CITIBANK EUROPE PLC

(Registered Number: 132781)

ANNUAL REPORT AND FINANCIAL STATEMENTS
for the year ended 31 December 2022

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BOARD OF DIRECTORS AND OTHER INFORMATION

DIRECTORS	Susan Dean - Chairperson - Independent Non-Executive Silvia Carpitella - Interim Chief Executive Officer/ Chief Financial Officer (Interim CEO/CFO) Desmond Crowley - Independent Non-Executive Gillian Lungley - Independent Non-Executive Jeanne Short - Independent Non-Executive John Gollan - Independent Non-Executive Patrick Dewilde - Non-Executive Peter McCarthy - Non-Executive Peter Jameson - Executive Director (appointed on 4 January 2023) Cecilia Ronan- Chief Executive Officer (CEO) (resigned on 7 November 2022)
COMPANY SECRETARY	Fiona Mahon
REGISTERED OFFICE	1 North Wall Quay, Dublin 1
SOLICITORS	A&L Goodbody LLP International Financial Services Centre, 3 Dublin Landings, North Wall Quay, Dublin 1 Arthur Cox LLP Ten, Earlsfort Terrace, Dublin 2 Matheson LLP 70 Sir John Rogersons Quay, Dublin 2
AUDITOR	KPMG Statutory Auditor and Chartered Accountants 1 Harbourmaster Place, IFSC, Dublin 1
BANKERS	Citibank NA, London Branch Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB

DIRECTORS' REPORT

For the year ended 31 December 2022

The Directors present their report and the annual financial statements of Citibank Europe Plc ("the Company" or "CEP") for the year ended 31 December 2022, which have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS).

Principal Activities

The Company is headquartered in Dublin, Ireland and for the year under review had branches across 21 European countries (2021: 21 European countries), and one subsidiary (2021: one subsidiary). Its ultimate parent is Citigroup Inc. (hereafter referred to as either "Citigroup" or "Citi").

The Company, which holds a banking licence from the Central Bank of Ireland (CBI) under Section 9 of the Central Bank Act 1971, provides financial services to clients and other Citigroup businesses on a worldwide basis. From 1 January 2017 the Company has been directly regulated by the European Central Bank (ECB) through the Single Supervisory Mechanism ("SSM" or "The Regulator").

The Company is passported under the EU Banking Consolidation Directive and accordingly is permitted to conduct a broad range of banking and financial services activities across the European Economic Area (EEA) through its branches and on a cross-border basis.

The core activities of the Company comprise the Institutional Clients Group (ICG) with Markets and Securities Services, Treasury and Trade Solutions (TTS) and Banking businesses. The activities in Banking comprise corporate and commercial lending and private banking services. These businesses service a wide range of target market clients including financial institutions, fund managers, governments, public sector clients, large local and multinational corporations, and high net worth individuals.

Business Review

For the year ended 31 December 2022, the Company reported a profit after tax of $1,030 million (31 December 2021: $1,013 million) and has maintained robust capital and liquidity positions.

The net income before impairment was $3,003 million for the year ended 31 December 2022 (31 December 2021: $2,472 million), which increased 21%, driven by TTS and Markets, partially offset by decline in Investment Banking as heightened macroeconomic uncertainty and volatility continued to impact client activity. In the environment of rising interest rates, TTS delivered strong performance driven by business actions, which included managing deposit repricing, higher spreads, as well as higher volumes and fees in payments, commercial cards and trade finance. Markets business had an increase year on year with revenue growth in FX, commodities and interest rate derivatives trading as a result of an increase in client activity and widened spreads.

The Company recorded a net impairment loss of $70 million (31 December 2021: net impairment gain of $249 million). This was driven by a reserve build due to geo political tensions and its impact on macro-economic outlook. Note 21 contains further details within the credit risk section.

Total operating expenses increase was driven primarily by a rise in personnel expenses reflecting the Company's continued investment in its workforce in alignment with its growth plans.

The Company's total assets increased to $129.3 billion (31 December 2021: $92.3 billion). The growth was led by the Markets business expansion in European Government Bonds trading as primary dealer and an increase in placements due to customer deposit growth which resulted in placing excess liquidity with central banks.

Future Developments

The Company continues to monitor the evolving macroeconomic and geopolitical outlook which remains complex and uncertain including constraints in energy supplies in Europe, high inflation and rising interest rates where the Company operates and its impact on GDP.

The Company has a balanced and sustainable business model that has proven its performance and resilience through the period of stress in the last three years and places it in a strong and sustainable position to benefit from opportunities for future growth. The Company plans to further grow its Markets business, expand Private Bank Business offering including Wealth at Work initiatives in Germany, France and Luxembourg markets as well as its Commercial Banking activities in Western Europe, including Germany, France and Nordics. Further growth of the balance sheet is also expected due to the proposed Intermediate Parent Undertaking Transaction described in more detail below.

The Company retains its commitment to continued investment in innovation and digitisation which will enable it to enhance the product offering in the TTS business segment and support market share growth in the Commercial and Private Bank.

The Company aspires to establish itself as a sustainable company by embedding environmental and social governance (ESG) in all the key functions of the bank. Works are ongoing to address upcoming climate related regulatory requirements, and ensure consideration of ESG embeddedness in relevant product offering and growth plans while managing associated ESG risks. For further details please refer to the Non Financial Statement of the Company on page number 11.

Minimum requirements for own funds and eligible liabilities (MREL) are expected to increase due to the planned balance sheet growth and increased regulatory requirements.

Intermediate Parent Undertaking Transaction

Citi is subject to the intermediate parent undertaking ("IPU") legal requirement under the Capital Requirements Directive IV as amended ("CRD") for third-country financial services groups with more than one credit institution and/or investment firm in the EU and with more than €40bn of assets. Groups must hold all credit institutions and/or investment firms established in the EU under a single intermediate parent undertaking, itself established in the EU by 30 December 2023, unless a derogation is granted. The derogation permits groups to operate under two IPUs and must be applied for by the group and granted by the European Central Bank, following consultation with resolution authorities and other regulators.

It was determined that Citibank Europe plc will be Citi's EU bank chain IPU, and that Citibank Holdings Ireland Ltd ("CHIL") would be removed from the holding structure in order to meet the IPU requirements. In addition to this Citibank Overseas Investment Corporation's ("COIC") controlling interest in Bank Handlowy Warszwie ("BHW") will be transferred to CEP.

The proposed changes to the ownership of CEP are intra-group and do not involve a new entity entering the chain of ownership of CEP. The transaction merely changes the character of the qualifying holding held by Citi Overseas Holdings Bahamas Limited ("COHBL" – parent of CHIL) from being an indirect qualifying holding to being a direct qualifying holding. Under IFRS 10 upon completion of the Proposed Transaction BHW will be included within the consolidated financial statements of CEP.

The proposed transaction is subject to a number of risks and uncertainties which may impact the structure of transaction. These include: satisfying relevant conditions precedent, obtaining regulatory and other approvals and other transaction execution risks and uncertainties. Accordingly, the proposed transaction is subject to change, however CEP is fully committed to ensuring that compliance with IPU rules is achieved by 30 December 2023.

DIRECTORS' REPORT

For the year ended 31 December 2022

Key Performance Indicators

The Company's key financial indicators during the year were as follows:

	31 December 2022	31 December 2021	Variance
Profit before tax (USD m)	1,274	1,206	6 %
Profit for the year (USD m)	1,030	1,013	2 %
Operating efficiency [1]	47%	53%	(6)%
Shareholders' funds (USD m)[2]	14,095	11,599	22 %
Return on capital employed[3]	9%	10%	(1)%
Return on assets[4]	1.0%	1.3%	— %

The key performance indicators above consider both IFRS and Alternative Performance Measures (APM) to analyse the Company's performance, providing comparability year on year. These performance measures are consistent with those presented to the Board. These performance measures may not be uniformly defined by all companies and accordingly they may not be directly comparable with similarly titled measures and disclosures used by other companies. These measures should be considered in conjunction with IFRS measures as set out in the financial statements from page 31.

Please refer to a list and description of APM below:

[1] Operating efficiency is a proportionate representation of operating expenses over net operating income (excluding interest expense).

		2022	2021
Calculation	Source	$m	$m
Total operating expenses	Income Statement	(1,659)	(1,515)
Net Operating Income	Income Statement	2,933	2,721
Exclude:			
Interest Expense	Income Statement	(581)	(163)
		3514	2,884
Operating efficiency		47%	53%

[2] The Shareholders' funds equate to total equity attributable to equity shareholders, which is different from regulatory capital. Shareholders' funds increase is primarily driven by $1.7Bn capital injection and Profit for the year of $1,030m, partially offset by $373m post tax fair value reserve losses on debt securities at FVOCI. Fair value losses on debt securities held at FVOCI can primarily be attributed to the valuation impact of rising interest rates on fixed rate debt securities.

[3] Return on Capital Employed is profit before tax over total equity attributable to shareholders.

		2022	2021
Calculation	Source	$m	$m
Profit before tax	Income Statement	1,274	1,206
Total equity attributable to shareholders	Statement of Financial Position	14,095	11,599
Return on capital employed		9%	10%

Key Performance Indicators (continued)

[4] Return on assets is profit before tax over total assets.

		2022	2021
Calculation	Source	$m	$m
Profit before tax	Income Statement	1,274	1,206
Total Assets	Statement of Financial Position	129,287	92,259
Return on assets		1.0%	1.3%

Credit Rating

The long-term credit rating for the Company is A+ (Standard & Poor's) (2021: A+ (Standard & Poor's)), Aa3 (Moody's) (2021: Aa3 (Moody's)) and A+ (Fitch) (2021: A+ (Fitch)).

Capital Management

The Company had regulatory capital of $12.8 billion as at 31 December 2022 ($11 billion as at 31 December 2021) which is entirely made up of Tier One equity. The capital ratio at 31 December 2022 was 19.0% (20 % as at 31 December 2021) which exceeds the minimum regulatory requirement of 15.02%. Further information on the Company's capital requirements and risk management is available in the Pillar 3 disclosure document (http://citigroup.com/citi/investor/reg.htm). For further details, please refer to Note 21 – 'Risk management'.

Dividends

The Directors do not propose any dividends in relation to 2022 earnings. ($nil paid in relation to 2021 earnings).

Corporate Governance

Internal Accounting and Financial Controls

The Directors are responsible for preparing the Directors' Report and the Company's financial statements in accordance with applicable law. The Board of Directors (Board) has established an Audit Committee that operates within specific terms of reference approved by the Board. The Company's finance function is responsible for preparing the financial statements in accordance with IFRS and with respect to local legal requirements.

Audit Committee

The Audit Committee is a sub-committee of the Board. Its role is to oversee the adequacy of the internal control environment established by management in relation to the Company's businesses. The Audit Committee also assists the Board in fulfilling its oversight responsibility relating to the integrity of the Company's financial statements, financial reporting process and systems of internal accounting and financial controls. The Audit Committee draws on the work of Internal Audit and the Company's Senior Management.

Risk Committee

The Risk Committee is a sub-committee of the Board. Its role is to review the Company's overall Risk Governance Framework and inform the Board on the Company's risk appetite by taking account of the current and future financial position of the Company as well as the business strategy, objectives, corporate culture, and values. The Risk Committee also reviews amendments to the Company's risk policies including regulatory developments and is responsible for the monitoring of economic capital and material risks. The Risk Committee draws on the work of the independent Risk Management function and the Company's Senior Management.

Remuneration Committee

The Remuneration Committee is a sub-committee of the Board. It is responsible for assisting the Board on decisions regarding remuneration, including those which have implications for risk management of the Company. The Remuneration Committee is also responsible for designing and implementing the Company's Remuneration Policy to ensure that remuneration practices do not promote excessive risk taking, evaluating compliance with this policy and assessing whether these remuneration practices are creating the desired incentives for managing risk, capital and liquidity, and that the remuneration policy is gender neutral.

Nomination Committee

The Nomination Committee is a sub-committee of the Board. It is responsible for assisting the Board on decisions regarding the appointment of Directors and Senior Management and related matters including succession planning, fitness and probity and diversity and inclusion.

Related Party Lending Committee

The Related Party Lending Committee is a sub-committee of the Board and is responsible for assisting the Company in the discharge of its obligations under the Code of Practice on Lending to Related Parties 2013 issued by the Central Bank of Ireland.

Executive Committee

The Executive Committee reports to the Board and makes key decisions regarding the management of the Company, in line with the Company's strategic plan and as directed by the Board.

Corporate Governance Code for Credit Institutions 2015

The Company is designated as a High Impact credit institution per the Corporate Governance Requirements for Credit Institutions 2015 (Code). As such, the Company has complied with the additional requirements for High Impact designated institutions.

The Company is rated as an Other Systemically Important Institution (O-SII). Under Regulation 121(1) of the European Union (Capital Requirements) Regulations 2014 (S.I. No. 158 of 2014) (CRD Regulations).

Political Donations

During the year the Company did not make any political donations (2021: $nil).

Directors, Company Secretary and their interests

The names of the persons who were Directors at any time during the financial year ended 31 December 2022 are set out on page 3. Neither the Directors, nor the Company Secretary, have any beneficial interest in the share capital of the Company. Neither the Directors, nor the Company Secretary, had an interest in more than 1% of the nominal value of the ultimate holding Company's issued share capital during the year ended 31 December 2022 and 2021.

Accounting records

The Directors believe that they have complied with the requirements of Sections 281 to 285 of the Companies Act 2014 with regard to adequate accounting records by employing accounting personnel with appropriate expertise and by providing adequate resources to the Finance function. The accounting records of the Company are available at 1 North Wall Quay, Dublin 1.

DIRECTORS' REPORT

For the year ended 31 December 2022

Principal Risks and Uncertainties

Information regarding the principal risks and uncertainties facing the Company and its management is described in Note 21 – 'Risk management' on page 80.

Going Concern

To assess any potential impact on the Company, the Directors assessed the components of capital, liquidity and the financial position of the Company and have a reasonable expectation that it has adequate resources to continue in operational existence for the 12 months from the approval of the financial statements. Therefore the Directors have prepared these financial statements on the going concern basis.

Non-Financial Statement

The Directors are responsible for ensuring the Company's compliance with the directive 214/95/EU 'Non-Financial Reporting Directive' (NFRD). Please see the Non-Financial Statement on pages 11 to 23.

Auditor

In accordance with Section 383(2) of the Companies Act 2014, the auditors, KPMG, Statutory Auditor and Chartered Accountants were first appointed in May 2001, will continue in office.

The Directors have taken all requisite steps to make themselves aware of all audit information and to establish that auditors are aware of all such information and, so far as the Directors are aware, there is no relevant audit information of which the auditors are unaware, in accordance with Section 330 (1)-(3) of the Companies Act 2014.

Directors' Compliance Statement

As required by Section 225 of the Companies Act 2014, the Directors acknowledge that they are responsible for ensuring the Company's compliance with its "relevant obligations" (as defined in that legislation). The Directors further confirm that a compliance policy statement has been drawn up, and that appropriate arrangements and structures have been put in place that are, in the Directors' opinion, designed to ensure material compliance with the relevant obligations. A review of those arrangements and structures has been conducted in the financial year to which this report relates.

Statement of Directors' responsibilities in respect of the Directors' Report and the audited financial statements

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

Company law requires the Directors to prepare financial statements for each financial year. Under that law, they have elected to prepare the financial statements in accordance with IFRS as adopted by the European Union (EU).

Under company law, the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the assets, liabilities and financial position of the Company and of its profit or loss for that year. In preparing the financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- assess the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- use the going concern basis of accounting unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

The Directors are responsible for the maintenance and integrity of the corporate and financial information relating to the Company. Legislation in the Republic of Ireland governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Directors are responsible for keeping adequate accounting records which disclose with reasonable accuracy at any time the assets, liabilities, financial position and profit or loss of the Company and which enable them to ensure that the financial statements of the Company comply with the provision of the Companies Act 2014 and with the requirements of the European Union (Credit Institutions: Financial Statements) Regulations 2015. They are responsible for such internal controls as they determine are necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking all reasonable steps to ensure such records are kept by its subsidiaries. This enables the Company to ensure that the financial statements of the Company comply with the provisions of the Companies Act 2014 and with the requirements of the European Union (Credit Institutions: Financial Statements) Regulations 2015.

They are also responsible for safeguarding the assets of the Company, and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The Directors are also responsible for preparing a Directors' Report that complies with the requirements of the Companies Act 2014.

On behalf of the board: 16 March 2023

Susan Dean	Silvia Carpitella	John Gollan	Fiona Mahon
Chairperson	Interim CEO/CFO	Audit Committee Chair	Company Secretary

NON-FINANCIAL STATEMENT

1. Introduction

As an important subsidiary of Citigroup Inc ("Citi"), the ultimate parent group, CEP is subject to the strategy, policies and targets of Citi relating to Environmental, Social and Governance ("ESG") matters. Citi's approach on environmental, social and employee, diversity, anti-bribery and anti-corruption matters, and respect for human rights is detailed in its Environmental, Social and Governance (ESG) Report, Taskforce on Climate-Related Financial Disclosures Report, and Environmental and Social Policy Framework which can be accessed on the group website www.citigroup.com/citi/about/esg/.

CEP is developing its local environmental, social policies and disclosures in alignment with Citi, based on applicable sustainable finance regulation and guidance, including the ECB Guide on Climate-Related and Environmental Risks, the EBA Roadmap on Sustainable Finance, the Non-Financial Reporting Directive and the EU Taxonomy, Capital Requirements Regulation, the MiFID II Sustainability Amendments and the Sustainable Finance Disclosure Regulation.

This statement intends to meet the disclosures and information requirements of CEP and banking industry stakeholders on non-financial matters. ESG matters and the implementation of ESG-related regulatory and supervisory requirements are a key focus area for CEP. While this year's non-financial disclosure represents a significant enhancement on prior statements, CEP will continue to develop its ESG disclosures over future iterations to address evolving regulatory expectations and stakeholder needs. CEP, as part of Citi, is committed to contributing to methodology improvements and developing tools to assess climate risk and climate data, including the quantification of the greenhouse gas (GHG) emissions; these capabilities will continue to evolve as the underlying data improves.

Non-financial statements are regulated by Directive 2014/95/EU (Non-Financial Reporting Directive "NFRD") amending Directive 2013/34/EU. NFRD requires companies to disclose their view of how climate change impacts their business model and strategy, and how their activities can affect the climate; information on the involvement of the board and management, their responsibilities in relation to climate change; information on how companies identify climate-related risks, and how they manage those risks. CEP's non-financial statement discloses information on environmental, social and employee, diversity, anti-bribery and anti-corruption matters. Climate related information is included in the category of environmental matters. The report provides qualitative and quantitative information to enable the understanding of CEP's development, performance, position and impact in regard to these activities.

2. Sustainability strategy

ESG Strategy and Business Model

As part of Citi, CEP has progressively developed its understanding of ESG issues. Citi has a demonstrated record of ESG progress, including participating in the creation and adoption of ESG-related principles and standards.

Citi is guided by principles for sustainable business and banking, including the Equator Principles, United Nations Environment Programme Finance Initiative Principles for Responsible Banking and the UN Guiding Principles on Business and Human Rights.

For CEP, sustainability includes integrating relevant ESG commitments and priorities into its business strategy, while aligning with Citi's policies. CEP is contributing to Citi's initiatives of achieving net zero GHG emissions by 2050, in its' own operations by 2030, and $1 trillion in sustainable finance by 2030. It aims to further accelerate the transition to a sustainable, low-carbon economy that balances society's environmental, social and economic needs. These priorities follow Citi's most recent Sustainable Progress Strategy, which launched in 2020.

The sustainable transformation across industries is expected to lead to challenges and opportunities for CEP and its clients. Environmental and social issues are closely linked with economic stability and have an impact on CEP, its clients and wider stakeholders. Therefore, CEP is driven to embedding ESG matters into its operating culture through the implementation of its ESG strategy.

2. Sustainability strategy (continued)

Consistent with Citi Sustainable Progress Strategy to help to drive the sustainability transformation, CEP developed a strategic approach focusing on the following three pillars:

- Accelerate the transition to a low-carbon economy: finance and facilitate low-carbon solutions and support our clients in their decarbonisation and transition strategies
- Measure, manage and reduce ESG risk and impact of our client portfolio: continue our work in incorporating ESG risks in our risk management practices, including policy development, portfolio analysis and stake-holder engagement, as well as enhancing our ESG disclosures in line with sustainability reporting requirements
- Reduce the environmental footprint of our facilities and strengthen our sustainability culture: minimize the impact of our own operations through operational footprint goals in line with Citi and further integrate sustainable practices across CEP

To advance CEP's ESG goals, taking Citi's vision into account, the Company considers external global principles and standards such as Taskforce for Climate-Related Financial Disclosures and Principles for Responsible Banking. Through application of these principles and the execution of both sustainable progress strategy and net zero commitments, CEP intends to ensure compliance with relevant regional and local regulatory requirements as outlined under the European Union (Disclosure of Non-Financial and Diversity Information by certain large undertakings and groups) Regulations 2017. Further information on CEP business model is included under the Principal Activities section of the Directors Report.

ESG Governance

CEP identifies ESG as one of its risk drivers. Roles and responsibilities for the management of ESG risks are assigned within CEP's organisational structure including the Board and its Committees, Management Committees and across its three lines of defence. In addition to the roles and responsibilities at the legal entity level, CEP also collaborates with various subject matter experts and teams across Citi to support a holistic implementation of ESG governance. In order to meet regulatory, client and other stakeholder requirements as well as to mitigate and manage ESG-related risks, CEP intends to integrate ESG considerations across its portfolios, products, and business operations. In addition, to achieve its ESG goals and contribute to its commitments, while appropriately mitigating and managing identified ESG risks and their impact, CEP aims to monitor key metrics per ESG risk categories: Environmental, Social, and Governance. This will facilitate CEP's effective monitoring and progress towards ESG goals and its contribution to commitments made.

We recognise the importance of diversity including at the Board level. At the end of 2022 the number of independent non-executive Directors on the Board was 5 out of 8 Directors, and the ratio of female members was 50%.

Board of Directors
The Board is collectively responsible for the long-term sustainable success of CEP and is ultimately responsible for overseeing the implementation of the ESG program in CEP, including the review and approval of related ESG metrics as recommended by the CEP Executive Committee.

Board Risk Committee
The Board Risk Committee will oversee the integration of ESG into CEP's risk management framework. This includes appropriate monitoring of ESG risk that currently affects, or that in the future will affect CEP as well as setting and overseeing the progress against ESG risk-related metrics and consideration of any interaction between ESG risks and financial risks.

ESG Climate Risk Steering Committee
The purpose of the CEP ESG Climate Risk Steering Committee is to act as a cross functional forum across CEP to progress ESG risk integration, to provide support and challenge.

2. Sustainability strategy (continued)

Materiality assessment

In line with Citi, the ESG topics identified, which we refer to as "material ESG issues" throughout this report, inform which issues we report on and which issues are considered to be raised to the Board.

Citi recognises that in general, assessing materiality requires thoughtful consideration not only of any applicable materiality standards, but also of our purpose in assessing materiality and in communicating to stakeholders. Citi's public disclosures related to ESG include a range of topics that are relevant to CEP's businesses and that are of interest to investors and wider stakeholders.

CEP is guided by a four steps approach[1] for materiality assessment, enabling the organisation to determine its material topics and report them:

- Step 1: Understand the organisation's context
- Step 2: Identify actual and potential impacts
- Step 3: Assess the significance of the impacts
- Step 4: Prioritise the most significant impacts for reporting

The first three steps relate to the organisation's ongoing identification and assessment of impacts. The fourth step determines the material topics through organisational prioritisation of the most significant impacts for reporting.

The following table outlines CEP's key material ESG issues included in the report:

ESG factors	Material ESG issues	Reference chapter
Environmental	GHG emissions	3. Environmental matters - climate change
	Operational footprint	3. Environmental matters - climate change
	Climate change	3. Environmental matters - climate change
Social	Attractive employer	4. Customers, employees and society
	Social engagement	4. Customers, employees and society
	Human rights	4. Customers, employees and society
	Innovation & digitisation	4. Customers, employees and society
Governance	Business Ethics	5. Leadership and governance
	Anti-corruption and bribery matters, anti-financial crime	5. Leadership and governance
	Data Security/ Financial Product Safety	5. Leadership and governance

[1] Four-steps approach as defined by Global Reporting Initiative ("GRI")

2. Sustainability strategy (continued)

Stakeholder dialogue

CEP is committed to meeting its legal obligations and voluntary commitments to sustainability and the advancement of human and worker rights. CEP actively engages with its regulators, clients, and workforce to understand key areas of concern and opportunities for improvement.

The CEP Board considers and discusses a wide range of information to help it understand the impact on CEP's operations and the interests and views of its key stakeholders.

Stakeholder group	*Engagement*
Clients and customers The Company's clients include corporates, financial institutions and public sector entities.	The businesses within CEP operate a coordinated client-centric sales and relationship management organisation. CEP performs a Voice of the Client survey which provides in-depth understanding of the corporate clients' needs and expectations, alongside regular client performance and service benchmarking, leveraging external reporting and analysis where relevant and appropriate.
Employees	Employees are encouraged to present their suggestions and views to CEP through various channels, including the Voice of the Employee survey, the results of which are presented to the Board each year by Human Resources. The Board request updates on important actions identified as areas of focus.
Suppliers	CEP has a well-established framework for the engagement with and on-going relationship management and controls relating to risks of its key suppliers, ensuring shared values in the conduct of their business.
Communities	Citi is in regular dialogue with charities and non-governmental organisations (NGOs), as part of its community investing commitment and mission to support the communities in which it operates. Citi works closely with community partners to understand the issues local communities are facing so that it can respond appropriately by providing funding, volunteers or other support as required.
Government and regulators	CEP maintains an open and regular engagement with regulators to ensure clarity and transparency over its strategy and plan, key risks and opportunities, and progress on ongoing initiatives. Primary regulatory engagement for CEP is with the Central Bank of Ireland and the European Central Bank supervisory team and its senior management. Regulatory engagement is maintained both at the Board as well as the Executive Management level to ensure regulatory requirements and expectations are consistently understood and met.
Policymakers	As part of Citi, CEP engages with policymakers both directly and as part of industry efforts, as a member of a number of financial services trade associations.

2. Sustainability strategy (continued)

ESG Risks and Risk management

ESG risks are the risks of any negative financial impact on the institution stemming from the current or prospective impacts of ESG factors on its counterparties or invested assets.

Environmental risks are divided into climate-related and other environmental risks resulting from climate change and environmental degradation. Social risks are related to human rights, well-being and health of people and communities, and include factors such as diversity, equality, inclusiveness, labour relations, workplace health and safety. Governance risks are related to governance practices, including business ethics, anti-corruption and bribery, transparency and trust, data security, tax honesty, shareholder rights, board remuneration and information disclosure.

Working towards a broader climate risk integration in business, CEP has developed Climate Related and Environmental Risk Management Framework (CRMF) that provides a globally consistent approach to managing climate risk across the bank. CEP is committed to maintaining strong and consistent climate risk management practices. In addition to the CRMF, Citi's Environmental and Social Risk Management (ESRM) Policy applies to all Citi entities globally and provides a framework for how we identify, assess and manage the potential risk to Citi, including credit and reputational risk, associated with the environmental and social risks of our clients' activities. Some sectors, e.g. energy and power, have particularly sensitive environmental and social risks that require sector-specific ESRM screening.

Climate-related and Environmental Risk Management

Climate change presents short-term, medium-term and long-term risks to CEP and to its clients and customers, with the risks expected to increase over time. Climate related & environment risk (CR&E) refers to the risk of loss arising either through physical risk or through transition risk. Physical risk originates from the increase in severity and frequency of either acute physical risks, which are related to extreme weather events, or chronic physical events which stem from longer term shifts caused by climate change (e.g., average precipitation changes which may drive long-term shifts in agriculture and water availability). Transition Risks result from action (or lack of action) to transition to a low-carbon economy and more environmentally sustainable economy, such as changes in regulations, technological developments, stakeholder expectations and legal implications.

CEP views CR&E risk as a crosscutting risk which can manifest through or amplify existing risks within CEP's risk taxonomy. Transmission channels are the causal chains that explain how CR&E risk drivers may materialise directly or indirectly as sources of financial or non-financial risk to CEP. CR&E Risk is integrated into business-as-usual risk management activities across the risk management lifecycle (risk identification, risk measurement, risk monitoring, risk control and risk reporting) and through Risk Enterprise Programs.

To assess how environmental and in particular climate risk drivers may impact the credit profile of CEP obligors, CEP assesses the associated transition and physical risks. Using industry classifications, based on data and internal expert insights, Citi has assessed the exposure of different sectors to climate risk and has created a heat map. The heat map allows CEP to efficiently screen its loan portfolio to identify the areas of the portfolio with the highest exposure to transition and physical risks and accordingly focus on further assessing and managing these risks.

For physical risk, the heat map is based on the extent to which sectors and subsectors are exposed to the impacts of extreme weather events or changes to weather patterns.

For transition risk, the heat map is based on the extent to which sectors and subsectors are exposed to policy, technology and/or market shifts in the short to medium term.

3. Environmental matters – climate change

Citi and CEP understand critical sustainability issues and recognise the important role of the financial sector in addressing this crisis by supporting the transition to a sustainable and low-carbon economy. CEP understands the complexity of developing solutions to these challenges, which require a combination of strong governmental policy and regulatory frameworks, corporate leadership, investor engagement and individual actions. To continue advancing our response to these challenges, in 2020 Citi launched an updated Sustainable Progress Strategy, which CEP's ESG Strategy was designed to align with and augment.

Net Zero Commitment

In 2021, Citi announced the commitment to net zero greenhouse gas (GHG emissions) by 2050 in alignment with the objectives of the Paris Agreement and prevailing climate science. The net zero commitment includes both financed emissions and own operations. For operations, CEP is targeting net zero emissions by 2030 which builds on the global operational footprint goals and the 100% renewable electricity goal that Citi achieved in 2020. CEP's ESG strategy is aligned to Citi's policies and initiatives, including the Net Zero commitment and Operational Footprint Goals outlined in the 2022 Taskforce on Climate-Related Financial Disclosures Report.

Climate protection

As outlined in the Environmental and Social Policy Framework, Citi and CEP will not provide project-related financial services for new thermal coal mines or significant expansion of existing mines; new coal-fired power plants or expansion of existing plants; oil and gas exploration, development and production in the Arctic Circle; projects that negatively impact the Outstanding Universal Value of UNESCO World Heritage Sites; and mining projects that utilise submarine waste disposal.

The following metrics were identified in line with the set targets of Citi and CEP to monitor the carbon-intensity of CEP's assets.

Key metrics have been selected and calculated based on the recommendations of the Guidelines on non-financial reporting and in alignment with CEP strategy.

3. Environmental matters – climate change (continued)

Amount and volume of carbon-related assets among CEP's Non-trading Loan assets

<table>
<tr><th>Description</th><th>Description</th><th>Unit of measure</th><th>Loan portfolio (2022)</th><th>Banking book (2022)</th></tr>
<tr><td>Amount of carbon-related assets in the Non-trading Loan portfolio</td><td rowspan="2">Exposures towards sectors that highly contribute to climate change (NACE A-I, L categories) calculated from Banking book (Gross carrying amount of loans and advances, debt securities, equity securities) other than those held for trading</td><td>$ million</td><td>12,785</td><td>12,785</td></tr>
<tr><td>Carbon-related assets in the non-trading portfolio as a percentage of the current portfolio value</td><td>%</td><td>29</td><td>24</td></tr>
</table>

Banking book includes debt security and equity instrument portfolios besides the loan portfolio. Volume of carbon-related assets is relevant for the loan portfolio of the banking book, representing 29% of the total loan portfolio, or 24% of the total loan, equity instrument and debt portfolio. The ratio provides information on the volume of CEP portfolio covered by carbon-related assets as defined by Commission delegated regulation (EU) 2020/1818.

Exposures by sector of counterparty

The concentration of exposures in CEP to high-carbon and low-carbon sectors as at 31 December 2022 was:

Vulnerability category	**Balance in $ million**	**%**
Major	2,814	5%
of which Energy sector	*1,695*	*3%*
Moderate	8,691	16%
of which Power sector	*570*	*1%*
Other	42,035	79%
Total	53,539	100%

Exposures grouped based on vulnerability to climate risk heat map[2] calculated from the banking book covering Gross carrying amount of loans and advances, debt securities, equity securities other than those held for trading.

CEP ESG strategy is aligned to Citi policies and initiatives, while meeting European regulatory requirements. CEP is aware of the risk of exposure towards high vulnerability sectors, and identifies measures and actions in order to mitigate the impacts; 21% of its banking book portfolio is identified as vulnerable (including major and moderate impacts), of which the energy sector represents 3%, and the power sector represents 1%. Citi has made announcements regarding 'Net Zero by 2050' with interim emissions targets for 2030 for its energy and power portfolios' that CEP follows in its own portfolio.

[2] Major impact industries based on Citi heatmap 2022: Oil & Gas, Auto & Motorcycle Manufacturers, Coal and consumable fuels, Shipping & Maritime logistics – Offshore. Moderate impact industries based on Citi heatmap 2022: Chemicals, Commercial Real Estate, Residential Real Estate, Capital goods, Multi-Utilities, Electric Utilities and Power other, Gas and Water utilities, Agricultural Products, Airlines and Tour Operators, Aviation Operation lessors, Aviation transitional Finance, Auto-related Fincos, Beverages, Building products & related, Reinsurance, Metals & mining exl. coal, Food products, Paper Forest Products & Packaging, Shipping & Maritime Logistics excl. Offshore, Commodity Trader

3. Environmental matters – climate change (continued)

Credit risk exposures with an indication of those countries/geographies highly exposed to physical risk

	Unit of measure	2022
Exposure with countries and sectors which are vulnerable to climate risk - physical risk	$ million	2,826
Exposure with countries and sectors which are vulnerable to climate risk - physical risk as a percentage of the total portfolio value	%	5%

Values show the concentration of exposures and collateral in countries and geographies highly exposed to physical risks. CEP uses a dedicated portal and database recommended by the European Banking Authority guidelines that defines geographical areas exposed to climate change related acute and chronic events. For the 2022 disclosures CEP applied reference data of Thinkhazard's physical risk mapping.

According to the reference data, six countries are identified as highly affected within the CEP jurisdictions: Spain, Germany, France, Italy, Greece and Portugal. The exposures towards physical risks were further examined in the portfolios of counterparties' according to their primary operational locations according to sectors that highly contribute to climate change as defined above (NACE A-I, L). Altogether 5% of the CEP banking book is impacted by high vulnerability factor regarding physical risk.

Collateral instruments are important in addressing climate risk mitigation, and relevant for both residential, and commercial property portfolio of CEP. The total balance of loan portfolios collateralised by immovable property in countries determined to have a high level physical risk can be regarded as immaterial.

Operational Footprint and GHG Emissions

Operational footprint

As part of Citi, CEP is working toward the 2025 operational footprint goals, which aim to reduce GHG emissions and energy consumption for the operations. These goals cover GHG emissions, energy use, water consumption, waste reduction and diversion, and sustainable building design.

Citi's emissions are calculated in line with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (revised edition). The boundaries of the GHG inventory are defined using the operational control approach and cover the emissions the Company is responsible for across Scope 1, (building emissions such as direct gas, diesel consumption or emissions of Citi's car fleet), Scope 2 (location-based building emissions such as electricity, district steam) and Scope 3 business travel (car, air, rail emissions).

Citi's Net Zero Operations team gathers data from its operations on an ongoing basis, with primary evidence sourced from vendors and power companies. Where Citi pay for occupancy via service charges and the share of consumption is not known, consumption is calculated by benchmarking the energy/square foot against our global portfolio. CEP calculates GHG emissions in line with Citi's methodology. A summary of CEP's GHG emissions in 2022 is provided below. For 2022 CEP focused on calculating emissions from its own operations including the emissions resulting from business travel.

3. Environmental matters – climate change (continued)

Greenhouse Gas (GHG) Emissions	Unit	2022
Scope 1 – Direct	tCO2e	598
Scope 2 – Indirect	tCO2e	7,272
Scope 3 – Business travel	tCO2e	2,225
Total	tCO2e	10,096

CEP understands that in disclosing indicators related to GHG emissions, banks should focus on their Scope 3 GHG emissions. As the methodology is still evolving in relation to Scope 3 emissions, CEP is disclosing information for financial year ended 2022 for its operational emissions for all locations (Scope 1 and 2) and for business travel (Scope 3).

CEP is committed to reducing its operational footprint by using energy and other resources efficiently, by purchasing renewable energy and leasing certified office buildings.

Citi sources 100% renewable electricity through green tariffs for electricity purchased directly at locations in France, Germany, UK, Ireland, Italy, Luxembourg, Netherlands (Landlord purchase). Where electricity is obtained in leased properties from landlords, EU Guarantee of Origin certificates are purchased for the equivalent amount used. Over 50% of CEP locations are certified by the US Green Building Council's Leadership in Energy and Environmental Design (LEED) programme.

Business travel emissions (Scope 3 Category 6) include emissions from the transportation of employees for business-related activities in vehicles owned or operated by third parties, such as aircraft, trains, and passenger cars.

Sustainable Building Principles

Whether undertaking new construction or renovating existing buildings, CEP shares Citi's principles in prioritizing efficiency and sustainability, to minimise the environmental impact of our facilities across the globe. Since Citi's own operations consist largely of buildings, Citi has developed and is piloting requirements for new and newly leased buildings to be zero carbon by 2030, in support of its net zero commitments. These requirements address both operational and embodied carbon emissions, inclusive of energy use, energy supply, integration with utilities and material use.

Efficient Travel Options

For many years, Citi has encouraged employees to use video and web conferencing technologies rather than traveling, whenever possible. With the onset of the global pandemic, Citi quickly transitioned the entire company to adopt use of these platforms for their daily interactions. Many CEP offices are centrally located near public transportation, which reduces the need for employees to drive to work. Now that many colleagues across the firm have started traveling again, we are working to build awareness for how business travel impacts our carbon footprint.

Disclosures in accordance with Article 8 of the Taxonomy Regulation

The Regulation on the establishment of a framework to facilitate sustainable investment ('Taxonomy Regulation'), has created a unified EU classification system of environmentally sustainable economic activities and imposed transparency obligations on certain non-financial and financial undertakings with respect to those activities. The Delegated Act supplementing Article 8 of the Taxonomy Regulation sets out specific requirements for Taxonomy-related reporting by undertakings covered by Directive EU 2014/95 (the Non-Financial Reporting Directive).

3. Environmental matters – climate change (continued)

An economic activity is eligible irrespective of whether it meets any or all of the technical screening criteria laid down in the Climate Delegated Act (and future delegated acts). Therefore, the fact that an economic activity is Taxonomy-eligible does not give any indication of the environmental performance and sustainability of that activity. Taxonomy regulation is intended to be a dynamic framework that should expand its scope of activities over time, in particular by including other environmental objectives, which should expand the scope of eligible activities accordingly.

A Taxonomy-eligible activity becomes Taxonomy-aligned, if it substantially contributes to one of the six EU Taxonomy environmental objectives, while also not doing significantly harm to any of those objectives and meeting minimum safeguards on human rights and labour standards.

According to the Taxonomy Regulation, eligibility-related disclosures of financial undertakings with regard to financial or non-financial undertakings in scope of Article 8 of the Taxonomy Regulation shall be based on actual information provided by the counterparties. CEP uses the most recently available information provided by the financial or non-financial underlying counterparty for their eligibility reporting based on external third party data.

As EU Taxonomy information was due to be disclosed for the first time in 2022, there is still limited data availability from our counterparties on the Taxonomy-eligibility of their economic activities. As the EU Taxonomy develops further and Taxonomy-alignment data becomes available, CEP aims to utilise the Taxonomy to a greater extent within the business.

Balance sheet positions	**Gross carrying amount**
	%
Total assets covered by the taxonomy ratio over total balance sheet assets	**42%**
Assets in scope of taxonomy assessment (in numerator) over assets covered by the taxonomy ratio – turnover based	44 %
eligible	1 %
non-eligible	43 %
Assets not in scope of taxonomy assessment (in denominator) over assets covered by the taxonomy ratio	56 %
Derivatives	—
Exposures to entities not required to publish non-financial information under Article 19a or Article 29a of Directive 2013/34/EU	31 %
Short-term interbank loans	5 %
Other excluded assets	20 %
Assets not in scope of taxonomy over total balance sheet assets	**58%**
Exposures to states, state, district governments, central banks and supranational organisations	33 %
Financial assets held for trading (including trading book derivatives)	25%
Total balance sheet assets	**100%**

External data provider was used to gather the eligibility revenue percentage counterparties have reported.

3. Environmental matters – climate change (continued)

CEP has also chosen to estimate the proportion of eligibility of economic activities as part of its voluntary disclosure where a counterparty has not yet disclosed its taxonomy-eligibility.

Voluntary disclosure based on combined reported and estimated data by external data provider:

Balance sheet positions	Gross carrying amount
	%
Assets in scope of taxonomy assessment (in numerator) over assets covered by the taxonomy ratio – turnover based	44 %
eligible	4 %
non-eligible	40 %

4. Customers, employees and society

Attractive employer

Diversity and inclusion

In line with Citi's values CEP believes that diversity and inclusion are critical to its future success and growth. CEP is fully aligned with the overall Citi Diversity policy, strategy and agenda. CEP recognises diversity as one of its competitive advantages. A diverse workforce helps CEP embrace diverse points of view and foster strong communications with clients across all backgrounds and geographies bringing out. CEP is fully committed to equal employment opportunity and compliance with the letter and spirit of the full range of laws regarding fair employment practices and non-discrimination. Promoting a diverse workforce is a key part of leadership and people related processes and performance discussion.

CEP is committed to representing diversity and promoting inclusion at Board and Senior Management level to enhance leadership and organisational culture. Additionally focus is placed upon initiatives that attract, promote, and retain diverse talent. Each year Citi conducts a global pay equity review, and implementation of pay equity initiatives continue in this regard.

Across the 22 countries in which CEP operates, employees are active members in a variety of Employee Network Programs. These Programs consists of Inclusion Network Groups supported by local chapters. Local chapters are initiated and led by employees. Employee networks like Citi Roots, Citi Disability Network: Enabling Diverse Abilities, Citi Women's Network, Citi Pride Network, Citi Families Matter Network provide a wide variety of programs to assist members in providing personal and professional development, celebrating ethnic, cultural and community diversity among others to members.

Diversity of governance bodies and employees

		Description	Unit	2022
Social	Diversity	CEP Director and Managing Director Female Representation	%	31
		CEP Assistant Vice President and above Female Representation	%	38

Talent

The CEP talent management strategy covers the entire life cycle of our employees. It is fully aligned with CEP leadership, mobility, performance management strategy, diversity and engagement strategy and integrated into its people management processes to bring CEP's strategy to life. With an employee base of approximately 13,000 staff across 22 countries CEP is committed to identify, attract, develop and retain talent to ensure it has the best people and leaders to drive future business growth. CEP recognises that the success of its business depends on the implementation of, and an effective management of the talent framework.

4. Customers, employees and society (continued)

Learning and development

CEP maintains a mandatory training program underpinned by a standard operating procedure and process, which is owned and monitored by the Compliance function. This includes training on, amongst other things, the Company's Code of Conduct, whistleblowing, anti-money laundering and market abuse. Acquiring knowledge in the ethical standards support the dissemination of the core values and principles applied by Citi and CEP.

All employees are onboarded to CEP through the Hello Citi programme, an enterprise wide programme designed to help new hires navigate the organisation, make connections and become familiar with our values and culture. This gives an employee a better understanding of Citi, its structure, management approaches and the dynamics of the employee lifecycle.

In addition, other resources, courses and development experiences are made available to individuals to support applicable development in their individual roles. A further suite of training is provided to managers to ensure they are appropriately trained on how to communicate and have crucial conversations, effective delegation, giving feedback and coaching, promoting teamwork, inclusion and managing risk responsibly.

Well-being at work

Citi aims to create workspaces that promote employee wellness, and engaging employees in order to maintain a culture of safety, sustainability and wellness. When looking at how buildings where people work can affect their well-being, it is important to manage air quality and acoustics, as well as providing ergonomic furniture, opportunities to stay active, provide healthy food options and a work environment that is both flexible and effective.

CEP is fully aligned to Live Well programme designed to support the physical and mental well-being of Citi employees by promoting a culture of health, learn more about healthy nutrition and exercise, prevention, living tobacco free, and mental health and balance.

Innovation and Digitisation

Through Citi's transformation, Citi and CEP are working to modernise and simplify the organisation so that risk can be managed better, service to customers and clients are improved. Through the modernisation of the data infrastructure and operations, and by evolving the culture, safety and soundness is strengthened and CEP's ability in the digital age is improved.

Citi, and CEP, is observing the shift to digital delivery and architecture by its customers, financial market intermediaries, central banks and the fintech industry. Citi has been making investments across the Company, including, for example, hiring front office colleagues and enhancing product capabilities and platforms to improve client digital experiences and add scalability and implementing new capabilities and partnerships. Citi has also been pursuing productivity improvements through various technology and digital initiatives, organisational simplification and location strategies.

Social engagement

Throughout 2022, Citi and the Citi Foundation accelerated and expanded investments in communities around the world, helping to support an inclusive recovery and equitable future. In pursuit of Citi's mission, CEP is committed to enabling growth and progress in the communities where we operate. In most countries where CEP operates, it is in regular dialogue with charities and non-governmental organisations (NGOs), as part of its community investing commitment and mission to support local communities. CEP works closely with community partners to understand the issues local communities are facing so that it can respond appropriately by providing funding, volunteers or other support as required.

4. Customers, employees and society (continued)

Community Affairs is a deeply embedded part of the culture in CEP's headquarters in Ireland. For the past 20 years, Citi Ireland has partnered with Junior Achievement to help young people reach their full potential through access to entrepreneurship and employability training. To date, almost 1,000 Citi volunteers have taught Junior Achievement programs to 18,000 students in Ireland. Citi Ireland has been working with Enactus since 2017. Enactus is a global organisation that works with university students to develop social entrepreneurship by partnering business leaders with the students to work on projects to tackle community issues. Each year, teams from universities around Ireland take part in Citi's Pathways to Progress program. They are provided with training, mentoring and seed funding to develop entrepreneurial ideas to tackle social issues facing young people in disadvantaged communities. Additionally, Citi Ireland works with Business in the Community and supports their programs for helping schoolchildren in disadvantaged areas with reading and maths and is also involved in mentoring programs for jobseekers.

In 2022 Citi Ireland signed a two-year partnership with LauraLynn, Ireland's only Children's Hospice. To date, employees in Citi Ireland have raised 100,000 EUR in support of the organisation. CEP branch employees were part of the Europe wide initiative 'Citi in Europe Runs for Refugees', which supported ASHOKA, an organisation carrying out vital work as they support refugees and migrants.

Each year employees in CEP branches take part in Global Community Day, which is a global Citi initiative where employees volunteer a day to work in the local community.

Human rights

Citi and CEP support the protection and fulfilment of human rights around the world and are guided by fundamental principles of human rights, such as those in the UN Universal Declaration of Human Rights, the International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work and UN Guiding Principles on Business and Human Rights. Our commitment to fair, ethical and responsible business practices, as we engage with employees, clients, vendors and communities around the world, is embodied in our values and Code of Conduct

Citi's policies, standards and due diligence practices guide our business decisions with respect to human rights. To learn more about Citi's commitment to human rights, see Statement on Human Rights.

The Citi Requirements for Suppliers document detail some of the obligations that Suppliers must meet while doing business with Citi.

Citi's Environmental and Social Policy Framework additionally sets out Citi's process for reviewing social risks associated with transactions, and includes certain policy prohibitions and areas of high caution.

5. Leadership and governance

Business Ethics

CEP embraces Citi's mission of enabling growth and economic progress, while adhering to the highest ethical standards. The Company asks its colleagues to ensure their decisions pass three tests: they are in our clients' interests, create economic value, and are always systemically responsible. CEP aims to ensure regulatory compliance through robust internal controls that contribute to building trust with clients, leading to increased economic value, and to protecting shareholder value by minimizing losses incurred as a result of legal proceedings.

As part of Citi, CEP complies with required transparency requirements, at both the European Union (EU) and individual country level. Citi is a signatory to the EU Transparency Register, which requires it to comply with the register's code of conduct.

5. Leadership and governance (continued)

Anti-corruption and bribery matters, anti-financial crime

As a global financial institution that offers banking, securities and insurance products to millions of customers around the world, Citi recognises its obligation to join with governments, international organisations and other members of the financial industry to help close off the financial channels that terrorists and money launderers use for their illicit purposes. CEP embraces Citi's mission of enabling growth and economic progress, while adhering to the highest ethical standards. The Company ask its colleagues to ensure their decisions pass three tests: they are in our clients' interests, create economic value, and are always systemically responsible.

Citi has policies, procedures and internal controls to comply with anti-bribery laws and conducts an annual bribery risk assessment of all global business lines. Anti-Bribery& Corruption related training is provided to Citi staff annually and is supplemented with targeted training and communications as needed. For more information, see the Citi Anti-Bribery & Corruption Program Statement, which is updated at least annually.

Citi established a number of enterprise-level programs and training to combat financial crimes in alignment with CEP Compliance as well as with business lines and functions:

- The Global Sanctions Program monitors and fosters awareness of applicable sanctions laws and regulations, assesses sanctions risk exposure, oversees the quality of sanctions control processes, and sets global policies/standards/processes to identify, measure, monitor, and manage sanctions risk.
- The Global AML Program is designed to protect both our clients and our franchise from the risks of money laundering, terrorist financing and other financial crimes.
- Global Financial Crimes Investigations and Intelligence (GFCII) is uniquely positioned within Citi's Compliance function to tackle financial crime and provide a globally consistent approach to the prevention and detection of risk.

These rigorous practices support Citi's and CEP's efforts to grow a successful, respected business that delivers the best possible results for clients, customers, and communities, while managing the inherent risks associated with financial crimes.

Data Security/ Financial Product Safety

Ensuring the privacy and data security of financial data is an essential responsibility of the financial industry. As growth in mobile banking and cloud storage continues and more of CEP's operations become technology- and internet-dependent, data security will be an increasingly important topic to manage.

Sophisticated technology and continuous training of personnel are essential in a world of growing cybersecurity threats. CEP makes significant efforts related to safeguarding data against emerging and continuously evolving cybersecurity threats and technologies, and actual security breaches compromising customers' personally identifiable information (PII).

Citi's cyber and information security program sets the requirements under which Citi, its subsidiaries, affiliates, and third parties safeguard the confidentiality, integrity, and availability of information and information assets. Protecting information is essential to meeting Citi's obligations to its customers, partners, and workers, as well as complying with applicable cyber and information security laws, regulations, and due care obligations, and meeting the expectations of regulators and authorities.

6. Conclusion

CEP understands the financial sector has an important role to play in supporting the transition to a sustainable, low-carbon economy that balances the ESG needs of society. CEP is committed to acting responsibly and integrating ESG across its products and business operations in line with Citi initiatives and policies. CEP is enhancing its environmental and social policies and disclosures based on the regulatory requirements and is fully committed to disclose relevant and important information as part of its Non-Financial Statement and EU Taxonomy disclosures.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF CITIBANK EUROPE PLC

Report on the audit of the financial statements

Opinion

We have audited the financial statements of Citibank Europe Plc ('the Company') for the year ended 31 December 2022 set out on pages 35 to 140, which comprise the Income Statement, the Statement of Other Comprehensive Income, the Statement of Financial Position, the Statement of Changes in Equity, the Statement of Cash flows and related notes, including the summary of significant accounting policies set out in note 1. The financial reporting framework that has been applied in their preparation is Irish Law and International Financial Reporting Standards (IFRS) as adopted by the European Union.

In our opinion:

- the financial statements give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2022 and of its profit for the year then ended;
- the financial statements have been properly prepared in accordance with IFRS as adopted by the European Union; and
- the financial statements have been properly prepared in accordance with the requirements of the Companies Act 2014.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (Ireland) (ISAs (Ireland)) and applicable law. Our responsibilities under those standards are further described in the Auditor's Responsibilities section of our report. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion. Our audit opinion is consistent with our report to the audit committee.

We were appointed as auditor by the directors in May 2001. The period of total uninterrupted engagement is the 21 years ended 31 December 2022. We have fulfilled our ethical responsibilities under, and we remained independent of the Company in accordance with, ethical requirements applicable in Ireland, including the Ethical Standard issued by the Irish Auditing and Accounting Supervisory Authority (IAASA) as applied to public interest entities. No non-audit services prohibited by that standard were provided.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the directors' assessment of the entity's ability to continue to adopt the going concern basis of accounting included the following:

- We used our knowledge of the Company, the financial services industry, and the general economic environment to identify the inherent risks to the business model and analysed how those risks might affect the Company's financial resources or ability to continue operations over the going concern period. The risks that we considered most likely to adversely affect the Company's available financial resources over this period were:
    - the availability of funding and liquidity in the event of a market wide stress scenario; and
    - the impact on regulatory capital requirements in the event of an economic slowdown or recession.
- We also considered whether these risks could plausibly affect the availability of financial resources in the going concern period by comparing severe, but plausible, downside scenarios that could arise from these risks individually and collectively against the level of available financial resources indicated by the Company's financial forecasts.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Company’s ability to continue as a going concern for a period of at least twelve months from the date when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Detecting irregularities including fraud

We identified the areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements and risks of material misstatement due to fraud, using our understanding of the entity's industry, regulatory environment and other external factors and inquiry with the directors. In addition, our risk assessment procedures included:

- Inquiring with the directors and other management as to the Company‘s policies and procedures regarding compliance with laws and regulations, identifying, evaluating and accounting for litigation and claims, as well as whether they have knowledge of non-compliance or instances of litigation or claims.
- Inquiring of directors, the audit committee, internal audit and inspection of policy documentation as to the Company‘s high-level policies and procedures to prevent and detect fraud, including the internal audit function, and the Company‘s channel for whistleblowing, as well as whether they have knowledge of any actual, suspected or alleged fraud.
- Inquiring of directors, the audit committee, and internal audit regarding their assessment of the risk that the financial statements may be materially misstated due to irregularities, including fraud.
- Inspecting the Company‘s regulatory correspondence.
- Reading minutes of meetings of the Board of Directors, and the audit committee.
- Considering remuneration incentive schemes and performance targets for management and directors.
- Performing planning analytical procedures to identify any usual or unexpected relationships.

We discussed identified laws and regulations, fraud risk factors and the need to remain alert among the audit team.

Firstly, the Company is subject to laws and regulations that directly affect the financial statements including companies and financial reporting legislation. We assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items, including assessing the financial statement disclosures and agreeing them to supporting documentation when necessary.

Secondly, the Company is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the financial statements, for instance through the imposition of fines or litigation or the loss of the Company’s licence to operate. We identified the following areas as those most likely to have such an effect: regulatory capital and liquidity and certain aspects of company legislation recognising the financial and regulated nature of the Company’s activities and its legal form.

Auditing standards limit the required audit procedures to identify non-compliance with these non-direct laws and regulations to inquiry of the directors and other management and inspection of regulatory and legal correspondence, if any. These limited procedures did not identify actual or suspected non-compliance.

We assessed events or conditions that could indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud. As required by auditing standards, we performed procedures to address the risk of management override of controls. On this audit we do not believe there is a fraud risk related to revenue recognition. We identified fraud risks in relation to overlays raised by management as part of the expected credit loss on loans and advances to customers, the valuation of level 3 financial instruments, and the existence and accuracy of unconfirmed OTC Derivatives.

Further detail in respect of management overlays and the valuation of level 3 financial instruments is set out in the key audit matters section of this report.

In response to the fraud risks, we also performed procedures including:

- Identifying journal entries and other adjustments to test based on risk criteria and comparing the identified entries to supporting documentation;
- Assessing significant accounting estimates for bias; and
- Assessing the disclosures in the financial statements.

As the Company is regulated, our assessment of risks involved obtaining an understanding of the legal and regulatory framework that the Company operates and gaining an understanding of the control environment including the entity's procedures for complying with regulatory requirements.

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations (irregularities) is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it.

In addition, as with any audit, there remains a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. We are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

Key audit matters: our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the financial statements and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by us, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

In arriving at our audit opinion above, the key audit matters, in decreasing order of audit significance, were as follows (unchanged from 2021):

IFRS 9 Expected Credit Losses – ECL $300m (2021: $238m)

Refer to note 1 (j) (accounting policies) and notes 19, and 21.2 (financial disclosures)

The key audit matter	How the matter was addressed in our audit
The calculation of credit provisions requires a high degree of judgement to reflect recent developments in credit quality, arrears experience and/or emerging macroeconomic risks. The key areas where we identified greater levels of management judgement and therefore increased levels of audit focus in the Company's compliance with IFRS 9 include but are not limited to: ***Accuracy of Wholesale Probability of Default ("PD") Model*** Owing to the complexity and uncertainty in the PD model, including the underlying assumptions, we have identified a significant risk of error in expected credit losses ("ECL") as a result of inaccurate PDs being generated by the Wholesale PD model.	***Accuracy of Wholesale PD Model;*** • We performed end-to-end process walkthroughs to identify the key systems, applications and controls used in the ECL process. • In conjunction with our credit specialist, we inspected the relevant PD model validation reports and assessed whether the findings have been appropriately considered and addressed by management / model developers. • We inspected the model development documentation and assessed whether model updates in the period were reasonable. • We evaluated the adequacy of the significant increase in credit risk ("SICR") criteria for compliance with IFRS 9. • We independently assessed the reasonableness of the modelled outputs with reference to external information. • In conjunction with our credit modelling specialists, we performed independent reperformance testing over key aspects of the Wholesale PD model underlying the calculation of expected credit losses.

Management Overlays

Management overlays are raised by management to address known impairment model limitations, data limitiations and/or emerging trends. We have identified a significant risk of error and fraud associated with the valuation of management overlays.

Economic Scenarios

Economic scenarios have a direct impact on the proportion of loans in stage 2 and the resultant ECL. Significant management judgement is applied to the determination of the economic scenarios and the weightings applied to them.

We have identified a significant risk due to error with respect to management judgement applied in the selection of scenarios, the associated scenario probabilities and the material economic variables which drive the scenarios and the related weightings, particularly given the heightened economic and geopolitical uncertainty.

Identification and quantification of stage 3 loans

There is a risk that stage 3 loans are not completely identified and that the individually assessed ECLs held against these stage 3 counterparties are incorrectly or inappropriately calculated by management. Management judgement is applied to value the collateral, in determining the probability weighting of scenarios used to calculate the level of provisioning required and the impact of the likely courses of action with borrowers on ECL.

Management Overlays

- We performed end-to-end process walkthroughs and tested the design, implementation, and operating effectiveness of key controls over the authorisation and review of management overlays.
- We evaluated the conceptual soundness of management overlays by critically assessing management's methodology, including the limitation and/or risk that the adjustment is seeking to address, for compliance with the requirements of IFRS 9.
- We assessed the completeness and overall adequacy of management overlays, by comparing the overlays recognised by management to the various risks, model limitations and/or data limitations that we consider to exist in the portfolio.
- In conjunction with our credit modelling specialist, we assessed whether the management overlays were subject to bias having regard for the risk profile of the loan book, model limitations and/or data limitations, performance of the relevant portfolio, inflation, rising interest rates and market uncertainties.

Economic scenarios

- We performed end-to-end process walkthroughs and tested the design, implementation and operating effectiveness of key controls relating to the estimation of macro-economic forecasts used in measuring ECL, including the economic scenarios and probability weightings applied to them.
- In conjunction with our local economic specialist, we held probing inquiries with mangaement and inspected related documentation to assess whether the basis for management assumptions were reasonable and consistent with consensus forecasts.
- We challenged whether management's Forward Looking Information ("FLI") optimistic/pessimistic scenario weightings were reaasonable, having regard to all available information at year end such as external forecasts and peer information.
- We engaged our local economics specialist to assist us in assessing the plausibility of the significant assumption underpinning management's economic scenarios which we have defined to be GDP. Specifically, we challenged the overall reasonableness of GDP forecasts with reference to independent and observable economic forecasts.

Identification and quantification of stage 3 loans

- We performed an end-to-end process walkthrough and tested the design, implementation and operating effectiveness of key controls relating to the assignment of credit risk grades;
- In relation to performing loans, we haphazardly selected a sample of individual loans for testing and performed independent credit file reviews, critically assessing by reference to underlying loan documentation, and through inquiries of management, whether the credit grade and associated staging was reasonable. In addition to our haphazardly selected sample, we judgementally selected a number of additional risk based cases, focusing on high risk sectors including those impacted by climate risk, inflation and geopolitical events; and
- We performed independent credit reviews over a sample of stage 3 individually assessed loans to test the reasonableness of the expected credit loss and challenged management in respect of significant assumptions underpinning the individually assessed impairment calculations.

We found the significant judgements used by management in determining the ECL charge and provision, including the accuracy of the Wholesale PD model, application of management overlays, economic scenarios and identification and quantification of stage 3 loans, to be reasonable.

Valuation of level 3 and complex level 2 financial instruments

Refer to note 1 (i) (accounting policy) and note 23 (financial disclosures)

The key audit matter	How the matter was addressed in our audit
Risk of Error: The determination of the valuation of financial instruments that are considered to have unobservable inputs, which represents management's estimate of the fair value of the instrument at the date of the financial statements, involves judgement and complexity surrounding the valuation assertion. The significant pricing inputs are unobservable, involve complex valuation models or limited market data and estimation uncertainty can be high. As such, we have determined there to be a significant risk of error around the valuation of these financial instruments. We identified the financial instruments with a significant risk of error to be those that are classified as Complex Level 2 instruments (i.e., those financial instruments valued by models deemed to have a high degree of complexity) and those that are classified as having significant unobservable inputs into Level 3 positions (i.e. those financial instruments valued using alternative pricing procedures due to at least one significant unobservable input).	• We performed end-to-end process walkthroughs of the valuation process and tested the design, implementation and operating effectiveness of key controls identified in the following areas: ◦ Independent price verification ("IPV") key inputs, including completeness of positions and risk factors subject to IPV; ◦ Fair value adjustments ("FVAs"); ◦ IT systems relevant to the valuation including interfaces with risk systems and external pricing providers; and ◦ Validation, completeness, implementation and usage of valuation models, including controls over adjustments to model limitations and assumptions • In conjunction with our valuation specialists, we: ◦ Independently valued a selection of financial instruments in both level 2 and level 3 (to address the risk of fraud); ◦ Performed test of details for a sample of instruments including re-performance of management's process over the reliability and accuracy of the inputs used in IPV process and IPV calculation itself for the 31 December 2022 IPV process;
Risk of Fraud: Management makes certain assumptions as they relate to the valuation of financial instruments. The valuation of level 3 financial instruments takes into consideration, among other matters, trader judgement regarding at least one significant unobservable input. The significant assumptions and/or judgements used for the significant unobservable inputs are subjective and can be manipulated by the trader. As a result, there is an inherent fraud risk relating to those financial instruments that are classified as Level 3. (i.e., those financial instruments valued using alternative pricing procedures due to at least one significant unobservable input). We regard the valuation of level 3 and complex level 2 financial instruments as a key audit matter because its calculation is complex and requires a high degree of management judgement.	◦ Inspected external sources for price inputs used by management in performing IPV and recalculated IPV variances as well as FVAs; and ◦ Independently obtained key pricing inputs as part of our recalculations and challenge. Overall, we found the valuations of level 3 and more complex level 2 financial instruments, including the significant pricing inputs, to be reasonable.

Our application of materiality and an overview of the scope of our audit

Materiality for the financial statements as a whole was set at $60m (2021: $52.2m), determined with reference to a benchmark of Net Assets of which it represents 0.5% (2021: 4% of previous benchmark profit before tax).

Materiality for the current year was determined in the aforementioned manner due to the Markets business expansion during 2022 which had a transformative effect on the statement of financial position and equity of the Company. The statement of financial position provides a fairer representation of the progress of the Company's expansion and we consider net assets to be the most appropriate benchmark as it provides a more stable measure year on year than PBT and is the metric we consider to most influence the decisions of users of the financial statements.

Performance materiality was set at 75% (2021: 75%) of materiality for the financial statements as a whole which equates to $45m (2021: $39.1m). We use performance materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality. In applying our judgement in determining performance materiality, we considered a number of factors including; the low number and value of misstatements detected and the low number and severity of deficiencies in control activities identified in the prior year financial statement audit.

We reported to the audit committee any corrected or uncorrected identified misstatements exceeding $3m (2021: $2.6m), in addition to other identified misstatements that warranted reporting on qualitative grounds.

Our audit was undertaken to the materiality and performance materiality level specified above and was all performed by a single engagement team in Dublin with assistance from other KPMG offices. In planning the audit, we applied materiality to assist us in determining what risks were significant risks, including those set out above, and to determine, the nature, timing and extent of our audit response.

Other information

The directors are responsible for the other information presented in the Annual Report together with the financial statements. The other information comprises the information included in the directors' report, the non-financial statement included on pages 11-24, the European Union Taxonomy Regulation on pages 19 - 21, and the unaudited notes to the financial statements which include Country by Country Reporting.

The financial statements and our auditor's report thereon do not comprise part of the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except as explicitly stated below, any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work we have not identified material misstatements in the other information.

Based solely on our work on the other information undertaken during the course of the audit, we report that, in those parts of the directors' report specified for our consideration:

- we have not identified material misstatements in the directors' report;
- in our opinion, the information given in the directors' report is consistent with the financial statements; and
- in our opinion, the directors' report has been prepared in accordance with the Companies Act 2014.

Our opinions on other matters prescribed by the Companies Act 2014 are unmodified

We have obtained all the information and explanations which we consider necessary for the purposes of our audit.

In our opinion the accounting records of the Company were sufficient to permit the financial statements to be readily and properly audited, information and returns for our audit have been received from branches of the Company not visited by us and the Company financial statements are in agreement with the accounting records.

We have nothing to report on other matters on which we are required to report by exception

The Companies Act 2014 requires us to report to you if, in our opinion:

- the disclosures of directors’ remuneration and transactions required by Sections 305 to 312 of the Act are not made; and
- the Company has not provided the information required by section 5(2) to (7) of the European Union (Disclosure of Non-Financial and Diversity Information by certain large undertakings and groups) Regulations 2017 for the year ended 31 December 2021 as required by the European Union (Disclosure of Non-Financial and Diversity Information by certain large undertakings and groups) (amendment) Regulations 2018.

We have nothing to report in this regard.

Respective responsibilities and restrictions on use

Responsibilities of directors for the financial statements

As explained more fully in the directors’ responsibilities statement set out on page 10, the directors are responsible for: the preparation of the financial statements including being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the Company’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

Auditor’s responsibilities for the audit of the financial statements

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

A fuller description of our responsibilities is provided on IAASA’s website at https://iaasa.ie/publications/description-of-the-auditors-responsibilities-for-the-audit-of-the-financial-statements/.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF CITIBANK EUROPE PLC

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

Our report is made solely to the Company's members, as a body, in accordance with Section 391 of the Companies Act 2014. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members, as a body, for our audit work, for this report, or for the opinions we have formed.

James Black ***16 March 2023***

for and on behalf of

KPMG

Chartered Accountants, Statutory Audit Firm

1 Harbourmaster Place

IFSC

Dublin 1

Ireland

D01 F6F5

INCOME STATEMENT

for the year ended 31 December 2022

	Note	2022 $m	2021 $m
Interest income calculated using the effective interest method	3	1,168	546
Interest income		1,168	546
Interest expense	3	(581)	(163)
Net interest income		587	383
Fee and commission income	4	1,368	1,354
Fee and commission expense	4	(228)	(217)
Net fee and commission income		1,140	1,137
Net trading income	5	468	165
Net investment income	6	42	52
Net income from other financial instruments designated at fair value through profit or loss	7	22	59
Other operating income	8	744	676
Net Income before Impairment		3,003	2,472
Net impairment (losses)/gains on financial instruments	21	(70)	249
Net operating income		2,933	2,721
Personnel expenses	10	(1,055)	(951)
Other expenses	12	(604)	(564)
Total operating expenses		(1,659)	(1,515)
Profit before tax		1,274	1,206
Corporate tax	13	(244)	(193)
Profit for the year		1,030	1,013

The accompanying notes on pages 41 to 148 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 16 March 2023 and signed on their behalf by:

Susan H. Dean			
Susan Dean	Silvia Carpitella	John Gollan	Fiona Mahon
Chairperson	Interim CEO/CFO	Audit Committee Chair	Company Secretary

STATEMENT OF OTHER COMPREHENSIVE INCOME
for the year ended 31 December 2022

	Note	2022 $m	2021 $m
Profit for the period		1,030	1,013
Items that will not be reclassified to profit or loss			
Gain on remeasurement of defined benefit liability	**14**	84	40
Related tax	**26**	(16)	(4)
Items that are or may be reclassified to profit or loss			
Foreign currency translation gain/(loss)		63	(19)
Net gain/(loss) on hedge of net investment in foreign operation		—	(10)
Movement in fair value reserve (FVOCI debt instruments)			
Debt instruments at FVOCI - net change in fair value		(449)	(173)
Debt instruments at FVOCI - reclassified to profit or loss	**6**	6	(2)
Related tax	**26**	70	24
Other comprehensive expense for the year, net of tax		(242)	(144)
Total comprehensive income for the year		788	869

The accompanying notes on pages 41 to 148 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 16 March 2023 and signed on their behalf by:

Susan Dean	Silvia Carpitella	John Gollan	Fiona Mahon
Chairperson	Interim CEO/CFO	Audit Committee Chair	Company Secretary

CITIBANK EUROPE PLC

STATEMENT OF FINANCIAL POSITION

As at 31 December 2022

	Note	31 December 2022 $m	31 December 2021 (Restated) $m
Assets			
Cash and cash equivalents	**15**	32,911	27,482
Trading assets	**16, 23**	9,895	4,443
Derivative financial instruments	**17, 23**	22,347	13,126
Investment securities	**18**	9,072	7,525
Loans and advances to banks	**19**	13,472	11,035
Loans and advances to customers	**19**	30,821	21,253
Shares in subsidiary undertakings	**27**	14	14
Other assets*	**20**	10,183	6,841
Current tax asset		14	44
Goodwill and Intangible assets	**25**	120	109
Property and equipment	**24**	183	140
Deferred tax assets	**26**	255	247
Total assets		129,287	92,259
Liabilities			
Deposits by banks	**23**	8,858	11,148
Customer accounts	**23**	49,072	38,977
Derivative financial instruments	**17, 23**	22,844	14,429
Subordinated liabilities	**28**	4,455	4,773
Current tax liability		54	56
Provisions	**29**	131	89
Deferred tax liabilities	**26**	17	20
Other liabilities*	**30**	29,761	11,168
Total liabilities		115,192	80,660
Equity shareholders' funds			
Share capital	**31**	11	11
Share premium account	**31**	1,963	1,963
Other reserves (net)	**39**	2,002	604
Retained earnings		10,119	9,021
Total equity attributable to equity shareholders		14,095	11,599
Total liabilities and equity shareholders' funds		129,287	92,259

*Restated for prior year adjustment, as detailed in Note 38

The accompanying notes on pages 41 to 148 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 16 March 2023 and signed on their behalf by:

Susan H. Dean

Susan Dean	Silvia Carpitella	John Gollan	Fiona Mahon
Chairperson	Interim CEO/CFO	Audit Committee Chair	Company Secretary

CITIBANK EUROPE PLC

STATEMENT OF CHANGES IN EQUITY

for the year ended 31 December 2022

		Attributable to equity holders of the Company								
	Note	Share capital	Share premium	Capital reserve	Merger reserve	Translation reserve	Fair value reserve	Equity reserve	Retained earnings	Total
		$m	$m	$m	$m	$m	$m	$m	$m	$m
Balance at 1 January 2021		11	1,963	827	2	(88)	28	(1)	7,972	10,714
Total comprehensive income/ (loss):										
Profit for the year		—	—	—	—	—	—	—	1,013	1,013
Other comprehensive income/ (loss), net of tax:										
Remeasurements of defined benefit liability	**14, 26**	—	—	—	—	—	—	—	36	36
Foreign currency translation differences for foreign operations		—	—	—	—	(19)	—	—	—	(19)
Net loss on hedge of net investment in foreign operation		—	—	—	—	(10)	—	—	—	(10)
Fair value reserve (FVOCI financial assets)		—	—	—	—	—	(151)	—	—	(151)
Total other comprehensive income/ (loss)		—	—	—	—	(29)	(151)	—	36	(144)
Total comprehensive income/(loss)		—	—	—	—	(29)	(151)	—	1,049	869
Transactions with owners, recorded directly in equity										
Equity increase resulting from merger and capital transactions	**34**	—	—	—	16	—	—	—	—	16
Total contributions by and distributions to owners		—	—	—	16	—	—	—	—	16
Balance at 31 December 2021		11	1,963	827	18	(117)	(123)	(1)	9,021	11,599
Balance at 1 January 2022		11	1,963	827	18	(117)	(123)	(1)	9,021	11,599
Total comprehensive income/ (loss):										
Profit for the year		—	—	—	—	—	—	—	1,030	1,030
Other comprehensive income/ (loss), net of tax:										
Remeasurements of defined benefit liability	**14, 26**	—	—	—	—	—	—	—	68	68
Foreign currency translation differences for foreign operations		—	—	—	—	63	—	—	—	63
Net loss on hedge of net investment in foreign operation		—	—	—	—	—	—	—	—	—
Fair value reserve (FVOCI financial assets)		—	—	—	—	—	(373)	—	—	(373)
Total other comprehensive income/ (loss)		—	—	—	—	63	(373)	—	68	(242)
Total comprehensive income/(loss)		—	—	—	—	63	(373)	—	1,098	788
Transactions with owners, recorded directly in equity										
Equity increase resulting from merger and capital transactions	**22**	—	—	1,700	—	—	—	—	—	1,700
Equity settled share-based payment	**32**	—	—	—	—	—	—	8	—	8
Total contributions by and distributions to owners		—	—	1,700	—	—	—	8	—	1,708
Balance at 31 December 2022		11	1,963	2,527	18	(54)	(496)	7	10,119	14,095

The accompanying notes on pages 41 to 148 form an integral part of these financial statements.

CITIBANK EUROPE PLC

STATEMENT OF CASH FLOWS

for the year ended 31 December 2022

	Note	31 December 2022	31 December 2021 (Restated)
		$m	$m
Cash flows from operating activities			
Profit after tax		1,030	1,013
Adjustments for:			
Income tax charged	**13**	244	193
Depreciation and amortisation	**12**	56	56
Net impairment losses/(recoveries) on loans and advances	**21**	59	(267)
Provision released and other movements during the year	**29**	1	(3)
Provision utilised during the year	**29**	(2)	(5)
Net interest income	**3**	(587)	(383)
Net gain on investment securities***	**18**	(48)	(50)
Change in trading assets	**16, 23**	(5,452)	(2,630)
Change in derivative financial instrument assets	**17, 23**	(9,221)	(1,889)
Change in loans and advances to banks (more than 3 months)	**15, 19**	(373)	(605)
Change in loans and advances to customers	**19, 21**	(9,585)	(3,273)
Change in other assets**	**20**	(3,312)	(4,730)
Change in deposits by banks	**23**	(2,290)	(2,665)
Change in customer account balances	**23**	10,095	5,779
Change in derivative financial instrument liabilities	**17, 23**	8,415	3,182
Change in other liabilities (without repurchase agreements)**	**14, 30**	14,314	5,594
Change in repurchase agreements*	**30**	4,332	1,065
		7,676	382
Interest received	**3**	1,177	546
Interest paid	**3**	(581)	(163)
Income tax paid		(181)	(121)
Net cash flow from operating activities		8,091	644
Cash flows from investing activities			
Acquisition of investment securities***		(2,130)	(3,999)
Disposal of investment securities		172	184
Acquisition of property and equipment	**24**	(92)	(39)
Proceeds from disposal of property and equipment	**24**	1	5
Acquisition of intangible assets	**25**	(25)	(27)
Cost of acquisition of business	**34**	—	(15)
Proceeds from disposal of business	**34**	—	31
Net cash flow from investing activities		(2,074)	(3,860)
Cash flows from financing activities			
Payment of lease liabilities	**36**	54	(5)
Interest on lease liabilities	**36**	—	—
Proceeds from issue of subordinated liabilities	**15**	—	4,773
Proceeds from capital contribution	**22**	1,700	—
Net cash flow (used in) financing activities		1,754	4,768
Net increase in cash and cash equivalents		7,771	1,552
Cash and cash equivalents at beginning of year	**15**	37,008	35,473
Effect of exchange translations and other adjustments		(269)	(17)
Cash and cash equivalents at end of year	**15**	44,510	37,008

STATEMENT OF CASH FLOWS
for the year ended 31 December 2022

STATEMENT OF CASH FLOWS (Continued)

*Having considered the nature and uses of cash, it is now considered that proceeds from repurchase agreements may more appropriately represent the results of operating rather than financing activities and have been re-presented on this basis.

**Restated for prior year adjustment, as detailed in Note 38

*** Net gain on investment securities, Change in other assets, Change in other liabilities (without repurchase agreements) and Acquisition of investment securities have been restated to more appropriately represent the Company’s cash flow activity. There has been no change to the Net increase in cash and cash equivalents due to the restatement of these balances.

1. Principal accounting policies

The Company has consistently applied the accounting policies as set out below to all periods presented in these financial statements, apart from the newly adopted accounting policies mentioned in 1(c) below.

a) Basis of presentation

The financial statements have been prepared in accordance with International Financial Reporting Standards (collectively "IFRSs") as adopted by the European Union ("EU") and applicable for the financial year ended 31 December 2022. The financial statements also comply with those parts of the Companies Act 2014 and the European Union Credit Institutions: Financial Statements Regulations 2015 applicable to companies reporting under IFRS. The accounting policies have been applied consistently and are consistent with the previous year, unless otherwise described.

These financial statements are prepared on a going concern basis and have been prepared under the historical cost convention as modified to include the fair value of certain financial instruments to the extent required or permitted under the accounting standards and as set out in the relevant accounting policies.

The Company avails of the Companies Act 2014 s299 (1) exemption to prepare group financial statements. The Company is a wholly owned subsidiary undertaking of Citibank Holdings Ireland Limited, which is established under the laws of Ireland.

b) Functional and presentation currency

These financial statements are presented in USD, which is the functional currency and presentation of the Company.

c) Changes in accounting policy and disclosures

Standards issued and effective

There are a number of accounting standards that have been amended by the International Accounting Standards Board (IASB), which became effective during 2022. They include:

- Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37);
- Annual Improvements to IFRS Standards 2018-2020;
- Property, Plant and Equipment: Proceeds before Intended Use (Amendments to IAS 16);
- Reference to the Conceptual Framework (Amendments to IFRS 3).
- COVID-19-Related Rent Concessions beyond 30 June 2021 (Amendment to IFRS 16) 01 Apr 2021.

Standards and amendments issued but not yet effective as at 31 December 2022

The accounting standards and amendments set out below have been issued by the IASB, but are not yet effective for the Company. The Company does not plan on early adoption of these standards. These standards either have no impact or not expected to have material impact to the Company upon adoption.

- IFRS 17 Insurance Contracts, effective date 1 Jan 2023;
- Amendments to IFRS 17, effective date 1 Jan 2023;
- Classification of Liabilities as Current or Non-current (Amendments to IAS 1) (not yet endorsed by the EU), effective date 1 Jan 2023;
- Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28) (not yet endorsed), effective date 1 Jan 2023;
- Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2) (not yet endorsed by the EU), effective date 1 Jan 2023;
- Definition of Accounting Estimates (Amendments to IAS 8) (not yet endorsed by the EU), effective date 1 Jan 2023;
- Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12) (not yet endorsed by the EU), effective date 1 Jan 2023.

1. Principal accounting policies (continued)

c) Changes in accounting policy and disclosures (Continued)

Standards and amendments issued but not yet effective as at 31 December 2022 (continued)

- Lease liability in a sale and leaseback (Amendments to IFRS 16), not yet endorsed;
- Non-current liabilities with Covenants (Amendments to IAS 1), not yet endorsed;
- Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28), not yet endorsed;

d) Interest income and interest expense

Interest income and interest expense on financial assets and liabilities are recognised in the income statement using the effective interest rate ("EIR") method. Under this method, fees and direct costs directly attributable to loan origination, re-financing or restructuring and to certain loan commitments are deferred and amortised to interest earned on loans and advances over the life of the instrument.

The EIR is a method of calculating the amortised cost of a financial asset is the rate that discounts estimated future cash payments or receipts through the expected life of the financial instrument to:

- The gross carrying amount of the financial asset; or
- The amortised cost of the financial liability.

When calculating the EIR, the Company estimates future cash flows considering all contracted terms of the financial instrument, but no future credit losses. For assets which are initially recognised as purchased or credit impaired, interest revenue is calculated through the use of a credit-adjusted effective interest rate which takes into consideration expected credit losses. A credit-adjusted EIR is the interest rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial asset to the amortised cost of a financial asset that is a purchased or originated credit-impaired financial asset.

Interest income and expense presented in the income statement includes:

- Interest on financial assets and liabilities at amortised cost on an effective interest rate basis;
- Interest on investment securities measured at fair value through other comprehensive income; and
- Interest on cash balances.

The Company presents negative interest paid on interest-bearing assets as interest expense, and interest revenue received from interest-bearing liabilities as interest income.

To the extent that upfront fees are capitalised but subsequently there is a partial sell down of the related asset, the fees are released to the income statement in proportion to the amount of the asset sold down.

e) Net fee and commission income

Fee and commission income and expenses that are integral to the EIR on a financial asset or liability are included in the measurement of EIR (see Note 1(d) above).

Investment banking fees are substantially composed of underwriting and advisory revenues. Such fees are recognised at the point in time when Company's performance under the terms of a contractual arrangement is completed, which is typically at the closing of a transaction. Reimbursed expenses related to these transactions are recorded as revenue and are included within investment banking fees.

Brokerage commissions primarily include commissions and fees from the following: executing transactions for clients on exchanges and over-the-counter markets; assisting clients in clearing transactions, providing brokerage services and other such activities. Brokerage commissions are recognised in net fee and commission income at the point in time the associated service is fulfilled, generally on the trade execution date.

1. Principal accounting policies (continued)

e) Net fee and commission income (continued)

Custody and Fiduciary transactions are primarily composed of custody fees and fiduciary fees. The custody product is composed of numerous services related to the administration, safekeeping and reporting for both U.S. and non-U.S. denominated securities. The services offered to clients include trade settlement, safekeeping, income collection, corporate action notification, recordkeeping and reporting, tax reporting and cash management. Custody fees are recognised as or when the associated promised service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by the Company. Fiduciary fees consist of trust services and investment management services. As an escrow agent, the Company receives, safekeeps, services and manages clients' escrowed assets such as cash, securities, property (including intellectual property), contracts or other collateral. The Company performs its escrow agent duties by safekeeping the funds during the specified time period agreed upon by all parties and therefore earns its revenue evenly during the contract duration.

Transactional service fees primarily consist of fees charged for processing services such as cash management, global payments, clearing, international funds transfer and other trade services. Such fees are recognised as/when the associated service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by the Company.

Commitment fees includes commission and related servicing fees for letters of credit or other guarantee arrangements that facilitate customer financing or performance. They also include commissions and related fees on time drafts or bills of exchange (bankers' acceptances) that are drawn on the bank and have been accepted by the bank indicating an unconditional promise to honour such instruments at their maturity. The commitment fee is recognised on a straight-line basis over the commitment period.

Credit and bank card income is primarily composed of interchange fees, which are earned by card issuers based on purchase sales and certain card fees, including annual fees. Costs related to customer reward programs and certain payments to partners are recorded as a reduction of credit- and bank-card income. Interchange revenues are recognised as earned on a daily basis when the Company's performance obligation to transmit funds to the payment networks has been satisfied. Annual card fees, net of origination costs, are deferred and amortised on a straight-line basis over a 12-month period. Costs related to card reward programs are recognised when the rewards are earned by the cardholders. Payments to partners are recognised when incurred.

Deposit-related fees consist of service charges on deposit accounts and fees earned from performing cash management activities and other deposit account services. Such fees are recognised in the period in which the related service is provided.

Other fee and commission income, including sales commission, placement fees and syndication fees, are recognised as the related services are performed. These fees are recorded in fee income as they are earned.

f) Net trading income and expense

Net trading income comprises all gains and losses related to trading assets and liabilities (except for fair value changes associated with own credit risk), and includes all realised and unrealised fair value changes, together with related interest, dividends and foreign exchange differences.

g) Net income on financial instruments designated at fair value through profit or loss

Net income from financial instruments designated at fair value through profit or loss comprises all gains and losses related to financial assets and liabilities designated at fair value through profit or loss, and includes realised fair value changes, together with related interest, dividends and foreign exchange differences.

h) Dividend income

Dividend income is recognised when the right to receive income is established. Dividends are presented in 'Net trading income' when the dividend income has arisen from trading assets.

1. Principal accounting policies (continued)

i) Financial assets and liabilities

Classification and Measurement

The Company classifies financial assets in line with the classification and measurement requirements of IFRS 9, where financial assets are classified based on both the business model used for managing the financial assets and the contractual cash flow characteristics of the financial asset (known as Solely Payments of Principal and Interest or “SPPI”).

Business Model Assessment

The Company’s business model is determined at a level that reflects how groups of financial assets are managed together to achieve a particular business objective.

There are three business models available:

- Hold to collect - Financial assets held with the objective to collect contractual cash flows. They are subsequently measured at amortised cost and are recorded in multiple lines on the Company’s statement of financial position.

- Hold to collect and sell - Financial assets held with the objective of both collecting contractual cash flows and selling financial assets. They are recorded as Financial assets at Fair Value through Other Comprehensive Income on the Company’s statement of financial position.

- Other - Financial assets that do not meet the criteria of either hold to collect, or hold to collect and sell. They are recorded as Financial Assets at Fair Value through Profit or Loss on the Company’s statement of financial position.

The Company’s business model does not depend on management’s intentions for an individual instrument (i.e. it is not an instrument-by-instrument assessment). This assessment is performed at a higher level of aggregation. The level of aggregation is at a level which is reviewed by key management personnel, enabling them to make strategic decisions for the business. The Company has more than one business model for managing its financial instruments.

The assessment of the business model requires judgment based on facts and circumstances, considering both quantitative and qualitative factors.

The Company considers all relevant evidence that is available at the date of the assessment. Such relevant evidence includes, but is not limited to:

a) How the performance of the business model and the financial assets held within that business model are evaluated and reported to the Company’s key management personnel; and
b) The risks that affect the performance of the business model (and the financial assets held within that business model) and, in particular, the way in which those risks are managed; and
c) How managers of the business are compensated (e.g. whether the compensation is based on the fair value of the assets managed or on the contractual cash flows collected); and
d) The frequency, volume and timing of sales in prior periods, the reasons for such sales and expectations about future sales activity.

1. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

Assessment of whether the contractual cash flows are solely payments of principal and interest (SPPI)

If an instrument is held in either a 'hold to collect' or a 'hold to collect and sell' business model, then an SPPI assessment is required to determine classification. For SPPI, interest is defined as consideration for the time value of money and the credit risk associated with the principal amount outstanding during a period of time. It can also include consideration for other basic lending risks (e.g. liquidity risk) and costs (e.g. administrative costs) associated with holding the financial asset for a particular period of time and a profit margin that is consistent with a basic lending arrangement. Other contractual features that result in cash flows that are not payments of principal and interest result in the instrument being measured at FVTPL.

Contractual terms that introduce exposure to risks or volatility in the contractual cash flows that are unrelated to a basic lending arrangement, such as exposure to changes in equity prices or commodity prices, do not give rise to contractual cash flows that meet the SPPI criteria.

The contractual cash flow test must be performed at initial recognition of the financial asset and, if applicable, as at the date of any subsequent changes to the contractual provisions of the instrument.

1. Financial Assets – Derivatives and Equity Instruments

Derivatives and in-scope equity instruments are measured at fair value, with changes reflected through the profit and loss account (FVTPL). Exceptions can only apply if the derivative is part of a hedge accounting programme.

The Company measures all equity instruments in scope of IFRS 9 at FVTPL.

The Company has made an accounting policy choice not to irrevocably elect to classify and measure non-trading equity instruments at FVOCI as all amounts recognised in OCI can never be reclassified to profit or loss.

2. Financial Assets – Debt Instruments

The following primary classification and measurement categories exist for financial assets-debt instruments:

- Amortised cost;
- Fair value through other comprehensive income (FVOCI); and
- Fair value though profit or loss (FVTPL).

In addition, IFRS 9 provides special designation options for financial assets-debt instruments that are either measured at 'amortised cost' or 'FVOCI'. An entity has an option to designate such instruments at FVTPL only where this designation eliminates or significantly reduces an accounting mismatch.

The following paragraphs explain the classification criteria for the 3 categories in more detail.

Amortised Cost

A financial asset-debt instrument shall be classified and subsequently measured at amortised cost (unless designated under FVO) only if both of the following conditions are met:

a) Business Model test: the financial asset debt instrument is held under a business model whose objective is to hold assets in order to collect contractual cash flows; and
b) SPPI test.

1. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

2. Financial Assets – Debt Instruments (Continued)

<u>*Recognition and Initial Measurement*</u>

The Company initially recognises loans and advances and deposits on settlement date. All other financial instruments (including regular-way purchase and sales of financial assets) are recognised on the trade date, which is the date on which the Company becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially recognised at fair value, typically being the transaction price, plus, for items not measured at FVTPL, transaction costs directly attributable to acquisition or issuance.

Loans and advances to banks and to customers are classified and measured at amortised cost under IFRS 9 unless they failed the business model or SPPI test.

Accounting for reverse repurchase and resale agreements

Securities sold under agreements to repurchase (repos) and securities purchased under agreements to resell (reverse repos) do not constitute a sale (or purchase) of the underlying securities for accounting purposes and are treated as collateralised financing transactions as the risks and rewards of ownership are not transferred. Under a reverse repo agreement, consideration paid is accounted for as a loan or advance at amortised cost, unless it is designated or mandatorily at fair value through profit and loss. Under a repo agreement, consideration received is accounted for as a financial liability measured at amortised cost, unless it is designated at fair value through profit and loss.

Certain reverse repos and repo transactions will be designated at FVTPL as these transactions are linked/funding the trading portfolio (financial instruments which are measured at FVTPL), therefore this election will eliminate or significantly reduce an accounting mismatch.

<u>*FVOCI*</u>

A financial asset shall be classified and measured at FVOCI (unless designated under FVO) if both of the following conditions are met:

a) Business model test: the financial asset is held under a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
b) SPPI test.

The following financial assets were classified as FVOCI as at 31 December 2021 and as at 31 December 2022:

<u>*Investment debt securities*</u>

Investment debt securities consist of government and corporate bonds. Under IFRS 9, these debt securities are classified and measured as FVOCI as they are held under a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets unless they fail the SPPI criterion.

<u>*FVTPL*</u>

Any financial instrument that does not fall into either of the above categories shall be classified and measured at fair value through profit or loss. For example, where the asset is not held within a business model whose objective is to hold to collect the contractual cash flows or within a business model whose objective is to both collect the cash flows and to sell the assets, then the asset will be classified as FVTPL. Examples include financial assets held for trading or where performance is managed within the business model on a fair value basis.

1. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

2. Financial Assets – Debt Instruments (Continued)

Moreover, any instrument for which the contractual cash flow characteristics do not comprise solely payments of principal and interest (that is, they fail the SPPI test) must be classified in the FVTPL category.

The following financial assets were classified and measured as FVTPL as at 31 December 2021 and as at 31 December 2022:

Trading assets

The trading book of the Company consists of all positions in financial instruments and commodities held either with trading intent or in order to economically hedge other elements of the trading book and which are free from any restrictive covenants on their tradability or are able to be hedged. Positions held with trading intent are those held intentionally for short term resale and/or with the intention of benefiting from actual or expected short term price differences between buying and selling prices or from other price or interest rate variations. The term 'positions' shall include positions arising from client servicing and market making. Trading intent is evidenced on the basis of the strategies, policies and procedures established by the Company to manage the position or portfolio.

Derivative contracts

Derivatives are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at their fair value. Fair values are obtained from quoted market prices in active markets or using valuation techniques, including discounted cash flow models and option pricing models, as appropriate. All derivatives are carried as assets when fair value is positive and as liabilities when fair value is negative. Changes in fair value are recognised in the income statement. The payment and receipt of variation margin for centrally cleared derivatives that are characterised as settle-to-market are deemed as settlement of those contracts.

3. Financial Liabilities – Debt Instruments

For financial liabilities there are two measurement categories: amortised cost and fair value through profit or loss (including a fair value option category).

The Company designates financial liabilities at fair value through profit or loss if one of the following exist:

- The liability is managed and performance evaluated on a fair value basis;
- Electing fair value will eliminate or reduce an accounting mismatch; or
- The contract contains one or more embedded derivatives.

For financial liabilities designated at fair value through profit or loss, fair value changes are presented as follows:

- Fair value changes attributable to the Company's own credit risk are recognised in OCI; and
- The remaining amount of the change in the fair value of the liability is recorded in P&L.

Upon early extinguishment (e.g., liability is repurchased before maturity), changes in own credit previously recorded in OCI will not be recycled to P&L. The OCI balance is reclassified directly to retained earnings.

4. Reclassifications

Financial asset classification is determined at initial recognition and reclassifications are expected to be extremely rare. A financial asset can only be reclassified if the business model for managing the financial asset changes. Reclassification of financial liabilities is not permitted.

1. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

3. Financial Liabilities – Debt Instruments (Continued)

5. Modifications

Financial assets

If the terms of a financial asset are modified, the Company evaluates whether the cash flows of the modified asset are substantially different. If the cash flows are substantially different, then the contractual rights to cash flows from the original financial asset are deemed to have expired. In this case, the original financial asset is derecognised and a new financial asset is recognised at fair value.

When the contractual cash flows of a financial asset are renegotiated or otherwise modified and the renegotiation or modification does not result in the derecognition of that financial asset in accordance with IFRS 9, the Company recognises a modification gain or loss in profit or loss based on the difference between the original contractual cash flows and the modified cash flows discounted at the original effective interest rate.

As the Company classifies a financial asset at initial recognition on the basis of the contractual terms over the life of the instrument, reclassification on the basis of change of a financial asset's contractual cash flows is not permitted, unless the asset is sufficiently modified that it is derecognised.

Forbearance consists of concessions extended to any facility – in the form of a loan, a debt security as well as committed but undrawn loans – towards a debtor facing or about to face financial difficulties in meeting its financial commitments ("financial difficulties").

The granting of any forbearance measure in CEP requires a detailed assessment of the specific circumstances of the obligor including an up-to-date assessment of affordability / repayment capacity. The assessment of forbearance must consider two elements:

1. Has a concession been granted; and
2. Is the obligor facing or about to face financial difficulties?

If CEP assess that an obligor has not been granted a concession or is not facing or about to face financial difficulties then that obligor will not be classified as forborne.

Financial liabilities

The Company derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different. In this case, a new financial liability based on the modified terms is recognised at fair value. The difference between the carrying amount of the financial liability extinguished and the new financial liability with modified terms is recognised in profit or loss.

If the modified terms are not substantially different the liability is not derecognised.

6. Offsetting

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Company has a currently enforceable legal right to set off the recognised amounts and it intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously. Income and expenses are presented on a net basis only when permitted under IFRS, or for gains and losses arising from a group of similar transactions such as in the Company's trading activity.

1. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

7. Fair Value Measurement

"Fair Value" is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Company has access at that date.

Fair value is therefore based on the notion of an exit price. Citi typically uses a bid/offer valuation approach, that is, a bid price for a long position or an offer price for a short position. In addition, the Portfolio Exception (IFRS 13) permits an entity to measure the fair value of a group of financial assets and financial liabilities with offsetting risk on the basis of the price that would be received to sell or transfer the net open risk position (i.e. on a portfolio basis), in line with how positions are risk managed.

The fair value of a liability reflects its non-performance risk. When available, the Company measures the fair value of an instrument using the quoted price in an active market for that instrument. A market is regarded as active if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an on-going basis. If there is no quoted price in an active market, then the Company uses valuation techniques that maximise the use of relevant observable inputs and minimise the use of unobservable inputs. The chosen valuation technique incorporates all of the factors that market participants would consider in pricing a transaction.

j) Impairment of financial assets

The best evidence of the fair value of a financial instrument at initial recognition is normally the transaction price – i.e. the fair value of the consideration given or received. If the Company determines that the fair value at initial recognition differs from the transaction price and the fair value is evidenced neither by a quoted price in an active market for an identical asset or liability nor based on a valuation technique that uses only data from observable markets, then the financial instrument is initially measured at fair value, adjusted to defer the difference between the fair value at initial recognition and the transaction price. Subsequently, that difference is recognised in profit or loss on an appropriate basis over the life of the instrument.
The value of a demand deposit is not less than the amount payable on demand, discounted from the first date on which the amount could be required to be paid.

The Company recognises transfers between levels of the fair value hierarchy as at the end of the reporting period during which the change occurred.

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, including:

- Investments in debt instruments measured at amortised cost. Such investments will include:
  - Corporate, commercial and retail loans (including mortgages and credit card receivables);
  - Deposits with banks; and
  - Reverse repurchase agreements and securities borrowing transactions.
- Investments in debt instruments measured at fair value through other comprehensive income (FVOCI);
- All irrevocable loan commitments that are not measured at FVTPL;
- Written financial guarantee contracts to which IFRS 9 is applied and that are not accounted for at FVTPL;
- Trade receivables in the scope of IFRS 15 (Revenue contracts with customers); and
- Any other receivables (e.g., brokerage receivables).

The Company shall recognise in profit or loss, as a net impairment loss or gain, the amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date to the amount that is required to be recognised.

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

Expected credit loss (ECL) impairment model

Credit loss allowances are 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 credit losses to result from defaults expected over the next 12 months. Interest is calculated based on the gross carrying amount of the asset.
- 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 Company 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.

Measurement of ECL

ECL are a probability-weighted estimate of credit losses. They are measured as follows:

- *Undrawn loan commitments:* as the present value of the difference between the contractual cash flows that are due to the Company if the commitment is drawn down and the cash flows that the Company expects to receive; and
- *Financial guarantee contracts:* the expected payments to reimburse the holder less any amounts that the Company expects to recover.

Evidence that a financial asset is impaired (i.e., in Stage 3) includes observable data that comes to the attention of the Company such as evidence of default, as mentioned below.

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. Evidence that a financial asset (on purchase or origination) is credit-impaired includes observable data about such events, including:

- Significant financial difficulty of the issuer or the borrower;
- A breach of contract, such as a default or past due event;
- The lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- It is becoming 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; and
- The purchase or origination of a financial asset at a deep discount that reflects the incurred credit losses.

It may not be possible for an entity to identify a single discrete event. Instead, the combined effect of several events may have caused the financial asset to become credit-impaired.

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

Further, in assessing whether an investment in sovereign debt is credit-impaired, the Company considers the following factors:

- The market's assessment of creditworthiness as reflected in the bond yields;
- The rating agencies' assessments of creditworthiness;
- The country's ability to access the capital markets for new debt issuance;
- The probability of debt being restructured, resulting in holders suffering losses through voluntary or mandatory debt forgiveness; and
- The international support mechanisms in place to provide the necessary support as 'lender of last resort' to that country, as well as the intention, reflected in public statements, of governments and agencies to use those mechanisms. This includes an assessment of the depth of those mechanisms and, irrespective of the political intent, whether there is the capacity to fulfil the required criteria.

The estimation of an expected credit loss (ECL) is required to be unbiased and probability weighted, including information about past events, current conditions, reasonable and supportable forecasts of future events and economic conditions at the reporting date. The estimate also considers the time value of money.

The measurement of an ECL is primarily determined by an assessment of the financial asset's probability of default (PD), loss given default (LGD) and exposure at default (EAD) where the cash shortfalls are discounted to the reporting date. For a financial asset in Stage 1, the Company will utilise a 12-month PD, whereas a financial asset within Stage 2 and Stage 3 will utilise a lifetime PD in order to estimate an impairment allowance. Key inputs into these models include historical default/loss information, risk ratings, sector, geography and facility characteristics.

Wholesale Classifiably Managed Exposures

Classifiably-managed portfolios are managed on an individual basis where the individual obligors are risk-rated. An impairment allowance will be estimated for Corporate loans utilising models depending on the relative size, quality and complexity of the portfolios. Impairment allowances for the small consumer loan portfolios will be estimated utilising a less sophisticated approach that is reasonable and proportionate after considering both entity level and portfolio level factors.

Other Asset Approaches

For other financial assets, being short term and simple in nature and where the Company does not have access to detailed historical information due to limited loss experience, the Company applies a simplified measurement approach that may differ from what is described above. This approach leverages existing models currently used globally for stress-testing and regulatory capital reporting purposes, but incorporates specifically developed components to make the estimates compliant with IFRS 9. Types of financial assets assessed under the simplified approach include: delinquency managed exposures, cash and cash equivalents, deposits with banks, vanilla reverse repo transactions, brokerage receivables and receivables from clearing houses and trade receivables. Receivable receive lifetime ECLs on day 1, as allowed under IFRS 9.

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

Significant increase in credit risk (SICR)
At each reporting date, CEP assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making this assessment, CEP considers the increase in the risk of default (both in relative terms and absolute terms) over the expected life of the financial asset. The significance of a change in the credit risk since initial recognition depends on the risk of a default occurring at initial recognition. That is, a given change in absolute terms, the risk of a default occurring will be more significant for a financial instrument with a lower initial risk of default compared to one with a higher initial risk of default. Determining whether the credit risk on a financial instrument has increased significantly since initial recognition is based on a multifactor and holistic approach, including both quantitative and qualitative information and analysis.

Determining whether credit risk has increased significantly

CEP's approach to assessing SICR uses a combination of quantitative, qualitative, top-down and backstop criteria.

Quantitative Criteria:

As a general indicator, the credit risk of a particular exposure is deemed to have increased significantly since initial recognition if, based on the Company's quantitative modelling:

- the remaining lifetime PD is greater than 20 basis points at the reporting date; and
- there has been an increase in the lifetime PD between origination and the reporting date of more than one standard deviation of the lifetime PD at origination.

Qualitative Criteria:

Credit risk may also be deemed to have increased significantly since initial recognition based on qualitative factors linked to the Company's credit risk management processes that may not otherwise be fully reflected in its quantitative analysis. This will be the case for exposures that meet certain heightened risk criteria, which are placed on a watch list or classification of performing forborne exposures for regulatory reporting purposes.

Top-down Criteria:

Credit risk may also be deemed to have increased significantly since initial recognition based on top-down analysis linked to the Company's credit risk management processes that may not otherwise be fully reflected in its quantitative analysis. This can include analysis of potentially vulnerable cohorts within the portfolio (e.g. specific sectors) combined with other credit risk attributes.

Backstop Criteria:

- 30 Days Past Due (DPD): There is a rebuttable presumption that credit risk has significantly increased if contractual payments are more than 30 days past due. This presumption can only be rebutted if there is a reasonable and supportable information demonstrating that credit risk has not increased since initial recognition.
- 200% PD Increase: Exposures will be moved to stage 2 if, at the reporting date, there has been a 200% increase between the remaining lifetime PD and the origination PD.

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

The Company identifies key drivers behind changes in credit risk for portfolios. Generally, a significant increase in credit risk is assessed based on the estimation of PDs and consideration of qualitative factors, each of which are designed to reflect forward-looking information, on an individual instrument basis as described above. However, if the Company identifies a key driver that is not considered in the individual assessment on a timely basis, then the Company will evaluate whether there is reasonable and supportable information that enables it to make an additional assessment on a collective basis with respect to all or some of a portfolio. This may lead to the Company concluding that a segment or proportion of a portfolio has undergone a significant increase in credit risk.

Exposures move back from Stage 2 to Stage 1 once they no longer meet the criteria for a significant increase in credit risk. If there is evidence that there is no longer a significant increase in credit risk relative to initial recognition, then the loss allowance on an instrument returns to being measured at 12-month ECL.

The Company monitors the effectiveness of the criteria used to identify significant increases in credit risk by regular reviews to confirm that:

- the criteria are capable of identifying significant increases in credit risk before an exposure is in default;
- the criteria do not align with the point in time when an asset becomes 30 days past due; – the average time between the identification of a significant increase in credit risk and default appears reasonable;
- exposures are not generally transferred directly from 12-month ECL measurement to credit impaired; and
- there is no unwarranted volatility in loss allowance from transfers between 12-month PD (Stage 1) and lifetime PD (Stage 2).

Staging
Financial assets can move in both directions through the stages of the IFRS 9 impairment model depending on the assessment of whether there is a significant increase of credit risk since initial recognition or whether the asset is credit impaired subsequently changes.

In order to determine the ECL reporting stage for an obligation, the Company determines whether the asset is already impaired (Stage 3) or not (Stage 1 and 2). Stage 2 is determined by the existence of a significant credit deterioration (or credit improvement) compared with the credit rating at initial recognition as described in the section above. Stage 1 assets do not have significant credit deterioration compared with that at initial recognition. All newly acquired or originated financial assets that are not purchased or originated credit impaired (POCI) are recognised in Stage 1 initially.

Changes in the required credit loss allowance, including the impact of movements between Stage 1 and Stage 2, are recorded in the income statement as an adjustment to the allowance for credit losses.

Expected life
When measuring ECL, the Company must consider the maximum contractual period over which the Company is exposed to credit risk, including possible drawdowns and the expected maturity of the financial asset. For certain revolving credit facilities that do not have a fixed maturity, the expected life is estimated based on the period over which the Company is exposed to credit risk and where the credit losses would not be mitigated by management actions.

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

Financial guarantees
The Company assesses whether a financial guarantee contract held is an integral element of a financial asset that is accounted for as a component of that instrument or is a contract that is accounted for separately. If the Company determines that the guarantee is an integral element of the financial asset, then any premium payable in connection with the initial recognition of the financial asset is treated as a transaction cost of acquiring it. The Company considers the effect of the protection when measuring the fair value of the debt instrument and when measuring ECL. Benefits of the credit mitigants are recorded against impairment losses.

If the Company determines that the guarantee is not an integral element of the debt instrument, then it recognises an asset representing any prepayment of guarantee premium and a right to compensation for credit losses. These assets are recognised in 'other assets'. The cost of the credit mitigants are recorded within other expenses and amortised over the period of protection. Recoveries are recognised as other income.

Stage 3 definition of default
The definition of default is aligned to the CRR Article 178 definition of default and is consistent with that used for internal credit risk management purposes for the relevant financial instrument. The definition of default used for this purpose is applied consistently to all financial instruments unless information becomes available that demonstrates another default definition is more appropriate for a particular financial instrument. There was no change to the CEP definition of default during the year ending 2022.

As per European Central Bank (ECB) guidance, the Company classifies an exposure as a Non-Performing Exposure (NPE) if it satisfies either or both of the following criteria:

- There are material exposures which are more than 90 days past-due; and/or
- The obligor is assessed as unlikely to pay its credit obligations in full without realisation of collateral, regardless of the existence of any past-due amount or of the number of days past due.

NPE include defaulted exposures, impaired exposures and loans on probation that have not yet satisfied the exit criteria in line with EBA guidance to return to performing. Therefore, all NPEs are defaulted in CEP and vice versa.

Under the Company's definition of default an exposure is considered defaulted and is classified as Stage 3 where an obligor is greater than 90 days past due on any material credit obligation or is otherwise assessed as unlikely to pay its credit obligations in full without recourse by the Company to actions such as realising security.

Counting of days past due commence where any amount of principal, interest or fee has not been paid on the due date.

The Company has mandated certain indications of unlikely to pay events to result in mandatory default classification including material exposures greater than 90 days past due, specific credit adjustment, sale of credit obligation, distressed restructure and bankruptcy of obligor.

The Company has also mandated certain other financial and non-financial unlikely to pay events to trigger a case-by-case assessment of the Borrower in order to determine default.

All defaulted exposures will have an Obligor Risk Rating of 8, 9, or 10 (individually and portfolio managed obligors only).

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

Forward-Looking Information and multiple economic scenarios
Estimates must consider information about past events, current conditions and reasonable and supportable forecasts around future events and economic conditions. The application of forward-looking information (FLI) requires significant judgment. The Company has developed models that include multiple economic scenarios which consider the variability and uncertainty in expected losses including factors such as GDP growth rates and unemployment rates, provided by the economists in Citi's Global Country Risk Management (GCRM). These estimates are based on portfolio data that reflect the current risk attributes of obligors and debt instruments combined with loss projections derived from the rating migration, PD and loss models built for estimating stress credit losses for wholesale portfolios. As mentioned above, these models have incorporated specifically developed components to make the estimates compliant with IFRS 9. The PD, LGD and EAD models are calibrated to the observed historical patterns of defaults and losses over several years and linked to economic drivers. The model reflects different loss likelihood and loss severity as a function of different economic forecasts. The Company does not use the best case or worst case scenario, but assesses a representative number of scenarios (3 when applying a sophisticated approach and where multiple scenarios are deemed to have a material non-linear impact) and probability weights these scenarios to determine the ECL.

Presentation of the allowance of ECL in the statement of financial position
Loss allowances for ECL are presented in the statement of financial position as follows:

- Financial assets measured at amortised cost: as a deduction from the gross carrying amount of the asset
- Loan commitments and financial guarantee contracts: as a provision
- Debt instruments measured at FVOCI: as the carrying amount of these financial assets is at fair value, no loss allowance is recognised in the statement of financial position, however, the loss allowance is recognised in the income statement and the fair value reserve.

Write-off of loans and advances
Loans (and the related impairment allowance accounts) are normally written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, this is generally after receipt of any proceeds from the realisation of security. In circumstances where the net realisable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier. Subsequent recoveries of amounts previously written off are recorded against Net impairment gain/(loss) in the income statement.

k) De-recognition of financial assets and liabilities

Financial assets are derecognised when the right to receive cash flow from assets has expired or the Company has transferred substantially all the risks and rewards of ownership or, in which the Company neither transfers nor retains substantially all of the risks and rewards of ownership but it does not retain control of the financial asset. Financial liabilities are derecognised when they are extinguished, that is, when the obligation is discharged, cancelled or expired.

On derecognition of a financial asset, the difference between the carrying amount of the asset (or the carrying amount allocated to the portion of the asset derecognised) and the sum of (i) the consideration received and (ii) any cumulative gain or loss that had been recognised in OCI is recognised in profit or loss.

l) Interest Rate Benchmark Reform

If the basis for determining the contractual cash flows of a financial asset or financial liability measured at amortised cost changed as a result of interest rate benchmark reform, then the Company updates the effective interest rate of the financial asset or financial liability to reflect the change that is required by the reform.

1. Principal accounting policies (continued)

l) Interest Rate Benchmark Reform (continued)

A change in the basis for determining the contractual cash flows is required by interest rate benchmark reform if the following conditions are met:

- The change is necessary as a direct consequence of the reform; and the new basis for determining the contractual cash flows is economically equivalent to the previous basis;
- When changes were made to a financial asset or financial liability in addition to changes to the basis for determining the contractual cash flows required by interest rate benchmark reform;
- The Company first updated the effective interest rate of the financial asset or financial liability to reflect the change that is required by interest rate benchmark reform. After that, the Company applied the policies on accounting for modifications to the additional changes.

m) Leases

Leases are recognised as a right-of-use (ROU) asset and a corresponding liability at the date at which the leased asset is available for use by the Company. At inception of a contract, the Company assesses whether a contract is, or contains, a lease. A contract is, or contains a lease if the contract conveys the right to control the use of identified asset for a period of time in exchange for consideration.

The following process is followed when determining if a contract is, or contains a lease:

- Identified Asset - An asset is typically identified by being explicitly specified in a contract. However, an asset also can be identified by being implicitly specified at the time that the asset is made available for use;
- The Company has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use;
- The Company has the right to direct how and for what purpose the identified asset is used throughout the period of use;
- The Company has the right to operate the asset throughout the period of use without the supplier's having the right to change those operating instructions; and
- The Company designed the asset in a way that predetermines how and for what purpose the asset will be used throughout the period of use.

The Company recognises a ROU asset and a lease liability at the lease commencement date. The ROU asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the lease commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset, less any incentives received.

ROU assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. The Company recognises, on the statement of financial position, a ROU asset and corresponding lease liability in relation to the office buildings where the Company is a lessee.

Further, the ROU asset is assessed for impairment losses at each reporting period and adjusted for certain remeasurements in the lease liability.

The Company has elected not to recognise ROU assets and lease liabilities for leases of low value assets and short term leases.

Payments associated with short term leases of equipment and vehicles and all leases of low-value assets are recognised on a straight-line basis as other expenses in the income statement. Short term leases are leases with a lease term of 12 months or less. Low-value assets comprise IT equipment and small items of office furniture.

1. Principal accounting policies (continued)

m) Leases (continued)

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Company, the lessee's incremental borrowing rate ("IBR") is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions. The IBR is the rate of interest that the Company would have to pay to borrow on a collateralised basis over a similar term an amount equal to the lease payments in a similar economic environment.

Lease payments included in the measurement of the lease liability comprise of the following:

- Fixed payments, including in-substance fixed payments;
- Variable lease payments that depend on an index or rate, initially measured using the index or rate as at commencement date; and
- Amounts expected to be payable under a residual guarantee.

The lease liability is measured at amortised cost using the effective interest rate method. The lease liability is remeasured to reflect changes in lease payments caused by a change in index or rate (other than in floating interest rates) if the Company is reasonably certain to exercise a purchase, extension or termination option, if there is a change in the amount the Company is expected to pay under a residual value guarantee. Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

n) Property and equipment

Items of property and equipment, including freehold and leasehold improvements are stated at cost, less accumulated depreciation and impairment losses (see below). Depreciation is provided to write off the cost, less the estimated residual value of each asset, on a straight-line basis over their estimated useful lives.

Freehold buildings	50 years
Leasehold property	lease term
Leasehold improvements	shorter of lease term and 10 years
Vehicles, furniture and equipment	between 1 and 10 years

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

o) Intangible assets

Goodwill
Acquired goodwill represents the excess of the fair value of the consideration paid over the fair value of a business' net identifiable assets at the date of acquisition. Goodwill is stated at cost less any accumulated amortisation and impairment losses.

1. Principal accounting policies (continued)

o) Intangible assets (continued)

Computer software
Expenditure on internally developed software is recognised as an asset when the Company is able to demonstrate its intention and ability to complete the development and use the software in a manner that will generate future economic benefits, and can reliably measure the costs to complete the development. The capitalised cost of internally developed software includes all internal and external costs directly attributable to developing the software and are amortised over its useful life.

Amortisation is charged to the income statement and presented in the other expenses line using the methods that best reflect the economic benefits over their estimated useful economic lives and residual values which are reviewed at each financial year end and adjusted if appropriate. The estimated useful lives are as follows.

Acquired computer software licenses	3 - 5 years
Computer software development	1 - 10 years

Other intangibles - Client intangibles
Intangible assets that are acquired by the Company are stated at cost less accumulated amortisation and impairment losses.

Other intangibles relate to client intangibles that are identifiable assets and are initially recognised at their present value based on cash flow forecasts on acquired contractual rights over customer relationships.

Amortisation is charged to the income statement and presented in the other expenses line using the methods that best reflect the economic benefits over their estimated economic lives and residual values which are reviewed at each financial year end and adjusted if appropriate. The estimated useful lives are as follows.

Client intangibles	3 - 5 years

p) Impairment of non-financial assets

At each reporting date, the Company assesses whether there is any indication that its goodwill and intangible assets, property and equipment including right-of-use assets and investments in subsidiaries are impaired. These non-financial assets are tested for impairment annually or more frequently, if events or changes in circumstance indicate that they might be impaired. Goodwill is allocated to cash-generating units for the purpose of impairment testing. Impairment losses in respect of goodwill are not reversed. Impairment losses are recognised in the income statement within Other expenses.

q) Income taxes

Income tax payable on profits is recognised as an expense based on the applicable tax laws in each jurisdiction in the period in which profits arise. The tax effects of income tax losses available for carry-forward are recognised as a deferred tax asset if it is probable that future taxable profit will be available against which the losses can be utilised. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any.

The Company considers an uncertain tax position to exist when it considers that ultimately, in the future, the amount of profit subject to tax may be greater than the amount initially reflected in the Company's tax returns.

1. Principal accounting policies (continued)

q) Income Taxes (continued)

A current tax provision is recognised when it is considered probable that the outcome of a review by a tax authority of an uncertain tax position will alter the amount of cash tax due to, or from, a tax authority in the future. From recognition, the current tax provision is then measured at the amount the Company ultimately expects to pay the tax authority to resolve the position.

Deferred tax assets and liabilities are recognised for taxable and deductible temporary differences between the tax base of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets are recognised to the extent that it is probable that there will be suitable profits available against which these differences can be utilised. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the asset will be realised or the liability will be settled based on tax rates that are enacted or substantively enacted at the statement of financial position date.

Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised. Current and deferred taxes are recognised as an income tax benefit or expense in the income statement.

r) Levies

Levies are imposed by governments on the Company in accordance with the legislation, other than income taxes, fines or other penalties that are imposed for breach of the legislation. The Company recognises a liability to pay a levy on the date identified by the legislation that triggers the obligation. Levies are recorded under other administrative expenses in the Company's income statement.

s) Foreign currencies

The Company's financial statements are prepared in US Dollars, which is the presentation currency of the Company. Various branches use a different functional currency, being the currency of the primary economic environment in which the entity operates.

Foreign currency revenues, expenses, gains and losses are recorded using the rate of exchange at the date of transaction. Monetary assets and liabilities denominated in currencies other than the functional currency are translated into the functional currency using the year end spot exchange rates. Non-monetary assets and liabilities denominated in currencies other than the functional currency that are classified as "FVTPL" are translated into the functional currency using the year end spot rate. Non-monetary assets and liabilities, denominated in currencies other than the functional currency that are not measured at fair value, have been translated at the relevant historical exchange rates. Any gains or losses on exchange are taken to the income statement as incurred. Foreign currency differences which arise from the translation of a financial liability designated as a hedge of a net investment in foreign operations to the extent that the hedge is effective are recognised in OCI.

The assets and liabilities of overseas branches are translated into the Company's presentation currency (US Dollars) at the rate of exchange as at the reporting date, and their income statements are translated at the exchange rates prevailing at the dates of the transactions. Foreign currency differences are recognised in OCI and accumulated in the translation reserve in equity.

1. Principal accounting policies (continued)

t) Employee benefits

Defined benefit plans
The Company participates in and continues to operate defined benefit pension schemes for employees in Greece, Netherlands, Belgium, Spain, Austria, Ireland, France, Italy, Germany and Norway. Staff do not make contributions for basic pensions. The net liability recognised in the statement of financial position is the actuarially calculated present value of the defined benefit obligation at the statement of financial position date, less the fair value of the plan assets.

The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating to the terms of the related pension liability.

When the fair value of the plan assets exceeds the calculated defined benefit obligation for a plan, the surplus recognised in the statement of financial position is restricted to the economic benefits available to the Company. Any material plan amendments or curtailments occurring during the period result in a past service cost being recognised in the income statement. Material settlements are also recognised in the income statement. When a past service cost or settlement occurs part way through the year the pension expense for the remainder of the year is remeasured to reflect market conditions at the time of the event.

Remeasurement gains and losses are recognised immediately in the statement of comprehensive income. For defined benefit obligations, the current service cost and any past service costs are included in the income statement within operating expenses and the interest income on pension scheme assets, net of the impact of the interest cost on the pension scheme liabilities, is included within personnel expenses.

A surplus is recognised on the statement of financial position where an economic benefit is available as a reduction in future contributions or as a refund of monies to the Company.

Defined contribution plans
The Company operates a number of defined contribution pension schemes. The Company’s annual contributions are charged to the income statement in the period to which they relate. The pension scheme’s assets are held in separate trustee administered funds.

Short term benefits
Short term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A provision is recognised for the amount expected to be paid under a short term cash bonus scheme if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

Termination benefits
Termination benefits are recognised as an expense when the Company is demonstrably committed, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of the offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognised as part of a restructuring programme, if the Company has made an offer of voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably.

1. Principal accounting policies (continued)

u) Share based incentive plans

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

The Company uses equity-settled accounting for its share-based incentive plans, with separate accounting for financial liabilities reflecting its associated obligations to make payments to Citigroup. The Company recognises the fair value of the awards at grant date as a compensation expense over the vesting period with a corresponding credit to the intercompany payable (recharge liability) to Citigroup. All amounts paid to Citigroup and the associated obligation under the SPAPA are recognised in the equity reserve over the vesting period. Subsequent changes in the fair value of all unexercised awards and the SPAPA are reviewed annually and any changes in value are recognised in the equity reserve, again over the vesting period.

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

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

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

v) Accounting for government grants

The Company recognises income from government grants when there is reasonable assurance that it will receive the grant and will comply with the conditions attached to the grant. Depending on their nature, grants are presented as part of profit or loss under 'Other income'; or alternatively, they are deducted in reporting the related expense.

w) Cash and cash equivalents

For the purposes of the cash flow statement, cash and cash equivalents comprise balances with original maturity of less than three months, including: non-restricted and restricted cash balances with central banks, treasury bills and other eligible bills and loans and advances to banks.

x) Provisions

Provisions are recognised when it is probable that an outflow of economic resources will be required to settle a current legal or constructive obligation as a result of past events, and a reliable estimate can be made of the amount of the obligation.

1. Principal accounting policies (continued)

y) Subsidiary undertakings

Shares in subsidiary undertakings, comprising unlisted securities, are measured at cost less allowance for impairment.

z) Common control transactions

The Company accounts for business combinations between entities under common control at book value.

aa) Discontinued operation

A discontinued operation is a component of the Company's business that represents a separate major line of business or geographical area of operations that meets the definition of criteria to be classified as held for sale.

The results of discontinued operations have been disclosed separately as a single amount in the income statement for the relevant periods presented, comprising the post-tax profit or loss of discontinued operations and the post-tax gain or loss recognised on measurement to fair value less costs to sell.

ab) Fiduciary activities

The Company commonly acts as trustee and in other fiduciary capacities that result in the holding or placing of assets on behalf of individuals, trusts, retirement benefit plans and other institutions. In acting in this capacity, the Company has concluded that it acts as an agent, therefore such assets and income arising thereon are excluded from these financial statements, as they are not assets of the Company.

2. Use of assumptions and estimates

The results of the Company are sensitive to the accounting policies, assumptions and estimates that underlie the preparation of its financial statements. The accounting policies used in the preparation of the financial statements are described in detail in Note 1.

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

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

When preparing the financial statements, it is the Directors' responsibility to select suitable accounting policies and to make judgments and estimates that are reasonable. The accounting policies that are deemed critical to the Company's IFRS results and financial position, in terms of the materiality of the items to which the policy is applied, or which involve a high degree of judgment or estimation are:

Significant Judgements

The significant judgements made by the Company in applying its accounting policies are set out below. The application of certain of these judgements also necessarily involves estimations which are discussed separately.

- Impairment of loans;
- Secondary Loan trading – Regular way or Non - regular way

2. Use of assumptions and estimates (continued)

Significant Judgements (continued)

Impairment of loans
The Company's accounting policy for the Impairment of Loans is described in Note 1(j) – 'Principal accounting policies'.

Judgements are applied in estimating the impairment loss which should be recorded in the income statement.

Accounting judgements which could change and have a material influence on the quantum of impairment loss allowance and net impairment charge within the next financial year include determining if Company management adjustments may be necessary to impairment model outputs to address impairment model limitations or late breaking events.

Other key accounting judgements which materially influence the quantum of impairment loss allowance and net impairment charge within the next financial year, include:

- the Company's criteria for assessing if there has been a significant increase in credit risk since initial recognition such that a loss allowance for lifetime rather than 12 month ECL is required;
- the selection of appropriate methodologies and model factors for internal risk rating and impairment models;
- selection of the most relevant macroeconomic variables for particular portfolios and determining associations between those variables and model components such as PD and LGD;
- the selection of impairment model parameters;
- post-model adjustments to impairment loss allowance and staging classification.

Please refer to Note 1(j) for inputs, assumptions and estimating techniques for impairment of loans. Impairments are discussed and presented further in Note 21 – 'Risk management'.

Secondary Loan trading – Regular way or Non - regular way
A regular-way transaction is a purchase or sale of a financial asset under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned. Following a review of the appropriateness of regular-way classification, the Company concluded that the period between trade date and settlement date for secondary loan trading should be deemed as non-regular-way as it is difficult to establish a consistent convention or timeframe based on actual trade and settlement data observed in the marketplace. Whether a secondary loan trade is considered regular-way or non-regular-way is a matter of judgment and the Company believes that accounting for such transactions as non-regular-way will provide more relevant and reliable financial information.

Critical accounting estimates

The accounting estimates with a significant risk of material adjustment to the carrying amounts of assets and liabilities within the next financial year were in relation to:

- Impairment of loans;
- Valuation of financial instruments.

2. Use of assumptions and estimates (continued)

Critical accounting estimates (continued)

Impairment of loans
The Company's accounting policy for the Impairment of financial assets is described in Note 1(j) – 'Principal accounting policies'

The calculation of the ECL allowance is complex and therefore an entity must consider large amounts of information in their determination. This process requires significant use of estimates and assumptions, some of which by their nature, are highly subjective and very sensitive to risk factors such as changes to economic conditions. Changes in the ECL allowance can materially affect net income. Certain of these estimates may have a significant risk of material adjustment to carrying amounts of assets within the next financial year.

The key estimates and assumptions that the Directors have used in determining the ECL allowance are set out in Note 21 – 'Risk management'. The sensitivity of key assumptions is set out in Note 21 to the financial statements.

Valuation of financial instruments
The fair values of financial instruments that are not quoted in active markets are determined by using valuation techniques. To the extent practical, models use only observable data and where this is not possible may be required to make estimates. Note 23 – 'Financial assets and liabilities – Valuation process for Level 3 Fair Value Movements' further outlines the approach to valuation of financial instruments and market value adjustments.

A sensitivity analysis to possible changes in key variables of the fair value of financial instruments classified under the fair value hierarchy as level 3 is set out in Note 23.

3. Net interest income

	2022	2021*
Financial assets at amortised cost	**$m**	**$m**
Cash and cash equivalents	350	21
Loans and advances to banks	119	26
Loans and advances to customers	529	306
Negative interest on financial liabilities	43	132
	1,041	**485**
Financial assets at fair value through other comprehensive income		
Investment securities	127	61
	127	**61**
Interest income calculated using the effective interest method	**1,168**	**546**
Financial liabilities measured at amortised cost		
Deposits by banks	(94)	(14)
Customer accounts	(198)	(17)
Negative interest on financial assets	(30)	(113)
Interest expense calculated using the effective interest method	**(322)**	**(144)**
Other interest expense		
Other liabilities	(259)	(19)
Other interest expense	**(259)**	**(19)**
Interest expense	**(581)**	**(163)**
Net interest income	**587**	**383**

*Certain captions for comparatives have been updated for presentation purposes only.

4. Net fee and commission income

	2022	2021
Fee and commission income	**$m**	**$m**
Investment banking	30	32
Brokerage commissions	176	155
Custody and Fiduciary transactions	370	414
Transactional service fees	432	432
Commitment fees	162	173
Credit and bank card	71	38
Deposit-related fees	84	72
Other	43	38
	1,368	**1,354**
Fee and commission expense		
Clearing and settlement	(101)	(101)
Custody	(84)	(77)
Other	(43)	(39)
	(228)	**(217)**
Net fee and commission income	**1,140**	**1,137**

Included in fee and commission income are fees earned by the Company on fiduciary activities where the Company holds assets on behalf of its customers. This fee income totalled $18 million in 2022 (2021: $36.3 million).

5. Net trading income

	2022	2021
	$m	**$m**
Derivatives	(17)	115
Debt securities	509	12
Loans and advances	(24)	38
	468	**165**

6. Net investment income

	2022	2021
	$m	**$m**
Net (loss)/gain on FVOCI investment securities	(6)	2
Equity securities	48	50
	42	**52**

7. Net income from other financial instruments designated at fair value through profit or loss

	2022	2021
	$m	$m
Financial instruments	22	59
	22	**59**

Financial instruments predominantly include loans designated at fair value through profit or loss. The Company has elected the fair value option for certain loans, where the economic risks are hedged with derivative instruments, such as credit default swaps or total return swaps. The Company has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications.

8. Other operating income

	2022	2021
	$m	$m
Intercompany recoveries	744	676
	744	**676**

A significant portion of expenses within the Company originate from services provided by the Citi Solution Centre (CSC) to other Citi entities, both globally and regionally. These costs are allocated out to businesses and legal entities based on a number of drivers. All of these transfer pricing agreements are reviewed regularly for appropriateness. These recoveries are recognised in other operating income.

9. Auditor's remuneration

	2022	2021
	$m	$m
Audit fee	1.0	0.8
Other assurance	0.3	0.5
Tax advisory services	—	—
Other non-audit services	—	—
	1.3	**1.3**

Additional fees paid to other KPMG member firms outside Ireland for services include local audit fees of $1.4 million (2021: $1.3 million) (of which $0.8 million (2021: $0.7 million) were to offices involved in the statutory audit of the Company), other assurance fees of $0.3 million (2021: $0.4 million), tax advisory fees of $nil (2021: $nil) and any other non-audit service fees of $0.06 million (2021: $0.05 million).

10. Personnel expenses

The average number of persons employed by the Company during the year was 12,644 (2021: 11,249). This comprises 12,461 Direct Staff Full Time and 183 Direct Staff Part-time.

The following table shows the average number of employees by function for 2022 and 2021:

	2022	2021
Corporate and Investment Bank	1,228	912
Retail and Private banking	453	303
Corporate Functions	4,628	4,230
Other operations	6,335	5,804
Total number of staff	**12,644**	**11,249**

10. Personnel expenses (continued)

"Other operations" relates primarily to Operation and Technology function headcount which are based in the Company's Solution Centres.

	2022	2021
	$m	$m
Wages and salaries	880	804
Social security costs	90	89
Share based payment expenses	36	21
Pensions and post retirement benefits	38	37
Restructuring costs	11	—
Total personnel expenses	**1,055**	**951**

The Company operates 20 (2021: 20) defined contribution schemes across its branches. In addition, the Company also operates 13 (2021: 13) defined benefit schemes. In 2022 contributions of $38 million (2021: $37 million) were made to the schemes. For more details, please refer to Note 14.

11. Directors' emoluments

	2022	2021
	$m	$m
Directors' emoluments are as follows:		
For qualifying services	3	3
Pension schemes		
– Defined contribution scheme	—	—
	3	**3**

As of 31 December 2022 retirement benefits were accruing to two directors (2021: two).

12. Other expenses

	2022	2021
	$m	$m
Research and development	3	4
Depreciation	39	40
Amortisation	17	16
Communications and technology	200	215
Contractors	47	43
Levies and regulatory charges	56	67
Premises	26	29
VAT	38	34
Travel & Entertainment	10	1
Other administrative expenses	168	115
	604	**564**

13. Tax on profit

(a) Analysis of tax charge in the year:

	2022	2021
	$m	$m
Current tax:		
Corporate tax on profits of the period	(191)	(164)
Adjustments in respect of corporation tax for earlier years	-	(17)
Deferred tax:		
Current year deferred tax	(53)	(13)
Total corporate tax	**(244)**	**(193)**

(b) Reconciliation of effective tax rate:

	2022	2021
	$m	$m
Profit before tax	1,274	1,206
Total profit before tax	1,274	1,206
Corporate tax at Irish corporation tax rate of 12.5%	(159)	(151)
Effects of:		
Taxes paid in foreign jurisdictions	(30)	(5)
Deferred tax adjustments	(26)	(20)
Prior year adjustment	(29)	(17)
Total corporate tax expense	**(244)**	**(193)**

14. Retirement benefit obligation

The Company participates in locally operated defined benefit and defined contribution schemes for its European branches. In some of the European countries employers pay contributions towards the state pension scheme. The Company fulfils its duties in this regard as required by local statute. Across the Company, various countries participate in defined contribution schemes.

Employer contributions to the defined benefit schemes in 2022 were $34 million (2021: $12 million). The Company expects to make contributions of approximately $10 million in 2023. The defined benefit obligation includes benefits for current employees, former employees and current pensioners. The weighted average duration of the obligation is 14.6 years (2021:17.7years). The main plans provide benefits related to salary close to retirement or earlier withdrawal from service.

There were no material amendments, curtailments and settlements within the Company during 2022 and 2021.

The amounts recognised in the statement of financial position are determined as follows:

	31 December 2022	31 December 2021
	$m	$m
Present value of funded defined benefit obligation	(377)	(574)
Present value of unfunded defined benefit obligation	(11)	(15)
Total defined benefit obligation	(388)	(589)
Fair value of plan assets	286	361
Unrecognised asset due to impact of asset ceiling	(3)	—
Net liability recognised on the statement of financial position (Note 30)	(105)	(228)

Defined benefit schemes in deficit of $121 million are recognised within Other liabilities. This is offset by $16 million of defined benefit schemes in surplus.

The unfunded deficit is kept under review by the Directors on an ongoing basis.

The analysis of the income statement charge is as follows:

	2022	2021
	$m	$m
Operating costs:		
Current service cost	5	5
Administration expenses	2	2
Financing costs:		
Interest cost on defined benefit obligations	6	4
Interest income on scheme assets	(4)	(2)
Expense recognised in other expenses	9	9
Expense recognised in other expenses for continuing operations	**9**	**9**

14. Retirement benefit obligation (continued)

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

	2022	2021
	$m	$m
Opening defined benefit obligation	(589)	(667)
Exchange rate adjustments	35	50
Current service cost	(5)	(5)
Interest cost on defined benefit obligations	(6)	(4)
Remeasurement gain due to changes in financial assumptions	175	34
Remeasurement loss due to changes in demographic assumptions	(3)	(1)
Remeasurement loss due to changes in liability experience	(10)	—
Net benefits paid out	15	16
Net increase in liabilities from acquisitions	—	(12)
Closing defined benefit obligation	**(388)**	**(589)**

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

	2022	2021
	$m	$m
Opening fair value of plan assets	361	388
Exchange rate adjustments	(22)	(30)
Interest income on plan assets	4	2
Return on plan assets excluding interest income	(75)	7
Contributions by the employer	34	12
Net benefits paid out	(15)	(16)
Administration costs incurred	(2)	(2)
Net increase in assets from disposals/acquisitions	1	—
Settlements	(1)	—
Closing fair value of plan assets	**285**	**361**

The actual return on plan assets is as follows:

	2022	2021
	$m	$m
Interest income on plan assets	4	2
Remeasurement of plan assets excluding interest income	(75)	7
Total return on plan assets	**(71)**	**9**

The interest income on scheme assets is set using the discount rate assumption. In 2022, there was an decrease in asset values leading to a remeasurement loss of $75 million (2021: gain of $7 million).

14. Retirement benefit obligation (continued)

The analysis of amounts recognised outside the income statement, and disclosed in the statement of comprehensive income are as follows:

	2022	2021
	$m	$m
Remeasurement gain/(loss) on scheme liabilities		
Remeasurement gain due to changes in financial assumptions	175	34
Remeasurement loss due to changes in demographic assumptions	(3)	(1)
Remeasurement loss due to changes in liability experience	(10)	—
Remeasurement loss due to impact of the asset ceiling	(3)	—
Total remeasurement gain on scheme liabilities	**159**	**33**
Remeasurement (loss)/gain on plan assets	**(75)**	**7**
Gain on remeasurement of defined benefit liability/asset	**84**	**40**

The assumptions which have the most significant effect on the results of the valuation are those relating to the discount rate on scheme liabilities and mortality assumptions. The future life expectancy of scheme members is a key assumption. However, mortality assumptions are expected to vary from country to country, due to variations in underlying population mortality as well as in variations of the profile of typical membership of the Company's pension scheme. The average life expectancy of an individual retiring at age 65 is 22.3 (2021:22.2) for males and 23.2 (2021:23) for females.

Through its defined benefit pension plan, the Company is exposed to a number of risks, the most significant of which are detailed below:

- The possibility that bond yields will change which will affect the size of the obligations and the level of pension cost.
- The possibility that asset returns will be lower than expected.
- The risk of changes in mortality rates as the majority of the Company's defined benefit obligations are to provide benefits for the life of the member, increases in life expectancy will result in an increase in the liabilities.
- As the Greek pension plan is integrated with Greek social security, any further amendments to the Greek Social Security Pension could potentially lead to higher benefits under the plan and thus to additional obligations and costs for the Company.

The financial weighted average assumptions used in calculating the liabilities as at 31 December are as follows:

	2022	2021
Discount rate for assessing scheme liabilities	3.70%	1.10%
Future salary increases	3.50%	3.00%
Rate of increase for pensions in payment	2.40%	2.10%
Inflation rate assumption	2.50%	2.10%

14. Retirement benefit obligation (continued)

The fair values of the plan assets are as follows:

	$m			
	2022		**2021**	
	Total fair value	Of which not quoted in active market	Total fair value	Of which not quoted in active market
Equities	73	—	105	—
Property	—	—	—	—
Government bonds	82	—	105	—
Corporate bonds	67	—	109	—
Other	64	5	42	5
Total fair value of assets	**286**	**5**	**361**	**5**

The key assumption used for IAS 19 is the discount rate although the results are also sensitive, but to a lesser extent to the other assumptions. If different assumptions were used, there could be a material effect on the results disclosed. The sensitivity analyses are based on a change in one assumption while holding all other assumptions constant.

The sensitivity of key assumptions used to value the obligation is as follows:

	2022	**2021**
	$m	**$m**
Effect of decreasing the discount rate assumption by 1% on liabilities	(59)	(116)
Effect of increasing the discount rate assumption by 1% on liabilities	50	95
Effect of increasing the pension increase rate by 1% on liabilities	(22)	(41)
Effect of decreasing the pension increase rate by 1% on liabilities	18	33
Effect of increasing the salary increase rate by 1% on liabilities	(4)	(8)
Effect of decreasing the salary increase rate by 1% on liabilities	3	8
Effect of participants living one extra year than expected on liabilities	(11)	(21)

Future benefits expected to be paid from pension plans are as follows:

	2023	**2024**	**2025**	**2026**	**2027**	**2028-2032**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**
Expected benefit payments	16	17	17	18	18	98

15. Notes to the statement of cash flows

a) Cash and cash equivalents

Cash and cash equivalents comprise the following balances, maturing within three months.

	31 December 2022	31 December 2021
	$m	$m
Cash and balances with central banks	30,138	21,903
Other demand deposits	2,776	5,580
Expected credit loss	(3)	(1)
Cash and cash equivalents	**32,911**	**27,482**
Loans and advances to banks with maturity less than 3 months	11,599	9,526
	44,510	**37,008**

b) Expected credit loss – Cash and cash equivalents

The following table shows an analysis of changes in the gross carrying amount and the corresponding ECL allowances:

Exposure	**Stage 1**	
	2022	**2021**
	$m	**$m**
Outstanding exposure as at 1 January	**27,483**	**19,968**
New assets originated or purchased	9,867	7,907
Asset derecognised or matured	(4,436)	(392)
At 31 December	**32,914**	**27,483**

There were no exposures and movements reported under IFRS 9 Stage 2 and 3 for cash and cash equivalents.

ECL	**Stage 1**	
	2022	**2021**
	$m	**$m**
IFRS 9 ECL as at 1 January	**1**	**—**
ECL on new assets originated or purchased	2	1
Exposure derecognised or matured	—	—
At 31 December	**3**	**1**

There were no ECL movements reported under IFRS 9 Stage 2 and 3 for cash and cash equivalents. The ECL in relation to loans and advances to banks with maturity less than 3 months is disclosed in Note 19.

15. Notes to the statement of cash flows (continued)

c) Change in liabilities arising from financing activities

	Subordinated liabilities	
	2022	2021
	$m	$m
Opening balance at 1 January	**4,773**	**—**
Non-cash movements	(318)	—
Proceeds from issue of subordinated liabilities	—	4,773
Closing balance at 31 December	**4,455**	**4,773**

16. Trading assets

	31 December 2022	31 December 2021
	$m	$m
Government bonds	8,556	2,552
Corporate bonds	1	3
Loans	1,338	1,888
	9,895	**4,443**

17. Derivative financial instruments

	31 December 2022			31 December 2021		
	Notional amount	Fair value		Notional amount	Fair value	
		Assets	Liabilities		Assets	Liabilities
	$m	$m	$m	$m	$m	$m
Derivatives held for trading	2,018,355	22,347	22,844	1,605,211	13,126	14,429
Total	**2,018,355**	**22,347**	**22,844**	**1,605,211**	**13,126**	**14,429**
Derivatives held for trading						
Foreign exchange	755,341	11,544	11,331	705,556	5,898	5,842
– OTC	755,341	11,544	11,331	705,556	5,898	5,842
Interest rate	1,235,871	10,458	10,837	884,596	6,734	8,134
– OTC	1,235,871	10,458	10,837	884,596	6,734	8,134
Equity	4,091	87	421	858	45	—
– OTC	4,091	87	421	858	45	—
Credit	22,715	257	254	14,195	447	451
Commodity	337	1	1	6	2	2
Total	**2,018,355**	**22,347**	**22,844**	**1,605,211**	**13,126**	**14,429**

18. Investment securities

	31 December 2022	31 December 2021
	$m	$m
FVOCI investment securities		
Government bonds	7,661	6,951
Corporate bonds	1,241	436
Total	**8,902**	**7,387**
FVTPL investment securities		
Equity securities	170	138
Total investment securities	**9,072**	**7,525**

Expected credit loss – Investment securities

The following table shows an analysis of changes in the gross carrying amount and the corresponding ECL allowances:

Exposure	**Stage 1**	
	2022	**2021**
	$m	**$m**
Outstanding exposure as at 1 January	**7,387**	**3,690**
New assets originated or purchased	1,687	3,824
Asset derecognised or matured	(172)	(127)
At 31 December	**8,902**	**7,387**

There were no exposures and movements reported under IFRS 9 Stage 2 and 3 for investment securities.

ECL	**Stage 1**	
	2022	**2021**
	$m	**$m**
IFRS 9 ECL as at 1 January	**3**	**6**
ECL on new assets originated or purchased	—	—
Exposure derecognised or matured	—	(3)
At 31 December	**3**	**3**

There were no ECL movements reported under IFRS 9 Stage 2 and 3 for investment securities.

19. Loans and advances to banks and customers

The total carrying amounts in this table include loans and advances to banks and loans and advances to customers. See table below for split by category.

	31 December 2022 $m	31 December 2021 $m
Loans and advances to banks measured at amortised cost		
Gross exposure	13,486	11,040
Expected credit loss	(14)	(5)
	13,472	**11,035**
Loans and advances to customers measured at amortised cost		
General governments	258	301
Corporations	18,775	18,647
Retail customers	1,068	1,443
Expected credit loss	(157)	(149)
	19,944	**20,242**
Loans to customers held at fair value through the profit and loss	10,877	1,011
	30,821	**21,253**

Retail customers are in relation to the Private Bank business.

Expected credit loss – Loans and advances to banks

The following table shows an analysis of changes in the gross carrying amount and the corresponding ECL allowances:

Exposure	Stage 1		Stage 2		Stage 3		Total	
	2022 $m	2021 $m	2022 $m	2021 $m	2022 $m	2021 $m	2022 $m	2021 $m
Outstanding exposure as at 1 January	**10,988**	**16,291**	**49**	**124**	**3**	**—**	**11,040**	**16,415**
New assets originated or purchased	2,591	9,831	112	27	—	3	2,703	9,861
Asset derecognised or matured	(222)	(15,158)	(32)	(78)	(3)	—	(257)	(15,236)
Transfers to Stage 1	16	(50)	(16)	50	—	—	—	—
Transfers to Stage 2	(102)	74	102	(74)	—	—	—	—
Transfers to Stage 3	(1)	—	—	—	1	—	—	—
Amounts written off	—	—	—	—	—	—	—	—
Other movements	—	—	—	—	—	—	—	—
At 31 December	**13,270**	**10,988**	**215**	**49**	**1**	**3**	**13,486**	**11,040**

19. Loans and advances to banks and customers (continued)

ECL	Stage 1		Stage 2		Stage 3		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
	$m	$m	$m	$m	$m	$m	$m	$m
IFRS 9 ECL as at 1 January	**2**	**6**	**2**	**5**	**1**	**—**	**5**	**11**
ECL on new assets originated or purchased	6	—	1	(1)	—	1	7	—
Exposure derecognised or matured	—	(2)	—	(1)	—	—	—	(3)
Transfers to Stage 1	1	1	—	(1)	(1)	—	—	—
Transfers to Stage 2	—	—	—	—	—	—	—	—
Transfers to Stage 3	(3)	—	—	—	3	—	—	—
Net remeasurement of loss allowance	(1)	(1)	2	—	4	—	5	(1)
Amounts written off	—	—	—	—	(2)	—	(2)	—
Other movements	(1)	(2)	(1)	—	1	—	(1)	(2)
At 31 December	**4**	**2**	**4**	**2**	**6**	**1**	**14**	**5**

Expected credit loss – Loans and advances to customers

Exposure	Stage 1		Stage 2		Stage 3		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
	$m	$m	$m	$m	$m	$m	$m	$m
Outstanding exposure as at 1 January	**18,638**	**15,985**	**1,448**	**1,400**	**305**	**559**	**20,391**	**17,944**
New assets originated or purchased	4,556	6,256	1,312	149	7	34	5,875	6,439
Asset derecognised or matured	(5,692)	(3,046)	(375)	(699)	(89)	(221)	(6,156)	(3,966)
Transfers to Stage 1	584	474	(555)	(387)	(29)	(87)	—	—
Transfers to Stage 2	(1,452)	(1,000)	1,478	1,000	(26)	—	—	—
Transfers to Stage 3	(219)	(29)	(33)	(15)	252	44	—	—
Amounts written off	(4)	(2)	(2)	—	(3)	(24)	(9)	(26)
Other movements	—	—	—	—	—	—	—	—
At 31 December	**16,411**	**18,638**	**3,273**	**1,448**	**417**	**305**	**20,101**	**20,391**

ECL	Stage 1		Stage 2		Stage 3		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
	$m	$m	$m	$m	$m	$m	$m	$m
IFRS 9 ECL as at 1 January	**13**	**31**	**75**	**208**	**61**	**154**	**149**	**393**
ECL on new assets originated or purchased	18	5	30	—	22	14	70	19
Exposure derecognised or matured	(2)	(2)	(11)	(52)	(4)	(61)	(17)	(115)
Transfers to Stage 1	62	32	(40)	(32)	(22)	—	—	—
Transfers to Stage 2	(3)	(13)	3	13	—	—	—	—
Transfers to Stage 3	(1)	—	(3)	(2)	4	2	—	—
Net remeasurement of loss allowance	(22)	(13)	22	(1)	16	14	16	—
Amounts written off	—	—	—	—	(3)	(17)	(3)	(17)
Other movements	(40)	(27)	2	(59)	(20)	(45)	(58)	(131)
At 31 December	**25**	**13**	**78**	**75**	**54**	**61**	**157**	**149**

20. Other assets

	31 December 2022	31 December 2021 (Restated)
	$m	$m
Receivables and Prepayments	3,595	1,119
Settlement clearing lines	—	299
Margin account receivables*	6,335	4,849
Secondary loan trading	182	395
Retirement receivable	16	—
Other balances	55	179
	10,183	6,841

*Restated for prior year adjustment, as detailed in Note 38

Settlement clearing lines arise from the timing of short term transactions between the point of funding and the settlement period in the Company's transaction services business. Other balances represent receivables due and other financial assets recorded.

Expected credit loss – Other assets

The following table shows an analysis of changes in the gross carrying amount and the corresponding ECL allowances:

Exposure	**Stage 1**	
	2022	**2021 (Restated)**
	$m	**$m**
Outstanding exposure as at 1 January	**6,841**	**2,099**
New assets originated or purchased*	7,878	5,692
Asset derecognised or matured*	(4,532)	(950)
Amounts written off	(4)	—
At 31 December	**10,183**	**6,841**

*Restated for prior year adjustment, as detailed in Note 38

There were no exposures and movements reported under IFRS 9 Stage 2 and 3 for other assets.

There were no ECL recognised or any movements reported under IFRS 9 for other assets either at 31 December 2022 or 31 December 2021.

21. Risk management

21.1. Risk management mission, organisation and governance

Risk governance and risk management frameworks

CEP has a comprehensive risk governance framework in place to provide oversight of CEP's monitoring and management of risks, ensuring that the risk profile of the Company is well documented and pro-actively managed at all levels of the organisation so that the Company's financial strength is safeguarded. The framework applies to the Company in its entirety, including all businesses, functions and branches.

Risk governance at CEP is cascaded in line with the risk frameworks through risk policies and standards, which describe how the Company identifies, measures, mitigates, monitors and reports material risk. This ensures transparent lines of responsibility and accountability for the core risk governance processes performed by the Company.

Risk management oversight is conducted as described in the Directors' Report corporate governance section starting from page 7.

The Board has overall responsibility for the Company's risk strategy, including risk appetite limits. The Board Risk Committee (BRC) is a sub-committee of the Board and is governed by terms of reference approved by the Board. The BRC has responsibility for the oversight and advice to the Board on the current risk exposures of the Company and future risk strategy. The BRC monitors risk trends and reviews the level of resourcing and capabilities required to ensure governance standards are met. The BRC oversees Independent Risk Management and provides recommendations to the Board on risk related matters.

Lines of defence

The risk management framework is based on a 'lines of defence' governance model, whereby each line has a specific role and defined responsibilities in such a way that the execution of tasks is separated from the control of the same tasks. The lines of defence also collaborate with each other through formalised processes to bring various perspectives together and to lead the Company toward outcomes that are in clients' and shareholders' interests, create economic value and are systemically responsible.

The Company's business lines, CSC, Operations & Technology and Finance (the first line of defence) owns and manages the risks inherent in or arising from the business, and are responsible for identifying, assessing and managing their key risks, for establishing and operating controls to mitigate key risks, performing manager assessments of the design and effectiveness of internal controls, and promoting a culture of compliance and control.

The Company's independent control functions (second line of defence), comprising of Independent Risk Management and Independent Compliance Risk Management set standards against which the business and functions, are required to manage and oversee risks, including conformance with applicable laws, regulatory requirements, policies and other relevant standards of ethical conduct. These functions are involved in identifying, measuring, monitoring, and controlling aggregate risks, and are independent of front line units.

The Company's Internal Audit function (third line of defence) independently reviews activities of the first two lines of defence, based on a risk-based audit plan and methodology approved by the Audit Committee.

The company has enterprise support functions (HR and Legal) that do not meet the definition of front-line unit, independent risk management or internal audit. While they do not report into the Chief Risk Officer (CRO) or Chief Country Compliance Officer (CCCO), they are expected to design, implement and maintain an effective control environment, supportive of safety and soundness. Any front-line unit activities within enterprise support functions remain subject to challenge by Independent Risk Management and Independent Compliance Risk Management.

21. Risk management (continued)

21.1. Risk management mission, organisation and governance (continued)

Independent Risk Management

CEP's Independent Risk Management acts as a strong independent partner of the business to support effective risk management across all risks to which the Company is exposed in a manner consistent with the Company's risk appetite.

The Company's Independent Risk Management is an independent function within the CEP legal vehicle. The Company's CRO reports directly to both the Citi EMEA CRO and the CEP CEO. The CRO has frequent, direct and independent access to the Board and the BRC. The Company's Independent Risk Management maintains appropriate representation on all the Company's management committees and other governance forum as appropriate. The CRO reports on the risk profile of the Company on an ongoing basis to the BRC and Board.

The Company aims to ensure that Independent Risk Management employees possess the appropriate expertise, stature, authority and independence and are empowered to make decisions and escalate issues.

Risk Management Framework

The Company has in place comprehensive, documented risk management frameworks, policies and standards to support the management of the material risks identified for its activities, and ensure accountability through its lines of defence model.

The Company's Risk Management Framework is an overarching framework, based on sound principles of good risk governance and management and on guidance issued by regulatory authorities. The Risk Management Framework outlines the risk governance structure in the Company, the core governance processes of the Company and the roles and responsibilities.

Formalised risk management frameworks by material risk type codify the processes and practices involved in the management of risk in the Company. The purpose of these risk frameworks is to clearly set out:

- the principles of sound risk management for each material risk type;
- clear lines of authority and risk responsibility, including roles and membership of both management and risk committees, with the responsibility to monitor adherence to frameworks, policies and standards;
- how the risk is governed under the lines of defence approach;
- supporting policies, standards and processes.

Risk appetite

The Company's risk appetite statement is the formal articulation of the aggregate levels and types of risk that the Company is willing to accept or avoid in order to achieve its strategic objectives, which includes the maintenance of a strong financial position. It includes qualitative statements and associated risk review thresholds, and quantitative statements and associated risk limits.

The risk appetite statement is core in aligning overall corporate strategy, capital allocation, and risk. It aims to support business growth whilst constraining any excessive accumulation of risk in the Company's risk profile.

Independent Risk Management reviews and reports the Company's risk appetite usage against the established limits and thresholds on a regular basis to the BRC and the Board. The BRC annually recommends the approval of risk appetite limits in the form of the risk appetite statement to the Board.

21. Risk management (continued)

21.1. Risk management mission, organisation and governance (continued)

Core risk governance process

Appropriate processes and tools are in place to manage, measure and actively mitigate risks taken by the Company. Independent Risk Management ensures that key risks are identified, managed, reported, and monitored effectively by executing the following processes:

- Risk Inventory identification and assessment process which identifies and assesses risk exposures, concentrations and positions, both quantitative and qualitative, identified as the most significant risks to the Company, and how these risks are monitored and mitigated;
- Assessing and challenge the Company’s 3-year strategic plan and provide a report outlining the results of that challenge to the Board on an annual basis;
- Enabling Board review and approval of the Company’s risk appetite statement on an annual basis. This articulates the amount of risk which the Board is prepared to tolerate in pursuit of its strategy;
- Adopting policies that establish standards, risk limits, and policy adherence processes;
- Stress testing and ensuring appropriate shocks and models are used to assess the Company’s material risks;
- Documenting an annual, Board-approved risk strategy and plan which outlines key deliverables which support and enhance risk management. Progress against the plan is tracked and reported to the BRC on an ongoing basis; and,
- Ensuring all branches in CEP`s branch network are operating in line with the Company’s Risk Management Framework.

Stress testing

In CEP, stress testing is integrated into CEP’s risk management processes and supports business strategic decisions.

The stress test programme:

- Supports bottom-up and top-down stress testing, including reverse stress-testing;
- Is a platform that enables modelling of a wide variety of stress tests across business lines and risk types;
- Draws data from across the organisation, as needed; and,
- Enables intervention to adjust assumptions.

Sensitivity analysis supports ongoing risk monitoring by risk teams as appropriate. It is performed at regular intervals dependent on internal and regulatory requirements.

The Company utilises scenario analyses, which are both dynamic and forward looking. Scenarios appropriately impact all material risk types, risk factors and specific vulnerabilities relevant to CEP. Reverse stress testing is used by the Company to assess its business model vulnerabilities and is appropriate to the nature, size and complexity of its business and the risks it bears.

21. Risk management (continued)

21.1. Risk management mission, organisation and governance (continued)

Risk Monitoring & Reporting

CEP Independent Risk Management complete ongoing monitoring of the risk environment which enables a comprehensive set of reports to be produced. These reports ensure Management, relevant Committees and the Board appropriately assess and understand the key risks facing CEP:

- Detailed reports on Risk exposures covering all material risks are sent to the BRC and Board at each sitting;
- Transparent, and rigorous reporting on exposures and concentrations by risk area are sent to Risk Committees; and,
- Monthly adherence to CEP RAS reports are sent to Management to ensure that CEP risk taking remains consistent with the limits set by the CEP Board.

The Company uses a global Citi risk reporting system to monitor credit and market risk exposure. The Company uses both systems and processes to monitor operational risk, the output of which is consolidated to provide an operational risk profile.

21.2. Credit risk

Definition

Credit risk is the potential for financial loss resulting from the failure of an obligor to honor its financial or contractual obligations. Credit risk arises in many of the Company's business activities, including:

- lending;
- sales and trading;
- derivatives;
- payment services;
- settlement;
- securities transactions; and
- when the Company acts as an intermediary on behalf of its clients and other third parties.

Credit risk includes default, credit concentration, FX lending, securitisation, country, settlement & delivery, residual, migration and counterparty credit risk.

Governance and Organisation

The Credit risk management framework, approved by the Board, provides the holistic outline of how credit risk is managed, establishes standards for measuring, managing, monitoring and controlling credit risk in the Company and sets responsibilities across all lines of defence. As part of the Credit Risk Management Framework, the following Committees perform an oversight role for credit risk related items:

- Board Risk Committee
- Executive Committee
- Risk Management Committee
- Credit Portfolio Review Group
- Impairment Working Group
- Product Review Committee

21. Risk management (continued)

21.2. Credit risk (continued)

The Company has put in place CEP specific credit risk and remedial management standards. From the Company's credit approval perspective, new and existing credit approvals adhere to Citi global and CEP policies.

In line with the above framework, the Company has a credit portfolio reporting process. The Company's credit risk profile is monitored by the Risk Management Committee and supported by the Credit Portfolio Review Group and reports to the Company's Board Risk Committee for review.

The Head of Credit Risk reports directly to the Company's CRO and is responsible for second line of defence oversight and management of the credit risk portfolio of the Company.

Risk measurement

CEP sets its credit risk appetite in line with its business model and strategy and specifies credit risk limits in its risk appetite statement and associated credit risk standards. Adherence to these limits is monitored by the credit risk team on an ongoing basis and reported to the Risk Management Committee and Board Risk Committee.

To manage the credit risk profile and limit the concentration risk, credit risk limits are also set for each counterparty, establishing the maximum acceptable level for each one. Credit risk management may freeze specific limits at any time to take the latest events into account.

Credit quality

The Company has an internal risk rating system that accurately and reliably differentiates between degrees of credit risk for classifiably managed exposures. To differentiate among degrees of credit risk, the Company must be able to make meaningful and consistent distinctions among credit exposures along two dimensions (i) default risk - obligors are assigned to rating grades that approximately reflect likelihood of default, and (ii) loss severity rating grades (or loss given default estimates) that approximately reflect the loss severity expected in the event of default during economic downturn conditions.

The Obligor Risk Rating (ORR) represents the probability that an obligor will default within a one-year time horizon. Risk ratings for obligors are assigned on a scale of 1 to 10, with sub-grades, where "1" is the best quality risk and "7" is the worst for obligors that are not in default. ORRs of "8" to "10" are assigned to obligors meeting the definition of default: i.e. the obligor is either 90 days past due on material exposure to the Company and/or the Company considers the obligor unlikely to pay its credit obligations to the Company in full without recourse by the Company to actions such as realising security (if held), collecting against a guarantee, filing a claim against the insurer, or other forms of support.

Obligors assigned ORR of "4-" and better are considered Investment Grade obligors, which have low default risk based on their strength of capacity to meet financial commitments.

The ORR is derived using a rating methodology model. The methodology considers both qualitative and quantitative inputs whilst also considering expert risk judgement. All ORRs must be reviewed annually, at a minimum, and when new information is expected to have a meaningful impact on the credit quality of the obligor or facilities to the obligor.

ORRs are a key input into the determination of the term structure of PD. The Company collects performance and default information about its credit risk exposures, analysed by geography and sector. The company utilises statistical models to analyse this data and generate estimates of PD and how these are expected to change as a result of the passage of time.

21. Risk management (continued)

21.2. Credit risk (continued)

Impairment and provisioning under IFRS

Provisions required against all financial instruments (such as cash, loans, investment securities and trade receivables) recorded at amortised cost or at fair value through other comprehensive income, are derived using the three stage IFRS 9 ECL model.

- **Stage 1** includes assets with no significant increase in credit risk since initial recognition. A 12-month expected credit loss (ECL) i.e. probability-weighted estimate of credit loss is recognised for these assets.
- **Stage 2** includes assets that have experienced a significant increase in credit risk since initial recognition, but the exposure is not yet credit-impaired. A lifetime ECL is recognised.
- **Stage 3** includes instruments deemed to be credit impaired. A lifetime ECL is recognised for model calculations. Individual impairment assessments are undertaken for certain other material Stage 3 exposures to derive provisions.

Impairment/expected credit losses oversight

CEP estimates ECLs on a quarterly basis. ECLs are presented at the Impairment Working Group (IWG) jointly chaired by the CEP Financial Controller and the CEP Head of Credit Policy & Remedial Management for review and recommendation for Risk Management Committee (RMC) to approve.

Incorporation of forward-looking information

The Company incorporates forward-looking information into both the assessment of whether the credit risk of an instrument has increased significantly since its initial recognition and the measurement of ECL. Three economic scenarios are formulated: a base case, which is the central scenario, developed internally based on consensus forecasts, and two less likely scenarios, one upside and one downside scenario.

The base scenario is aligned with information used by the Company for other purposes such as strategic planning and budgeting.
The scenarios are prepared by the Economic Scenarios Group team and the external information considered includes economic data and forecasts published by governmental bodies and monetary authorities in the countries where the Company operates, supranational organisations such as the OECD and the International Monetary Fund, and selected private-sector and academic forecasts. Scenarios are refreshed on a quarterly basis.

In developing its IFRS 9 forecasting models, key drivers are identifying such as credit risk and credit losses based on the sector, product and geography characteristics attach to each financial instrument and analysis of historical data to estimate relationships between the identified macro-economic drivers and credit risk and credit losses,using more than 20 years of historical loss data. The Key drivers include GDP growth, unemployment rates, and other macro indicators including- equity indices. Citi estimates each economic driver for credit risk over the forecast period followed by a reversion to a long run averages.

The table below provides key GDP and unemployment macroeconomic assumptions used in the base, optimistic and pessimistic scenarios over a 3-year forecast period for four of the Company’s largest geographies by credit exposure.

21. Risk management (continued)

21.2. Credit risk (continued)

Country	Macro-economic Variable	Optimistic 2023	Optimistic 2024	Optimistic 2025	Base 2023	Base 2024	Base 2025	Pessimistic 2023	Pessimistic 2024	Pessimistic 2025
#1 France	GDP	2.0	1.5	1.7	1.3	2.3	1.9	(3.6)	2.2	3.5
	Unemployment	5.9	6.0	6.5	7.5	7.4	7.6	8.2	8.0	8.1
#2 Germany	GDP	0.6	1.7	1.6	—	3.3	2.4	(3.3)	2.1	2.8
	Unemployment	4.2	4.3	4.1	5.6	5.5	5.0	6.6	6.6	5.9
#3 United States	GDP	2.6	4.1	0.8	(0.1)	2.2	2.2	(2.7)	3.9	2.3
	Unemployment	4.1	3.5	3.6	4.7	4.4	4.3	7.2	6.5	6.0
#4 Euro Area	GDP	1.9	3.0	0.4	0.9	1.8	1.1	(3.4)	2.5	2.3
	Unemployment	6.3	6.3	6.4	7.1	7.0	7.0	9.5	9.2	8.7

The assumptions represent the absolute percentage unemployment rates and year-on-year percentage change for GDP.
The scenarios are refreshed on a quarterly basis to include up to date actual data and to reflect changes in outlook. Given the scope of Citi's business activity, the quarterly scenarios produced for ECL calculation are global in nature. The probability weightings applied in measuring ECL are also reviewed quarterly and are shown below for the current and previous year-end. The difference in weights observed between 2021 and 2022 primarily reflecting changes to the underlying process to generate the scenario weights and changes in macroeconomic outlook.

	31 December 2022			31 December 2021		
Scenario	Optimistic	Base	Pessimistic	Optimistic	Base	Pessimistic
Probability Weight	9%	59%	32%	15%	55%	30%

After applying the above weights, the model produced a combined ECL of $ 241 million (31 December 2021: $105 million). In addition to the modelled ECL, a management overlay was considered.

Sensitivity of ECL to future economic conditions and management overlay

The ECL estimation is sensitive to judgements and assumptions made regarding formulation of forward-looking scenarios and how such scenarios are incorporated into the calculations.

In addition to the macro-economic variables, IFRS 9 ECL estimation is sensitive to many other drivers incorporated into its calculation including factors such as the credit quality, product, sector, geographic distribution, collateral and tenor. The IFRS 9 model ECL also takes into account a number of qualitative factors including concentration, collateralization and other external considerations. Finally, CEP may include management overlays as a post model adjustment to capture, among other things, idiosyncratic risk events and model limitations.

Credit quality and tenor characteristics of CEP portfolio are of particular importance in limiting the level of ECL sensitivity. At 31 December 2022, almost 94 % (31 December 2021: 96%) of the portfolio was in Stage 1.

The IFRS 9 calculation incorporates three probability-weighted scenarios to produce a combined loss allowance. The table below shows the individual loss allowance for each scenario (Base, Optimistic and Pessimistic) calculated using the year-end stage profile. The loss allowance figures exclude management overlays.

21. Risk management (continued)

21.2. Credit risk (continued)

	31 December 2022		
	Optimistic	Base	Pessimistic
	$m	$m	$m
Loss allowance	164	184	367

Total ECLs at 31 December 2022 were $300 million (31 December 2021 : $238 million), including total management overlays of $59 million (31 December 2021: $134 million). The management overlays included at year-end 2022 reflect a number of considerations not directly included in the IFRS9 models including inter alia potential energy supply-related impacts $44 million (31 December 2021:$nil), which was estimated based on a risk rating simulation. The latent (but reducing) impact caused by Covid 19 $7 million (31 December 2021: $109 million) and geo-political risks due to the on-going Russia-Ukraine conflict. The reduction in management overlays during the course of 2022 primarily reflects an improved outlook with respect to Covid 19 relative to 2021.

Risk exposure

A breakdown of the Company's total credit exposure including commitments are as follows:

	31 December 2022					31 December 2021 (Restated)				
			Related amounts not offset in the statement of financial position					Related amounts not offset in the statement of financial position		
	Maximum exposure	Netting and set-off	Cash collateral	Non-cash collateral*	Net exposure	Maximum exposure	Netting and set-off	Cash collateral	Non-cash collateral*	Net exposure
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
On-balance sheet:										
Cash and cash equivalents	32,911	—	—	—	32,911	27,482	—	—	—	27,482
Trading assets	9,895	—	—	—	9,895	4,443	—	—	—	4,443
Derivative financial instruments	40,931	(18,584)	(3,962)	(101)	22,347	15,329	(2,203)	(1,791)	(1,195)	13,126
Investment securities	9,072	—	—	—	9,072	7,525	—	—	—	7,525
Loans and advances to banks	13,472		—	(12,717)	755	11,035	—	—	(6,949)	4,086
Loans and advances to customers	33,844	(3,023)	—	(23,053)	7,768	22,438	(1,185)	—	(7,058)	14,195
Other assets*	10,183	—	—	—	10,183	6,841	—	—	—	6,841
	150,308	**(21,607)**	**(3,962)**	**(35,871)**	**92,931**	**95,093**	**(3,388)**	**(1,791)**	**(15,202)**	**77,698**
Off-balance sheet:										
Letters of credit	15,424	—	—	—	15,424	13,802	—	—	—	13,802
Undrawn commitments to lend	28,780	—	—	—	28,780	26,577	—	—	—	26,577
Other commitments and guarantees	2,360	—	—	—	2,360	4,337	—	—	—	4,337
	46,564	**—**	**—**	**—**	**46,564**	**44,716**	**—**	**—**	**—**	**44,716**

*Restated for prior year adjustment, as detailed in Note 38

The maximum exposure amounts of the financial assets disclosed in the table above are the carrying values recorded on the statement of financial position with the exception of derivatives financial instruments and loans and advances to customers. Derivatives and reverse repos under the loans and advances to customers carrying value in the statement of financial position are calculated by deducting the eligible netting exposure which qualify for netting under IAS32 from the maximum exposure. Cash and non-cash collateral does not impact the carrying value in the statement of financial position.

21. Risk management (continued)

21.2. Credit risk (continued)

* Collateral held by the Company for securing loan transaction includes:

- Financial collateral such as marketable securities;
- Physical collateral such as property and equipment, furniture and fixtures, shipping vessels;
- Other types of lending collateral such as trading receivables.

Collaterals are rated by Moody's rating agency between AAA and AA3, and there have been no significant changes in the quality of the collaterals during the reporting period.

The credit quality of assets is monitored regularly and reported to senior management and Board Risk Committee and the Board on a quarterly basis. In addition, high risk exposures are reported to senior management monthly. Any sudden credit events are promptly escalated to senior risk and business managers.

Expected credit loss - On and Off Balance Sheet (All financial instruments)

The following table shows an analysis of changes in the gross carrying amount and the corresponding ECL allowances:

Exposure	Stage 1		Stage 2		Stage 3		Total	
	2022	2021 (Restated)	2022	2021	2022	2021	2022	2021 (Restated)
	$m	$m	$m	$m	$m	$m	$m	$m
Outstanding exposure as at 1 January	**113,812**	**103,204**	**3,573**	**3,263**	**474**	**666**	**117,859**	**107,133**
New assets originated or purchased*	33,040	37,013	2,239	717	13	66	35,292	37,796
Asset derecognised or matured*	(19,723)	(25,802)	(1,088)	(987)	(177)	(255)	(20,988)	(27,044)
Transfers to Stage 1	1,332	877	(1,237)	(790)	(95)	(87)	—	—
Transfers to Stage 2	(3,618)	(1,404)	3,662	1,404	(44)	—	—	—
Transfers to Stage 3	(292)	(74)	(57)	(34)	349	108	—	—
Amounts written off	(8)	(2)	(2)	—	(3)	(24)	(13)	(26)
Other movements	—	—	—	—	—	—	—	—
At 31 December	**124,543**	**113,812**	**7,090**	**3,573**	**517**	**474**	**132,150**	**117,859**

ECL	Stage 1		Stage 2		Stage 3		Total	
	2022	2021	2022	2021	2022	2021	2022	2021 (Restated)
	$m	$m	$m	$m	$m	$m	$m	$m
IFRS 9 ECL as at 1 January	**53**	**63**	**103**	**269**	**79**	**176**	**238**	**508**
ECL on new assets originated or purchased	38	7	59	(1)	23	15	120	21
Exposure derecognised or matured	(2)	(10)	(12)	(58)	(4)	(68)	(18)	(136)
Transfers to Stage 1	81	39	(49)	(39)	(32)	—	—	—
Transfers to Stage 2	(4)	(13)	5	13	(1)	—	—	—
Transfers to Stage 3	(4)	—	(4)	(3)	8	3	—	—
Net remeasurement of loss allowance	(33)	(17)	43	3	29	20	39	6
Amounts written off	—	—	—	—	(5)	(17)	(5)	(17)
Other movements	(67)	(16)	11	(78)	(18)	(50)	(74)	(144)
At 31 December	**62**	**53**	**159**	**106**	**79**	**79**	**300**	**238**

"ECL on new assets originated or purchased" represents the increase in ECL on outstanding exposures in the specific stage as at year end. The "transfers to" stages within the ECL table represents the ECL held on the associated obligors as at prior year end. The "net remeasurement of loss allowance" is the increase or decrease in ECL following a transfer between stages. The "other movements'' in ECL relates to the movement in management overlays and other adjustments during the year.

21. Risk management (continued)

21.2. Credit risk (continued)

Expected credit loss

The following table shows the ECL charges on all financial assets in the income statement.

31 December 2022 and 31 December 2021:

	IFRS 9 ECL							
	Stage 1		Stage 2		Stage 3		Total	
Income statement	2022	2021	2022	2021	2022	2021	2022	2021
	$m	$m	$m	$m	$m	$m	$m	$m
Financial assets								
Cash and cash equivalents	(2)	(1)	—	—	—	—	(2)	(1)
Loans and advances to banks	(2)	4	(2)	2	(4)	(1)	(8)	5
Loans and advances to customers	(12)	18	(3)	132	7	93	(8)	243
Investment securities	—	4	—	—	—	—	—	4
Total On Balance Sheet	**(16)**	**25**	**(5)**	**134**	**3**	**92**	**(18)**	**251**
Off Balance Sheet								
Letters of credit	19	(19)	(11)	6	(7)	(9)	1	(22)
Undrawn commitments to lend	(12)	4	(38)	22	7	14	(43)	40
Other commitments and guarantees	—	—	—	—	—	—	—	—
Total Off Balance Sheet	**7**	**(15)**	**(49)**	**28**	**—**	**5**	**(42)**	**18**
Recoveries of amounts previously written-off							**2**	**6**
Write-offs							**(12)**	**(26)**
Total Impairment (Losses)/ Recoveries							**(70)**	**249**

21. Risk management (continued)

21.2. Credit risk (continued)

The following table shows the ECL reserve on financial assets in the statement of financial position and on Off Balance Sheet assets.

As at 31 December 2022 and 31 December 2021:

	IFRS 9 ECL							
	Stage 1		Stage 2		Stage 3		Total	
Statement of financial position	2022	2021	2022	2021	2022	2021	2022	2021
	$m	$m	$m	$m	$m	$m	$m	$m
Cash and cash equivalents	3	1	—	—	—	—	3	1
Loans and advances to banks	4	2	4	2	6	1	14	5
Loans and advances to customers	25	13	78	75	54	61	157	149
Investment securities	3	3	—	—	—	—	3	3
Other assets	—	—	—	—	—	—	—	—
Total On Balance Sheet	**35**	**19**	**82**	**77**	**60**	**62**	**177**	**158**
Off Balance Sheet								
Letters of credit	13	32	15	5	19	10	47	47
Undrawn commitments to lend	18	5	58	21	—	7	76	33
Other commitments and guarantees	—	—	—	—	—	—	—	—
Total Off Balance Sheet	**31**	**37**	**73**	**26**	**19**	**17**	**123**	**80**
Total	**66**	**56**	**155**	**103**	**79**	**79**	**300**	**238**

21. Risk management (continued)

21.2. Credit risk (continued)

The table below provides an indicative mapping of how the Company's internal credit risk grades relate to PD and to the external credit ratings of Standard & Poor's.

Risk Rating		Average Probability of Default (%)	External Rating
Rating 1 to 4-:	Investment Grade	0.00 - 0.34	AAA to BBB-
Rating 5+ to 6-:	Non-investment Grade	0.89 - 12.16	BB+ to B-
Rating 7+ to 7-:	Higher Risk	16.64 to 22.13	CCC+ to CCC-
Rating 8 to 10:	Credit Impaired	Loss estimate on individual basis	to SD/D

The Company groups its exposures based on their ORR ratings as explained above:

	Stage 1		Stage 2		Stage 3		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
	$m	$m	$m	$m	$m	$m	$m	$m
Loans and advances to banks at amortised cost								
Rating 1 to 4-	12,869	10,674	—	—	—	—	12,869	10,674
Rating 5+ to 6-	311	314	207	43	—	3	518	360
Rating 7+ to 7-	—	—	8	6	—	—	8	6
Rating 8 to 10	90	—	—	—	1	—	91	—
Total	**13,270**	**10,988**	**215**	**49**	**1**	**3**	**13,486**	**11,040**
Expected credit loss	(4)	(2)	(4)	(2)	(6)	(1)	(14)	(5)
Carrying amount	**13,266**	**10,986**	**211**	**47**	**(5)**	**2**	**13,472**	**11,035**
Loans and advances to customers at amortised cost								
Rating 1 to 4-	14,326	11,884	137	165	—	31	14,463	12,078
Rating 5+ to 6-	2,067	6,753	2,627	492	—	11	4,694	7,255
Rating 7+ to 7-	1	3	509	791	—	198	510	992
Rating 8 to 10	17	—	—	—	417	66	434	66
Total	**16,411**	**18,638**	**3,273**	**1,448**	**417**	**305**	**20,101**	**20,391**
Expected credit loss	(25)	(13)	(78)	(75)	(54)	(61)	(157)	(149)
Carrying amount	**16,386**	**18,625**	**3,195**	**1,373**	**363**	**244**	**19,944**	**20,242**
Loans held at fair value through profit and loss							10,877	1,011
Total loans and advances to customers							**30,821**	**21,253**

21. Risk management (continued)

21.2. Credit risk (continued)

Credit quality – Trading Assets

The credit quality of the Company's financial assets is maintained by adherence to the Company's policies on the provision of credit to counterparties. The Company monitors the credit ratings of its counterparties with the table below presenting an analysis of the Company's trading portfolio of traded loans, corporate bonds and government bonds by rating agency designation based on Standard & Poor's or Moody's ratings as at 31 December:

Trading Assets (FVTPL):

	Traded loans		Corporate bonds		Government bonds		Total	
	$m	$m	$m	$m	$m	$m	$m	$m
	2022	2021	2022	2021	2022	2021	2022	2021
AAA to A-	—	—	—	—	606	466	606	466
BBB+ to B-	419	1,052	—	—	7,950	2,086	8,369	3,138
CCC+ and lower	119	357	—	3	—	—	119	360
Unrated	800	479	1	—	—	—	801	479
Total	**1,338**	**1,888**	**1**	**3**	**8,556**	**2,552**	**9,895**	**4,443**

Credit quality – Investment Securities

	Government bonds (FVOCI)		Corporate bonds (FVOCI)		Equity securities (FVTPL)		Total	
	$m	$m	$m	$m	$m	$m	$m	$m
	2022	2021	2022	2021	2022	2021	2022	2021
AAA to A-	5,807	5,186	1,241	436	83	57	7,131	5,679
BBB+ to B-	1,854	1,765	—	—	—	—	1,854	1,765
CCC+ and lower	—	—	—	—	—	—	—	—
Unrated	—	—	—	—	87	81	87	81
Total	**7,661**	**6,951**	**1,241**	**436**	**170**	**138**	**9,072**	**7,525**

21. Risk management (continued)

21.2. Credit risk (continued)

Concentration Risk

The Company's statement of financial position (on balance sheet – third party only) credit risk concentrations by industry are as follows:

	31 December 2022	31 December 2021 (Restated)
	$m	$m
Mining and quarrying	324	310
Manufacturing*	8,868	8,314
Electricity, gas, water, steam and air conditioning supply*	1,119	747
Construction	156	161
Wholesale and retail trade	2,405	2,435
Transport and storage	512	737
Accommodation and food service activities	314	118
Information and communication*	1,804	1,944
Credit and insurance institutions*	61,248	38,077
Real estate activities*	1,204	703
Professional, scientific and technical activities*	686	422
Administrative and support service activities*	836	922
Public administration and defence, compulsory social security*	21,321	10,579
Household/Retail	948	1,564
Other services*	157	1,516
	101,902	**68,549**

Included in credit risk exposures carrying value are cash and cash equivalents, trading assets, derivative financial instruments, loans and advances to banks and customers, investment securities and other assets.

The table below shows statement of financial position credit concentrations by region:

	31 December 2022	31 December 2021 (Restated)
	$m	$m
Central Europe*	3,393	3,172
Western Europe*	88,169	55,750
Middle East / Africa	1,003	1,153
Central / South America	293	253
North America	6,580	5,942
Asia	2,464	2,279
	101,902	**68,549**

The regions above represent the countries and its domiciled customers within these.

*Restated for prior year adjustment, as detailed in Note 38

21. Risk management (continued)

21.3. Market Risk - Trading book

Definition

Market risk in the trading portfolio is the potential for losses in the trading portfolio arising from changes in market variables such as interest rates, foreign exchange rates and other market prices.

Sources of Market Risk

The trading portfolio comprises positions held with short term trading intent, where the business seeks to capture the differences between buying and selling price and which derive primarily from customer flows. The products traded include foreign exchange (FX) spot, swaps and forwards, interest rate swaps and sovereign bonds.

The primary sources of market risk within the trading portfolio, include, but are not limited to:

- Interest rate risk: The valuation risk resulting from interest rate changes.
- Currency risk: The valuation risk resulting from currency price changes.
- Credit spread risk: The valuation risk resulting from credit spread changes.

Governance and Organisation

The Mark to Market Risk Management Framework, approved by the Board provides a holistic outline of how market risk in the trading portfolio is managed, establishes standards for measuring, managing, monitoring and controlling market risk in the Company and sets responsibilities across the lines of defence. As documented in the Mark to Market Risk Management Framework, the following committees perform an oversight role for market risk related items:

- Board Risk Committee
- Executive Committee
- Risk Management Committee

The Risk Management Committee is the primary committee tasked with governing market risk in the trading book in the Company, and is supported by the Market Risk Review Group, which monitors and oversees trading book market risk in CEP. The Executive Committee ensures that appropriate risk considerations are incorporated in the strategic planning process. The Board Risk Committee oversees the implementation of the Company's market risk strategy and the market risk management function.

The Head of Market Risk reports directly to the Company's CRO and is responsible for second line of defence oversight of the market risk portfolio of the Company. The Market Risk team monitors the market risk profile on an ongoing basis and reports to the Risk Management Committee and BRC/Board on trading portfolio exposures against approved limits.

Risk measurement

Market risk in the Company is measured in accordance with industry standard methodologies, which are designed to:

- Promote the transparency and comparability of market risk-taking activities.
- Provide a consistent framework to measure market risk exposures in order to facilitate business performance analysis.

Value at Risk (VaR). estimates the potential decline in the value of a position or a portfolio, under normal market conditions, within a defined confidence level, and over a specific time period.

21. Risk management (continued)

21.3. Market Risk - Trading book (continued)

VaR is calculated using a Monte Carlo approach where simulations of market rates or prices are generated. Volatilities and correlations are updated at least quarterly based on three years' worth of market data.

The key parameters used to calculate VaR include:

- The historical 'look-back' period used to calculate historical volatilities and correlations;
- The holding period, i.e. the number of days of changes in market risk factors the portfolio is subjected to;
- A confidence interval is determined to estimate the potential loss, for Company's risk management purposes; and
- Factor sensitivities ("Greeks") - sensitivities to market factor variables.

Factor sensitivities represent the change in the value of a position for a defined change in a market risk factor, such as a change in the value of a bond for a one-basis-point change in interest rates. Independent Risk Management ensure that factor sensitivities are calculated, monitored and, in most cases, limited, for all relevant risks taken in a trading portfolio.

Stress testing is performed on trading portfolios on at least a weekly basis to estimate the impact of extreme market movements. Independent Risk Management develops stress scenarios, reviews the output of weekly and other periodic stress testing exercises and uses the information to make judgements as to the ongoing appropriateness of exposure levels and limits.

Risk exposure

The following table sets out the allocation of assets and liabilities subject to market risk between trading and non-trading portfolios.

	31 December 2022			31 December 2021 (Restated)		
	Carrying amount	Trading portfolios	Non-trading portfolios	Carrying amount	Trading portfolios	Non-trading portfolios
	$m	$m	$m	$m	$m	$m
Assets						
Cash and cash equivalents	32,911	—	32,911	27,482	—	27,482
Trading assets	9,895	9,895	—	4,443	4,443	—
Derivative financial instruments	22,347	22,347	—	13,126	13,126	—
Investment securities	9,072	—	9,072	7,525	—	7,525
Loans and advances to banks	13,472	—	13,472	11,035	—	11,035
Loans and advances to customers	30,821	10,877	19,944	21,253	1,011	20,242
Other assets*	10,183	—	10,183	6,841	—	6,841
Total financial assets	**128,701**	**43,119**	**85,582**	**91,705**	**18,580**	**73,125**
Liabilities						
Deposits by banks	8,858	—	8,858	11,148	—	11,148
Customer accounts	49,072	—	49,072	38,977	—	38,977
Derivative financial instruments	22,844	22,844	—	14,429	14,429	—
Subordinated liabilities	4,455	—	4,455	4,773	—	4,773
Other liabilities*	29,761	—	29,761	11,168	—	11,168
Total financial liabilities	**114,990**	**22,844**	**92,146**	**80,495**	**14,429**	**66,066**

*Restated for prior year adjustment, as detailed in Note 38

21. Risk management (continued)

21.3. Market Risk - Trading book (continued)

Trading portfolio risk

The following table summarises the Company's trading portfolio risk, disclosing the Company's highest, lowest, and average exposure of its trading book to VaR during the reporting period, together with the exposure as at 31 December:

	31 December 2022		**2022**		**31 December 2021**		**2021**	
USD $m	Outstanding	MAX	AVG	MIN	Outstanding	MAX	AVG	MIN
CEP VAR	11.7	69.9	11.2	3.8	10.1	13.1	3.1	1.8

21.3. Market Risk - Non-Trading Portfolio

Definition

Market risk in the non-trading portfolio is the potential for losses in the non-trading portfolio arising from changes in the value of the Company's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates and other market prices.

Sources of Market Risk

The non-trading portfolio comprises positions, which are not held with a trading intent and arise mainly from customer flows. The primary products in the non-trading portfolio include loans held at amortised cost, deposits and investment securities. The main sources of market risk within the non-trading portfolio, include, but are not limited to:

- Interest rate changes giving rise to a potential pre-tax impact on net interest margin (NIM).
- Fair value changes due to changes in underlying market risk factors.

Governance and Organisation

The Treasury Risk Management Framework, approved by the Board provides a holistic outline of how market risk in the non-trading portfolios is managed, establishes standards for measuring, managing, monitoring and controlling market risk in the Company and sets responsibilities across all three lines of defence. As part of the Treasury Risk Management Framework, the following committees and sub-committees perform an oversight role for market risk related items:

- Board Risk Committee
- Executive Committee
- Asset & Liability Committee (ALCO)

The ALCO is the primary committee tasked with governing market risk in the non-trading portfolio in the Company. The Executive Committee ensures that appropriate risk considerations are incorporated in the strategic planning process. The Board Risk Committee oversees the implementation of the Company's market risk strategy and the market risk management function.

CEP Treasury is responsible for the management and first line oversight of non-trading book market risk in the Company.

The Head of Treasury Risk reports directly to the Company's CRO and is responsible for second line of defence oversight of the non-trading book market risk of the Company. The Treasury Risk team monitors the market risk profile on an ongoing basis and reports to the ALCO and the BRC/Board on the non-trading portfolio exposures against agreed limits.

21. Risk management (continued)

21.3. Market Risk - Non-Trading Portfolio (continued)

Risk measurement

Market risk in the Company is measured in accordance with industry standard methodologies, which are designed to:

- Promote the transparency and comparability of market risk-taking activities.
- Provide a consistent framework to measure market risk exposures in order to facilitate business performance analysis.

The primary measurement concepts associated with market risk in the non-trading book are outlined below:

- Income metrics: Measures the potential pre-tax impact on net interest revenue, for accrual positions, due to defined shifts in interest rates over a specified reporting period.
    - Interest rate exposure (IRE): measures the potential earnings impact, over a 12-month reporting period, from a defined standard set of parallel shifts in the curve.
    - CEP manages and monitors such exposure on a -100bp shock with a -200bp floor.
- Valuation metrics: Measure the impact of interest rate changes on the Company's capital.
    - Factor sensitivities: Factor sensitivities are used to measure an instrument's sensitivity to a change in a 1 basis point move in interest rates for investment bonds.
    - Economic value of equity (EVE): The net of the present value of assets, less the present value of liabilities.
    - Economic value sensitivity (EVS): The change in economic value of equity for a pre-defined change in the yield curve.
    - CEP manages and monitors such exposure on a -100bp shock with a -200bp floor.
- Risk capital: Interest rate risk in the banking book (IRRBB) capital is measured using an asset and liability management risk capital model, which uses interest rate factor sensitivities for the underlying accrual statement of financial position exposures.

21. Risk management (continued)

21.3. Market Risk - Non-Trading Portfolio (continued)

Interest rate risk

The table below represents the expected profit / (loss) from a 100-basis point increase in interest rates on all tenors.

	Interest rate exposure report	
	31 December 2022	**31 December 2021**
	12 Month	**12 Month**
	$m	**$m**
Income statement impact	198	184
Total	**198**	**184**
Equity impact	135	451
Total	**135**	**451**

The table below represents the expected profit / (loss) from a 100-basis point decrease in interest rates on all tenors.

	Interest rate exposure report	
	31 December 2022	**31 December 2021**
	12 Month	12 Month
	$m	**$m**
Income statement impact	(195)	(100)
Total	**(195)**	**(100)**
Equity impact	(133)	(166)
Total	**(133)**	**(166)**

These results aren't symmetrical due to the impact of scenario floors, CEP uses -200bp floors on all scenarios, and the impact of non-maturity deposit beta matrices, which define how much of a rate change is applied to specific portfolios.

Currency risk

It is the policy of the Company to reduce foreign currency risk that may arise in the normal course of business. Currency risk in the trading portfolio is actively managed on a daily basis and is captured in the primary market risk metrics, including VaR. Treasury monitors foreign currency risk that may arise in the normal course of its non-trading business.

The net foreign currency exposure of the non-trading portfolio of the two main currencies with respect to the US Dollar are:

	31 December 2022		**31 December 2021**	
	EUR	**GBP**	**EUR**	**GBP**
	$m	**$m**	**$m**	**$m**
Net exposure	286	228	(2,094)	288

21. Risk management (continued)

21.3. Market Risk - Managing interest rate benchmark reform and associated risks

LIBOR and other rates or indices deemed to be benchmarks have been subject of ongoing regulatory scrutiny and reform. The LIBOR administrator ceased publication of non-USD LIBOR and one week and two-month USD LIBOR on a representative basis on 31 December 2021, with plans to cease publication of all other USD LIBOR tenors on 30 June 2023. As a result, Citi ceased entering into new contracts referencing USD LIBOR as of 1 January 2022, other than for limited circumstances where regulators recognised that it may be appropriate for banks to enter into new USD LIBOR contracts, including with respect to market-making, hedging or novations of USD transactions executed before 1 January 2022.

LIBOR and other benchmarks have been used in a substantial number of the Company's outstanding securities and products, including, among others, derivatives, corporate loans, commercial and residential mortgages, credit cards, securitised products and other structured securities. Citi recognises that a transition away from and discontinuance of LIBOR, also the replacement of some interbank offered rates (IBORs) presents various risks and challenges that could significantly impact financial markets and market participants, including Citi. Accordingly, Citi has continued its efforts to identify and manage its interest rate benchmark reform risks. Citi has established a LIBOR governance and implementation program focused on identifying and addressing the impact of LIBOR transition on Citi's clients, operational capabilities and financial contracts. The program operates globally across Citi's businesses and functions and includes active involvement of senior management. As part of the program, Citi has continued to implement its LIBOR transition action plans and associated roadmaps under the following key workstreams: program management; transition strategy and risk management; customer management, including internal communications and training, legal/contract management and product management; financial exposures and risk management; regulatory and industry engagement; operations and technology; and finance, risk, tax and treasury.

During 2022, the Company continued its efforts to manage its interest rate benchmark reform risks. The Company has been focused on further reducing its LIBOR exposure and remediating its remaining outstanding LIBOR-linked contracts. In addition, the Company has continued to monitor and engage on legislative, regulatory and other initiatives and developments related to interest rate benchmark reform matters.

The Company has also continued to use alternative reference rates in certain newly issued financial instruments. The Company has issued floating rate benchmark and customer-related debt linked to SOFR and originated and arranged loans linked to SOFR. The Company's derivatives contracts are generally linked to SOFR and other global alternative reference rates. The Company also provides term SOFR-linked products to clients in accordance with industry best practices and recommendations.

The Company monitors the progress of transition from LIBORs and other IBORs to new benchmark rates by reviewing the total amounts of contracts that have yet to transition to an alternative benchmark rate. The Company considers that a contract is not yet transitioned to an alternative benchmark rate when interest under the contract is indexed to a benchmark rate subject to IBOR reform, even if it includes a fallback clause that deals with the cessation of the existing IBOR which would deem it remediated for contract management:

21. Risk management (continued)

21.3. Market Risk - Managing interest rate benchmark reform and associated risks(continued)

2022 Exposures impacted by interest rate benchmark reform

	USD Libor	CDOR	ICE_SWAP	KLIBOR	SOR	THBFIX	
	USD	CAD	GBP	MYR	SGD	THB	Total
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
IBOR exposures by Benchmarks*							
Financial Assets**	305	—	—	—	—	—	305
Financial Liabilities***	(15)	—	—	—	—	—	(15)
Derivatives Notional****	83,177	497	55	279	596	180	84,784

*by 31 December 2022, the Company has exposure indexed to a benchmark that is still subject to IBOR reform.

**Financial assets include drawn down contract amount of loans, cards, mortgage, deposits, repos, etc.

***Financial liabilities include deposits, repos, notes, etc.

****Derivatives presented are notional values.

2021 Exposures impacted by interest rate benchmark reform

	USD Libor	-	ICE_SWAP	-	-	SOR	
	USD	EUR	GBP	JPY	CHF	SGD	Total
	$m	$m	$m	$m	$m	$m	$m
IBOR exposures by Benchmarks*							
Financial Assets**	4,094	919	519	4	25	4	5,565
Financial Liabilities***	172	6	—	19	—	—	197
Derivatives Notional****	187,066	—	4,118	1,054	181	—	192,419

*by 31 December 2021, the Company has exposure indexed to a benchmark that is still subject to IBOR reform.

**Financial assets include drawn down contract amount of loans, cards, mortgage, deposits, repos, etc.

***Financial liabilities include deposits, repos, notes, etc.

****Derivatives presented are notional values.

21. Risk management (continued)

21.4. Liquidity Risk

Definition

Liquidity risk is defined as the risk that the Company will not be able to meet expected and unexpected current and future cash flows and collateral needs without adversely affecting either daily operations or the financial condition of the Company.

Liquidity risk arises because of the possibility that the Company might be unable to meet its payment obligations when they fall due under both normal and plausible stress circumstances or satisfy regulatory liquidity requirements.

The Company's funding and liquidity objectives aim to ensure adequate liquidity is available to fund the existing asset base and grow the core businesses, while always maintaining sufficient liquidity, is structured appropriately, to continue operating under adverse market conditions, involving severe yet plausible idiosyncratic and market-wide stresses while continuing to satisfy regulatory liquidity requirements.

Governance and Organisation

The Treasury Risk Management Framework, approved by the Board, provides a holistic outline of how liquidity risk is managed, establishes standards for measuring, managing, monitoring and controlling risk in the Company and set responsibilities across all three lines of defense.

As part of the Treasury Risk Management Framework, the following committees perform an oversight role for liquidity risk related items:

- Board Risk Committee (BRC)
- Executive Committee (ExCO)
- Asset & Liability Committee (ALCO)
- Intraday and Collateral Management Sub-Committee

Management of liquidity is the responsibility of the Corporate Treasurer who aims to ensure that all funding obligations are met when due and all Regulatory Liquidity requirements are satisfied at all times.

The forum for oversight of liquidity risk is the ALCO, which includes senior executives within the Company. The ALCO reviews the current and prospective funding requirements for the Company, as well as the position and recommends a risk appetite framework of limits and triggers to the Board for its approval. The ultimate responsibility for liquidity risk management rests with the Board.

A Funding and Liquidity plan (FLP) and Internal Liquidity Adequacy Assessment Procedure (ILAAP) are prepared on an annual basis and the liquidity profile is monitored and reported daily. The ILAAP is approved annually by the Board confirming their opinion of the Company's capability to withstand a set of severe but plausible liquidity stress conditions for the duration of the Company's survival period.

The Head of Treasury Risk reports directly to the Company's CRO and is responsible for second line of defense independent oversight of liquidity risk.

21. Risk management (continued)

21.4. Liquidity Risk (continued)

Risk measurement

The Company's internal Treasury Risk Management Framework includes a set of indicators enabling the assessment of the Company's resilience to liquidity risk.

The Company is required to comply with the liquidity requirements set out by its Regulator. The Capital Requirements Directive IV and V (CRD IV and CRD V) related liquidity metrics are monitored and reported, namely the liquidity coverage ratio (LCR) net stable funding requirement (NSFR) and Asset Encumbrance Ratio. LCR measures the stock of liquid assets against net cash outflows arising in a 30 day stress scenario. NSFR is intended to ensure that a firm has an acceptable amount of stable funding to support its assets and activities over the medium term (one year period). Asset Encumbrance measures total encumbered assets plus collateral received re-issued divided by total assets and collateral received available for encumbrance.

The Company also monitors internal liquidity risk metrics, which compare liquidity reserves with liquidity deficits. These indicators are also assessed where applicable for the major currencies through which the Company has significant operations.

Risk exposure

Analysis of financial assets and liabilities by remaining contractual maturities

The table below shows an analysis of financial assets and liabilities analysed according to when they are contractually expected to be recovered or settled.

	Less than 3 months		3 months - 1 year		1 - 5 years		More than 5 years		Total	
As at 31 December	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
Assets										
Cash and cash equivalents	32,911	27,482	—	—	—	—	—	—	32,911	27,482
Loans and advances to banks	11,599	10,082	577	576	1,296	377	—	—	13,472	11,035
Loans and advances to customers	20,141	11,257	5,267	5,149	4,546	3,664	867	1,183	30,821	21,253
Derivative financial instruments	2,757	3,712	1,784	2,580	7,163	3,864	10,643	2,970	22,347	13,126
Trading assets	133	17	1,090	30	3,224	2,750	5,448	1,646	9,895	4,443
Investment securities	350	211	1,485	1,084	7,036	6,018	201	212	9,072	7,525
Other assets*	10,183	6,841	—	—	—	—	—	—	10,183	6,841
Total financial assets	78,074	59,602	10,203	9,419	23,265	16,673	17,159	6,011	128,701	91,705
Liabilities										
Deposits by banks	8,684	10,542	37	454	137	150	—	2	8,858	11,148
Customer accounts	47,832	38,869	1,226	106	3	—	11	2	49,072	38,977
Derivative financial instruments	2,705	4,202	1,918	3,040	7,431	4,173	10,790	3,014	22,844	14,429
Subordinated liabilities	—	—	—	—	722	810	3,733	3,963	4,455	4,773
Other liabilities*	29,761	11,168	—	—	—	—	—	—	29,761	11,168
Total financial liabilities	88,982	64,781	3,181	3,600	8,293	5,133	14,534	6,981	114,990	80,495

*Restated for prior year adjustment, as detailed in Note 38

21. Risk management (continued)

21.4. Liquidity Risk (continued)

Risk exposure (continued)

Contractual maturities of undiscounted cash flows of financial liabilities

The table below analyses the Company's undiscounted contractual cash flows from financial liabilities into relevant maturity groupings.

	Less than 3 months		3 months - 1 year		1 - 5 years		More than 5 years		Total	
As at 31 December	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
Liabilities										
Deposits by banks	9,042	10,589	39	11,045	141	151	—	2	9,222	11,198
Customer accounts	49,802	39,043	1,277	39,149	3	—	11	2	51,093	39,152
Derivative financial instruments	2,816	4,221	1,997	6,416	7,683	3,702	11,156	4,387	23,652	14,503
Subordinated liabilities	—	—	—	—	878	857	4,483	4,074	5,361	4,931
Other liabilities*	35,652	11,218	—	—	—	—	—	—	35,652	11,218
Total undiscounted financial liabilities	97,312	65,071	**3,313**	**3,616**	**8,705**	**5,205**	**15,650**	**7,110**	**124,980**	**81,002**

*Restated for prior year adjustment, as detailed in Note 38

The following table analyses the Company's commitments and guarantees into relevant maturity groupings based on the remaining period at the statement of financial position date to the contractual maturity date. These instruments can be called at any time prior to their contractual maturity.

	Less than 3 months		3 months - 1 year		1 - 5 years		More than 5 years		Total	
As at 31 December	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
Letters of credit	6,232	1,270	3,369	8,443	4,986	3,443	837	646	15,424	13,802
Undrawn commitments to lend	1,239	1,297	3,891	4,932	21,987	19,699	1,663	649	28,780	26,577
Other commitments and guarantees	729	961	1,216	1,853	391	1,494	24	29	2,360	4,337
Total commitments and guarantees	**8,200**	**3,528**	**8,476**	**15,228**	**27,364**	**24,636**	**2,524**	**1,324**	**46,564**	**44,716**

21. Risk management (continued)

21.4. Liquidity Risk (continued)

Risk exposure (continued)

Analysis of encumbered and un-encumbered assets

This table summarises encumbered and un-encumbered assets by asset categories.

	Encumbered		Un-Encumbered		Total	
Assets as at 31 December	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**	**2022**	**2021 (Restated)**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**
Cash and cash equivalents	1,352	1,118	31,559	26,364	32,911	27,482
Equity Instruments	—	—	170	138	170	138
Investment Securities & Debt Trading Instruments	10,412	2,419	7,047	7,523	17,459	9,942
– of which: covered bonds	—	—	—	—	—	—
– of which: asset-backed securities	—	—	—	—	—	—
– of which: by general governments	10,412	2,301	6,639	7,189	17,051	9,490
– of which: by financial corporations	—	118	400	309	400	427
– of which: by non-financial corporations	—	—	3	1	3	1
– of which: securitisations	—	—	5	24	5	—
Loans and advances	131	17	45,501	34,159	45,632	34,176
Other Assets*	5,791	4,805	27,324	15,716	33,115	20,521
Assets subtotal	17,686	8,359	111,601	83,900	129,287	92,259

*Restated for prior year adjustment, as detailed in Note 38

21.5. Operational Risk

Definition

Operational risk is the risk of loss resulting from inadequate or failed internal processes, human factors or systems or from external events. It includes reputational and franchise risk associated with business practices or market conduct that the Company undertakes. It also includes legal risk - which is the risk of loss (including litigation costs, settlements, and regulatory fines) resulting from the failure of the bank to comply with laws, regulations, prudent ethical standards, and contractual obligations in any aspect of the bank's business - but excludes strategic and reputation risks. The Company also recognises the impact of Operational Risk on the reputation risk associated with its business activities.

Operational Risk Management (ORM), operating within the second line of defence, proactively assists the businesses, operations, technology and other functions in 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 the Company businesses, the markets in which it operates, its capital and liquidity, and the competitive, economic and regulatory environment.

21. Risk management (continued)

21.5. Operational Risk (continued)

Governance and Organisation

The Operational Risk Management Framework, approved by Board provides a holistic outline of how operational risk is managed, establishes standards for measuring, managing, monitoring and controlling operational risk in the Company and sets responsibilities across the lines of defence. As documented in the Operational Risk Management Framework, the following committees perform an oversight role for operational risk related items:

- Board of Directors
- Board Risk Committee
- Audit Committee
- Risk Management Committee
- Business Risk Controls Committee

The CEP BRCC is responsible for reviewing and monitoring CEP's operational risk profile, material operational risks, significant events and new and emerging risks while promoting a culture of risk awareness and high standards of culture and conduct across CEP.

CEP Risk Management monitor the Operational risk profile on an ongoing basis and ensure detailed reports are sent to the BRCC, the Audit Committee and the BRC/Board on the Operational risk profile which also outline adherence to agreed limits.

Risk Measurement

To anticipate, mitigate and control operational risk, the Company 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.

The Operational Risk Management framework comprises components to identify, assess and manage operational risk:

- Annual risk assessment
- Manager`s Control Assessment (MCA) independent challenge
- Operational risk scenario analysis
- Capture of operational risk event data
- Formal assurance programme
- Issue/corrective action planning

Manager`s Control Assessment (MCA) is a diagnostic tool used in the management of operational risks as a key component of the Business Environment and Internal Control Factors (BEICFs) required under Basel capital standards. It uses input of the components of the Operational Risk Management Framework to provide an overall view of the operational risk profile of an entity be that a business, country or legal entity view.

21. Risk management (continued)

21.5. Operational Risk (continued)

The Company's Operational Risk Management Framework relies on strong governance, with clearly defined roles and responsibilities.

The following committees are responsible for operational risk at Company level:

- Risk Committee: Has oversight of the prospective aspects of operational risk, including, but not limited to parameters of the Operational Risk Management Framework, the operational risk capital model and the operational risk component of internal capital adequacy approval process.
- Audit Committee: Has oversight of operational risk, including the individual operational losses, the causes and remedies.
- Business Risk and Controls Committee (BRCC): is the principal forum maintaining oversight over the adequacy and effectiveness of the Operational Risk Management Framework and associated standards towards the anticipation and mitigation of operational risks.

The Head of Operational Risk reports directly to the Company's CRO and is responsible for second line of defence oversight and management of operational risk.

Operational Risk comprises of a number of sub-risks including Third Party Management risk (TPM), Supply Chain risk and Cyber Security risk.

Third Party Management risk (TPM)

Third Party Management risk (TPM) including Supply Chain risk involves the management and mitigation of risks associated with the use of third parties that provide products and services to the Company.

The Company utilises third parties in many ways to achieve its strategic goals. This utilisation does not diminish the Company's responsibility to ensure that all third-party activity is conducted in a safe and sound manner and in compliance with applicable laws, rules, regulations, policies and standards of conduct.

As documented in the Operational Risk Management Framework, the following committees perform an oversight role for third-party risk at Company level:

- CEP Outsourcing Committee
- CEP Business Risk and Control Committee (BRCC)
- Executive Committee

21. Risk management (continued)

21.5. Operational Risk (continued)

Cyber Security Risk (Incl. information security)

Cybersecurity risk is defined as "the risk to organisational operations (including mission, functions, image, reputation), organisational assets, individuals, other organisations, and the Nation due to the potential for unauthorised access, use, disclosure, disruption, modification, or destruction of information and/or information systems."

As documented in the Operational Risk Management Framework, the following committees perform an oversight role for cyber security risk at Company level:

- Technology Oversight Committee (TOC)
- CEP Business Risk and Control Committee (BRCC)
- Executive Committee

The Company's TOC is responsible for reviewing and monitoring CEP's cyber risk profile, material operational risks, significant events and new and emerging risks while promoting a culture of risk awareness and high standards of culture and conduct across CEP.

21.6. Strategic risk

Definition

Strategic risk is defined as the risk of a sustained impact (not episodic impact) to the firm's core strategic objectives as measured by impacts on anticipated earnings, market capitalisation, or capital, arising from the external factors affecting the firm's operating environment; as well as the risks associated with defining the strategy and executing the strategy.

Governance and Organisation

The Risk Management Framework is the overarching risk governance framework in CEP and is based on sound principles of good risk governance and management taking into account guidance issued by regulatory authorities and best practice standards. The Framework outlines the risk governance structure in CEP and is based on a lines of defence model, the core governance processes of the bank and the roles and responsibilities of those involved in their delivery and oversight. As part of the Risk Management Framework, the following committees and their sub-committees perform an oversight role for strategic risk related items:

- Board Risk Committee
- Executive Committee

The Executive Committee oversees the implementation of the strategic objectives, business strategy financial plan and operating plan set by the Board and the ongoing business activities of the branches. In addition, the Executive Committee ensures that appropriate risk considerations are incorporated into the strategic planning process and recommends the Strategic Plan to the Board for approval. The Board Risk Committee is tasked with overseeing the assessment of the Strategic Plan by Enterprise Governance and Risk Management. The Board ultimately reviews and approves the Strategic Plan.

The Head of Enterprise Governance and Risk Management reports directly to the Chief Risk Officer and is responsible for leading the second line independent risk review and challenge of the Strategic Plan prior to submission to the Executive Committee and the Board.

21. Risk management (continued)

21.6. Strategic risk (continued)

Risk measurement

CEP manages Strategic Risk through the development of a three-year Strategic Plan which is reviewed and Board-approved annually. The plan articulates CEP's strategy with respect to target markets and clients and includes an outlook on the global economy, an overview of the evolving regulatory environment, and a view on the competitive landscape. The Strategic Plan additionally provides an overview of CEP's statement of financial position and risk management and control strategies, as well as individual business strategies and financial projections. The information contained in this Plan informs CEP's updated risk appetite statement, and the financial projections form the base case scenario for CEP's ICAAP and ILAAP.

Strategic risk is considered in both ICAAP and ILAAP using stressed scenarios under events such as trade wars and climate change. CEP has defined stress scenarios incorporating macroeconomic and financial market stresses, as well as stressed operational and strategic risk considerations, to calculate potential losses for CEP during stressed macroeconomic conditions.

21.7. Inter-Affiliate Risk

Definition

Inter-Affiliate Risk is driven by inter-affiliate exposures and funding and can materialise as either operational risk (including execution risk), credit risk or liquidity risk. It arises in many of the Company's business activities, including:

- Management of currency balances between CEP and CBNA London / New York;
- Reverse repos under which CEP borrows highly liquid assets from CBNA; and
- Placement of CEP's surplus liquidity with CBNA London / New York or other affiliates.

Governance and Organisation

The operational, credit and liquidity risk impacts of Inter-Affiliate Risk are managed in line with the applicable frameworks, policies and standards for these risk types with specific limits set and monitored for inter-affiliate transactions.

Risk measurement

Inter-Affiliate Risk's components credit and liquidity risk are measured using the methodologies outlined.

The CEP strategies and controls used to manage and mitigate inter-affiliate risk include:

- Collateral arrangements with appropriate collateral haircuts and daily margining
- Intercompany Limits in CEP's risk appetite statement

From a credit risk perspective, an annual credit analysis of Citibank N.A. and relevant affiliates is undertaken and presented to the appropriate committees for approval. Limits exist for Citibank N.A. and all other affiliates separately. In addition, a limit for the daily intraday overdraft utilisation from Citibank N.A. is in place.

From a liquidity perspective, a risk appetite metric to monitor CEP's dependency on intercompany funding is included under risk appetite statement monitoring. This metric measures available stable intercompany funding as a proportion of overall Available Stable Funding aligned to regulatory definitions of stable funding.

21. Risk management (continued)

21.8. Reputational Risk

Definition

Reputational Risk is the risk of a threat or danger to the good name or standing of the entity vis- à-vis customers, shareholders or other stakeholders. Reputational Risk is a consequence of other risks, however, in recognition of the potential significant impact on CEP, this risk is monitored separately. This risk may impair CEP’s competitiveness by affecting its ability to establish new relationships or services or continue servicing existing relationships. It arises directly from how we conduct our business and can impact how key stakeholders, such as customers or clients, employees, regulators, shareholders or other stakeholders view the integrity of the Bank. External economic, industry, market, competitive, regulatory or legislative pressures can also contribute to reputational risk. Reputational risk can occur even when all actions are legal and in accordance with all policies, processes and current practices.

Governance and Organisation

CEP`s Executive Committee has direct oversight of reputational risk in CEP. All product lines and functions are responsible for identifying and managing material reputational risks and for promptly escalating concerns to CEP`s Executive Committee.

Risk measurement

Key risk identification, escalation and reporting processes include, but are not limited to:

- Regulatory Inventory and Regulatory Change Management
- Policies, Procedures and Controls
- Training
- Manager’s Control Assessments

In addition to the above, the second line of defence in CEP completes oversight of reputational risk through various activities including, but not limited to:

- Regular measurement of:
  - adherence to CEPs quantitative risk appetite statement
  - qualitative reputational risk key indicators
- Challenge the potential reputational risk implications of new, expanded or modified businesses, products or services and strategic initiatives through the New Activity Committee.
- Providing senior management and the Board of Directors with an independent view of the firm’s reputational risk profile, as part of the periodic reporting cycle.

21. Risk management (continued)

21.9. Capital management

The Company's Regulator sets and monitors capital requirements for the Company.

In implementing current capital requirements, the Regulator requires the Company to maintain a prescribed ratio of total capital to risk weighted assets.

The Company's policy is to maintain a strong capital base so as to maintain investor, creditor and customer confidence and to sustain future development of the business. The impact of the level of capital on shareholders' return is also recognised and the need to maintain a balance between the higher returns that might be possible with greater gearing and the advantages and security afforded by a sound capital position.

The Company is required by the Regulator to maintain adequate capital and the Company is subject to the risk of having insufficient capital resources to meet minimum regulatory capital requirements. The Company's minimum capital requirement is calculated in accordance with CRDIV regulatory capital requirements. The Company has complied with its capital requirements throughout the period.

For further details, please refer to the Directors Report – 'Capital Management'

22. Reserves

The nature of the reserve balances presented in the statement of changes in equity are described below:

Translation reserve

The translation reserve represents the cumulative gains and losses on the translation of the Company's net investment in its foreign operations, excluding any ineffectiveness, of investment hedge derivatives. Gains and losses accumulated in this reserve are reclassified to the income statement when the Company loses control, joint control or significant influence over the foreign operation or on disposal or partial disposal of the operation.

Fair value reserve

The fair value reserve represents the cumulative net change in the fair value of the financial instruments measured as FVOCI on statement of financial position until the assets are derecognised or reclassified.

Equity reserve

The equity reserve represents amounts expensed in the income statement in connection with share based payments, net of transfers to retained earnings on the exercise, lapsing or forfeiting of share awards.

Capital reserve

The capital reserve represents capital contributions received from parent companies. In 2022, the Company received $1,700 million capital contribution from its parent company (2021: $nil).

Merger reserve

The merger reserve represents the difference between the fair value and book value and any transferred over reserve balances from the merger and capital transactions.

23. Financial assets and liabilities

The below tables outline the total financial assets and liabilities held as at 31 December 2022 and as at 31 December 2021.

	31 December 2022	31 December 2021 (Restated)
	$m	$m
Derivative financial instruments	22,347	13,126
Trading assets	9,895	4,443
Investment securities at FVTPL	170	138
Reverse Repurchase agreements designated at FVTPL	10,274	—
Other loans designated at FVTPL	602	1,011
Total financial assets held at FVTPL	**43,289**	**18,718**
Investment securities at FVOCI	8,902	7,387
Total financial assets held at FVOCI	**8,902**	**7,387**
Cash and cash equivalents	32,911	27,482
Loans and advances to banks at amortised cost	13,472	11,035
Loans and advances to customers at amortised cost	19,944	20,242
Other assets*	10,183	6,841
Total financial assets at amortised cost	**76,510**	**65,600**
Total financial assets	**128,701**	**91,705**

	31 December 2022	31 December 2021 (Restated)
	$m	$m
Derivative financial instruments	22,844	14,429
Repurchase agreements designated at FVTPL	4,481	—
Short sales held at FVTPL	13,514	2,118
Other financial liabilities held at FVTPL*	—	4
Total financial liabilities held at fair value	**40,839**	**16,551**
Deposits by banks	8,858	11,148
Customer accounts	49,072	38,977
Other liabilities excluding liabilities at FVTPL	16,247	9,046
Subordinated liabilities	4,455	4,773
Total financial liabilities at amortised cost	**78,632**	**63,944**
Total financial liabilities	**119,471**	**80,495**

*Restated for prior year adjustment, as detailed in Note 38

23. Financial assets and liabilities (continued)

Fair value measurement

IFRS 13 - *Fair Value Measurement*, defines fair value, establishes a consistent framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, and therefore represents an exit price. Among other things, the standard requires the Company to maximise the use of observable inputs and minimise the use of unobservable inputs when measuring fair value. Under IFRS 13, the probability of counterparty default is factored into the valuation of derivative and other positions, and the impact of Company's own credit risk is also factored into the valuation of derivatives and other liabilities that are measured at fair value.

Fair value hierarchy

IFRS 13 specifies a hierarchy of inputs based on whether the inputs are observable or unobservable. Observable inputs are developed using market data and reflect market participant assumptions, while unobservable inputs reflect the Company's market assumptions.

These two types of inputs have created the following fair value hierarchy:

- Level 1: Quoted prices for *identical* instruments in active markets.
- Level 2: Quoted prices for *similar* instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are *observable* in the markets.
- Level 3: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are *unobservable*.

As required under the fair value hierarchy, the Company considers relevant and observable market inputs in its valuations where possible. The fair value hierarchy classification approach typically utilises rules-based and data driven selection criteria to determine whether an instrument is classified as Level 1, Level 2, or Level 3:

- The determination of whether an instrument is quoted in an active market and therefore considered a Level 1 instrument is based upon the frequency of observed transactions and the quality of independent market data available on the measurement date.
- A Level 2 classification is assigned where there is observability of prices / market inputs to models, or where any unobservable inputs are not significant to the valuation. The determination of whether an input is considered observable is based on the availability of independent market data and its corroboration, for example through observed transactions in the market.
- Otherwise, an instrument is classified as Level 3.

23. Financial assets and liabilities (continued)

Determination of fair value

For assets and liabilities carried at fair value, the Company measures fair value using the procedures set out below, irrespective of whether the assets and liabilities are measured at fair value as a result of an election.

When available, the Company uses quoted market prices from active markets to determine fair value and classifies such items as Level 1. In some specific cases where a market price is available, the Company will apply practical expedients (such as matrix pricing) to calculate fair value, in which case the items may be classified as Level 2.

The Company may also apply a price-based methodology that utilises, where available, quoted prices or other market information obtained from recent trading activity in positions with the same or similar characteristics to the position being valued. If relevant and observable prices are available, those valuations may be classified as Level 2. However, when there are one or more significant unobservable "price" inputs, those valuations will be classified as Level 3. Furthermore, when a quoted price is considered stale, a significant adjustment to the price of a similar security may be necessary to reflect differences in the terms of the actual security or loan being valued, or alternatively, when prices from independent sources may be insufficient to corroborate a valuation, the "price" inputs are considered unobservable and the fair value measurements are classified as Level 3.

If quoted market prices are not available, fair value is based upon internally developed valuation techniques that use, where possible, current market-based parameters, such as interest rates, currency rates and option volatilities. Items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified as Level 3 even though there may be some significant inputs that are readily observable.

Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors or brokers. Vendors' and brokers' valuations may be based on a variety of inputs ranging from observed prices to proprietary valuation models, and the Company assesses the quality and relevance of this information in determining the estimate of fair value. The following section describes the valuation methodologies used by the Company to measure various financial instruments at fair value. Where appropriate, the description includes details of the valuation models, the key inputs to those models and any significant assumptions.

Market Valuation Adjustments

Generally, the unit of account for a financial instrument is the individual financial instrument. The Company applies market valuation adjustments that are consistent with the unit of account, which does not include adjustment due to the size of the Company's position, except as follows. Portfolio Exception (IFRS 13) permits an entity to measure the fair value of a group of financial assets and financial liabilities with offsetting risk on the basis of the price that would be received to sell or transfer the net open risk position (i.e. on a portfolio basis), in line with how positions are risk managed. Citi has elected to measure certain portfolios of financial instruments that meet those criteria, such as derivatives, on the basis of the net open risk position. The Company applies market valuation adjustments, including adjustments to account for the size of the net open risk position, consistent with market participant assumptions.

Valuation adjustments are applied to items classified as Level 2 or Level 3 in the fair value hierarchy to ensure that the fair value reflects the price at which the net open risk position could be exited. These valuation adjustments are based on the bid/offer spread for an instrument in the market. When Citi has elected to measure certain portfolios of financial investments, such as derivatives, on the basis of the net open risk position, the valuation adjustment may take into account the size of the position.

23. Financial assets and liabilities (continued)

Market Valuation Adjustments (continued)

Credit valuation adjustments (CVA) and funding valuation adjustments (FVA) are applied to the relevant population of over-the-counter (OTC) derivative instruments where adjustments to reflect counterparty credit risk, own credit risk and term funding risk are required to estimate fair value. This principally includes derivatives with a base valuation (e.g., discounted using overnight indexed swap (OIS)) requiring adjustment for these effects, such as uncollateralised interest rate swaps. The CVA represents a portfolio-level adjustment to reflect the risk premium associated with the counterparty's (assets) or the Company'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. The Company'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. The Company's CVA and FVA methodologies consist of two steps:

- First, the exposure profile for each counterparty is determined using the terms of all individual derivative positions and a Monte Carlo simulation or other quantitative analysis to generate a series of expected cash flows at future points in time. The calculation of this exposure profile considers the effect of credit risk mitigants and sources of funding, including pledged cash or other collateral and any legal right of offset that exists with a counterparty through arrangements such as netting agreements. Individual derivative contracts that are subject to an enforceable master netting agreement with a counterparty are aggregated as a netting set for this purpose, since it is those aggregate net cash flows that are subject to non-performance risk. This process identifies specific, point-in-time future cash flows that are subject to non-performance and term funding risk, rather than using the current recognised net asset or liability as a basis to measure the CVA and FVA.
- Second, for CVA, market-based views of default probabilities derived from observed credit spreads in the credit default swap (CDS) market are applied to the expected future cash flows determined in step one. Citi's own credit CVA is determined using Citi-specific CDS spreads for the relevant tenor. Generally, counterparty CVA is determined using CDS spread indices for each credit rating and tenor. For certain identified netting sets where individual analysis is practicable (e.g., exposures to counterparties with liquid CDSs), counterparty-specific CDS spreads are used. For FVA, a term structure of spreads is applied to the expected funding exposures (e.g., the market liquidity spread used to represent the term funding premium associated with certain OTC derivatives).

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

During 2022, the Company recorded CVA loss of $11.5 million (2021: loss of $5.1 million) and FVA loss of $3.2 million (2021: gain of $3.9 million).

23. Financial assets and liabilities (continued)

Securities Purchased Under Agreements to Resell and Securities Sold Under Agreements to Repurchase

No quoted prices exist for these instruments, since fair value is determined using a discounted cash flow technique. Cash flows are estimated based on the terms of the contract, taking into account any embedded derivative or other features. These cash flows are discounted using interest rates appropriate to the maturity of the instrument as well as the nature of the underlying collateral. Generally, when such instruments are recorded at fair value, they are classified within Level 2 of the fair value hierarchy, as the inputs used in the valuation are readily observable. However, certain long-dated positions are classified within Level 3 of the fair value hierarchy.

Trading Account Assets and Liabilities - Trading Securities and Trading Loans

When available, the Company uses quoted market prices in active markets to determine the fair value of trading securities; such items are classified as Level 1 of the fair value hierarchy. Examples include government securities and exchange-traded equity securities.

For bonds and secondary market loans traded over the counter, the Company generally determines fair value utilising various valuation techniques, including discounted cash flows, price-based and internal models. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors.

A price-based methodology utilises, where available, quoted prices or other market information obtained from recent trading activity of assets with similar characteristics to the bond or loan being valued. The yields used in discounted cash flow models are derived from the same price information. Trading securities and loans priced using such methods are generally classified as Level 2. However, when the primary inputs to the valuation are unobservable, or prices from independent sources are insufficient to corroborate valuation, a loan or security is generally classified as Level 3. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third party vendors.

When the Company's principal exit market for a portfolio of loans is through securitisation, the Company uses the securitisation price as a key input into the fair value of the loan portfolio. The securitisation price is determined from the assumed proceeds of a hypothetical securitisation within the current market environment. Where such a price verification is possible, loan portfolios are typically classified as Level 2 in the fair value hierarchy.

For most of the subprime mortgage backed security (MBS) exposures, fair value is determined utilising observable transactions where available, or other valuation techniques such as discounted cash flow analysis utilizing valuation assumptions derived from similar, more observable securities as market proxies. The valuation of certain asset-backed security (ABS) CDO positions is inferred through the net asset value of the underlying assets of the ABS CDO.

23. Financial assets and liabilities (continued)

Trading Account Assets and Liabilities—Derivatives

Exchange-traded derivatives, measured at fair value using quoted (i.e., exchange) prices in active markets, where available, are classified as Level 1 of the fair value hierarchy.

Derivatives without a quoted price in an active market and derivatives executed over the counter are valued using internal valuation techniques. These derivative instruments are classified as either Level 2 or Level 3 depending on the observability of the significant inputs to the model.

The valuation techniques depend on the type of derivative and the nature of the underlying instrument. The principal techniques used to value these instruments are discounted cash flows and internal models, such as derivative pricing models (e.g., Black-Scholes and Monte Carlo simulations).

The key inputs depend upon the type of derivative and the nature of the underlying instrument and include interest rate yield curves, foreign exchange rates, volatilities, and correlation.

Investments

The investments category includes FVOCI debt and FVTPL equity securities whose fair values are generally determined by utilizing similar procedures described for trading securities above or, in some cases, using vendor pricing as the primary source.

Also included in investments are non-public investments in private equity and real estate entities. Determining the fair value of non-public securities involves a significant degree of management’s judgment, as no quoted prices exist and such securities are not generally traded. In addition, there may be transfer restrictions on private equity securities. The Company’s process for determining the fair value of such securities utilises commonly accepted valuation techniques, including guideline public company analysis and comparable transactions. In determining the fair value of non-public securities, the Company also considers events such as a proposed sale of the investee company, initial public offerings, equity issuances or other observable transactions. Private equity securities are generally classified as Level 3 of the fair value hierarchy.

In addition, the Company holds investments in certain alternative investment funds that calculate NAV per share, including hedge funds, private equity funds and real estate funds. Investments in funds are generally classified as nonmarketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV per share of the Company’s ownership interest in the funds where it is not probable that the investment will be realised at a price other than the NAV.

23. Financial assets and liabilities (continued)

Financial instruments at fair value

The following table shows an analysis of financial instruments recorded at fair value by level of the fair value hierarchy:

	Fair value at 31 December 2022				Fair value at 31 December 2021			
	Level 1	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
Financial assets								
Derivative financial instruments	1	22,274	72	22,347	1	12,931	194	13,126
Trading assets	8,457	1,279	159	9,895	2,418	1,947	78	4,443
Investment securities	8,277	650	145	9,072	6,895	492	138	7,525
Reverse Repurchase agreements designated at FVTPL	—	10,274	—	10,274	—	—	—	—
Other loans designated at FVTPL	—	208	394	602	—	917	94	1,011
Financial assets held at fair value	**16,735**	**34,685**	**770**	**52,190**	**9,314**	**16,287**	**504**	**26,105**
Financial liabilities								
Derivative financial instruments	1	22,436	407	22,844	—	14,239	190	14,429
Repurchase agreements designated at FVTPL	—	4,481	—	4,481	—	—	—	—
Short sales held at FVTPL and other financial liabilities held at FVTPL	13,522	(8)	—	13,514	1,214	909	—	2,122
Financial liabilities held at fair value	**13,523**	**26,909**	**407**	**40,839**	**1,214**	**15,148**	**190**	**16,552**

Loans held at fair value through profit or loss, totalling $602 million (2021: $1,010 million) are included in the statement of financial position within loans and advances to customers.

23. Financial assets and liabilities (continued)

Changes in Level 3 Fair Value Category

The following tables present the changes in the Level 3 fair value category for the years ended 31 December 2022 and 2021. The gains and losses presented below include changes in the fair value related to both observable and unobservable inputs.

The Company often hedges positions with offsetting positions that are classified in a different level. For example, the gains and losses for assets and liabilities in the Level 3 category presented in the tables below do not reflect the effect of offsetting losses and gains on hedging instruments that may be classified in the Level 1 and Level 2 categories. In addition, the Company hedges items classified in the Level 3 category with instruments also classified in Level 3 of the fair value hierarchy. The hedged items and related hedges are presented gross in the following tables:

	31 December 2022						31 December 2021					
	Derivative financial assets	**Trading assets**	**Investment securities**	**Loans held at fair value through profit/ loss**	**Derivative financial liabilities**	**Total**	**Derivative financial assets**	**Trading assets**	**Investment securities**	**Loans held at fair value through profit/ loss**	**Derivative financial liabilities**	**Total**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
Balance at 1 January	194	78	138	94	(191)	313	485	84	98	—	(487)	180
Reclassified from Trading assets to loans at FVTPL	—	—	—	—	—	—	—	(45)	—	45	—	—
Purchases	—	275	—	—	(1)	274	2	25	—	37	—	64
Issues	—	—	—	54	—	54	—	—	—	—	—	—
Sales	—	(199)	—	(94)	—	(293)	—	(19)	—	—	—	(19)
Settlements	(121)	—	—	—	82	(39)	7	—	—	—	(5)	2
Transfer into Level 3	90	205	—	334	(423)	206	94	—	—	12	(95)	11
Transfer out of Level 3	(215)	(119)	—	—	217	(117)	(129)	—	—	—	132	3
Total gains/ (losses)												
– in Profit or loss	124	(81)	7	6	(91)	(35)	(265)	33	40	—	264	72
– in OCI	—	—	—	—	—	—	—	—	—	—	—	—
Balance at 31 December	**72**	**159**	**145**	**394**	**(407)**	**363**	**194**	**78**	**138**	**94**	**(191)**	**313**

23. Financial assets and liabilities (continued)

Changes in Level 3 Fair Value Category (continued)

Total gains or losses for the year are presented in the income statement as follows:

	2022						2021					
	Derivative financial assets	**Trading assets**	**Investment securities**	**Loans held at fair value through profit/ loss**	**Derivative financial liabilities**	**Total**	**Derivative financial assets**	**Trading assets**	**Loans held at fair value through profit/ loss**	**Investment securities**	**Derivative financial liabilities**	**Total**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
Total gains/ (losses)	124	(81)	7	6	(91)	(35)	(265)	33	—	40	264	72
Realised gains and losses												
- Net trading income	26	(90)	—	—	8	(56)	(279)	34	—	—	278	33
- Net investment income	—	—	—	—	—	—	—	—	—	—	—	—
Unrealised gains and losses												
- Net trading income	98	9	—	—	(99)	8	14	(1)	—	—	(14)	(1)
- Net investment income	—	—	7	—	—	7	—	—	—	40	—	40
- Net income from other financial instruments designated at FVTPL	—	—	—	6	—	6	—	—	—	—	—	—
Total	**124**	**(81)**	**7**	**6**	**(91)**	**(35)**	**(265)**	**33**	—	**40**	**264**	**72**

During the 12 months ended 31 December 2022, transfers of Margin Loan of $0.3 billion asset and Equity Derivatives of $0.3 billion liability from Level 2 to Level 3 was due to decreased observability on Volatility and Forward. Transfers of Corporate Loans into/out of L3 was due to change in observability and pricing uncertainty became more/less significant relative to the overall valuation.

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

The Company's Level 3 inventory consists of both cash instruments and derivatives of varying complexity.

The following tables present the valuation techniques covering the majority of Level 3 inventory and the most significant unobservable inputs used in Level 3 fair value measurements. Differences between this table and amounts presented in the Level 3 Fair Value Rollforward table represent individually immaterial items that have been measured using a variety of valuation techniques other than those listed.

23. Financial assets and liabilities (continued)

2022	**Fair value $m**	**Methodology**	**Input**	**Low**	**High**
Assets					
		Model-based	Credit Spread (basis point)	24.8	320.4
		Model-based	Inflation Volatility %	0.48	2.77
		Model-based	Yield %	-0.5	1.53
		Model-based	FX Volatility %	2	40
Derivative contracts	72	Model-based	IR basis %	-4.23	9.68
		Model-based	IR Normal Volatility %	0.33	112.51
		Price-based	Price $	100.12	102.49
		Model-based	Recovery Rate %	40	40
Trading assets	159	Price-based	Price ($)	0.01	100.0
		Model-based	Equity Volatility %	0.05	300.72
Loans held at fair value through profit/loss	394	Model-based	Equity Forward %	68.34	271.61
		Price-based	Price $	0.00	110.00
Investment equity securities	145	Price-based	Discount to price %	27.00	28.00
		Comparables Analysis	PE Ratio	15.7	15.70
	–	Comparables Analysis	EBITDA Multiples	17.1	17.10
		Comparables Analysis	PE Ratio	15.2	15.20
Liabilities					
		Model-based	Credit Spread (basis point)	24.83	246.9
		Model-based	Recovery Rate %	40	40
		Model-based	Upfront Points %	8.53	8.53
		Price-based	Price $	100	100.21
Derivative contracts	407	Model-based	FX Volatility %	2	40
		Model-based	IR basis %	-4.23	9.68
		Model-based	Yield %	-0.5	1.53
		Model-based	IR Normal Volatility %	0.33	112.51
		Model-based	Inflation Volatility %	0.48	2.77
		Model-based	Equity Volatility %	0.05	300.72
		Model-based	Equity Forward %	68.34	271.61

23. Financial assets and liabilities (continued)

2021 Assets	Fair value $m	Methodology	Input	Low	High
		Model-based	Credit Spread (basis point)	81.0	318.8
		Model-based	Forward Price %	8.0	599.4
		Model-based	Yield %	—	1.5
		Model-based	FX Volatility %	2.1	107.4
Derivative contracts	194	Model-based	IR basis %	(4.6)	10.4
		Model-based	IR Normal Volatility %	0.2	0.9
		Price-based	Price $	101.5	101.5
		Model-based	Recovery Rate %	25.0	40.0
		Model-based	Commodity Volatility %	10.9	188.3
		Model-based	Commodity Correlation %	(50.5)	89.8
		Model-based	Equity Forward %	58.0	165.8
Trading assets	78	Price-based	Price ($)		109.8
Loans held at fair value through profit/loss	94	Price-based	Price ($)	91.0	99.3
Investment equity securities	138	Price-based	Market Price of Common Stock; conversion factor from investor relations publication and liquidity discount	No discount for conversion ratio	100% liquidity discount
		Comparable	Price Earning Ratio	11	20.6
		Analysis	Discount for lack of Marketability %	34	36
Liabilities					
		Model-based	Credit Spread (basis point)	41.6	100.0
		Model-based	Price $	96.6	99.7
		Model-based	FX Volatility %	2.1	107.4
		Model-based	Yield %	—	1.5
Derivative contracts	191	Model-based	IR basis %	(4.6)	10.4
		Model-based	IR Normal Volatility %	0.2	0.9
		Model-based	Recovery Rate %	25.0	40.0

Uncertainty of Fair Value Measurements Relating to Unobservable Inputs

Valuation uncertainty arises when there is insufficient or disperse market data to allow a precise determination of the exit value of a fair-valued position or portfolio in today's market. This is especially prevalent in Level 3 fair value instruments, where uncertainty exists in valuation inputs that may be both unobservable and significant to the instrument's (or portfolio's) overall fair value measurement.

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

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

23. Financial assets and liabilities (continued)

Uncertainty of Fair Value Measurements Relating to Unobservable Inputs (continued)

Correlation

Correlation is a measure of the extent to which two or more variables change in relation to each other. A variety of correlation-related assumptions are required for a wide range of instruments, including equity and credit baskets, foreign exchange options, Credit Index Tranches and many other instruments.

For almost all of these instruments, correlations are not directly observable in the market and must be calculated using alternative sources, including historical information. Estimating correlation can be especially difficult where it may vary over time, and calculating correlation information from market data requires significant assumptions regarding the informational efficiency of the market (e.g., swaption markets).

Uncertainty therefore exists when an estimate of the appropriate level of correlation as an input into some fair value measurements is required. Changes in correlation levels can have a substantial impact, favorable or unfavorable, on the value of an instrument, depending on its nature. A change in the default correlation of the fair value of the underlying bonds comprising a CDO structure would affect the fair value of the senior tranche. For example, an increase in the default correlation of the underlying bonds would reduce the fair value of the senior tranche, because highly correlated instruments produce greater losses in the event of default and a portion of these losses would become attributable to the senior tranche. That same change in default correlation would have a different impact on junior tranches of the same structure.

Volatility

Volatility represents the speed and severity of market price changes and is a key factor in pricing options. Volatility generally depends on the tenor of the underlying instrument and the strike price or level defined in the contract. Volatilities for certain combinations of tenor and strike are not observable and need to be estimated using alternative methods, such as comparable instruments, historical analysis or other sources of market information. This leads to uncertainty around the final fair value measurement of instruments with unobservable volatilities.

The general relationship between changes in the value of an instrument (or a portfolio) to changes in volatility also depends on changes in interest rates and the level of the underlying index. Generally, long option positions (assets) benefit from increases in volatility, whereas short option positions (liabilities) will suffer losses. Some instruments are more sensitive to changes in volatility than others. For example, an at-the-money option would experience a greater percentage change in its fair value than a deep-in-the-money option. In addition, the fair value of an option with more than one underlying security (e.g., an option on a basket of equities) depends on the volatility of the individual underlying securities as well as their correlations.

Yield

In some circumstances, the yield of an instrument is not observable in the market and must be estimated from historical data or from yields of similar securities. This estimated yield may need to be adjusted to capture the characteristics of the security being valued. Whenever the amount of the adjustment is significant to the value of the security, the fair value measurement is classified as Level 3. Adjusted yield is generally used to discount the projected future principal and interest cash flows on instruments, such as asset-backed securities. Adjusted yield is impacted by changes in the interest rate environment and relevant credit spreads.

23. Financial assets and liabilities (continued)

Uncertainty of Fair Value Measurements Relating to Unobservable Inputs (continued)

Prepayment

Voluntary unscheduled payments (prepayments) change the future cash flows for the investor and thereby change the fair value of the security. The effect of prepayments is more pronounced for residential mortgage-backed securities. Prepayment is generally negatively correlated with delinquency and interest rate. A combination of low prepayments and high delinquencies amplifies each input's negative impact on a mortgage securities' valuation. As prepayment speeds change, the weighted average life of the security changes, which impacts the valuation either positively or negatively, depending upon the nature of the security and the direction of the change in the weighted average life.

Recovery

Recovery is the proportion of the total outstanding balance of a bond or loan that is expected to be collected in a liquidation scenario. For many credit securities (e.g., commercial mortgage backed securities), the expected recovery amount of a defaulted property is typically unknown until a liquidation of the property is imminent.

The assumed recovery of a security may differ from its actual recovery that will be observable in the future. Generally, an increase in the recovery rate assumption increases the fair value of the security. An increase in loss severity, the inverse of the recovery rate, reduces the amount of principal available for distribution and, as a result, decreases the fair value of the security.

Credit Spread

Credit spread is a component of the security representing its credit quality. Credit spread reflects the market perception of changes in prepayment, delinquency and recovery rates, therefore capturing the impact of other variables on the fair value.

Changes in credit spread affect the fair value of securities differently depending on the characteristics and maturity profile of the security. For example, credit spread is a more significant driver of the fair value measurement of a high yield bond as compared to an investment grade bond. Generally, the credit spread for an investment grade bond is also more observable and less volatile than its high yield counterpart.

Sensitivity of Level 3 measurements

The implementation of valuation techniques involves a considerable degree of judgement. While the Company believes its estimates of fair value are appropriate, the use of different measurements or assumptions could lead to different fair values. The following table sets out the impact of using reasonably possible alternative assumptions in the valuation methodology at 31 December 2022 and 2021:

	2022 Level 3 Effect on income statement		2021 Level 3 Effect on income statement	
	Favourable $m	**Unfavourable $m**	**Favourable $m**	**Unfavourable $m**
Classes of financial assets				
Derivative financial assets	19	(19)	8	(8)
Investment securities - equity	17	(17)	24	(24)
Loans and advances to customers measured at FVTPL	36	(36)	10	(10)
Total	**72**	**(72)**	**42**	**(42)**
Classes of financial liabilities				
Derivative financial liabilities	19	(19)	9	(9)
Other financial liabilities measured at FVTPL	17	(17)	2	(2)
Total	**36**	**(36)**	**11**	**(11)**

23. Financial assets and liabilities (continued)

Estimated fair value of financial instruments not carried at fair value

Set out below, is a comparison by class of the carrying amounts and fair values of the Company's financial instruments that are not carried at fair value in the financial statements. This table does not include the fair values of non-financial assets and non-financial liabilities.

Other financial assets are primarily made up of receivables balances from the Company's treasury and trade solutions and markets and securities services businesses.

The following summarises the major methods and assumptions used in estimating the fair value of the financial assets and financial liabilities used in the tables on the next page:

- The fair value for loans and advances and other lending are estimated using internal valuation techniques such as discounted cash flow analysis. If available, the Company may also use quoted prices for recent trading activity of assets with similar characteristics to the loan being valued. In certain cases, the carrying value approximates fair value because the instruments are short term in nature or reprice frequently.
- Fair values of customer account, deposit liabilities, other assets and other liabilities are estimated using discounted cash flows, applying either market rates where practicable, or rates currently offered by the Company for deposits of similar remaining maturities. Where market rates are used no adjustment is made for counterparty credit spreads.
- The carrying amount of cash and balances at central bank is a reasonable approximation of fair value due to the short term nature of the balances.

The table below sets out the estimated fair value, at Level 1, 2 and 3 of those assets and liabilities not held at fair value in the statement of financial position.

	31 December 2022		Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
	$m	$m	$m	$m	$m
Assets					
Cash and cash equivalents	32,911	32,911	32,911	—	—
Loans and advances to banks	13,472	13,472	—	13,472	—
Loans and advances to customers	19,944	19,869	—	—	19,869
Other assets	10,183	10,183	—	—	10,183
Total financial assets	**76,510**	**76,435**	**32,911**	**13,472**	**30,052**
Liabilities					
Deposits by banks	8,858	8,814	—	8,814	—
Customer accounts	49,072	48,827	—	48,827	—
Subordinated liabilities	4,455	4,432	—	4,432	—
Other liabilities	16,247	16,166	—	7,646	8,520
Total financial liabilities	**78,632**	**78,239**	**—**	**69,719**	**8,520**

23. Financial assets and liabilities (continued)

Estimated fair value of financial instruments not carried at fair value (continued)

	31 December 2021 (Restated)		Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
	$m	$m	$m	$m	$m
Assets					
Cash and cash equivalents	27,482	27,482	27,482	—	—
Loans and advances to banks	11,035	11,035	—	11,035	—
Loans and advances to customers	20,242	20,234	—	—	20,234
Other assets*	6,841	6,841	—	—	6,841
Total financial assets	**65,600**	**65,592**	**27,482**	**11,035**	**27,075**
Liabilities					
Deposits from banks	11,148	11,116	—	11,116	—
Customer accounts	38,977	38,866	—	38,866	—
Subordinated liabilities	4,773	4,759	—	4,759	—
Other liabilities*	9,046	9,020	—	7,164	1,856
Total financial liabilities	**63,944**	**63,761**	**—**	**61,905**	**1,856**

*Restated for prior year adjustment, as detailed in Note 38

24. Property and equipment

Cost	**Right-of-use assets**		**Leasehold improvements**		**Vehicles, furniture and equipment**		**Total**	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
At 1 January	**112**	**97**	**75**	**74**	**91**	**90**	**278**	**261**
Additions	66	17	7	8	16	14	89	39
Acquisitions	—	—	2	—	1	—	3	—
Disposals	—	(9)	(2)	(2)	(1)	(6)	(3)	(17)
Write-offs	—	—	—	—	(2)	(2)	(2)	(2)
Foreign exchange	(4)	7	(5)	(5)	(10)	(5)	(19)	(3)
At 31 December	**174**	**112**	**77**	**75**	**95**	**91**	**346**	**278**

Depreciation	**Right-of-use assets**		**Leasehold improvements**		**Vehicles, furniture and equipment**		**Total**	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
At 1 January	**50**	**34**	**37**	**34**	**51**	**52**	**138**	**120**
Charged in year	20	20	7	7	12	13	39	40
Acquisitions	—	—	—	—	—	—	—	—
Disposals	—	(2)	(1)	(3)	(1)	(8)	(2)	(13)
Write-offs	—	—	—	—	(1)	(2)	(1)	(2)
Foreign exchange	2	(2)	(8)	(1)	(5)	(4)	(11)	(7)
At 31 December	**72**	**50**	**35**	**37**	**56**	**51**	**163**	**138**
Net carrying value	**102**	**62**	**42**	**38**	**39**	**40**	**183**	**140**

There were no capitalised borrowing costs related to the acquisition of property and equipment during the year (2021: $nil).

25. Intangible assets

Cost	Goodwill		Computer software		Other Intangibles		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
	$m	$m	$m	$m	$m	$m	$m	$m
At 1 January	**47**	**48**	**225**	**185**	**32**	**35**	**304**	**268**
Additions	—	—	25	42	—	—	25	42
Transfer In	—	—	—	—	—	—	—	—
Acquisitions	—	—	—	—	—	—	—	—
Transfer out	—	—	—	—	—	—	—	—
Disposals	—	—	—	(1)	—	—	—	(1)
Impairment	—	—	—	—	—	—	—	—
Foreign exchange	(2)	(1)	1	(1)	(2)	(3)	(3)	(5)
At 31 December	**45**	**47**	**251**	**225**	**30**	**32**	**326**	**304**

Amortisation and impairment losses	Goodwill		Computer software		Other Intangibles		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
	$m	$m	$m	$m	$m	$m	$m	$m
At 1 January	**27**	**27**	**138**	**110**	**30**	**31**	**195**	**168**
Additions	—	—	—	15	—	—	—	15
Amortisation	—	—	16	15	1	1	17	16
Acquisitions	—	—	—	—	—	—	—	—
Transfer out	—	—	—	—	—	—	—	—
Disposals	—	—	—	(1)	—	—	—	(1)
Impairment	—	—	(1)	—	—	—	(1)	—
Foreign exchange	—	—	—	(1)	(5)	(2)	(5)	(3)
At 31 December	**27**	**27**	**153**	**138**	**26**	**30**	**206**	**195**
Net carrying value	**18**	**20**	**98**	**87**	**4**	**2**	**120**	**109**

An intangible asset is impaired when its carrying amount exceeds its recoverable amount. When testing intangible assets for impairment, the Company will determine the recoverable amount of an asset or a cash-generating unit to be the higher of its fair value less costs of disposal and its value in use. The value in use amount is determined using a model based on the discounted cash flow method. The cash flow projections are based on business plans approved by management covering a five year period, or greater if deemed appropriate by management.

Goodwill was allocated to the Direct Custody and Clearing business and the Fund administration business. The cash flow projections in respect of the Direct Custody and Clearing business and Fund administration business cover a ten year period.

The cash flows used to estimate the operating profit projections reflect the current market assessment of the risk of the cash-generating units. Operating profit in the business plan, approved by management reflects the best estimate of future profits based on both historical experience and expected growth rates.

The discount rate used to estimate the cash flows is the SOFR (Secured Overnight Financing Rate). The key assumptions reflect past experience and consider external sources of information, and are detailed in the table below.

25. Intangible assets (continued)

There was no evidence of impairment arising from the review of the goodwill. A summary of the allocation of goodwill within the units is presented below:

	Goodwill		Growth rate		Discount rate	
Cash generating unit	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
Institutional Clients Group	**$m**	**$m**				
– Direct custody and clearing business	12	13	8%	8%	-3.438	-1.420
– Fund administration business	6	7	1 %	—	-3.438	—
Total	**18**	**20**				

The model is sensitive to changes in the growth rate. The growth rate is aligned to the cash generating units strategic plan.

Management believes that reasonable changes in key assumptions used to determine the recoverable amounts would not result in a material impairment.

26. Deferred tax

The movement on the deferred tax is as follows:

	Balances at 1 January 2022	Recognised in the Income statement	Recognised in statement of other comprehensive income	Balances at 31 December 2022
	$m	**$m**	**$m**	**$m**
Property, equipment and intangible assets	170	(44)	—	126
Investment securities at FVOCI	4	(1)	70	73
Pension and other retirement benefits	29	(5)	(16)	8
Allowances for expected credit losses	—	—	—	—
Tax loss carry-forward	45	(7)	—	38
Other temporary differences	12	4	—	16
FX Translation	(33)	—	10	(23)
Total Deferred Tax	227	(53)	64	238
– of which Deferred Tax Asset	247			255
– of which Deferred Tax Liability	20			17

	Balances at 1 January 2021	Recognised in the Income statement	Recognised in statement of other comprehensive income	Balances at 31 December 2021
	$m	**$m**	**$m**	**$m**
Property, equipment and intangible assets	169	1	—	170
Investment securities at FVOCI	(20)	—	24	4
Pension and other retirement benefits	33	—	(4)	29
Allowances for expected credit losses	6	(6)	—	—
Tax loss carry-forward	48	(3)	—	45
Other temporary differences	15	(3)	—	12
FX Translation	(22)	—	(11)	(33)
Total Deferred Tax	229	(11)	9	227
– of which Deferred Tax Asset	248			247
– of which Deferred Tax Liability	18			20

26. Deferred tax (continued)

Current tax asset of $14 million includes $9.7 million in relation to the Italian branch, $2.9 million in relation to the Luxembourg branch and $1.1 in relation to the Sweden branch for the year 2022.

27. Shares in subsidiaries

	31 December 2022 $m	31 December 2021 $m
Beginning of period	14	14
Disposal	—	—
End of period	**14**	**14**

The Company has an investment in the following subsidiary:

Name	Country of incorporation business	Nature of business	Year end	Registered office	Percentage ownership
CitiCapital Leasing (March) Limited	England	Lease finance	31 March	United Kingdom	100%

28. Subordinated liabilities

First call date	Currency	2022 $m	2021 $m	Interest Rate	Maturity Date
2021	GBP	**722**	809	0.98% + 5 years SONIA	6 December 2026
2021	EUR	**3,733**	3,964	0.99% + 7 years ESTR	31 October 2028

As at 31 December 2022, subordinated liabilities consists of $4,455 million (2021: $4,773 million) of subordinated loan borrowings from Citibank Holdings Ireland Limited. Interest expense incurred during the year with respect to subordinated loans and charged to the income statement amounted to $54 million (2021: $2 million).

The loan is subordinated to the claims of other creditors, pari passu with creditors in respect of other liabilities that have the lower ranking of claims that is referred to in Section 1428A(1)(c)(iii) of Companies Act 2014, but will rank ahead of the rights of the shareholders, and the holders of (or other creditors in respect of) Additional Tier 1 instruments and Tier 2 instruments.

The Company did not have any defaults of principal or interest or other breaches with respect to its subordinated liabilities during the year ended 31 December 2022 (2021: none).

29. Provisions

Provisions recorded for restructuring largely relate to termination benefits. Termination benefits are payable when employment is terminated before the normal retirement date or whenever an employee accepts voluntary redundancy in exchange for these benefits.

Provision for expected credit loss (ECL) for commitments and guarantees given are recorded for committed loans, when the Company has contractual obligation to provide funds for clients, or for any contractual commitments which are not recorded on the statement of financial position.

Provisions are recognised when there is a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the statement of financial position date. The provisions are expected to be used during the year ending 31 December 2023.

	Restructuring provision	**Other provisions**	**Total**
	$m	**$m**	**$m**
31 December 2022			
Opening balance	**6**	**3**	**9**
Provisions made during the year	5	—	5
Provisions utilised during the year	(2)	—	(2)
Provisions released during the year	(1)	(1)	(2)
Other movements	(2)	—	(2)
Closing balance	**6**	**2**	**8**
Commitments and guarantees			**123**
Total provision balance			**131**

	Restructuring provision	**Other provisions**	**Total**
	$m	**$m**	**$m**
31 December 2021			
Opening balance	**14**	**3**	**17**
Provisions made during the year	1	—	1
Provisions utilised during the year	(5)	—	(5)
Provisions released during the year	(4)	—	(4)
Other movements	—	—	—
Closing balance	**6**	**3**	**9**
Commitments and guarantees			**80**
Total provision balance			**89**

30. Other liabilities

	31 December 2022	31 December 2021 (Restated)
	$m	$m
Other liabilities		
Accounts payable	4,778	4,290
Margin account obligations*	5,419	2,905
Securities sold under repurchase agreements	5,397	1,065
Short sales	13,514	2,118
Retirement obligations (Note 14)	121	228
Right-of use lease liability	110	71
Accruals and deferred income	278	182
Other	144	309
	29,761	**11,168**

Accounts payable predominantly relates to obligations arising from the Company's transaction services business. The other balances include amounts payable to other financial institutions, corporates and other group entities, primarily relating to prepaid risk participations, items in the process of settlement and margin account obligations.

Settlement of these accounts are short term in nature, balances can fluctuate depending on the underlying business activity.

Margin accounts obligations reflects the Company's obligation to pay collateral back to clients upon their own settlement of margin calls as they arise.

Short sales represent payables arising from short sale transactions where securities and money market instruments are sold but not owned at the time of the transaction.

*Restated for prior year adjustment, as detailed in Note 38

31. Called up share capital

	31 December 2022	31 December 2021	31 December 2022	31 December 2021
	Number of Ordinary shares		$m	$m
Authorised				
At the end of the year	5,000,000,000	5,000,000,000	4,692	4,692
Share capital				
Allotted, called-up and fully paid				
Ordinary shares of a par value of €1 each	9,741,290	9,741,290	11	11
Share premium				
At the end of the year			1,963	1,963

32. Share-based incentive plans

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

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

Stock award programme

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

Generally, CAP awards of restricted or deferred stock constitute a percentage of annual incentive compensation and vest rateably over a three or four-year period beginning on or around the first anniversary of the award date. Continuous employment within Citigroup is generally required to vest in CAP and other stock award programmes.

The programme provides that employees who meet certain age plus years-of-service requirements (retirement-eligible employees) may terminate active employment and continue vesting in their awards provided they comply with specified non-compete provisions. Awards granted to retirement-eligible employees are accrued in the year prior to the grant date in the same manner as cash incentive compensation is accrued as effectively there are no vesting conditions.

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

Information with respect to current year stock awards is as follows:

	2022	**2021**
Shares awarded	662,008	341,241
Weighted average fair market value per share	$59.59	$62.85

	2022	**2021**
	$m	**$m**
Compensation cost charged to earnings	36	24
Fair value adjustments recorded to equity	(8)	—
Total carrying amount of equity-settled transaction liability	42	33

32. Share-based incentive plans (continued)

	2022	2021
	$m	$m
Stock Awards		
Granted in 2022	28	—
Granted in 2021	6	18
Granted in 2020	2	2
Granted in 2019	—	1
Granted in 2018	—	—
Granted in 2017	—	—
Cash Accrued	—	3
Total Expense	**36**	**24**

The Company did not operate or have any stock option programme (2021: $nil).

33. Contingent liabilities and commitments

The following tables give the nominal principal amounts and risk weighted amounts of contingent liabilities and commitments. The nominal principal amounts indicate the volume of business outstanding at the statement of financial position date and do not represent amounts at risk.

	Contract amount 31 December 2022	**Contract amount 31 December 2021**
	$m	**$m**
Undrawn credit lines	28,780	26,577
Other commitments		
– less than 1 yr	11,320	6,470
– 1 yr and over	6,464	11,669
Total	**46,564**	**44,716**

Other commitments primarily relate to the Trade business in Ireland. The Company held an ECL of $122 million as at 31 December 2022 (2021: ECL of $80 million), with respect to its commitments.

33. Contingent liabilities and commitments (continued)

Expected credit loss – Contingent liabilities and commitments

The following table shows an analysis of changes in the gross carrying amount and the corresponding ECL allowances:

Exposure	**Stage 1**		**Stage 2**		**Stage 3**		**Total**	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
Outstanding exposure as at 1 January	**42,475**	**45,171**	**2,076**	**1,739**	**166**	**107**	**44,717**	**47,017**
New assets originated or purchased	6,461	3,503	815	541	6	29	7,282	4,073
Asset derecognised or matured	(4,669)	(6,129)	(681)	(210)	(85)	(34)	(5,435)	(6,373)
Transfers to Stage 1	732	453	(666)	(453)	(66)	—	—	—
Transfers to Stage 2	(2,064)	(478)	2,082	478	(18)	—	—	—
Transfers to Stage 3	(72)	(45)	(24)	(19)	96	64	—	—
Changes due to modifications not resulting in derecognition	—	—	—	—	—	—	—	—
Amounts written off	—	—	—	—	—	—	—	—
Other movements	—	—	—	—	—	—	—	—
At 31 December	**42,863**	**42,475**	**3,602**	**2,076**	**99**	**166**	**46,564**	**44,717**

ECL	**Stage 1**		**Stage 2**		**Stage 3**		**Total**	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
	$m	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**	**$m**
IFRS 9 ECL as at 1 January	**36**	**19**	**27**	**57**	**17**	**22**	**80**	**98**
ECL on new assets originated or purchased	22	1	28	—	1	—	51	1
Exposure derecognised or matured	—	(2)	(3)	(6)	(4)	(7)	(7)	(15)
Transfers to Stage 1	18	6	(9)	(6)	(9)	—	—	—
Transfers to Stage 2	(1)	—	2	—	(1)	—	—	—
Transfers to Stage 3	—	—	(1)	(1)	1	1	—	—
Net remeasurement of loss allowance	(13)	(3)	18	3	9	6	14	6
Other movements	(32)	15	12	(20)	5	(5)	(15)	(10)
At 31 December	**30**	**36**	**74**	**27**	**19**	**17**	**123**	**80**

34. Business transfer under common control

Foreign Exchange business within the Italian Branch

On 1 May 2021, a Foreign Exchange business was transferred to the Italian Branch of CEP from Citibank N.A. ("CBNA"). The Company paid a consideration of $15 million for the acquired Foreign Exchange business within the Italian Branch. No goodwill was recognised as the consideration deemed in excess was recorded in merger reserve.

The assets and liabilities which were transferred in 2021 were $75 thousand and $75 thousand respectively.

On 17 September 2021, a Trustee and Fiduciary Services Business was transferred from the CEP UK branch to Citibank UK Limited ("CUKL"). The Company received a consideration of $31 million for the disposed Trustee and Fiduciary Services Business from CUKL. No goodwill was recognised as the consideration deemed in excess was recorded in merger reserve. There were no business transfers under common control during the year ended 31 December 2022.

The Trustee and Fiduciary Business did not have any separately identifiable assets, tangible or intangible, on CEP's statement of financial position.

35. Involvement with unconsolidated structured entities

Nature, purpose and extent of the Company's interests in unconsolidated structured entities

The Company engages in various business activities with structured entities which are designed to achieve a specific business purpose. A structured entity is one that has been set up so that any voting rights or similar rights are not the dominant factor in deciding who controls the entity. An example is when voting rights relate only to administrative tasks and the relevant activities are directed by contractual arrangements.

Structured entities are consolidated when the substance of the relationship between the Company and the structured entities indicate that the structured entities are controlled by the Company. The entities covered by this disclosure note are not consolidated because the Company does not control them through voting rights, contract, funding agreements, or other means. The extent of the Company's interests to unconsolidated structured entities will vary depending on the type of structured entities.

35. Involvement with unconsolidated structured entities (continued)

Asset Based Financing

The Company provides loans and other forms of financing to structured entities that hold assets. Those loans are subject to the same credit approvals as all other loans originated or purchased by the Company.

The Company does not have the power to direct the activities that most significantly impact these structured entities economic performance. These vehicles are funded usually via a syndicate of lenders.

The table below sets out an analysis of carrying amounts of interests held by the Company in unconsolidated structured entities by the type of underlying assets, which is the Company's maximum exposure to loss, and also the total assets of these unconsolidated structured entities. All exposures are included in loans and advances to customers.

	Carrying amount		**Total assets of the unconsolidated structured entities**	
	2022	**2021**	**2022**	**2021**
	$m	**$m**	**$m**	**$m**
Airplanes, ships and other assets	169	149	532	6,351
Commercial and other real estate	579	1,008	6,261	7,034
Total	**748**	**1,157**	6,793	13,385

The above exposure is the asset based financing provided to 20 entities (2021: 30). The Company has further commitments of $77 million (2021: $208 million) to these entities.

The asset based financing represents the statement of financial position carrying amount of the Company's financing in the structured entities. It reflects the initial financing in the structured entities adjusted for any accrued interest and cash principal payments received. The carrying amount may also be adjusted for increases or declines in fair value or any impairment in value recognised in the income statement.

36. Leases

A. Leases as a lessee

Information about leases for which the Company is a lessee is presented below.

Right-of-use assets

Right-of-use assets related to leased office buildings in branches.

	2022	**2021**
	$m	**$m**
Balances at 1 January	**62**	**63**
Additions to right-of-use assets	66	17
Disposals	—	(9)
Depreciation charge for the year	(20)	(19)
Foreign exchange	(6)	9
Balances at 31 December	**102**	**62**

36. Leases (continued)

Lease liabilities

Maturity analysis	31 December 2022 $m	31 December 2021 $m
Expiring:		
– within one year	2	4
– between one and five years	31	27
– in five years and more	76	39
Total discounted lease liabilities at 31 December	**109**	**71**
Lease liabilities included in the statement of financial position at 31 December	**109**	**71**
Current	2	5
Non-current	107	66

Amounts recognised in profit or loss

Leases under IFRS 16	2022 $m	2021 $m
Interest on lease liabilities	—	—

Amounts recognised in statement of cash flows

	2022 $m	2021 $m
Total cash outflow for leases	(39)	5

37. Related party transactions

The Company is a wholly owned subsidiary undertaking of Citibank Holdings Ireland Limited, which is incorporated in Ireland. The largest Group in which the results of the Company are consolidated is that headed by Citigroup Inc., which is incorporated in the United States of America. The Company defines related parties as the Board of Directors, senior management, their close family members, parent and fellow subsidiaries and associated companies. The Company considers the key management of the Company to be the members of the Executive Committee (ExCo).

Transactions with key management personnel

Key management personnel compensation comprised the following:

Remuneration	2022 $m	2021 $m
Salaries and other short term benefits	16	9
Post-Employment Benefits	1	1
Termination Benefits	—	1
	17	11
Number of KMP YTD	25	20
Number of KMP 31st December	20	18

37. Related party transactions (continued)

Transactions with key management personnel (continued)

Key Management Personnel (KMP) are those persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of that entity. This has been defined as CEP Executive Committee (ExCo) and any Executive, Non-Executive or Independent Non-Executive Directors for the entity.

Remuneration data includes full KMP population year to date i.e. including part year cases. For any internal Non-Executive Directors who are not employed by the entity, their remuneration data is excluded from the figures provided and only headcount is reported.

Salaries and other short term benefits, comprises salary, role based allowance, variable compensation, cash in lieu of pension and the value of other benefits.

Post employment benefits, Includes employer contributions paid to pension funds. Termination benefits data reflects severance payments.

Number of KMP population includes interim KMPs, Individuals who are standing attendees of the ExCo only are excluded.

Salaries and other short term benefits comprise salary, role based allowance, variable compensation, cash in lieu of pension and the value of other benefits. Post-employment benefits include employer contributions paid to pension funds.

At 31 December 2022, there were no outstanding exposures to Directors including loans (2021: $nil).

37. Related party transactions (continued)

A number of transactions are entered into with other Citigroup companies. These include loans and deposits that provide funding to other Citigroup companies as well as derivative contracts used to hedge residual risks that are included in the other assets and other liabilities balances. Various services are provided between related parties. The table below summarises balances with related parties.

	31 December 2022			31 December 2021		
	Parent company undertakings	Other Citigroup undertakings	Total	Parent company undertakings	Other Citigroup undertakings	Total
Assets	**\$m**	**\$m**	**\$m**	**\$m**	**\$m**	**\$m**
Cash and cash equivalents	—	2,624	2,624	—	4,960	4,960
Loans and advances to banks	—	9,238	9,238	—	7,768	7,768
Loans and advances to customers	—	57	57	—	10	10
Other assets	—	1,865	1,865	—	3,418	3,418
Derivatives	—	13,015	13,015	—	7,000	7,000
Liabilities						
Deposits by banks	—	5,849	5,849	—	8,171	8,171
Customer accounts	2	1,010	1,012	—	888	888
Other liabilities	—	1,533	1,533	—	1,284	1,284
Derivatives	—	14,186	14,186	—	10,206	10,206
Subordinated liabilities	4,455	—	4,455	4,773		4,773
Commitments and guarantees	—	911	911	—	769	769
Income statement						
Interest and similar income	—	129	129	—	28	28
Interest payable	(54)	(104)	(158)	(2)	(32)	(34)
Net fee and commission expenses	—	302	302	—	260	260
Net income from other financial instruments at FVTPL	—	4	4	—	—	—
Other operating income	—	744	744	—	634	634
Net trading income	—	(2,800)	(2,800)	—	(1,930)	(1,930)
Net investment income	—	—	—	—	—	—
Personnel expenses	—	(1)	(1)	—	—	—
Other expenses	—	(254)	(254)	—	(247)	(247)

There were no transactions during the year or the previous year with the Company's subsidiary, CitiCapital Leasing (March) Ltd.

The total carrying amount of equity-settled transaction liability due to Citigroup Inc was \$42 million (2021: \$33 million). A \$19 million (2021:\$15 million) cash payment was made to Citigroup Inc in relation to the equity-settled transaction liability. Please refer to Note 32 Share-based incentive plans for further details.

No dividends were paid by the Company to its direct parent, Citibank Holding Ireland Limited (CHIL) in relation to 2022 earnings during the year (2021: \$nil).

38. Prior year adjustment

Following a review of the offsetting of financial assets and liabilities in consideration of the increasing derivative portfolio, the Company concluded that the applied offsetting of cash variation margin receivables and cash variation margin obligations in the prior year did not meet the offsetting criteria set out by IAS 32. As a result, the Company restated its 2021 accounts in this regards as follows:

	As originally reported 31 December 2021 $m	Adjustment $m	As restated 31 December 2021 $m
Assets			
Cash and cash equivalents	27,482	—	27,482
Trading assets	4,443	—	4,443
Derivative financial instruments	13,126	—	13,126
Investment securities	7,525	—	7,525
Loans and advances to banks	11,035	—	11,035
Loans and advances to customers	21,253	—	21,253
Shares in subsidiary undertakings	14	—	14
Other assets	4,832	2,009	6,841
Current tax asset	44	—	44
Goodwill and Intangible assets	109	—	109
Property and equipment	140	—	140
Deferred tax assets	247	—	247
Total assets	90,250	2,009	92,259
Liabilities			
Deposits by banks	11,148	—	11,148
Customer accounts	38,977	—	38,977
Derivative financial instruments	14,429	—	14,429
Subordinated liabilities	4,773	—	4,773
Current tax liability	56	—	56
Provisions	89	—	89
Deferred tax liabilities	20	—	20
Other liabilities	9,159	2,009	11,168
Total liabilities	78,651	2,009	80,660
Equity shareholders' funds			
Share capital	11	—	11
Share premium account	1,963	—	1,963
Other reserves (net)	604	—	604
Retained earnings	9,021	—	9,021
Total equity attributable to equity shareholders	11,599	—	11,599
Total liabilities and equity shareholders' funds	90,250	2,009	92,259

39. Parent companies

The Company is a subsidiary undertaking of Citibank Holding Ireland Limited (CHIL), incorporated in Ireland.

The largest Group in which the results of the Company are consolidated is Citigroup Inc., registered at 1209 Orange Street, Wilmington, New Castle, DE, 19810, United States of America. The audited consolidated financial statements of Citigroup Inc. are made available to the public annually in accordance with Securities and Exchange Commission regulations and may be obtained from http://www.citigroup.com/citi/investor/corporate_governance.html

The smallest Group in which the results of the Company are consolidated is CHIL. Copies of the Group accounts are available to the public and may be obtained from its offices at 1 North Wall Quay, IFSC, Dublin 1.

40. Events after reporting period

Capital injections of $803m from Citi Investments Bahamas Ltd (CIBL – parent of COHBL) and $397m from Citi Overseas Holdings Bahamas Limited (“COHBL" – parent of CHIL) were received by the Company in March 2023.

41. Approval of financial statements

The financial statements of the Company were approved by the Board of Directors on the 16 March 2023.

CITIBANK EUROPE PLC

(Registered Number: 132781)

COUNTRY BY COUNTRY REPORTING

for the year ended 31 December 2022

INDEPENDENT AUDITOR'S REPORT TO THE DIRECTORS OF CITIBANK EUROPE PLC

Independent auditor's report to the Directors of Citibank Europe plc

Opinion

We have audited the accompanying Country-by-Country ("CBC") financial information of Citibank Europe plc ("the Company") for the year ended 31 December 2022 pursuant to European Union (Capital Requirements) Regulations, 2014 ("the Regulations") which is required to be audited by Regulation 77 of those Regulations. The CBC financial information set out on pages 146 to 148 in the Citibank Europe plc Country-by-Country Reporting (collectively "the CBC financial information"), has been prepared on a single entity basis in accordance with management's basis of preparation set out on page 146.

In our opinion, the CBC financial information as at 31 December 2022:

- is properly prepared, in all material respects, in accordance with the special purpose basis of preparation set out on page 146 to the CBC financial information; and
- discloses the items of CBC financial information required to be published, having applied the relevant principles of International Financial Reporting Standards (IFRS) as adopted by the European Union, and by Regulation 77 of the European Union (Capital Requirements) Regulations, 2014.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (Ireland) ("ISAs (Ireland)"), including ISA (Ireland) 805, and the terms of our engagement letter dated 31 January 2023. Our responsibilities are described in the Auditor's responsibilities for the audit of the CBC financial information section of our report. We are independent of the Company in accordance with ethical requirements that are relevant to our audit of the CBC financial information in Ireland, including the Ethical Standard issued by the Irish Auditing and Accounting Supervisory Authority (IAASA), and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion.

Emphasis of matter – special purpose basis of preparation

In forming our opinion on the CBC financial information, which is unmodified, we have considered the adequacy of the disclosure made on page 146 concerning the definitions applied by the Company to the items of CBC financial information required to be published. Regulation 77 of the European Union (Capital Requirements) Regulations, 2014 does not set out definitions of the items of CBC financial information to be disclosed. The Company has applied definitions, as applicable, to the items of CBC financial information which are consistent with the definitions of those items in accordance with IFRS as adopted by the European Union and of those items in the Company's annual statutory financial statements.

Conclusions relating to going concern

In auditing the CBC financial information, we have concluded that the directors’ use of the going concern basis of accounting in the preparation of the CBC financial information is appropriate. Our evaluation of the directors' assessment of the Company's ability to continue to adopt the going concern basis of accounting included:

- We used our knowledge of the Company, the financial services industry, and the general economic environment to identify the inherent risks to the business model and analysed how those risks might affect the Company's financial resources or ability to continue operations over the going concern period. The risks that we considered most likely to adversely affect the Company's available financial resources over this period were:
    - o the availability of funding and liquidity in the event of a market wide stress scenario; and
    - o the impact on regulatory capital requirements in the event of an economic slowdown or recession.
- We also considered whether these risks could plausibly affect the availability of financial resources in the going concern period by comparing the Directors’ severe, but plausible, downside scenarios that could arise from these risks individually and collectively against the level of available financial resources indicated by the Company’s financial forecasts.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Company's ability to continue as a going concern for a period of at least twelve months from the date when the CBC financial information is authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Detecting irregularities including fraud

We identified the areas of laws and regulations that could reasonably be expected to have a material effect on the CBC financial information and risks of material misstatement due to fraud, using our understanding of the entity’s industry, regulatory environment and other external factors and inquiry with the directors. In addition, our risk assessment procedures included:

- Inquiring with the directors and other management as to the Company’s policies and procedures regarding compliance with laws and regulations, identifying, evaluating and accounting for litigation and claims, as well as whether they have knowledge of non-compliance or instances of litigation or claims.
- Inquiring of directors, the audit committee, and internal audit and inspection of policy documentation as to the Company’s high-level policies and procedures to prevent and detect fraud and the Company’s channel for whistleblowing, as well as whether they have knowledge of any actual, suspected or alleged fraud.
- Inquiring of directors, the audit committee, and internal audit regarding their assessment of the risk that the CBC financial information may be materially misstated due to irregularities, including fraud.
- Inspecting the Company’s regulatory correspondence.
- Reading minutes of meetings of the Board of Directors, and the audit committee.
- Considering remuneration incentive schemes and performance targets for management and directors.
- Performing planning analytical procedures to identify any usual or unexpected relationships.

We discussed identified laws and regulations, fraud risk factors and the need to remain alert among the audit team.

Firstly, the Company is subject to laws and regulations that directly affect the CBC financial information including the European Union (Capital Requirements) Regulations, 2014, companies and financial reporting legislation. We assessed the extent of compliance with these laws and regulations as part of our procedures on the related CBC financial information including assessing the CBC financial information disclosures and agreeing them to supporting documentation when necessary.

Secondly, the Company is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the CBC financial information, for instance through the imposition of fines or litigation or the loss of the Company's licence to operate. We identified the following areas as those most likely to have such an effect: regulatory capital and liquidity and certain aspects of company legislation recognising the financial and regulated nature of the Company's activities and its legal form.

Auditing standards limit the required audit procedures to identify non-compliance with these non-direct laws and regulations to inquiry of the directors and other management and inspection of regulatory correspondence, if any. These limited procedures did not identify actual or suspected non compliance.

We assessed events or conditions that could indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud. As required by auditing standards, we performed procedures to address the risk of management override of controls.

As the Company is regulated, our assessment of risks involved obtaining an understanding of the legal and regulatory framework that the Company operates and gaining an understanding of the control environment including the entity's procedures for complying with regulatory requirements.

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the CBC financial information, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations (irregularities) is from the events and transactions reflected in the CBC financial information, the less likely the inherently limited procedures required by auditing standards would identify it.

In addition, as with any audit, there remains a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. We are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

Respective responsibilities and restrictions on use

Responsibilities of directors for the CBC financial information

The directors are responsible for: the preparation of the CBC financial information in accordance with the requirements of the European Union (Capital Requirements) Regulations, 2014 relevant to preparing such CBC financial information; such internal control as they determine is necessary to enable the preparation of the CBC financial information that is free from material misstatement, whether due to fraud or error; assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

INDEPENDENT AUDITOR'S REPORT TO THE DIRECTORS OF CITIBANK EUROPE PLC

Auditor's responsibilities for the audit of the CBC financial information

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

A fuller description of our responsibilities is provided on IAASA's website at https://iaasa.ie/publications/description-of-the-auditors-responsibilities-for-the-audit-of-the-financial-statements/.

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

Our report is made solely to the Company's Directors, as a body, in accordance with our engagement letter to provide a report pursuant to Regulation 77 of the European Union (Capital Requirements) Regulation, 2014. Our audit work has been undertaken so that we might state to the Company's Directors those matters we are required to state to them in an auditor's report on CBC financial information and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's Directors as a body, for our audit work, for this report, or for the opinions we have formed.

James Black
for and on behalf of KPMG
Chartered Accountants, Statutory Audit Firm
1 harbourmaster Place,
IFSC Dublin 1
16 March 2023

Country by Country Reporting

The Country by Country is a reporting requirement per the European Commission as detailed under Article 89 of the CRD IV directive 2013/36/EU.

The Commissions aims through this report to allow stakeholders to gain a better understanding of the structures of financial groups, their activities and geographical presence and to understand the payment of taxes vis a vie the location of where actual business activity takes place.

The requirement lays out that all "Banks" and "Investment Firms" have to report annually, for each country in which they have an establishment, data on:

- Name(s), activities, geographical location
- Turnover
- Staff Numbers
- Profit and loss before Tax
- Tax on profit or Loss
- Public Subsidies received

Once approved by the Board the report will be duly saved to the Citigroup Inc website under Investor Relations.

Article 89 of the CRD requires credit institutions to disclose certain information on a branch by branch basis.

Basis of Preparation:

The Table below presents CEP's turnover, average number of employees, profit or loss before tax, tax on profit and public subsidies received based on the geographic locations in which CEP operates. The Company prepares statutory financial statements under International Financial Reporting Standards as adopted by the European Union (EU). The CBC disclosures are prepared under International Financial Reporting Standards as adopted by the EU and as regards the scope of consolidation on a prudential basis as required by the EU Capital Requirements Regulations. There is no difference between the Company's statutory financial statements and its prudential basis of consolidation.

Overview of the table:

The Table below presents the CEP's turnover, number of employees, profit and loss before tax, tax on profit or loss and public subsidies received. Set out below are the definitions which have been applied in preparing the information within Table 1.

Turnover:

Turnover represents total operating income, which comprises net interest income, net fee and commission income, net trading income, dividend income and other operating income.

Employees:

This represents the average number of Full Time Equivalents being full and part time employees but excluding any agency and contracting staff.

Profit and Loss before Tax:

Profit and loss before tax is reported in a manner consistent with that included in these Annual Financial Statements.

Country by Country Reporting (continued)

Tax on profit:

Tax on profit or loss represents the tax expense recognised within the income statement and does not reflect the actual amount of corporation tax paid. Included within the tax on profit or loss is both current tax and deferred tax.

Public Subsidies Received:

Subsidies received is considered a direct transfer of funds, such as a grant from a state body.

Nature of activities:

Citibank Europe Plc. (CEP) is a licenced credit institution authorised by the Central Bank of Ireland (CBI) and is headquartered in Ireland. Pursuant to its authorisation by the CBI, CEP has passported under the European Union's (EU) Banking Consolidation Directive and accordingly is permitted to conduct a broad range of banking and financial-services activities across the EEA through branches and on a cross border basis.

The Company's overseas passported branches are located in Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Luxembourg, Netherlands, Norway, Portugal, Romania, Slovakia, Spain, Sweden and the United Kingdom. In addition to the overseas passported branches, CEP has two branches in Poland and Hungary which provide key operation and technology support services to other Citigroup affiliates.

A Country by Country Reporting (CBCR) obligation was introduced through Article 89 of the EUR Directive 2013/36/EU, otherwise known as the Capital Requirements Directive IV (CRD IV). CEP is required on a standalone basis to report the following information for each period of account.

Country by Country Reporting (continued)

Country by Country Report 31 December 2022

	Turnover $m	Number of Employees	Profit or (Loss) before tax $m	Tax (charge)/ release on profit or loss $m	Public subsidies received $m
Austria	2	8	1	—	—
Belgium	2	13	1	—	—
Bulgaria	23	49	15	(2)	—
Czech Republic	142	247	88	(19)	—
Germany	58	125	22	(8)	—
Denmark	5	14	(1)	—	—
Spain	39	168	11	(4)	—
Finland	4	16	—	—	—
France	95	155	23	(6)	—
United Kingdom	182	90	55	(19)	—
Greece	24	102	(1)	(1)	—
Hungary	242	2,752	50	(8)	—
Ireland	1,604	2,394	739	(118)	—
Italy	(2)	50	10	(5)	—
Luxembourg	87	234	65	(16)	0.041
Netherlands	21	90	53	(13)	—
Norway	6	15	8	(2)	—
Poland	294	5,801	26	(5)	—
Portugal	1	18	1	(1)	—
Romania	113	176	93	(15)	—
Sweden	40	85	4	—	—
Slovakia	21	42	11	(2)	—
Total	3,003	12,644	1,274	(244)	0.041