	31 December 2021	31 December 2022	31 December 2021
010	Parallel shock up	229	684	188	919	-	-
020	Parallel shock down	(268)	(669)	(196)	(373)	-	-
030	Steepener shock	15	45	-	-	-	-
040	Flattener shock	35	135	-	-	-	-
050	Short rates shock up	130	398	-	-	-	-
060	Short rates shock down	(141)	(307)	-	-	-	-
070	**Maximum**	(268)	(669)	(196)	(373)	-	-
080	**Tier 1 capital**	-	-	-	-	26,812	26,939

CGML has executed the conversion of the long-term fixed rate note to a floating rate note in August of 2022 which had a significant positive impact on the exposure. Additionally – with lower but still positive impact - the conversion of most short term liabilities from fixed rate to floating rate took place together with a partial move of most liabilities from London Interbank Offered Rate ("LIBOR") to Secured Overnight Financing Rate ("SOFR") to match the assets and eliminate and interest rate repricing mismatches.

It should be noted that the Tier 1 capital balance has been fairly stable; 15% of Tier 1 has recently been approximately $4 billion, which compared to the exposure of either end of year 2021 or end of year 2022 falls significantly below these levels.

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 2022. To calculate RWA for securitisation positions, CGML uses ECAI ratings assigned by S&P's, Moody's and Fitch Ratings, as detailed in Table 21.

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.

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 securitisation and re-securitisation positions including synthetic and traditional 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 35: Securitisation Exposures in the Trading Book (UK SEC2)

The following tables set out the aggregate amount of securitisation positions held in the trading book by CGML as at 31 December 2022.

		31 December 2022			31 December 2021		
		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	**Total exposures**	545	49	594	311	1	312
2	**Retail (total)**	377	37	414	223	1	224
3	Residential mortgage	325	37	362	183	1	184
4	Credit card	30	–	30	4	–	4
5	Other retail exposures	21	–	21	37	–	37
6	Re-securitisation	1	–	1	–	–	–
7	**Wholesale (total)**	133	12	145	34	0	34
8	Loans to corporates	0	–	–	–	–	0
9	Commercial mortgage	132	12	145	34	–	34
11	Other wholesale	–	–	–	–	–	0
12	Re-securitisation	–	–	–	–	–	–
13	**Other**[1]	36	–	36	54	–	–

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

Table 36: Securitisation Exposures in the Trading Book and associated Regulatory Capital Requirements – Institution acting as Investor

		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%/ deductions
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
1	**Total as at 31 December 2022**	188	55	46	232	72	–	383	139	72
2	**Traditional securitisation**	153	55	46	230	26	–	345	139	26
3	Of which securitisation	153	55	46	230	24	–	345	139	24
4	Of which retail underlying	117	55	34	170	–	–	282	93	–
6	Of which wholesale	36	–	12	60	24	–	63	46	24
8	Of which re-securitisation	–	–	–	–	–	–	–	–	1
14	**Other**[2]	36	–	–	–	–	–	36	–	–
9	**Synthetic securitisation**	–	1	–	2	46	–	3	–	46
10	Of which securitisation	–	1	–	2	46	–	3	–	46
11	Of which retail underlying	–	1	–	2	34	–	3	–	34
12	Of which Wholesale	–	–	–	–	12	–	–	–	12
13	Re-securitisation	–	–	–	–	–	–	–	–	–
1	Total as at 31 December 2021	137	11	16	122	25	–	234	52	25
2	Traditional securitisation	108	10	16	122	–	–	205	52	–
3	Of which securitisation	108	10	16	122	–	–	205	52	–
4	Of which retail underlying	102	9	16	96	–	–	177	46	–
6	Of which wholesale	7	1	–	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	–	–

		RWA				Capital charge after cap			
		SEC-IRBA	SEC-ERBA and SEC-IAA	SEC-SA	1250%/ deductions[1]	SEC-IRBA	SEC-ERBA and SEC-IAA	SEC-SA	1250%/ deductions[1]
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
1	**Total as at 31 December 2022**	–	539	121	–	–	43	10	–
2	**Traditional securitisation**	–	512	121	–	–	41	10	–
3	Of which securitisation	–	512	121	–	–	41	10	–
4	Of which retail underlying	–	340	103	–	–	27	8	–
6	Of which wholesale	–	173	18	–	–	14	1	–
8	Of which re-securitisation	–	–	–	–	–			–
14	**Other**[2]	–	5	–	–	–	–	–	–
9	**Synthetic securitisation**	–	22	–	–	–	2	–	–
10	Of which securitisation	–	22	–	–	–	2	–	–
11	Of which retail underlying	–	22	–	–	–	2	–	–
12	Of which Wholesale	–	–	–	–	–	–	–	–
13	Re-securitisation	–	–	–	–	–	–	–	–
1	Total as at 31 December 2021	–	578	8	–	–	46	1	–
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] 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 37: Securitisation Exposures in the Non-trading Book (UK SEC1)

The following tables set out the aggregate amount of securitisation positions held in the banking book by CGML as at 31 December 2022.

		31 December 2022			31 December 2021		
		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	**Total exposures**	11	–	11	1	–	1
2	**Retail (total)**	1	–	1	1	–	1
3	Residential mortgage	1	–	1	1	–	1
4	Credit card	–	–	–	–	–	–
5	Other retail exposures	–	–	–	–	–	–
6	Re-securitisation	–	–	–	–	–	–
7	**Wholesale (total)**	10	–	10	1	–	1
8	Loans to corporates	–	–	–	–	–	–
9	Commercial mortgage	10	–	10	1	–	1
10	Lease and receivables	–	–	–	–	–	–
11	Other wholesale	–	–	–	–	–	–
12	Re-securitisation	–	–	–	–	–	–

Table 38: Securitisation Exp. in the Non-trading Book and associated Regulatory Capital Requirements - institution acting as investor (UK 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%/ deductions
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
1	**Total as at 31 December 2022**	–	–	–	10	1	–	10	–	1
2	**Traditional securitisation**	–	–	–	10	1	–	10	–	1
3	Of which securitisation	–	–	–	10	1	–	10	–	1
4	Of which retail underlying		–	–	1	–	–	1	–	–
6	Of which wholesale	–	–	–	10	1	–	10	–	1
8	Of which re-securitisation	–	–	–	–	–	–	–	–	–
9	**Synthetic securitisation**	–	–	–	–	–	–	–	–	–
1	Total as at 31 December 2021	–	–	–	1	1	–	1	0	–
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	–	–	–	–	–	–	–	–	–

		RWA				Capital charge after cap			
		SEC-IRBA	SEC-ERBA and SEC-IAA	SEC-SA	1250%/ deductions[1]	SEC-IRBA	SEC-ERBA and SEC-IAA	SEC-SA	1250%/ deductions[1]
		$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
1	**Total as at 31 December 2022**	–	54	–	–	–	4	–	–
2	Traditional securitisation	–	54	–	–	–	4	–	–
3	Of which securitisation	–	54	–	–	–	4	–	–
4	Of which retail underlying	–	2	–	–	–	0	–	–
6	Of which wholesale	–	52	–	–	–	4	–	–
8	Of which re-securitisation	–	–	–	–	–	–	–	–
9	Synthetic securitisation	–	–	–	–	–	–	–	–
1	Total as at 31 December 2021	–	2	–	–	–	0	–	–
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] Securitisation exposures with 1250% risk weight are deducted from own funds, therefore no RWA or Capital charge applies for these positions.

Trading book securitisation exposures increased by $0.3 billion compared to prior year-end driven by new asset and mortgage-backed securities in the GSP business resulting in an increase in commercial and residential mortgage exposures. There was no significant change in the non-trading book 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 ("ORM") proactively assists the Businesses, Operations and 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.

ORM is an independent, second line function within Citi's global risk management function and has reporting lines covering legal entities, geographies, and businesses. Operational Risk Management actively participates in various CGML governance forums to ensure the Operational Risk Framework is fully embedded in CGML's day-to-day management activities and provides independent risk challenge across the entity.

Operational Risk Framework

Citi's 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 an MCA programme which helps managers to self-assess key operational and compliance 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.

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 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 2022:

- Processing Risk;
- Cyber Risk;
- Internal Fraud Risk;
- Model Risk;
- Reporting Risk;
- eTrading Risk (Conduct Risk, Processing Risk and Technology Risk);
- Data Management Risk;
- Conduct Risk (Market Practices Risk);
- Financial Crime Risk (Anti-Money Laundering ("AML") & Sanctions Risk);
- Third Party Management including Affiliates Risk;

- Geopolitical Risk (Processing Risk, Prudential & Regulatory Risk, and Damage to Physical Assets Risk); and,
- Human Capital 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. Scenario results are used to create a management overlay to CGML's operational risk capital model estimates, under governance provided by the UK 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

Table 39: Operational risk own funds requirements and risk-weighted exposure amounts (UK OR1)

	Banking activities	Relevant indicator			Own funds requirements	RWAs
		Year-3	Year-2	Last Year		
		$ million	$ million	$ million	$ million	$ million
1	Banking activities subject to basic indicator approach (BIA)	-	-	-	-	-
2	Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches	228	288	508	61	769
3	Subject to TSA:	228	288	508	-	-
4	Subject to ASA:	-	-	-	-	-
5	Banking activities subject to advanced measurement approaches AMA	3,191	4,094	3,499	1,754	21,925

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 Inc.'s Global Liquidity Risk Management Policy ("GLRM Policy"). Under the GLRM Policy, CGML is defined as an operating 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 . It must also meet the Resolution Liquidity Adequacy & Positioning 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 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, further supported by CGML's 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

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 Legal Entity 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, liquidity, capital allocation, and balance sheet costing.

The Liquidity Analytics team is an extension of the London Treasury teams reporting to both the EU Bank (excluding UK) 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 Liquidity Coverage Ratio ("LCR"), PRA110 Cash Flow Mismatch, Net Stable Funding Ratio ("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, an 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 with primary focus on the internal stress resting reports. In line with the centralised treasury model, further first line of defence oversight is provided by Global Liquidity Management team and second line of defence by Finance Risk ("FinCRO").

Strategies and Processes for Monitoring

CGML adopts the Citigroup Inc.'s 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 plan of its liquidity position which also considers a forecast of future business activities. This is 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 FLP, the CFP 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.

Contingency Funding Plan

The CFP is a key component of the Global Framework and incorporates the identification, management plan of contingent actions and escalation of a liquidity stress event. The CFP includes an overview of the Liquidity Risk Management Framework, a 'playbook' for addressing liquidity and funding challenges in crisis situations, Liquidity Market Triggers or Early Warning Indicators, procedures, roles and responsibilities, communication plan and a key contact list to manage a liquidity event. The CFP defines a crisis committee that would be responsible for decision making and execution of contingent actions to address both short and longer-term disruptions to funding sources.

Stress Testing

Stress testing and scenario analyses are intended to quantify the potential impact of an adverse liquidity event on the balance sheet and liquidity position, in order to have sufficient liquidity on hand to manage through such an event. These scenarios include assumptions about significant changes in key funding sources, market triggers (such as credit ratings), potential uses of funding and macroeconomic, geopolitical and other conditions. These conditions include expected and stressed market conditions as well as Company-specific events. Liquidity stress tests are performed to ascertain potential mismatches between liquidity sources and uses over a variety of time horizons and over different stressed conditions. To monitor the liquidity of an entity, these stress tests and potential mismatches are calculated on a daily basis.

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 monthly. Triggers must be established and approved by the CGML 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, FinCRO 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 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. In addition to the stress test scenarios, CGML has a monitoring and reporting framework to capture potential liquidity impacts of derivative downgrade triggers. As at 31 December 2022, the potential value of additional collateral pertaining to downgrade thresholds that CGML would need to post with counterparties in the event of a one-notch rating downgrade was $0.1 billion and a three-notch downgrade (on a cumulative basis) was $0.2 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 Inc. 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. For that purpose, CGML has established an HQLA framework, which also complies with the Liquidity chapter of the PRA Rulebook.

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 2022, CGML's HQLA substantially consist of Level 1 followed by Level 2A 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, additional 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. The total of HQLA reported in Table 40 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 PRA Rulebook and reported 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 minimise liquidity mismatches, including currency mismatches, 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 FinCRO.

Table 40: Liquidity Coverage Ratio Disclosure (UK LIQ1)

		Total unweighted value (average)				Total weighted value (average)			
UK 1a	Quarter ending on (DD Month YYY)	**31 Dec 2022**	30 Sept 2022	30 Jun 2022	31 Mar 2022	**31 Dec 2022**	30 Sept 2022	30 Jun 2022	31 Mar 2022
UK 1b	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)	**-**	-	-	-	**45,211**	40,604	37,475	35,565
CASH - OUTFLOWS									
2	Retail deposits and deposits from small business customers, of which:	**-**	-	-	-	**-**	-	-	-
3	*Stable deposits*	**-**	-	-	-	**-**	-	-	-
4	*Less stable deposits*	**-**	-	-	-	**-**	-	-	-
5	Unsecured wholesale funding	**4,010**	4,087	4,123	4,020	**4,010**	4,087	4,123	4,020
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	**-**	-	-	-	**-**	-	-	-
7	*Non-operational deposits (all counterparties)*	**2,704**	2,691	2,617	2,619	**2,704**	2,691	2,671	2,619
8	*Unsecured debt*	**1,306**	1,396	1,452	1,402	**1,306**	1,396	1,452	1,402
9	*Secured wholesale funding*	-	-	-	-	**30,828**	31,366	32,074	31,837
10	Additional requirements	**10,627**	10,377	9,972	9,726	**9,177**	9,102	8,885	8,810
11	*Outflows related to derivative exposures and other collateral requirements*	**10,584**	10,329	9,916	9,688	**9,134**	9,054	8,829	8,771
12	*Outflows related to loss of funding on debt products*	**-**	-	-	-	**-**	-	-	-
13	*Credit and liquidity facilities*	**43**	48	56	38	**43**	48	56	38
14	Other contractual funding obligations	**39,632**	39,396	40,483	40,120	**6,700**	6,699	6,966	6,993
15	Other contingent funding obligations	**1,758**	1,685	1,595	1,551	**879**	842	797	776
16	TOTAL CASH OUTFLOWS					**51,594**	52,096	52,844	52,435
CASH - INFLOWS									
17	Secured lending (e.g. reverse repos)	**226,374**	225,494	225,501	222,741	**27,536**	28,261	29,027	28,466
18	Inflows from fully performing exposures	**1,764**	1,744	1,730	1,949	**1,764**	1,744	1,730	1,949
19	Other cash inflows	**9,321**	9,587	9,814	9,854	**9,321**	9,587	9,814	9,854
UK-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)	**-**	-	-	-	**-**	-	-	-
UK-19b	(Excess inflows from a related specialised credit institution)	**-**	-	-	-	**-**	-	-	-
20	TOTAL CASH INFLOWS	**237,460**	236,825	237,045	234,543	**38,621**	39,592	40,570	40,268
UK-20a	*Fully exempt inflows*	**-**	-	-	-	**-**	-	-	-
UK-20b	*Inflows subject to 90% cap*	**-**	-	-	-	**-**	-	-	-
UK-20c	*Inflows subject to 75% cap*	**182,874**	178,402	175,155	169,936	**38,621**	39,592	40,570	40,268
TOTAL ADJUSTED VALUE									
UK-21	LIQUIDITY BUFFER					**45,211**	40,604	37,475	35,565
22	TOTAL NET CASH OUTFLOWS					**14,291**	13,913	13,802	13,699
23	LIQUIDITY COVERAGE RATIO[1]					**317.8%**	293.6%	274.0%	261.3%

[1] Pillar 1 LCR only

The twelve-month average LCR stands at 318% for December 2022, which has increased from 261% in March 2022. This is primarily due to additional borrowings in Q3 2022 to meet incremental requirements from internal stress testing as well as to support business activity.

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. 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 41: Encumbered and Unencumbered Assets (UK AE1)[3]

		Carrying amount of encumbered assets		Fair value of encumbered assets[1]		Carrying amount of unencumbered assets		Fair value of unencumbered assets[1]	
			of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
	As at 31 December 2022	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
010	**Assets of the reporting institution**	70,897	20,491			488,010	1,407		
030	Equity instruments	17,936	-	-	-	2,254	-	-	-
040	Debt securities	32,514	20,491	32,514	20,491	6,689	1,407	6,689	2,721
050	of which: covered bonds	1,602	-	1,602	-	459	-	459	-
060	of which: securitisations	167	-	167	-	136	-	136	-
070	of which: issued by general governments	22,607	20,491	22,607	20,491	3,448	1,407	3,448	2,721
080	of which: issued by financial corporations	5,459	-	5,459	-	1,682	-	1,682	-
090	of which: issued by non-financial corporations	2,679	-	2,679	-	964	-	964	-
120	Other assets[2,4]	20,448	-	-	-	479,067	-	-	-

[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 42: Collateral received and own debt securities issued (UK AE2)

				Unencumbered	
		Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
		Total	of which notionally eligible EHQLA and HQLA	Total	of which EHQLA and HQLA
	As at 31 December 2022	$ million	$ million	$ million	$ million
130	**Collateral received by the reporting institution**	245,685	173,828	71,963	45,297
140	Loans on demand	-	-	-	-
150	Equity instruments	50,686	-	3,309	-
160	Debt securities	194,999	173,828	54,370	45,297
170	of which: covered bonds	2,407	-	514	-
180	of which: asset-backed securities	1,634	-	75	-
190	of which: issued by general governments	178,277	173,828	52,392	45,297
200	of which: issued by financial corporations	6,690	-	564	-
210	of which: issued by non-financial corporations	6,187	-	762	-
220	Loans and advances other than loans on demand	-	-	14,284	-
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**	-	-	-	-

Table 43: Sources of Encumbrance (UK AE3)

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and securitisations encumbered
	As at 31 December 2022	$ million	$ million
010	Carrying amount of selected financial liabilities	366,462	115,619

Net Stable Funding Ratio

The NSFR is intended to reduce funding risk over a longer period horizon by requiring institutions to fund their assets and off-balance sheet activities with sufficiently stable sources of funding for a one-year period of extended stress. The ratio of available stable funding to required stable funding is required to be greater than 100%. Numbers shown below are based on the average values of four preceding quarters.

Table 43: Net Stable Funding Ratio (UK LIQ2)

	$ million	Unweighted value by residual maturity (average)				Weighted value (average)
		No maturity	< 6 months	6 months to < 1yr	≥ 1yr	
Available stable funding (ASF) Items						
1	Capital items and instruments	28,482	-	-	2,600	31,082
2	*Own funds*	28,482	-	-	2,600	31,082
3	*Other capital instruments*		-	-	-	-
4	Retail deposits		-	-	-	-
5	*Stable deposits*		-	-	-	-
6	*Less stable deposits*		-	-	-	-
7	Wholesale funding:		134,764	17,950	36,996	48,203
8	*Operational deposits*		-	-	-	-
9	*Other wholesale funding*		134,764	17,950	36,996	48,203
10	Interdependent liabilities		-	-	-	-
11	Other liabilities:	639	72,460	45	191	214
12	*NSFR derivative liabilities*	639				
13	*All other liabilities and capital instruments not included in the above categories*		72,460	45	191	214
14	**Total available stable funding (ASF)**					79,498
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)					3,759
UK-15a	Assets encumbered for more than 12m in cover pool		-	-	-	-
16	Deposits held at other financial institutions for operational purposes		-	-	-	-
17	Performing loans and securities:		184,346	4,509	26,538	31,189
18	*Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut*		123,293	1,542	133	1,468
19	*Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions*		58,941	2,452	718	6,353
20	*Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:*		1,383	121	471	1,146
21	*With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk*		266	-	31	153
22	*Performing residential mortgages, of which:*		-	-	-	-
23	*With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk*		-	-	-	-
24	*Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products*		730	394	25,217	22,222
25	Interdependent assets		-	-	-	-
26	Other assets:	-	52,186	4	8,097	22,417
27	*Physical traded commodities*				2,461	2,092
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*				11,176	13,084
29	*NSFR derivative assets*				-	-
30	*NSFR derivative liabilities before deduction of variation margin posted*		32,359	-	-	1,618
31	*All other assets not included in the above categories*		8,650	4	5,636	5,624
32	Off-balance sheet items		38	-	-	2
33	**Total RSF**					57,367
34	**Net Stable Funding Ratio (%)**					138.9%

Other Risks

Non-financial Risk

Enterprise Resilience

Citi's Enterprise Resilience Policy and Continuity of Business ("CoB") 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 formalised its global framework within the Enterprise Resilience Policy and an Operational Resilience Standard, for implementation across the UK legal entities in scope. For CGML, the Board approved its Critical Business Services, their associated Impact Tolerances and a Self-Assessment which documented progress on process mapping, scenario testing and identification of vulnerabilities. This initial stage of implementation was completed by 31 March 2022 in line with PRA and FCA requirements.

The next cycle of implementation is underway to ensure that CGML's Critical Business Services can remain with their Impact Tolerances in severe but plausible operational disruption scenarios by March 2025.

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 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 Risk

Climate risk is the risk stemming from climate change either through physical risk (which refers to impact of changes in climate and weather) or through transition risk (which refers to risk arising from actions needed to mitigate the impacts of climate change by transitioning to a low-carbon economy). Citi's approach to climate-related risk is in Citi's Climate Risk Management Framework ("CRMF"). The CRMF details the governance, principles and requirements that promote the identification, measurement, monitoring, controlling, and reporting of climate-related risk. CRMF and CGML Risk Management Framework document define climate risk as a crosscutting risk which can manifest through or amplify existing risks within risk taxonomy.

Climate risk was recently designated as a "top risk" within Citi's Risk Governance Framework. Top risks are risks that have the potential to produce an impact large enough to threaten Citi's ability to maintain any of its core operations to serve its customers, Citi's earnings, liquidity, capital, operating model or risk profile. However, CGML's inherent climate-related transition risk is lower than a typical bank entity portfolio due to its credit and collateral exposures being short-term and subject to daily margin adjustments from strong credit counterparties.

For further information on Citi and CGML's approach to Climate Risk, please refer to Citi's Task Force On Climate-Related Financial Disclosures Reports available at https://www.citigroup.com/global/our-impact/environmental-sustainability/esg-resources and on page 16 of CGML's Financial Statements.

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 is a standing committee of the CGML Board, from which it derives its authority. The CGML RemCo met 11 times in 2022 and for the 2022 performance year the CGML RemCo comprised the following members:

Member Name	Role	Additional information
Jonathan Moulds	Chair	Independent Non-Executive Director.
William Fall	Member	Independent Non-Executive Director.
Peter Henry	Member	Independent Non-Executive Director. Appointed as a member 1 September 2022.

For 2022, the CGML RemCo comprised of two members on an interim basis following the resignation of the CGML RemCo Chair In 2021 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.

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, where appropriate, 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 on the long-term interest of shareholders, investors and other stakeholders in the Company and the public interest.

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

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-committee membership with the Risk Committee and the Audit Committee.

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 2022, but external consultants have advised on various remuneration matters for 2022, where required.

Global Remuneration Committee

The CGML RemCo acts as the remuneration committee of the Company, whereas the Compensation, Performance Management and Culture Committee ("CPC Committee") fulfils the RemCo role at the Group level.

The CPC Committee is a duly constituted committee of the Board of Directors of the US parent company, Citigroup Inc. ("Citi" or the "firm") and oversees Citi's global remuneration policies and practices.

Citi's global compensation principles are developed and approved by the CPC Committee in consultation with management, independent consultants and Citi's senior risk officers, HR and the relevant functions. The CPC 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 CPC Committee and provides oversight of the design and structure of incentive programs globally in the context of risk management.

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

The latest Charter is available online: https://www.citigroup.com/rcs/citigpa/storage/public/compculturecharter1.pdf

CPC 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 CPC Committee members. The CPC Committee includes cross-membership with the Risk Management Committee, the Audit Committee, the Executive Committee, the Technology Committee as well as the Nomination, Governance & Public Affairs 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 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 programs 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/rcs/citigpa/storage/public/comp-phil-policy.pdf

The Compensation Philosophy describes Citi's approach to balancing six primary objectives that Citi's compensation programs 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. Citi's Compensation Philosophy applies to all of its foreign subsidiaries and branches, save where exceptions are required by local law.

In order to reinforce the relationship between compensation and risk and control, specific principles 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,
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, and
c) align realised pay with achievement of important risk and control, regulatory, strategic and financial-based objectives.

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.

Environmental, Social and Governance

Environmental, Social and Governance ("ESG") considerations are an essential part of Citi's firm-wide strategy and integrated into business and long-term priorities. ESG metrics are reflected in certain goals across Citi globally, and these are cascaded to selected individuals in both global and regional roles.

Reinforcing gender neutrality and inclusion, continues to be a key focus area, particularly as Citi considers this to be one of the key elements of its ESG approach, and is one of the sustainable development goals highlighted in the Citi 2021 ESG Report. Citi is committed to reducing pay gaps by increasing the diversity of workforce, including increasing the representation of women at all levels, particularly at senior levels and in high-paying roles, as well as other underrepresented demographics.

Markets in Financial Instruments Directive (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.

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 2022, the Remuneration Policy, remuneration guidelines and associated processes were reviewed to ensure alignment to regulatory requirements.

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.

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 benefits that are offered to employees as part of their overall reward package;
- Role Based Allowances ("RBAs") 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 is 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.

The Transformation Program Award ("TPA") has been introduced for senior leaders who have been identified as critical to the remediation program linked to the long-term success of Citi's transformation. The scheme focuses on driving excellence in its risk and control environment, its operations and Citi's service to clients.

Deferrals and Retention Periods

Awards made under the DIRAP are typically awarded in cash and Citi equity and are subject to mandatory deferral periods where the individual's total annual variable compensation exceeds globally set thresholds.

For MRTs at least 50% of the upfront and deferred components of variable remuneration are delivered in equity. For the 2022 performance year, deferred cash awards were discontinued. The deferred portion of incentive awards for MRTs under Citi's DIRAP were settled entirely in deferred Citi equity. The total percentage deferred remained consistent with prior years. Citi believes that awarding equity and deferred awards is an effective means of aligning employee interests with those of shareholders and other stakeholders.

Variable remuneration is not paid through vehicles or methods that might facilitate non-compliance with relevant regulatory requirements, including CRD V or CRR II.

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 UK-designated Senior Managers vest over seven years.

Deferral periods for non-higher paid Risk Manager MRTs and Senior Managers 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 UK-designated Senior Managers, not being members of the management body or a member of senior management, those awards are subject to a six-month retention period.

Citi does not pay dividends on deferred equity or interest on deferred cash to MRTs.

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 2022 performance year 32 MRTs benefitted from this derogation with their remuneration totalling $14.15 million in fixed and $0.37 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 / Material Adverse Outcome

Deferred awards granted prior to 1 January 2022 which are 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.

The PBV for deferred cash awards is discretionary with the pay-out contingent on whether the participant had a significant responsibility for a Material Adverse Outcome ("MAO").

Deferred awards granted post 1 January 2022 which are subject to MRT deferral schedules have revised MAO conditions as an ex-post adjustment mechanism that may result in the cancellation of all or part of unvested amounts.

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,

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

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

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 UK-designated Senior Managers.

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 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".

For 2022, the Performance Management Framework ("PM Framework") was changed to ensure alignment to Citi priorities, especially risk and control performance expectations across all employees and increased accountability and ownership at the individual level supporting Citi's cultural transformation.

The PM Framework is applicable to all Citi employees globally and the structure leverages four overarching pillars (Leadership, Risk & Control, Financial Performance, and Client & Franchise Outcomes) against which all employees set their performance and development goals for the performance year. Employee performance is evaluated on a four-point scale at year end by a manager assessment. Evaluation ratings generated through this PM Framework will be used for employee compensation determinations.

Pillar ratings are converted to two performance ratings: a "How" rating (composed solely by the Leadership performance pillar evaluation) and a "What" rating (auto-calculated based on the combined ratings of the applicable sub-pillars). The two performance ratings ("How", "What") carry equal weight, however there is no overall combined rating.

Citi Leadership Principles, against which employee performance is assessed, 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 2022 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. Certain 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 2022 which included:

- Launching a review of metrics and behavioural statements by Anti Money Laundering and Sanctions that feeds independently into the Compensation Accountability Rational Tool ("CART") at year end;
- Updates to the Accountability Framework Impact Grid, such as: simplified compensation impact ranges, alignment to the four-point rating scale, and new guidelines for handling and associated impacts of multiple instances for conduct disciplines; and,
- Implementation of the Accountability Framework Technology Solution - a new technology tool for an automated system-based scope decision making process.

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 being subject to appropriate deferral, retention, pay out in instruments and malus / 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 most relevant regime will 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;
- 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; and,
- Policy Statement (PS22/21) Implementation of Basel standards: Final rules

Table 44: Remuneration awarded for the financial year (UK REM1)

		USD 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]	5	5	8.0	548.8
2		**Total fixed remuneration** [7]	1.1	7.0	12.3	341.1
3		Of which: cash-based	1.1	6.8	11.9	323.2
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	0.4	17.9
9	Variable remuneration	**Number of identified staff**	-	5	8.0	526.8
10		**Total variable remuneration** [9]	-	6.9	13.7	407.8
11		Of which: cash-based	-	1.0	1.6	56.0
12		*Of which: deferred*	-	-	-	-
UK-13a		Of which: shares or equivalent ownership interests (10)	-	5.9	12.1	351.5
UK-14a		*Of which: deferred*	-	5.3	10.5	296.8
UK-13b		Of which: share-linked instruments or equivalent non-cash instruments	-	-	-	0.3
UK-14b		*Of which: deferred*	-	-	-	0.2
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)		1.1	13.9	26.0	748.9

Additional Notes

[1] All non-USD awards are converted using the European Commission exchange rates for December 2022.

[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 2022, 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 2022, 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 2022.

[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 2022. 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 (integer), with a full time equivalent approach applied for Other Senior Management and Other Identified Staff, and numbers adjusted accordingly for any part time employees.

[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 2022 performance year. In accordance with the shareholder approval obtained in 2022, 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 45: Special payments to staff whose professional activities have a material impact on institutions' risk profile (identified staff) (UK REM2)

	USD 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]	-	-	-	2
2	Guaranteed variable remuneration awards -Total amount	-	-	-	7.9
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]	-	-	-	25
7	Severance payments awarded during the financial year - Total amount [3]	-	-	-	4.9
8	Of which paid during the financial year	-	-	-	4.9
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]	-	-	-	4.9
11	Of which highest payment that has been awarded to a single person	-	-	-	0.3

Additional Notes

[1] All non-USD awards are converted using the European Commission exchange rates for December 2022.
[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 2022, 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 2022 performance year, in line with Article 172 of the EBA Guideline on Sound Remuneration Policies.

Table 46: Deferred remuneration (UK REM3)

	Deferred and retained remuneration USD million[1]	Total amount of deferred remuneration awarded for previous performance periods	Of which due to vest in the financial year [2,7]	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[4]	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) [5]	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 [6]
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**	18.9	2.2	16.7	-	-	(3.6)	1.7	0.5
8	Cash-based	9.5	0.9	8.6	-	-	-	0.9	-
9	Shares or equivalent ownership interests	7.6	1.3	6.4	-	-	(2.9)	0.8	0.5
10	Share-linked instruments or equivalent non-cash instruments	1.8	-	1.8	-	-	(0.7)	-	-
11	Other instruments	-	-	-	-	-	-	-	-
12	Other forms	-	-	-	-	-	-	-	-
13	**Other senior management**	37.0	4.2	32.8	-	-	(6.9)	2.9	1.3
14	Cash-based	18.9	1.4	17.5	-	-	-	1.4	-
15	Shares or equivalent ownership interests	14.0	2.8	11.2	-	-	(5.3)	1.4	1.3
16	Share-linked instruments or equivalent non-cash instruments	4.1	-	4.1	-	-	(1.6)	-	-
17	Other instruments	-	-	-	-	-	-	-	-
18	Other forms	-	-	-	-	-	-	-	-
19	**Other identified staff**	806.8	216.1	590.7	1.0	2.7	(140.5)	162.9	51.6
20	Cash-based	383.3	79.4	303.9	0.6	1.4	-	78.8	-
21	Shares or equivalent ownership interests	399.5	136.5	263.0	0.4	1.3	(131.3)	83.9	51.6
22	Share-linked instruments or equivalent non-cash instruments	23.9	0.2	23.7	-	-	(9.2)	0.2	-
23	Other instruments	-	-	-	-	-	-	-	-
24	Other forms	-	-	-	-	-	-	-	-
25	**Total amount**	862.7	222.4	640.2	1.0	2.7	(150.9)	167.5	53.4

Additional Notes

[1] All non-USD awards are converted using the European Commission exchange rates for December 2022.

[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 2022.

[4] Values reflect unvested awards that have been cancelled as well as awards which have vested but have been cancelled during the retention period. Figures also exclude the value of cancelled awards for one individual who terminated in 2022, where full cancellation amount has not yet been finalised. The final award cancellation amount will be reported in next year's disclosure.

[5] 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 2022 (or the value at award if awarded in 2022) in relation to amounts due to vest in the financial year; plus

b. the value at 31 December 2022 minus the value at 1 January 2022 (or value at award if awarded in 2022) in relation to amounts vesting in subsequent financial years.

[6] 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 2022.

[7] There were 512 beneficiaries of deferred remuneration awards due to vest in the financial year.

Table 47: 2022 Remuneration Banding for Annual Compensation of Individuals earning at least EUR 1 million (UK REM4)

	EUR [1]	Identified staff that are high earners as set out in Article 450(i) CRR II [2,3]
1	1,000,000 to below 1,500,000	103
2	1,500,000 to below 2,000,000	45
3	2,000,000 to below 2,500,000	20
4	2,500,000 to below 3,000,000	17
5	3,000,000 to below 3,500,000	8
6	3,500,000 to below 4,000,000	6
7	4,000,000 to below 4,500,000	5
8	4,500,000 to below 5,000,000	8
9	5,000,000 to below 6,000,000	1
10	6,000,000 to below 7,000,000	5
11	7,000,000 to below 8,000,000	2
12	8,000,000 to below 9,000,000	2
13	9,000,000 to below 10,000,000	1
14	Greater than 10,000,000	5

Additional Notes

[1]All non-EUR awards are converted using the European Commission exchange rates for December 2022.
[2] The number of individuals reflects headcount those remunerated over EUR 1 Million within the MRT population as at 31 December 2022.
[3] Individuals included in above count are located across a number of countries i.e. France, Germany, Italy, Spain, UAE and United Kingdom

Table 48: Information on remuneration of staff whose professional activities have a material impact on institutions' risk profile (identified staff) (UK REM5)

		Management body remuneration			Business areas [4]						
	USD million [1]	MB Supervisory function [2]	MB Manage-ment function [3]	Total MB	Investment banking	Retail banking	Asset manage-ment	Corporate functions	Independ-ent internal control functions	All other [5]	Total
1	**Total number of identified staff**										566.8
2	Of which: members of the MB [6]	5	5	10	-	-	-	-	-	-	-
3	Of which: other senior management [7]	-	-	-	1.0	-	-	1.0	1.0	5.0	-
4	Of which: other identified staff	-	-	-	505.8	-	-	10.0	9.0	24.0	-
5	**Total remuneration of identified staff**	1.1	13.9	14.9	660.0	-	-	20.1	7.6	87.2	-
6	Of which: variable remunera-tion [8,9]	-	6.9	6.9	353.6	-	-	11.7	3.3	53.0	-
7	Of which: fixed remuneration [10]	1.1	7.0	8.0	306.4	-	-	8.4	4.3	34.2	-

Additional Notes

[1]. All non-USD awards are converted using the European Commission exchange rates for December 2022.
[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 2022, 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 2022, 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 2022. 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.
[6] Identified Staff is reported as headcount for the MB (integer), with a full time equivalent approach applied for Other Senior Management and Other Identified Staff, and numbers adjusted accordingly for any part time employees.
[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 2022.
[8] Variable remuneration awarded in respect of 2022 performance year. In accordance with the shareholder approval obtained in 2022, 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, Standard 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 or its staff[1] – intentionally or through negligence – harm customers, clients, or the integrity of the markets[2]."

The conduct risk management framework enhances Citi's culture of compliance and control through the identification, measurement & assessment, monitoring, mitigation along with reporting 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). The Citi Risk Management Committee, a standing committee of the Citi 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 activity 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") along with the Global Conflicts of Interest Management Policy sets forth the requirements for managing Conflicts by Citi, its Businesses, Functions, and employees to identify and manage Conflicts in accordance with a globally established Conflicts of Interest framework. It includes expectations with regards to avoiding actual or perceived Conflicts of Interest. The Code and the Global Conflicts of Interest Management Policy highlights some of the most common potential conflicts of interest and provides guidance on how to manage, mitigate, record, report 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 authorised to know such information.

Internal Alerts and Reporting of Breaches

The Code affirms Citi's Mission and Value Proposition, Leadership Principles, and outlines the standards of ethics and professional behaviour expected of employees and representatives of Citi when dealing with clients, business colleagues, shareholders, communities, and each other. It provides an overview of key legal and regulatory requirements and select enterprise-wide policies that pertain to those requirements, including the obligation of employees to promptly report and escalate concerns where they reasonably suspect or become aware of misconduct. 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. If they feel uncomfortable doing so, employees have a number of other resources to whom they can raise their concerns. Employees may raise concerns to any of the following:

- HR, employee, or labour relations representative;
- Internal legal counsel;
- Independent Compliance Risk Management ("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 or any other third-party can use to raise concerns. Reports to the Citi Ethics Office can be made anonymously. 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 the 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.

[1] Inclusive of employees, non-employees, and third-party staff subject to Citi's policies.

[2] Inclusive of actions, inactions, omissions, practices, behaviours, and decisions.

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. For individuals holding senior management functions, this is 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 UK regulator 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 with 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 aspires to have a composition in which female representation is 30% by 2025. As of 31 December 2022, 20% of the Board were female.

Table 49: Directorships held by Citigroup Global Markets Limited Board of Directors as of 31 December 2022

Name	Total Number of Directorships
Jonathan Moulds	9
Sally Clark	5
William Fall	4
Peter Henry	4
Iain Plunkett	2
James Bardrick	8
Deepak Jain	1
Amit Raja	1
Francisco Tobias Marin	1
Zoe Wimborne	2
Total	37

Table 50: Membership held by Citigroup Global Markets Limited Board of Directors as of 31 December 2022

Name	Gender	Role	Duration of Board Membership
Jonathan Moulds	Male	Non-Executive Director – Chair	1 year 11 months
Sally Clark	Female	Non-Executive Director	1 year 11 months
William Fall	Male	Non-Executive Director	1 year 11 months
Peter Henry	Male	Non-Executive Director	4 months
Iain Plunkett	Male	Non-Executive Director	3 months
James Bardrick	Male	Executive Director – Chief Executive Officer	9 years 4 months
Deepak Jain	Male	Executive Director	3 years 4 months
Amit Raja	Male	Executive Director	6 months
Francisco Tobias Marin	Male	Executive Director	5 months
Zoe Wimborne	Female	Executive Director	1 year 7 months

Non-Executive Directors of CGML

Jonathan Moulds (Chair)

Jonathan Moulds joined Citi as a statutory Non-Executive Director in February 2021 and is Chair of the CGML Board the international investment banking subsidiary of Citigroup Inc.

Jonathan 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 FTSE 250 and Litigation Capital Management, one of Australia's most experienced and successful litigation funders. The company is 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 and became the Chief Executive Officer 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.

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 Chair of the CGML Audit Committee.

Sally is also a Non-Executive Director at BUPA and is a Senior Advisor and Board member at two FinTech start-ups, ACIN and Kore Labs. She also sits on the Advisory Board for a diversity focussed digital platform Career Masterclass. She is a member of the Advisory Board for Pelham Street Leadership Advisory and Coaching, through which she coaches senior executives. She was Chief Internal Auditor at Barclays from 2014 to 2019 having previously been COO and Chief of Staff to the prior Chief Internal Auditor. She worked at the Royal Bank of Scotland ("RBS") Group from 2003-2012, with a stint as head of Operational Risk, Markets and International Banking. In her nine years 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 a BA in English from the University of East Anglia, an MBA from the University of Warwick and a Diploma in Executive Coaching from the University of Strathclyde. She is also a Fellow of the Institute of Leadership and Management and in her previous roles was a Qualified Internal Audit Leader.

Sally also 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 Chair of the CGML Risk Committee.

Since 2020, William is Chair of Ambac UK, the international subsidiary of Ambac Financial Group, the NYSE-listed insurance company, having previously been Non-Executive Director and a member of its Risk and Audit Committee since 2017. He is also Chair of Allied Irish Bank (UK) Ltd, a subsidiary, active in Retail, Commercial and Wholesale Banking, of the largest Irish bank, Allied Irish Bank Group.

Since 2013, he also serves as a Non-Executive Director and Member of the Campaign Board and also of the Investment Committee of Historic Royal Palaces, a UK charity managing a portfolio of important historical buildings across the UK. Previously, he was Chair of 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, including Group Executive Committee, finally as International CEO between 2002 and 2006. William has broad international experience, both as an executive and as a Non-Executive, having been resident in the US and UK, with considerable exposure to financial services activities in Latin America, Asia and Middle East and North America.

Peter Henry

Peter Henry joined the CGML Board in September 2022 and Chairs the CGML Remuneration Committee,.

Peter is the Class of 1984 Senior Fellow at Stanford University's Hoover Institution, Senior Fellow at Stanford's Freeman Spogli Institute for International Studies (FSI), and Dean *Emeritus* of New York University's Leonard N. Stern School of Business. The youngest person ever named to the Stern Deanship, Peter served as Dean from January 2010 through December 2017 and doubled the school's average annual fundraising. Formerly the Konosuke Matsushita Professor of International Economics at Stanford University's Graduate School of Business, from 2001–2006 Peter's research was funded by an NSF CAREER Award, and he has authored numerous peer-reviewed Articles in the flagship journals of economics and finance, as well as a book on global economic policy, Turnaround: Third World Lessons for First World Growth (Basic Books).

A Vice Chair of the Boards of the National Bureau of Economic Research and the Economic Club of New York, Peter also serves on the Boards of Citigroup Inc. and Nike.

With financial support from the Hoover Institution and the Alfred P. Sloan Foundation, Peter leads the Ph.D. Excellence Initiative ("PhDEI"), a post-baccalaureate program designed to address underrepresentation in economics by mentoring exceptional students of colour interested in pursuing doctoral studies in the field. For his leadership of the PhDEI, Peter received the 2022 Impactful Mentoring Award from the American Economic Association. Peter received his PhD in economics from MIT and Bachelor's degrees from Oxford University, where he was a Rhodes Scholar, and the University of North Carolina at Chapel Hill, where he was a Morehead-Cain Scholar, a member of *Phi Beta Kappa*, a reserve wide receiver on the football team, and a finalist in the 1991 campus-wide slam dunk competition.

Iain Plunkett

Iain Plunkett joined the CGML Board in October 2022.

Iain is a highly experienced business transformation & operating leader within the financial services industry globally. He has extensive experience in applying a broad set of levers including technology strategy & implementation, data science & analytics, process reengineering, digital/cloud/channel transformation, innovation, supply chain & organisational effectiveness, amongst others.

During his 30-year career, he has held ExCo level Transformation/CIO/COO leadership roles across capital markets, wealth & asset management, inter-dealer broking, commodities, consumer finance, payments and corporate & retail banking. Whilst he has been fortunate to have held senior roles for Andresen Consulting, UBS, Barclays, Aberdeen Asset Mgt, TP ICAP & Santander over his career, he learned his trade as a Software Engineer & Architect working on highly complex mission critical systems. More recently as an independent senior advisor, Iain has worked with a range of financial services businesses from early stage-fintech firms, established tech firms, PE & Tier 1 financial institutions. Iain is very well networked within the tech sector globally including a period serving on the Microsoft Services Advisory Board and was a member of the Innovation Committee of the International Institute of Finance.

After an initial advisory engagement for the CEO of Santander UK, Iain stepped in to successfully design & implement the restructuring of the business as their Chief Operating & Transformation Officer. To date, Iain has delivered a material turnaround (>£0.5bn cost reduction, CI ratio 41%, material risk reduction) whilst capability building for their digital future (public cloud/digital transformation/data/analytics & customer/channel).

Iain holds a B.Eng in Information Engineering from Strathclyde University.

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 and Jersey. 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 based 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 35 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.

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.

Amit Raja

Amit was appointed the Head of EMEA Markets in July 2022, and a Senior Manager under the UK SMCR. Amit joined Citi in 1997 and has been involved in various forms of Citi's leveraged finance business over many years. starting his career in the Capital Markets Business and subsequently moving into Credit Trading in 2009.

Amit became the EMEA Head of GSP Trading (previously "Credit Markets Trading") since August 2017 (and subsequent Senior Manager since 2018). Amit has held several leadership positions since joining Credit Trading, including the Global Head of Distressed Trading since 2014, where he managed a team of trading and research professionals in both London and New York, and was responsible for delivering a leading franchise both with respect to market share and revenues across all products including Loans, Bonds, Claims and Equity. He has also held the position of Head Trader for Europe Par Loans and Head of European Leveraged Trading.

Francisco Tobias Marin

Francisco Tobias was appointed the EMEA Chief Financial Officer in March 2022.

He has grown a solid career over the years with Citi. During 2021 he served as Finance Transformation Global Head and Transformation CFO, where he focused on standing up a cross functional organisation of 1000+ people, deliver the action plans to address the OCC and FRB requirements and define the path for a solid Data Management and robust Digital Capabilities. Prior, he was CFO for Citibanamex and Latin America, where he led the financial operations and drove continued improvement in the way we operate across 22 countries. He consistently delivered comprehensive Mid-Year and Plan forecasts and acted as a trusted advisor for all businesses. Previously he served as CFO of Citi Holdings, played a key role in achieving sustainable break-even as well as in divesting significant businesses including OneMain Financial. Early in his career, Francisco was COO for Citi Holdings in EMEA, based in London.

Over his 17 years at Citi, Francisco worked in London, New York and Mexico City and led projects in 20+ countries giving him a unique international perspective. He has also held several roles in Strategy supporting Global Wealth Management and EMEA Regional Consumer Banking. He began his tenure at Citi as an Investment Banking Summer Associate and subsequently completed the Financial Management Associate Program. Previously to Citi, he worked in Management Consulting, Steel and Oil & Gas industries.

Francisco received an MBA from the Tuck School of Business, Dartmouth University. He also holds an Industrial Engineering degree from Instituto Tecnologico de Buenos Aires ("ITBA"). Francisco is Head of the Financial Management Associates steering committee and is an active participant in Citi recruiting and mentoring programs.

Zoe Wimborne

Zoe Wimborne was appointed EMEA CRO in December 2020 and joined 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

Since 31 December 2021, the following changes to the composition of the Board of have taken place as at time of publication of this disclosure:

Peter Henry and Iain Plunkett were appointed as a Non-Executive Directors.

Francisco Tobias Marin joined the Board as an Executive Director, replacing Frank Manion as the EMEA CFO.

Leo Arduini stepped down and Amit Raja joined the Board as an Executive Director, having assumed the position of Head of the EMEA Markets business.

Anne-Maree Tassell stepped down with Evelin Ducsai assuming the position of Head of O&T and is in the process of joining the CGML Board.

Appendix 2: Capital Instruments Main Features

The template is prepared using the format set out in Annex VII of the PRA rulebook and provides details of CGML's regulatory own fund instruments and eligible liabilities instruments

Table 51: Main features of regulatory own funds instruments and eligible liabilities instruments (UK CCA)

	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. CUSIP, ISIN or Bloomberg identifier for private placement)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2a	Public or private placement	Private	Private	Private	Private	Private	Private	Private	Private
3	Governing law(s) of the instrument	English Law	English Law	English Law	English Law	English Law	English Law	English Law	English Law
3a	Contractual recognition of write down and conversion powers of resolution authorities	N/A	N/A	Yes	Yes	Yes	Yes	Yes	Yes
	Regulatory treatment								
4	Current treatment taking into account, where applicable, transitional CRR 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 CRR 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/(sub-)consolidated/ solo&(sub-)consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated
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 or eligible liabilities (Currency in million, 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	Nominal amount of instrument	US$1.00	US$1.00	US$1,800m	US$500m	US$2,000m	US$600m	US$1,000m	US$1,000m
UK-9a	Issue price	US$1.00	US$1.00	N/A	N/A	N/A	N/A	N/A	N/A
UK-9b	Redemption price	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A	27/10/2028	24/01/2039	25/07/2028
14	Issuer call subject to prior supervisory approval	No	No	Yes	Yes	Yes	Yes	Yes	Yes
15	Optional call date, contingent call dates and redemption amount	N/A	N/A	20/06/2022	20/06/2023	20/06/2027	N/A	N/A	N/A
16	Subsequent call dates, if applicable	N/A	N/A	Callable by issuer any date after original call date with sufficient notice and requirements, as defined in the conditions of the instrument.	Callable by issuer any date after original call date with sufficient notice and requirements, as defined in the conditions of the instrument.	Callable by issuer any date after original call date with sufficient notice and requirements, as defined in the conditions of the instrument.	N/A	N/A	N/A
	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	8.664%	7.53%	6.98% (SOFR + Margin + Sub fee)	6.82% (3mth USD LIBOR + Margin + Sub fee)	7.12% (3mth USD LIBOR + Margin + Sub fee)	6.84% (3mth USD LIBOR + Margin + Sub fee)
19	Existence of a dividend stopper	No	No	No	No	No	No	No	No
UK-20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Mandatory	Mandatory	Mandatory
UK-20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	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	Noncumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
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)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	If convertible, fully or partially	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	If convertible, conversion rate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	Write-down features	No	No	Yes	Yes	Yes	Yes	Yes	Yes
31	If write-down, write-down trigger(s)	N/A	N/A	Bank of England, Own Fund	Bank of England, Own Fund	Bank of England, Own Fund	Bank of England , Own Fund	Bank of England , Own Fund	Bank of England , Own Fund

				Instrument written off and Any resolution entity in Citi is under resolution or end-point Relevant Common Equity Tier 1 Capital ratio is at any time below 7 per cent.	Instrument written off and Any resolution entity in Citi is under resolution or end-point Relevant Common Equity Tier 1 Capital ratio is at any time below 7 per cent.	Instrument written off and Any resolution entity in Citi is under resolution or end-point Relevant Common Equity Tier 1 Capital ratio is at any time below 7 per cent.	Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.	Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.	Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.
32	If write-down, full or partial	N/A	N/A	Always Fully	Always Fully	Always Fully	N/A	N/A	N/A
33	If write-down, permanent or temporary	N/A	N/A	Permanent	Permanent	Permanent	N/A	N/A	N/A
34	If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34a	Type of subordination (only for eligible liabilities)	Contractual	Contractual	N/A	N/A	N/A	N/A	N/A	N/A
UK-34b	Ranking of the instrument in normal insolvency proceedings	1 (most junior)	1 (most junior)	2	2	2	3	3	3
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	As common equity, immediately subordinate to Additional Tier 1	As common equity, immediately subordinate to Additional Tier 1	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
37a	Link to the full term and conditions of the intrument (signposting)	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement

Main features of regulatory own funds instruments and eligible liabilities instruments (UK CCA) - continued

	Capital Instruments Main Features	Eligible Liabilities	Eligible Liabilities	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	Citigroup Global Markets Limited	Citigroup Global Markets Limited
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2a	Public or private placement	Private	Private	Private	Private	Private	Private	Private
3	Governing law(s) of the instrument	English Law	English Law	English Law	English Law	English Law	English Law	English Law
3a	Contractual recognition of write down and conversion powers of resolution authorities	YES	YES	YES	YES	YES	YES	YES
	Regulatory treatment							
4	Current treatment taking into account, where applicable, transitional CRR rules	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities
5	Post-transitional CRR rules	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities	Eligible Liabilities
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated	Solo and Consolidated
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	Senior Subordinated Loans	Senior Subordinated Loans
8	Amount recognised in regulatory capital or eligible liabilities (Currency in million, as of most recent reporting date)	US$1,500m	US$500m	US$500m	US$2,000m	US$1,500m	US$1,000m	US$1,500m
9	Nominal amount of instrument	US$1,500m	US$500m	US$500m	US$2,000m	US$1,500m	US$1,000m	US$1,500m
UK-9a	Issue price	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UK-9b	Redemption price	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	Accounting classification	Liability – Amortised cost	Liability – Amortised cost	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	07/12/2021	25/02/2022	04/03/2022	06/09/2022
12	Perpetual or dated	Dated	Dated	Dated	Dated	Dated	Dated	Dated
13	Original maturity date	24/07/2028	29/09/2027	29/09/2027	31/03/2031	03/05/2032	03/05/2032	06/09/2032
14	Issuer call subject to prior supervisory approval	YES	YES	YES	YES	YES	YES	YES
15	Optional call date, contingent call dates and redemption amount	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	Subsequent call dates, if applicable	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Coupons / dividends							
17	Fixed or floating dividend/coupon	Floating	Floating	Floating	Floating	Floating	Floating	Floating
18	Coupon rate and any related index	6.71% (3mth USD LIBOR + Margin + Sub fee)	6.77% (3mth USD LIBOR + Margin + Sub fee)	5.75% (3mth USD LIBOR + Margin + Sub fee)	5.91% (SOFR + Margin + Sub fee)	6.36% (SOFR + Margin + Sub fee)	6.37% (SOFR + Margin + Sub fee)	6.60% (SOFR + Margin + Sub fee)
19	Existence of a dividend stopper	No	No	No	No	No	No	No
UK-20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
UK-20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No	No	No	No	No	No	No
22	Noncumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	If convertible, fully or partially	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	If convertible, conversion rate	N/A	N/A	N/A	N/A	N/A	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	Write-down features	Yes	Yes	Yes	Yes	Yes	Yes	Yes
31	If write-down, write-down trigger(s)	Bank of England , Own Fund Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.	Bank of England , Own Fund Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.	Bank of England , Own Fund Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.	Bank of England , Own Fund Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.	Bank of England , Own Fund Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.	Bank of England , Own Fund Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.	Bank of England , Own Fund Instrument written off (US Resolution Authority consented/ has not objected to the write down) and Any resolution entity in Citi is under resolution.
32	If write-down, full or partial	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	If write-down, permanent or temporary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34	If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34a	Type of subordination (only for eligible liabilities)	Contractual	Contractual	Contractual	Contractual	Contractual	Contractual	Contractual
UK-34b	Ranking of the instrument in normal insolvency proceedings	4 (most senior)	4 (most senior)	4 (most senior)	4 (most senior)	4 (most senior)	4 (most senior)	4 (most senior)
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	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	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	No	No
37	If yes, specify Non-compliant features	N/A	N/A	N/A	N/A	N/A	N/A	N/A
37a	Link to the full term and conditions of the intrument (signposting)	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement	N/A - Private Placement

Appendix 3: Countercyclical Capital Buffer

The following table sets out CGML's countercyclical buffer requirement broken down by geographical distribution for 31 December 2022 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'.

As at 31 December 2022 the UK's countercyclical buffer rate is 1% in line with the FPC, with an increase to 2% coming into effect from 5 July 2023.

Table 52: Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer (UK CCyB1)

	General credit exposures	Relevant credit exposures – Market risk				Own funds requirements						
Breakdown by country	Exposure value under the standardised approach	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for internal models	Securitisation exposures Exposure value for non-trading book	Total exposure values	Relevant credit risk exposures – Credit risk	Relevant credit risk exposures – Market risk	Relevant credit risk exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements weights (%)	Countercyclical buffer rate (%)
	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million		
United Kingdom	14,650	1,848	996	–	17,494	1,102	263	–	1,365	17,056	29.1%	1.00%
United States	7,802	1,323	117	–	9,242	562	109	–	671	8,389	14.3%	0.00%
Luxembourg	3,316	82	10	–	3,408	265	8	–	273	3,413	5.8%	0.50%
Netherlands	1,429	2,266	221	–	3,916	107	156	–	263	3,285	5.6%	0.00%
Hong Kong	2,180	65	13	–	2,258	174	27	–	201	2,517	4.3%	1.00%
Japan	2,173	461	8	–	2,642	162	27	–	189	2,366	4.0%	0.00%
France	1,610	505	282	–	2,397	102	76	–	179	2,233	3.8%	0.00%
Ireland	1,490	186	15	10	1,701	118	25	4	148	1,845	3.2%	0.00%
Switzerland	1,471	44	124	–	1,639	115	17	–	132	1,652	2.8%	0.00%
Germany	944	260	231	–	1,435	77	45	–	121	1,515	2.6%	0.00%
Singapore	1,400	6	3	–	1,409	112	2	–	114	1,420	2.4%	0.00%
Denmark	924	16	17	–	957	69	3	–	72	905	1.5%	2.00%
Czech Republic	586	13	–	–	598	47	1	–	48	598	1.0%	1.50%
Sweden	476	17	31	–	525	38	5	–	43	533	0.9%	1.00%
Norway	107	24	10	–	141	8	2	–	10	124	0.2%	2.00%
Romania	7	0	–	–	7	1	0	–	1	7	0.0%	0.50%
Bulgaria	2	0	–	–	2	–	0	–	0	2	0.0%	1.00%
Iceland	–	0	–	–	0	–	0	–	0	0	0.0%	2.00%
Slovakia	–	0	–	–	0	–	0	–	0	0	0.0%	1.00%
Other countries	8,357	1,398	669	1	10,425	649	206	–	855	10,684	18.2%	0.00%
Total as at 31 December 2022	48,922	8,514	2,746	10	60,192	3,709	971	4	4,684	58,544	100.0%	

Table 53: Amount of institution-specific countercyclical capital buffer (UK CCyB2)

Total Risk Exposure Amount ($ million)	148,373
Institution Specific Countercyclical Buffer Rate	0.42%
Institution Specific Countercyclical Buffer Requirement ($ million)	623

Appendix 4: Omissions

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

Table 54: Non-disclosed tables

<table>
<tr><th>Table</th><th>Rationale</th></tr>
<tr><td>UK INS1 - Insurance participations</td><td rowspan="2">No insurance participation activity or financial conglomerates for CGML</td></tr>
<tr><td>UK INS2 - Financial conglomerates information on own funds and capital adequacy ratio</td></tr>
<tr><td>UK CR2: Changes in the stock of Non-performing loans and advances</td><td rowspan="10">Templates excluded on the basis of immateriality or non-applicability</td></tr>
<tr><td>UK CQ1: Credit quality of forborne exposures</td></tr>
<tr><td>UK CQ4: Quality of Non-performing exposures by geography</td></tr>
<tr><td>UK CQ5: Credit quality of loans and advances by industry</td></tr>
<tr><td>UK CQ7: Collateral obtained by taking possession and execution processes</td></tr>
<tr><td>UK CR2a: Changes in the stock of Non-performing loans and advances and related net accumulated recoveries</td></tr>
<tr><td>UK CQ2: Quality of forbearance</td></tr>
<tr><td>UK CQ6: Collateral valuation - loans and advances</td></tr>
<tr><td>UK CQ8: Collateral obtained by taking possession and execution processes – vintage breakdown</td></tr>
<tr><td></td></tr>
<tr><td>UK CR10 – Specialised lending and equity exposures under the simple risk weighted approach</td><td>No specialised lending or equity exposures under the simple risk weighted approach for CGML</td></tr>
<tr><td>UK CR6-A – Scope of the use of IRB and SA approaches</td><td rowspan="8">CGML does not have an IRB permission</td></tr>
<tr><td>UK CR6 – IRB approach – Credit risk exposures by exposure class and PD range</td></tr>
<tr><td>UK CR7 – IRB approach – Effect on the RWAs of credit derivatives used as CRM techniques</td></tr>
<tr><td>UK CR7-A – IRB approach – Disclosure of the extent of the use of CRM techniques</td></tr>
<tr><td>UK CR8 – RWA flow statements of credit risk exposures under the IRB approach</td></tr>
<tr><td>UK CR9 –IRB approach – Back-testing of PD per exposure class (fixed PD scale)</td></tr>
<tr><td>UK CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates according to point (f) of Article 180(1) CRR)</td></tr>
<tr><td>UK CCR4 – IRB approach – CCR exposures by exposure class and PD scale</td></tr>
<tr><td>UK-SEC3 - Securitisation exposures in the Non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor</td><td rowspan="2">CGML only acts as an investor in its Securitisation book</td></tr>
<tr><td>UK-SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments</td></tr>
</table>

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
BCBS	Basel Committee on Banking Supervision
BSST	Business Specific Stress Test
CCF	Credit Conversion Factor
CCP	Central Counterparty Clearing House
CCR	Counterparty Credit Risk
CCyB	Countercyclical buffer
CDS	Credit Default Swap
CEM	Current Exposure Method
CEO	Chief Executive Officer
CET1	Common Equity Tier 1
CFO	Chief Finance Officer
CFP	Contingency Funding Plan
CGME	Citigroup Global Markets Europe AG
CGML	Citigroup Global Markets Limited
CITI	Citigroup Inc.
CMBS	Commercial Mortgage-Backed Securities
CoB	Continuity of Business
CRD	Capital Requirements Directive
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
ECL	Expected Credit Loss
EMEA	Europe, Middle East and Africa
EEPE	Effective Expected Positive Exposures
ERBA	External Ratings Based Approach
ERM	Enterprise Risk Management
ESG	Environmental, Social and Governance
EU	European Union
EVS	Economic Value Sensitivity
FCA	Financial Conduct Authority
FCCM	Financial Collateral Comprehensive Method
FINREP	Financial Reporting Standards
FLP	Funding and Liquidity Plan
FPC	Financial Policy Committee
FRB	Federal Reserve Board
FRTB	Fundamental Review of the Trading Book
FVA	Funding Valuation Adjustments
FX	Foreign Exchange
GAAP	Generally Accepted Accounting Principles
GSF	Global Structured Finance
GSP	Global Spread Products
GSST	Global Systemic Stress Test
GWWR	General Wrong Way Risk
HMT	Her Majesty's Treasury
HQLA	High-Quality Liquid Assets
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
IRRBB	Interest Rate Risk in the Banking Book
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
MTM	Mark-To-Market
NIR	Net Interest Revenue
NSFR	Net Stable Funding Ratio
OCC	Office of the Comptroller of the Currency
ORM	Operational Risk Management
ORR	Obligor Risk Rating
OTC	Over The Counter
PFE	Potential Future Exposure
P&L	Profit and Loss
PBV	Performance Based Vesting
PD	Probability of Default
PRA	Prudential Regulation Authority
PSE	Pre-Settlement Exposures
RemCo	Remuneration Committee
RMBS	Residential Mortgage-Backed Securities
RNIV	Risks Not in VaR
ROG	Remuneration Oversight Group
RTS	Regulatory Technical Standards
RWA	Risk Weighted Assets
SA	Standardised Approach
SA-CR	Standardised Approach to Credit Risk
SA-CCR	Standardised Approach to Counterparty Credit Risk
SFT	Securities Financing Transaction
SPV	Special Purpose Vehicle
SREP	Supervisory Review and Evaluation Process
SOFR	Secured Overnight Financing Rate
SOR	System of Record
SVaR	Stressed Value at Risk
SWWR	Specific Wrong Way Risk
TFA	Total Facilities Amount
TLAC	Total Loss Absorbing Capacity
ToR	Terms of Reference
VaR	Value at Risk
VM	Variation Margin
WWR	Wrong Way Risk