CITIBANK EUROPE PLC

(Registered Number: 132781)

ANNUAL REPORT AND FINANCIAL STATEMENTS
for the year ended 31 December 2021

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BOARD OF DIRECTORS AND OTHER INFORMATION

DIRECTORS	Susan Dean - Chairperson - Non-Executive Cecilia Ronan - Chief Executive Officer (CEO) Breffni Byrne - Independent Non-Executive (resigned on 30 June 2021) Desmond Crowley - Independent Non-Executive Jeanne Short - Independent Non-Executive John Gollan - Independent Non-Executive Patrick Dewilde - Non-Executive Peter McCarthy - Non-Executive Silvia Carpitella - Chief Financial Officer (CFO) Gillian Lungley - Independent Non-Executive (appointed on 15 July 2021)
COMPANY SECRETARY	Fiona Mahon
REGISTERED OFFICE	1 North Wall Quay, Dublin 1
SOLICITORS	A&L Goodbody International Financial Services Centre, North Wall Quay, Dublin 1 Arthur Cox Solicitors Ten, Earlsfort Terrace, Dublin 2 Matheson 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 2021

The Directors present their report and the annual financial statements of Citibank Europe Plc ("the Company" or "CEP") for the year ended 31 December 2021, 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 (2020: 21 European countries), and one subsidiary (2020: 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 and Banking businesses. The activities in Banking comprise Treasury and Trade Solutions (TTS), 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 2021, the Company reported a profit after tax of $1,012 million (31 December 2020: $443 million) and has maintained strong capital and liquidity positions with consistently strong business operations.

The total income was $2,472 million for the year ended 31 December 2021 (31 December 2020: $2,213 million). The macro-economic environment reflecting the revival of economic activity and lifting of restrictions connected with the pandemic had a positive impact on the Company's performance. The increase in revenues was led by Securities and Services business due to higher transaction volumes, growth in assets under custody and new client activity. Other material drivers of the strong revenue performance were higher volumes of securitization and lending transactions as well as sizable investment banking deals, which drove the increase in fees.

The Company recorded a net credit gain of $249 million (31 December 2020: net credit loss of $490 million). This was due to the release of the credit reserves reflecting an improved macro-economic environment in contrast to the build up of reserves in prior year at the height of the pandemic. Note 21 contains further details within the credit risk section.

The Company's total assets increased to $90.2 billion (31 December 2020: $73.7 billion (restated)). The growth was led by the Markets business and portfolio build up in derivatives trading as well as Euro Government Bonds trading. Furthermore, cash placements with central banks grew, in turn driven by an increase in TTS customer deposits.

Future Developments

The Company continues to monitor the evolving landscape in relation to Covid 19, elevated levels of inflation, significant disruptions and volatility in financial market as a result of geo-political tensions including recent action of Russian military forces in Ukraine which has escalated tensions between Russia and the U.S., NATO, the EU and the U.K.

The Company's ability to engage in activity with certain businesses in Russia and Ukraine is dependent in part upon whether such engagement is restricted under the financial and economic sanctions imposed by the U.S., the U.K., and the EU commencing from 21 February 2021. Given the volatile and evolving situation and its impact on global financial markets and economic conditions, and its impact on the Company's businesses, the Company continues to monitor the relevant exposures to mitigate risks as appropriate.

The Company has a balanced and sustainable business model that has proven its performance and resilience through the period of stress in the last two 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 portfolio with European Government Bonds trading programme which will see a significant increase in the size of the balance sheet in the next two years.

While last year improved market conditions and economic activity resulted in a significant increase in transactional volumes, the Company expects the positive momentum to continue with market volatility and planned growth in client base to support transaction volumes within Securities Services and Markets.

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 Bank and Private Bank. The Company aims to expand its Private Bank Business offering in Germany and France as well as its Commercial Banking activities in Western Europe, including Benelux, Iberia and Italy.

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 ensure consideration of ESG embeddedness in relevant product offering and growth plans while managing associated ESG risks.

Key Performance Indicators

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

	31 December 2021	**31 December 2020**	**Variance**
Profit before tax (USD '000)	1,205,007	475,690	153%
Profit after tax (USD '000)	1,011,949	443,096	128%
Operating efficiency [1]	53%	66%	-13%
Shareholders' funds (USD '000)[2]	11,597,817	10,714,505	8%
Return on capital employed[3]	10%	4%	6%
Leverage ratio	10%	9%	1%
Return on assets[4]	1.1%	0.6%	1%

[1] Operating efficiency is a proportionate representation of operating expenses over net operating income (excluding interest expense).
[2] The Shareholders' funds equate to total equity attributable to equity shareholders, which is different from regulatory capital.
[3] Return on Capital Employed is profit before tax over total equity attributable to shareholders.
[4] Return on assets is profit before tax over total assets.

Credit Rating

The long-term credit rating for the Company is A+ (Standard & Poor's) (2020: A+ (Standard & Poor's)), Aa3 (Moody's) (2020: Aa3 (Moody's)) and A+ (Fitch) (2020: A (Fitch)).

Capital Management

The Company had regulatory capital of $11 billion as at 31 December 2021 ($9.6 billion as at 31 December 2020) which is entirely made up of Tier One equity. The capital ratio at 31 December 2021 was 20% (18.6% as at 31 December 2020) which exceeds the minimum regulatory requirement. 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 2021 earnings. ($nil paid in relation to 2020 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 internal 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 (CBI).

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 (2020: $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 2021 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 2021 and 2020.

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.

Non-financial information

The Company's approach on environmental matters, social and employee matters, diversity, bribery and corruption, and respect for human rights is detailed on the Environmental, Social and Governance (ESG) Report which can be accessed on the ultimate parent group Citigroup Inc. website www.citigroup.com/citi/about/esg/. The Directors are responsible for ensuring compliance with the directive 214/95/EU 'Non Financial Reporting Directive' (NFRD).

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 59.

DIRECTORS' REPORT

For the year ended 31 December 2021

Going Concern

In considering going concern, the Company continues to closely monitor developments related to Covid 19 and geo-political tensions. The potential impacts from these events remain uncertain, including, among other things, on economic conditions, businesses and consumers.

To assess any potential impact on the Company, the Directors reassessed 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.

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.

Other matters

In October 2020, the ultimate parent company, Citigroup, entered into consent orders with the Federal Reserve Board (FRB) and Office of the Comptroller of the Currency (OCC) that required Citigroup to pay a $400 million civil money penalty and to submit acceptable plans relating principally to making improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls. At the date of signing of these financial statements and based on the information received to date, the Directors are not aware of any material financial impact on CEP as a direct result of these consent orders.

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.

DIRECTORS' REPORT

For the year ended 31 December 2021

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: 31 March 2022

Cecilia Ronan	Silvia Carpitella	John Gollan	Fiona Mahon
CEO	CFO	Non-Executive	Company Secretary

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 2021 set out on pages 17 to 114, which comprise the Income Statement, Statement of Other Comprehensive Income, the Statement of Financial Position, the Statement of Changes in Equity, the Statement of Cashflows 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 2021 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 20 years ended 31 December 2021. 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 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:
    - 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 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 financial statements are authorised for issue. We found the assumptions associated with the use of the going concern basis to be reasonable.

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

Key audit matters: our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgment, 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 2020):

IFRS 9 Expected credit losses – ECL $238m (2020 - $508m)
Refer to note 1 (i) and 1 (j) (accounting policies) and notes 15, 18, 19, 20, 21 and 33 (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 PD Model*** The Wholesale Probability of Default (PD) model is the key driver of the expected credit loss calculation and also impacts the staging of assets. ECLs may be inappropriate if the PD model does not accurately predict defaults over time, becomes out of line with wider industry experience, or fails to reflect the credit risk of financial assets.	***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. • We tested the completeness and accuracy of identified relevant data elements used within the Company's ECL PD wholesale model. • 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.

Material qualitative adjustments
Qualitative adjustments are raised by management to address known impairment model limitations, data limitations, late breaking events and/or emerging trends. There is a high degree of estimation uncertainty and management judgement involved in material qualitative adjustments.

Economic Scenarios
IFRS 9 requires the company to measure ECLs on an unbiased forward-looking basis reflecting a range of future economic conditions. Significant management judgement is applied in determining the economic scenarios used and the probability weightings applied to them especially when considering the current economic environment.

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.

Material qualitative adjustments;

- We performed end-to-end process walkthroughs and tested the design, implementation, and operating effectiveness of key controls over the authorisation and review of material qualitative adjustments (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, and the compliance with IFRS 9.
- We assessed the completeness and overall adequacy of management overlays, through assessing the overlays recognised by management to the various risks, model limitations and/or data limitations that we consider to exist in the relevant portfolios.
- 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, market uncertainties such as Covid-19 and emerging risks such as geopolitical 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 and significant economic assumptions used in measuring ECL, including the economic scenarios, probability weightings applied to them and the macroeconomic data used.
- We assessed the reasonableness of the methodology applied for determining the economic scenarios used and the probability weightings applied to them.
- We engaged our economics specialist to assist us in testing the reasonableness of the significant economic assumptions underpinning management's economic scenarios used and the probability weightings applied to them. In this regard we assessed the significant economic variables used in forward looking information (FLI) and challenged the overall reasonableness of the significant macroeconomic variables with reference to independent and observable external economic forecasts.

Identification and quantification of stage 3 loans

- We performed end-to-end process walkthroughs and tested the design, implementation and operating effectiveness of key controls relating to the assignment of credit risk grades and overrides, the higher risk and watchlist categories and calculation of individual impairment charges.

- 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, focussing on high risk sectors including those impacted by Covid-19; and
- For individually assessed credit impaired loans included in our population, we inspected the impairment calculations prepared and challenged management in respect of the key assumptions underpinning the calculations in order to assess the appropriateness of the individually assessed ECL.

We found the significant judgments used by management in determining the ECL charge and provision, including the accuracy of the Wholesale PD model, application of material qualitative 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 to be those that are classified as Complex Level 2 (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 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, 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'; ◦ Validation, completeness, implementation, and usage of valuation models, including controls over adjustments to model limitations and assumptions; and • In conjunction with our valuation specialists, we: ◦ Independently valued a sample 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 2021 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).

- Inspected external sources for price inputs used by management in performing IPV and recalculated IPV variances as well as FVAs;
- Independently obtained key pricing inputs as part of our recalculations and challenge; and
- Assessed the application of CVA/DVA/FVA methodology and the associated inputs for consistency with IFRS requirements.

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 $52.2m (2020: $52.2m), determined with reference to a benchmark of profit before tax of which it represents circa 4% (2020: circa 5% of a three-year average of profit before tax)).

We reported to the Audit Committee any corrected or uncorrected identified misstatements exceeding $2.6m (2020: $2.6m), in addition to other identified misstatements that warranted reporting on qualitative grounds.

Our audit of the Company was undertaken to the materiality level specified above and was all performed by an 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 page 7 and the unaudited notes to the financial statements which include note 21.9 regulatory capital and note 42 European Union Taxonomy Regulation.

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 purpose 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 and the Company's statement of financial position and income statement is 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 2020 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

Directors' responsibilities

As explained more fully in their statement set out on page 9, 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

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (Ireland) will always detect a material misstatement when it exists. Misstatements can arise from fraud, other irregularities or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements. The risk of not detecting a material misstatement resulting from fraud or other irregularities is higher than for one resulting from error, as they may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control and may involve any area of law and regulation and not just those directly affecting the financial statements.

A fuller description of our responsibilities is provided on IAASA's website at http://www.iaasa.ie/Publications/Auditing-standards/International-Standards-on-Auditing-for-use-in-Ire/Description-of-the-auditor-s-responsibilities-for

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 our report, or for the opinions we have formed.

James Casey ***31 March 2022***

for and on behalf of

KPMG

Chartered Accountants, Statutory Audit Firm

1 Harbourmaster Place

IFSC

Dublin 1

CITIBANK EUROPE PLC

INCOME STATEMENT
for the year ended 31 December 2021

	Note	2021 $ 000	2020 $ 000
Interest income	**3**	545,561	568,430
Interest expense	**3**	(162,806)	(177,820)
Net interest income		382,755	390,610
Fee and commission income	**4**	1,353,651	1,168,222
Fee and commission expense	**4**	(216,878)	(198,534)
Net fee and commission income		1,136,773	969,688
Net trading income	**5**	165,418	255,694
Net investment income	**6**	52,182	82,632
Net income from other financial instruments designated at fair value through profit or loss	**7**	58,841	12,284
Other operating income	**8**	675,535	502,538
Total income		2,471,504	2,213,446
Net credit gain/(loss)	**21**	248,640	(489,963)
Net operating income		2,720,144	1,723,483
Personnel expenses	**10**	(951,200)	(801,538)
Other expenses	**12**	(563,937)	(446,255)
Total operating expenses		(1,515,137)	(1,247,793)
Profit before tax		1,205,007	475,690
Corporate tax	**13**	(193,058)	(32,594)
Profit for the year from continuing operations		1,011,949	443,096
Profit for the year		1,011,949	443,096

The accompanying notes on pages 22 to 114 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 31 March 2022 and signed on their behalf by:

Cecilia Ronan	Silvia Carpitella	John Gollan	Fiona Mahon
CEO	CFO	Non-Executive	Company Secretary

STATEMENT OF OTHER COMPREHENSIVE INCOME

for the year ended 31 December 2021

	Note	2021 $ 000	2020 $ 000
Profit for the period		1,011,949	443,096
Items that will not be reclassified to profit or loss			
Gain/(loss) on remeasurement of defined benefit liability	**14**	40,195	(29,914)
Related tax	**26**	(3,616)	3,557
Items that may be reclassified to profit or loss			
Foreign currency translation gain/(loss)		(19,195)	(48,537)
Net (loss)/gain on hedge of net investment in foreign operation		(10,269)	13,354
Movement in fair value reserve (FVOCI debt instruments)			
Debt instruments at FVOCI - net change in fair value		(173,017)	60,730
Debt instruments at FVOCI - reclassified to profit or loss	**6**	(2,313)	(44,158)
Related tax	**26**	24,144	(3,940)
Other comprehensive expense for the year, net of tax		(144,071)	(48,908)
Total comprehensive income for the year		867,878	394,188

The accompanying notes on pages 22 to 114 form an integral part of these financial statements.

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CEO	CFO	Non-Executive	Company Secretary

STATEMENT OF FINANCIAL POSITION

As at 31 December 2021

	Note	31 December 2021 $ 000	31 December 2020 (Restated) $ 000
Assets			
Cash and cash equivalents	**15**	27,481,967	19,967,744
Trading assets*	**16, 23**	4,443,100	1,812,643
Derivative financial instruments	**17, 23**	13,125,638	11,236,509
Investment securities	**18**	7,525,015	3,843,267
Loans and advances to banks	**19**	11,035,066	16,404,551
Loans and advances to customers	**19**	21,253,183	17,738,525
Shares in subsidiary undertakings	**27**	14,175	14,175
Current tax asset	**26**	43,901	56,064
Other assets*	**20**	4,831,623	2,098,897
Deferred tax assets	**26**	247,461	248,229
Property and equipment	**24**	139,544	141,407
Goodwill and Intangible assets	**25**	109,089	99,373
Total assets		90,249,762	73,661,384
Liabilities			
Deposits by banks	**23**	11,147,567	13,812,225
Customer accounts	**23**	38,977,221	33,198,315
Derivative financial instruments	**17, 23**	14,429,404	11,247,882
Subordinated liabilities	**28**	4,772,830	—
Current tax liability		56,267	802
Provisions	**29**	88,932	115,366
Deferred tax liabilities	**26**	20,241	18,099
Other liabilities*	**30**	9,159,483	4,554,190
Total liabilities*		78,651,945	62,946,879
Equity shareholders' funds			
Share capital	**31**	10,532	10,532
Share premium account	**31**	1,962,747	1,962,747
Other reserves (net)	**39**	603,588	768,804
Retained earnings		9,020,950	7,972,422
Total equity attributable to equity shareholders		11,597,817	10,714,505
Total liabilities and equity shareholders' funds*		90,249,762	73,661,384

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

The accompanying notes on pages 22 to 114 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 31 March 2022 and signed on their behalf by:

Cecilia Ronan	Silvia Carpitella	John Gollan	Fiona Mahon
CEO	CFO	Non-Executive	Company Secretary

CITIBANK EUROPE PLC

STATEMENT OF CHANGES IN EQUITY

for the year ended 31 December 2021

		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**
		$ 000	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**
Balance at 1 January 2020		10,532	1,962,747	826,688	2,220	(52,392)	15,583	2,826	7,555,683	10,323,887
Total comprehensive income/ (loss):										
Profit for the period		—	—	—	—	—	—	—	443,096	443,096
Other comprehensive income/ (loss), net of tax:										
Remeasurements of defined benefit liability	**14, 26**	—	—	—	—	—	—	—	(26,357)	(26,357)
Foreign currency translation differences for foreign operations		—	—	—	—	(48,537)	—	—	—	(48,537)
Net loss on hedge of net investment in foreign operation		—	—	—	—	13,354	—	—	—	13,354
Fair value reserve (FVOCI financial assets)		—	—	—	—	—	12,632	—	—	12,632
Total other comprehensive income/ (loss)		—	—	—	—	(35,183)	12,632	—	(26,357)	(48,908)
Total comprehensive income/(loss)		—	—	—	—	(35,183)	12,632	—	416,739	394,188
Transactions with owners, recorded directly in equity										
Equity increase resulting from merger and capital transactions	**34**	—	—	—	—	—	—	—	—	—
Equity settled share-based payment	**32**	—	—	—	—	—	—	(3,570)	—	(3,570)
Total contributions by and distributions to owners		—	—	—	—	—	—	(3,570)	—	(3,570)
Balance at 31 December 2020		10,532	1,962,747	826,688	2,220	(87,575)	28,215	(744)	7,972,422	10,714,505
Balance at 1 January 2021		10,532	1,962,747	826,688	2,220	(87,575)	28,215	(744)	7,972,422	10,714,505
Total comprehensive income/ (loss):										
Profit for the period		—	—	—	—	—	—	—	1,011,949	1,011,949
Other comprehensive income/ (loss), net of tax:										
Remeasurements of defined benefit liability	**14, 26**	—	—	—	—	—	—	—	36,579	36,579
Foreign currency translation differences for foreign operations		—	—	—	—	(19,195)	—	—	—	(19,195)
Net loss on hedge of net investment in foreign operation		—	—	—	—	(10,269)	—	—	—	(10,269)
Fair value reserve (FVOCI financial assets)		—	—	—	—	—	(151,186)	—	—	(151,186)
Total other comprehensive income/ (loss)		—	—	—	—	(29,464)	(151,186)	—	36,579	(144,071)
Total comprehensive income/(loss)		—	—	—	—	(29,464)	(151,186)	—	1,048,528	867,878
Transactions with owners, recorded directly in equity										
Equity increase resulting from merger and capital transactions	**34**	—	—	100	15,828	—	—	—	—	15,928
Equity settled share-based payment	**32**	—	—	—	—	—	—	(494)	—	(494)
Total contributions by and distributions to owners		—	—	100	15,828	—	—	(494)	—	15,434
Balance at 31 December 2021		10,532	1,962,747	826,788	18,048	(117,039)	(122,971)	(1,238)	9,020,950	11,597,817

The accompanying notes on pages 22 to 114 form an integral part of these financial statements.

CITIBANK EUROPE PLC

STATEMENT OF CASH FLOWS

for the year ended 31 December 2021

	Note	31 December 2021	31 December 2020 (Restated)
		$ 000	**$ 000**
Cash flows from operating activities			
Profit after tax		1,011,949	443,096
Adjustments for:			
Income tax charged	**13**	193,058	32,594
Depreciation and amortisation	**12**	55,308	59,643
Net impairment losses/(recoveries) on loans and advances	**21**	(266,533)	426,494
Provision released and other movements during the year	**29**	(4,033)	5,861
Provision utilised during the year	**29**	(4,682)	(3,519)
Share based payment fair value adjustments	**32**	(494)	(3,570)
Remeasurement of post-employment defined benefit plans	**14**	40,195	(29,914)
Net interest income	**3**	(382,755)	(390,610)
Net gain on investment securities	**18**	(225,199)	(21,902)
Change in trading assets*	**16, 23**	(2,630,457)	(691,451)
Change in derivative financial instrument assets	**17, 23**	(1,889,129)	(8,015,525)
Change in loans and advances to banks (more than 3 months)	**15, 19**	(605,327)	739,091
Change in loans and advances to customers	**19, 21**	(3,271,009)	(1,036,347)
Change in other assets*	**20**	(2,720,563)	1,029,502
Change in deposits by banks	**23**	(2,664,658)	(1,368,610)
Change in customer account balances	**23**	5,778,906	5,168,229
Change in derivative financial instrument liabilities	**17, 23**	3,181,522	8,002,638
Change in other liabilities*	**30**	3,545,316	(590,322)
		(858,585)	3,755,378
Interest received	**3**	545,561	568,430
Interest paid	**3**	(162,806)	(177,820)
Income tax paid		(120,661)	(103,664)
Net cash flow from operating activities		(596,491)	4,042,324
Cash flows from investing activities			
Acquisition of investment securities		(3,823,757)	(462,330)
Disposal of investment securities		184,020	490,158
Acquisition of property and equipment	**24**	(39,114)	(28,141)
Proceeds from disposal of property and equipment	**24**	4,840	2,331
Acquisition of intangible assets	**25**	(27,139)	(24,342)
Cost of acquisition of business	**34**	(15,172)	—
Proceeds from disposal of business	**34**	31,000	—
Net cash flow from investing activities		(3,685,322)	(22,324)
Cash flows from financing activities			
Payment of lease liabilities	**36**	(4,909)	(5,388)
Interest on lease liabilities	**36**	—	(1)
Proceeds from repurchase agreements	**15**	1,064,886	—
Proceeds from issue of subordinated liabilities	**15**	4,772,830	—
Proceeds from capital contribution		100	—
Net cash flow (used in) financing activities		5,832,907	(5,389)
Net increase in cash and cash equivalents		1,551,094	4,014,611
Cash and cash equivalents at beginning of year	**15**	35,472,719	31,519,195
Effect of exchange translations and other adjustments		(16,851)	(61,087)
Cash and cash equivalents at end of year	**15**	37,006,962	35,472,719

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

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 2021. 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.

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 2021. They include:

- Covid 19-Related Rent Concessions (Amendment to IFRS 16)
- Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 Interest Rate Benchmark Reform – Phase 2

The above amendments to IFRS 16 did not have any impact on the Company's financial statements. More discussion of Interest Rate Benchmark Reform is included below.

Interest Rate Benchmark Reform (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16) – Phase 2

The Company has initially adopted Interest Rate Benchmark Reform – Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16) from 1 January 2021. The Phase 2 amendments provide practical relief from certain requirements in IFRS Standards. These reliefs relate to modifications of financial instruments and lease contracts or hedging relationships triggered by a replacement of a benchmark interest rate in a contract with a new alternative benchmark rate. 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 updated the effective interest rate of the financial asset or financial liability to reflect the change that is required by the reform. 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.

1. Principal accounting policies (continued)

c) Changes in accounting policy and disclosures (continued)

Managing interest rate benchmark reform and associated risks

LIBOR and other rates deemed to be benchmarks have been widely used across financial products and markets globally. These benchmarks have been the subject of ongoing national and international regulatory scrutiny and reform, resulting in regulators generally expecting or requiring banks, including Citi, to cease entering into new contracts that reference USD LIBOR as a benchmark by 31 December 2021. 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 purposes as permitted by regulatory guidance and Citi has been in compliance with this expectation.

Citi recognizes 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.

In addition, 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, oversight by Citi's Asset & Liability Committee and reporting to the Risk Management Committee of Citigroup's Board of Directors. 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.

In 2021, Citi has been focused on remediating existing LIBOR contracts for which publication ceased on a representative basis on 31 December 2021. Substantially all of these contracts have been remediated by 31 December 2021, and Citi continues to actively engage in and track the remediation of any remaining contracts after 31 December 2021. In addition, a significant majority of the notional amount of Citi's derivatives exposures include fallback provisions referencing alternative reference rates as a result of adherence to the (IBOR) Fallbacks Protocol.

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:

1. Principal accounting policies (continued)

c) Changes in accounting policy and disclosures (continued)

	Exposures impacted by interest rate benchmark reform						
	USD	EUR	GBP	JPY	CHF	SGD	Total
	$ 000	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**
IBOR exposures by Benchmarks*							
Financial Assets**	4,093,727	919,462	518,512	3,876	24,736	3,705	5,564,018
Financial Liabilities***	171,737	6,467	126	18,973	210	—	197,513
Derivatives Notional****	187,065,569	—	4,118,162	1,054,140	180,650	—	192,418,521

*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.

Standards issued and not yet effective

There are a number of accounting standards that have been issued by the IASB, but which are not yet effective. The Company does not plan on early adoption of these standards. The following amended standards and interpretations are not expected to have a significant impact on the Company's financial statements:

- Reference to the Conceptual Framework (Amendments to IFRS 3)
- Onerous Contracts — Cost of Fulfilling a Contract (Amendments to IAS 37)
- IFRS 17 Insurance Contracts
- Fees in the '10 per cent' Test for Derecognition of Financial Liabilities (Amendment to IFRS 9)
- Classification of Liabilities as Current or Non-current (Amendments to IAS 1)

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 amortized 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 recognized 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.

1. Principal accounting policies (continued)

d) Interest income and interest expense (continued)

When calculating the EIR, the Company estimates future cash flows considering all contracted terms of the financial instrument, but not future credit losses. For assets which are initially recognized 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.

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.

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.

1. Principal accounting policies (continued)

e) Net fee and commission income (continued)

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. 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.

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 all 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.

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.

1. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

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 amortized cost and are recorded in multiple lines on the Company's balance sheet.

- 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 balance sheet.

- 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 balance sheet.

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.

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. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

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.

Recognition and Initial Measurement
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. The Company previously considered purchases and sales of secondary loan trading inventory to be classified as regular-way. Therefore, the Company recognised or derecognised the inventory on the trade date and recognised a corresponding trade date payable or receivable respectively. Given the update in management judgement explained in Note 38, purchases and sales of secondary loan trading inventory are now classified as non-regular way meaning that secondary loan trading inventory will be recognised or derecognised on settlement date rather than on trade date.

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.

1. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

Reverse repurchase agreements

When the Company purchases a financial asset and simultaneously enters into an agreement to resell the asset or a substantially similar asset at a fixed price on a future date, the arrangement is accounted for as a loan or advance, and the underlying asset is not recognised in the Company`s financial statements.

<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 2020 and as at 31 December 2021:

Investment debt securities

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.

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 2020 and as at 31 December 2021:

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.

1. Principal accounting policies (continued)

i) Financial assets and liabilities (continued)

Derivative contracts

Derivatives including the ones held for risk management purposes 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.

Net investment hedges

When a derivative instrument or a non-derivative financial liability is designated as the hedging instrument in a hedge of a net investment in a foreign operation, the effective portion of changes in the fair value of the hedging instrument is recognised in OCI and presented in the translation reserve within equity. The effective portion of the change in fair value of the hedging instrument is computed with reference to the functional currency of the parent entity against whose functional currency the hedged risk is measured. Any ineffective portion of the changes in the fair value of the derivative is recognised immediately in profit or loss.

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)

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 within net operating income 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.

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.

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.

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. 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.

1. Principal accounting policies (continued)

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.

From 1 January 2018, 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 credit 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.

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

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

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 reorganization;
- 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.

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.

Wholesale Classifiably Managed Exposures
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.

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

Delinquency Managed Exposures
Where the Company does not have access to detailed historical information and/or loss experience, the Company has adopted a simplified approach using backstops and other qualitative information specific to each portfolio.

Other Financial Assets Simplified Approaches
For other financial assets, being short term and simple in nature, the Company applied 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: Cash and cash equivalents, deposits with banks, vanilla reverse repo transactions, brokerage receivables and receivables from clearing houses and trade receivables.

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. Whether a specific factor is relevant, and its weight compared to other factors, will depend on the type and relevant characteristics of the financial instrument, the borrower as well as the geographic region.

The objective of the assessment is to identify whether a significant increase in credit risk has occurred for an exposure by comparing:

- the remaining lifetime probability of default (PD) as at the reporting date; with
- the remaining lifetime PD for this point in time that was estimated at the time of initial recognition of the exposure (adjusted where appropriate for changes in prepayment expectations).

The Company uses three criteria for determining whether there has been a significant increase in credit risk:

- a quantitative test based on movement in PD;
- qualitative indicators; and
- a backstop of 30 days past due with a rebuttable presumption if there is reasonable and supportable information demonstrating that credit risk has not increased since initial recognition.

Determining whether credit risk has increased significantly

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:

- there has been an increase of more than 20 basis points in the lifetime PD between origination and the reporting date
- there has been an increase in the lifetime PD between origination and the reporting date of more than one standard deviation of the normal distribution for the lifetime PD at origination.

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, such as placement on a watch list or classification of forborne for regulatory reporting purposes. Such qualitative factors are based on expert judgement and relevant historical experiences.

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.

The 30 days past due 'backstop' criteria assumes 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 reasonable and supportable information demonstrating that credit risk not increased since initial recognition. The 30 days past due criteria is a backstop rather than a primary driver of moving exposures from Stage 1 into Stage 2. Exposures move back to Stage 1 once they no longer meet the criteria for a significant increase in credit risk and when any cure criteria used for credit risk management are met. The 30 days past due back stop criteria only apply to exposures in Stage 1 and 2.

Management judgement may be applied to make an estimate of overlay to model outputs in certain scenarios where there is limitation of historical data and uncertain macro economic conditions.

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. 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. The existence of a (statistically) significant deterioration or improvement is combined with the materiality of the probability of default to determine whether a transfer in stages is required. Additional qualitative reviews are also performed to assess the staging results and make adjustments, as necessary, to better reflect the positions which have significantly increased in risk.

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.

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

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.

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.

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.

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 Credit Conversion Factor (CCF) 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 (at least 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 disclosed in Note 21 and is recognised in 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 credit losses 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) 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.

1. Principal accounting policies (continued)

l) Leases (continued)

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 balance sheet, 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 an expense in profit or loss. 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.

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) and if the Company is reasonably certain to exercise a purchase option, or 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.

1. Principal accounting policies (continued)

m) 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.

n) Intangible assets

Goodwill
Acquired goodwill represents the excess of the cost of an acquisition 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.

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

1. Principal accounting policies (continued)

o) 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.

p) 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.

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.

q) 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.

r) 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 statement of financial position date, and their income statements are translated at the average exchange rates for the year. Foreign currency differences are recognised in OCI and accumulated in the translation reserve in equity.

1. Principal accounting policies (continued)

s) 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. For its overseas defined benefit plans, 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.

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 short term cash bonus 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.

t) 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 in the equity reserve as a capital contribution from 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.

1. Principal accounting policies (continued)

t) Share based incentive plans (continued)

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.

u) Accounting for government grants

The Company recognizes 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.

v) 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.

w) 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.

x) Subsidiary undertakings

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

y) Common control transactions

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

1. Principal accounting policies (continued)

z) 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. Prior period disclosures have been updated to distinguish between continuing and discontinued operations.

aa) 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 the previous Note.

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 and prudent. 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:

Impairment of loans
Judgements are applied in estimating the impairment loss which should be recorded in the income statement. 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 going forward as presented further in Note 38.

Share-based incentive plans
The Company participates in a number of Citigroup Inc's share-based incentive plans. Awards granted through Citigroup Inc's Stock Option Program are measured by applying an option pricing model, taking into account the terms and conditions of the program. Analysis of past exercise behaviour, Citigroup Inc's dividend history and historical volatility are key inputs to the valuation model. See Note 32 – 'Share-based incentive plans' for further details.

2. Use of assumptions and estimates (continued)

Retirement benefit obligation
The Company participates in locally operated defined benefit schemes for its European branches. Defined benefit schemes are measured on an actuarial basis, with the key assumptions being inflation, discount rate, salary growth and mortality. Under the revised IAS 19, the expected return on plan assets is calculated by applying the AA corporate bond yield discount rate. Inflation rates are selected by reference to the European Central Bank target for inflation. Mortality assumptions are based upon the relevant standard industry and national mortality tables. Discount rates are based on specific corporate bond indices, which reflect the underlying yield curve of each scheme. Management judgement is required in estimating the rate of future salary growth. All assumptions are unbiased, mutually compatible and based upon market expectations at the reporting date. The sensitivity of key assumptions is discussed in Note 14 – 'Retirement benefit obligations.'

Deferred tax
The Company's accounting policy for the recognition of deferred tax assets is described in Note 1(p) – 'Principal accounting policies'. A deferred tax asset is recognised to the extent that it is probable that suitable future taxable profits will be available against which deductible temporary differences can be utilised. The recognition of a deferred tax asset relies on management's judgements surrounding the probability and sufficiency of suitable future taxable profits, future reversals of existing taxable temporary differences and planning strategies.

The amount of the deferred tax asset recognised is based on the evidence available about conditions at the statement of financial position date, and requires significant judgements to be made by management, especially those based on management's projections of business growth, credit losses and the timing of a general economic recovery.

Management's forecasts support the assumption that it is probable that the future results of the Company will generate sufficient suitable taxable income to utilise the deferred tax assets.

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.

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. IFRS 13 permits an exception, through an accounting policy election, to measure the fair value of a portfolio of financial assets and financial liabilities on the basis of the net open risk position when certain criteria are met (i.e. portfolio exception). 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. Where 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.

2. Use of assumptions and estimates (continued)

Credit value adjustment (CVA), funding valuation adjustment (FVA) and debt valuation adjustment (DVA)
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 Citi's (liabilities) non-performance risk.

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

Citi's CVA and FVA methodology consists 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 risk and unsecured funding, 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 future liquidity spreads is applied to the expected future funding requirement.

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.

Own Debt Valuation Adjustments (DVA) are recognised on Citi's liabilities for which the fair value option has been elected using Citi's credit spreads observed in the bond market. Among other variables, the fair value of liabilities for which the fair value option has been elected (other than nonrecourse debt and similar liabilities) is impacted by the narrowing or widening of the Company's credit spreads.

The Company has designated various debt instruments at fair value through profit or loss. Under IFRS 13, the Company is required to incorporate its own-credit risk in the fair value for these liabilities.

During 2021, the Company recorded CVA loss of $5.1 million (2020: loss of $9 million), FVA gain of $3.9 million (2020: loss of $2.6 million) and DVA $nil (2020: $nil).

3. Net interest income

	2021	2020
Interest income	**$ 000**	**$ 000**
Cash and cash equivalents	21,334	17,613
Loans and advances to banks	25,980	56,938
Loans and advances to customers	306,283	331,022
Investment securities	60,810	69,447
Other interest income	131,154	93,410
	545,561	**568,430**
Interest expense		
Deposits by banks	(13,718)	(62,967)
Customer accounts	(16,999)	(36,381)
Other interest expense	(132,089)	(78,472)
	(162,806)	**(177,820)**
Net interest income	**382,755**	**390,610**

Included in interest income is a total of $1 million (2020: $13 million) received on impaired loans.

4. Net fee and commission income

	2021	2020
Fee and commission income	**$ 000**	**$ 000**
Investment banking	32,310	16,717
Brokerage commissions	154,797	154,946
Custody and Fiduciary transactions	413,860	337,317
Transactional service fees	431,740	362,171
Commitment fees	173,359	157,139
Credit and bank card	37,652	34,388
Deposit-related fees	71,660	86,256
Other	38,273	19,288
	1,353,651	**1,168,222**
Fee and commission expense		
Clearing and settlement	(100,528)	(105,927)
Custody	(77,146)	(56,991)
Other	(39,204)	(35,616)
	(216,878)	**(198,534)**
Net fee and commission income	**1,136,773**	**969,688**

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 $36.3 million in 2021 (2020: $35.8 million).

5. Net trading income

	2021	2020
	$ 000	$ 000
Derivatives	115,292	185,656
Debt securities	11,974	47,918
Loans and advances	38,152	22,120
	165,418	**255,694**

6. Net investment income

	2021	2020
	$ 000	$ 000
Net gain on FVOCI investment securities	2,313	44,158
Equity securities	49,869	38,474
	52,182	**82,632**

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

	2021	2020
	$ 000	$ 000
Financial instruments	58,841	12,284
	58,841	**12,284**

8. Other operating income

	2021	2020
	$ 000	$ 000
Intercompany recoveries	675,535	502,538
	675,535	**502,538**

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

	2021	2020
	$ 000	$ 000
Audit fee	759	693
Other assurance	534	347
Tax advisory services	—	—
Other non-audit services	2	2
	1,295	**1,042**

Additional fees paid to other KPMG member firms outside Ireland for services include local audit fees of $1.3 million (2020: $1.3 million) (of which $0.7 million (2020: $0.6 million) were to offices involved in the statutory audit of the Company), other assurance fees of $0.4 million (2020: $0.3 million), tax advisory fees of $nil (2020: $nil) and any other non-audit service fees of $0.05 million (2020: $0.04 million).

10. Personnel expenses

The average number of persons employed by the Company during the year was 11,249 (2020: 10,238). This comprises 11,085 Direct Staff Full Time and 164 Direct Staff Part-time. The average number of persons employed through the Company's continuing operations during the year was 11,249 (2020: 10,238).

The following table shows the average number of employees by function for 2021 and 2020:

	2021	2020
Corporate and Investment Bank	912	560
Retail and Private banking	303	349
Corporate Functions	4,230	4,138
Other operations	5,804	5,191
Total number of staff	**11,249**	**10,238**

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

	2021	2020
	$ 000	$ 000
Wages and salaries	804,299	640,037
Social security costs	88,695	119,992
Share based payment expenses	21,106	15,578
Pensions and post retirement benefits	36,999	16,276
Restructuring costs	101	9,655
Total personnel expenses	**951,200**	**801,538**

The Company operates 20 (2020: 20) defined contribution schemes across its branches. In addition, the Company also operates 13 (2020: 13) defined benefit schemes. In 2021 contributions of $37 million (2020: $16 million) were made to the schemes. For more details, please refer to Note 14.

11. Directors' emoluments

	2021	2020
	$ 000	$ 000
Directors' emoluments are as follows:		
For qualifying services	2,616	3,221
Pension schemes		
– Defined contribution scheme	107	115
	2,723	**3,336**

As of 31 December 2021 retirement benefits were accruing to two directors (2020: three).

12. Other expenses

	2021	2020
	$ 000	$ 000
Research and development	4,213	7,085
Depreciation	39,784	35,755
Amortisation	15,524	23,888
Communications and technology	215,324	127,111
Contractors	42,794	35,996
Levies and regulatory charges	67,494	65,892
Premises	28,801	22,237
VAT	33,918	34,717
Travel & Entertainment	1,448	3,706
Other administrative expenses	114,637	89,868
	563,937	**446,255**

13. Tax on profit on ordinary activities

(a) Analysis of tax charge in the year:

	2021	2020
	$ 000	$ 000
Current tax:		
Corporate tax on profits of the period	(163,534)	(98,095)
Adjustments in respect of corporation tax for earlier years	(16,994)	34,193
Deferred tax:		
Current year deferred tax	(12,530)	31,308
Total corporate tax	**(193,058)**	**(32,594)**

(b) Reconciliation of effective tax rate:

	2021	2020
	$ 000	$ 000
Profit before tax from continued operations	1,205,007	475,690
Total profit before tax	1,205,007	475,690
Corporate tax at Irish corporation tax rate of 12.5%	(150,626)	(59,461)
Effects of:		
Taxes paid in foreign jurisdictions	(5,279)	(32,482)
Deferred tax adjustments	(20,159)	25,156
Prior year adjustment current tax	(16,994)	34,193
Total corporate tax expense	**(193,058)**	**(32,594)**

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 2021 were $12 million (2020: $13 million). The Company expects to make contributions of approximately $10 million in 2022. The defined benefit obligation includes benefits for current employees, former employees and current pensioners. The weighted average duration of the obligation is 17.7 years. The main plans provide benefits related to salary close to retirement or earlier withdrawal from service.

Material amendments, curtailments and settlements within the Company during 2021 and 2020 encompassed the following:

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

	31 December 2021	31 December 2020
	$ 000	**$ 000**
Present value of funded defined benefit obligation	(574,161)	(649,639)
Present value of unfunded defined benefit obligation	(15,163)	(17,579)
Total defined benefit obligation	(589,324)	(667,218)
Fair value of plan assets	360,957	387,757
Net liability recognised on the statement of financial position (Note 30)	(228,367)	(279,461)
Deferred tax asset (Note 26)	29,438	33,203
Net pension liability	**(198,929)**	**(246,258)**

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

The analysis of the income statement charge is as follows:

	2021	2020
	$ 000	**$ 000**
Operating costs:		
Current service cost	5,429	4,609
Administration expenses	1,962	1,903
Past service cost (incl. curtailments)	420	(15,836)
Financing costs:		
Interest cost on defined benefit obligations	3,944	6,310
Interest income on scheme assets	(2,348)	(3,755)
Expense/(income) recognised in the income statement	9,407	(6,769)
of which attributable to discontinued operations	—	—
Expense/(income) recognised in the income statement for continuing	**9,407**	**(6,769)**

14. Retirement benefit obligation (continued)

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

	2021	2020
	$ 000	$ 000
Opening defined benefit obligation	(667,218)	(575,366)
Exchange rate adjustments	50,069	(55,459)
Current service cost	(5,429)	(4,609)
Interest cost on defined benefit obligations	(3,944)	(6,310)
Remeasurement gain/(loss) due to changes in financial assumptions	33,908	(55,928)
Remeasurement (loss)/gain due to changes in demographic assumptions	(695)	846
Remeasurement loss due to changes in liability experience	(102)	(2,550)
Contributions by plan participants	(36)	(35)
Net benefits paid out	16,167	16,926
Past service cost (incl. curtailments)	(420)	15,836
Net increase in liabilities from acquisitions	(11,624)	(569)
Closing defined benefit obligation	**(589,324)**	**(667,218)**

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

	2021	2020
	$ 000	$ 000
Opening fair value of plan assets	387,757	330,131
Exchange rate adjustments	(29,789)	32,019
Interest income on plan assets	2,348	3,755
Return on plan assets excluding interest income	7,084	27,718
Contributions by the employer	11,650	12,640
Contributions by the participants	36	35
Net benefits paid out	(16,167)	(16,926)
Administration costs incurred	(1,962)	(1,903)
Net increase in assets from disposals/acquisitions	—	288
Closing fair value of plan assets	**360,957**	**387,757**

The actual return on plan assets is as follows:

	2021	2020
	$ 000	$ 000
Interest income on plan assets	2,348	3,755
Return on plan assets excluding interest income	7,084	27,718
Total return on plan assets	**9,432**	**31,473**

The interest income on scheme assets is set using the discount rate assumption. In 2021, there was an increase in asset values leading to a remeasurement gain of $7 million (2020: $28 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:

	2021	2020
	$ 000	$ 000
Remeasurement gain/(loss) on scheme liabilities		
Remeasurement gain/(loss) due to changes in financial assumptions	33,908	(55,928)
Remeasurement (loss)/gain due to changes in demographic assumptions	(695)	846
Remeasurement loss due to changes in liability experience	(102)	(2,550)
Total remeasurement gain/(loss) on scheme liabilities	**33,111**	**(57,632)**
Remeasurement gain on plan assets	**7,084**	**27,718**
Profit/(loss) on remeasurement of defined benefit liability/asset	**40,195**	**(29,914)**

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 22.2 for males and 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.

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

	2021	2020
Discount rate for assessing scheme liabilities	1.10%	0.60%
Future salary increases	3.00%	3.00%
Rate of increase for pensions in payment	2.10%	1.50%
Inflation rate assumption	2.10%	1.40%

14. Retirement benefit obligation (continued)

The fair values of the plan assets are as follows:

	$ 000			
	2021		2020	
	Total fair value	Of which not quoted in active market	Total fair value	Of which not quoted in active market
Equities	105,131	—	117,086	—
Property	160	—	166	—
Government bonds	105,178	—	116,940	—
Corporate bonds	108,669	—	115,231	—
Other	41,819	5,167	38,334	4,870
Total fair value of assets	**360,957**	**5,167**	**387,757**	**4,870**

The key assumption used for IAS 19 is the discount rate although the results are also sensitive, but to a lesser extent than 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:

	2021	2020
	$ 000	$ 000
Effect of decreasing the discount rate assumption by 1% on liabilities	(115,833)	(136,390)
Effect of increasing the discount rate assumption by 1% on liabilities	94,785	110,996
Effect of increasing the pension increase rate by 1% on liabilities	(40,748)	(45,060)
Effect of decreasing the pension increase rate by 1% on liabilities	32,852	36,088
Effect of increasing the salary increase rate by 1% on liabilities	(8,419)	(10,351)
Effect of decreasing the salary increase rate by 1% on liabilities	7,878	9,654
Effect of participants living one extra year than expected on liabilities	(20,810)	(23,702)

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

	2022	2023	2024	2025	2026	2026-2030
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Expected benefit payments	15,319	16,859	17,533	18,516	19,106	101,127

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 2021	31 December 2020
	$ 000	$ 000
Cash and balances with central banks	21,902,900	17,627,202
Other demand deposits	5,580,037	2,340,655
Expected credit loss	(970)	(113)
Cash and cash equivalents	**27,481,967**	**19,967,744**
Loans and advances to banks with maturity less than 3 months	9,524,995	15,504,975
	37,006,962	**35,472,719**

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**	
	2021	2020
	$ 000	$ 000
Outstanding exposure as at 1 January	**19,967,857**	**19,334,400**
New assets originated or purchased	7,906,732	7,568,178
Asset derecognised or matured	(391,652)	(6,934,721)
At 31 December	**27,482,937**	**19,967,857**

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

ECL	**Stage 1**	
	2021	2020
	$ 000	$ 000
IFRS 9 ECL as at 1 January	**113**	**85**
ECL on new assets originated or purchased	1,171	85
Exposure derecognised or matured	(314)	(57)
At 31 December	**970**	**113**

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

	Repurchase agreements		Subordinated liabilities	
	2021	2020	2021	2020
	$ 000	$ 000	$ 000	$ 000
Opening balance at 1 January	**—**	**—**	**—**	**—**
Proceeds from repurchase agreements	1,064,886	—	—	—
Proceeds from issue of subordinated liabilities	—	—	4,772,830	—
Closing balance at 31 December	**1,064,886**	**—**	**4,772,830**	**—**

16. Trading assets

	31 December 2021	31 December 2020 (Restated)
	$ 000	$ 000
Government bonds	2,552,498	269,861
Corporate bonds	2,540	12,455
Loans*	1,888,062	1,530,327
	4,443,100	**1,812,643**

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

17. Derivative financial instruments

	31 December 2021			31 December 2020		
	Notional amount	Fair value		Notional amount	Fair value	
		Assets	Liabilities		Assets	Liabilities
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Derivatives held for trading	1,605,211,666	13,125,638	14,429,404	712,286,599	11,234,165	11,247,882
Derivatives held for risk management	—	—	—	184,065	2,344	—
Total	**1,605,211,666**	**13,125,638**	**14,429,404**	**712,470,664**	**11,236,509**	**11,247,882**
Derivatives held for trading						
Foreign exchange	705,556,064	5,898,010	5,841,913	523,201,273	6,554,512	6,566,905
– OTC	705,556,064	5,898,010	5,841,913	523,201,273	6,554,512	6,566,905
– Organised market	—	—	—	—	—	—
Interest rate	884,595,706	6,733,604	8,133,689	185,020,001	4,577,341	4,579,621
– OTC	884,595,706	6,733,604	8,133,689	185,020,001	4,577,341	4,579,621
– Organised market	—	—	—	—	—	—
Equity	858,419	45,068	—	979,296	7,921	7,766
– OTC	858,419	45,068	—	979,296	7,921	7,766
– Organised market	—	—	—	—	—	—
Credit	14,194,992	446,748	451,595	3,079,059	90,446	91,109
Commodity	6,485	2,208	2,207	6,970	3,945	2,481
Total	**1,605,211,666**	**13,125,638**	**14,429,404**	**712,286,599**	**11,234,165**	**11,247,882**

17. Derivative financial instruments (continued)

See Note 21 – 'Risk management' for more details on how the Company uses derivative financial instruments as part of its risk management policies and procedures.

	31 December 2021			31 December 2020		
	Notional amount	Fair value		Notional amount	Fair value	
		Assets	Liabilities		Assets	Liabilities
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Derivatives held for risk management						
Instrument type:						
Foreign exchange	—	—	—	184,065	2,344	—
Total	**—**	**—**	**—**	**184,065**	**2,344**	**—**

The Company had a net investment hedge in place to reduce its foreign currency exposure risk with the Company's EUR functional currency branches. The hedge contracts were renewed every 3 months at maturity and the gain or loss on the contract was recognised in the fair value reserve and was released to the Income Statement upon the disposal of the investments.

18. Investment securities

	31 December 2021	31 December 2020
	$ 000	$ 000
FVOCI investment securities		
Government bonds	6,951,182	3,689,935
Corporate bonds	435,973	—
Total	**7,387,155**	**3,689,935**
FVTPL investment securities		
Equity securities	137,860	153,332
Total investment securities	**7,525,015**	**3,843,267**

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	
	2021	2020
	$ 000	$ 000
Outstanding exposure as at 1 January	**3,689,935**	**3,722,752**
New assets originated or purchased	3,823,757	457,341
Asset derecognised or matured	(126,537)	(490,158)
At 31 December	**7,387,155**	**3,689,935**

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

18. Investment securities (continued)

ECL	**Stage 1**	
	2021	**2020**
	$ 000	**$ 000**
IFRS 9 ECL as at 1 January	**6,302**	**1,715**
ECL on new assets originated or purchased	103	4,685
Exposure derecognised or matured	(3,660)	(98)
At 31 December	**2,745**	**6,302**

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 2021 $ 000	**31 December 2020 $ 000**
Loans and advances to banks measured at amortised cost		
Gross exposure	11,040,537	16,415,189
Expected credit loss	(5,471)	(10,638)
	11,035,066	**16,404,551**
Loans and advances to customers measured at amortised cost		
General governments	300,720	472,437
Corporations	18,648,459	16,191,489
Retail customers	1,442,983	1,280,666
Expected credit loss	(149,596)	(393,245)
	20,242,566	**17,551,347**
Loans to customers held at fair value through the profit and loss	1,010,617	187,178
	21,253,183	**17,738,525**

Retail customers are in relation to the Private Bank business.

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

Expected credit loss – Loans and advances to banks and customers

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	
	2021 $ 000	2020 $ 000	2021 $ 000	2020 $ 000	2021 $ 000	2020 $ 000	2021 $ 000	2020 $ 000
Outstanding exposure as at 1 January	**32,276,776**	**29,832,566**	**1,523,556**	**762,045**	**559,449**	**128,678**	**34,359,781**	**30,723,289**
New assets originated or purchased	16,086,803	18,793,139	176,463	462,408	36,977	37,846	16,300,243	19,293,393
Asset derecognised or matured	(18,201,347)	(15,327,426)	(777,287)	(171,553)	(222,449)	1,820	(19,201,083)	(15,497,159)
Transfers to Stage 1	547,102	253,294	(460,746)	(168,819)	(86,356)	(84,475)	—	—
Transfers to Stage 2	(1,050,015)	(724,122)	1,050,016	724,169	(1)	(47)	—	—
Transfers to Stage 3	(28,847)	(465,631)	(14,961)	(31,448)	43,808	497,079	—	—
Amounts written off	(1,889)	(25,797)	(14)	(1,705)	(24,339)	(960)	(26,242)	(28,462)
Other movements	—	(59,247)	—	(51,541)	—	(20,492)	—	(131,280)
At 31 December	**29,628,583**	**32,276,776**	**1,497,027**	**1,523,556**	**307,089**	**559,449**	**31,432,699**	**34,359,781**

ECL	Stage 1		Stage 2		Stage 3		Total	
	2021 $ 000	2020 $ 000	2021 $ 000	2020 $ 000	2021 $ 000	2020 $ 000	2021 $ 000	2020 $ 000
IFRS 9 ECL as at 1 January	**37,592**	**13,527**	**212,173**	**18,961**	**154,118**	**10,462**	**403,883**	**42,950**
ECL on new assets originated or purchased	3,141	3,225	792	18,576	14,374	234	18,307	22,035
Exposure derecognised or matured	(3,630)	(2,716)	(52,903)	(6,055)	(60,924)	(887)	(117,457)	(9,658)
Transfers to Stage 1	33,551	1,741	(33,548)	(1,267)	(3)	(474)	—	—
Transfers to Stage 2	(13,097)	(1,792)	13,097	1,793	—	(1)	—	—
Transfers to Stage 3	(10)	(542)	(1,903)	(2,084)	1,913	2,626	—	—
Net remeasurement of loss allowance	(13,966)	(883)	(1,359)	62,320	14,325	69,242	(1,000)	130,679
Amounts written off	(120)	—	(12)	—	(16,762)	—	(16,894)	—
Other movements	(28,765)	25,032	(58,471)	119,929	(44,536)	72,916	(131,772)	217,877
At 31 December	**14,696**	**37,592**	**77,866**	**212,173**	**62,505**	**154,118**	**155,067**	**403,883**

20. Other assets

	31 December 2021	31 December 2020 (Restated)
	$ 000	**$ 000**
Receivables and Prepayments	1,119,152	44,675
Settlement clearing lines	299,009	118,175
Margin account receivables	2,839,500	1,472,953
Secondary loan trading*	394,894	210,486
Other balances	179,068	252,608
	4,831,623	2,098,897

*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**	
	2021	**2020 (Restated)**
	$ 000	**$ 000**
Outstanding exposure as at 1 January	**2,098,897**	**3,162,621**
New assets originated or purchased*	2,927,504	1,991,492
Asset derecognised or matured	(194,778)	(3,055,216)
At 31 December	**4,831,623**	**2,098,897**

*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 2021 or 31 December 2020.

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.

21. Risk management (continued)

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

Risk management oversight is conducted as described in the Directors' Report corporate governance section starting from page 6.

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 businesses, operations teams and finance (the first line of defence) owns and manages the risks inherent in or arising from the business, and are responsible 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, operations and control functions are required to manage and oversee risks, including compliance with applicable laws, regulatory requirements, policies and 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 support functions (including HR, Legal and CEO Support) that do not meet the definition of front-line unit, independent risk management or internal audit. While they do not report into the CRO or CCO, they are expected to design, implement and maintain an effective control environment, supportive of safety and soundness. Any front-line unit activities within support functions remain subject to challenge by independent risk management.

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. Company's Chief Risk Officer (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 the Independent Risk Management employees possess the appropriate expertise, stature, authority and independence and are empowered to make decisions and escalate issues.

21. Risk management (continued)

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

Enterprise Risk Governance Framework

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

The Company's Enterprise Risk Governance Framework is an overarching framework, based on sound principles of good risk governance and management and on guidance issued by regulatory authorities. The 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 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.

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. BRC annually recommends approval of risk appetite limits in the form of the risk appetite statement to the Board.

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 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,
- The Company's branch network and reporting lines to ensure all branches are operating in line with the Company's Enterprise Risk Governance Framework.

21. Risk management (continued)

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

Stress testing

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

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. Risk management (continued)

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

Credit risk management framework, approved by the Board, provides holistic outline of how credit risk is managed, establishes standards for measuring, managing, monitoring and controlling credit risk in the Company and set 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

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, at scheduled meetings, 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 Chief Risk Officer (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 in order to take the latest events into account.

21. Risk management (continued)

21.2. Credit risk (continued)

Credit quality

The Company has an internal risk rating system that accurately and reliably differentiates between degrees of credit risk for classifiable 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 that the obligor is 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 or other forms of support, or filing a claim against the insurer.

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. During the period the methodology was refined to reflect CEP-specific ORR aligning with regulatory requirements applicable to CEP with associated ECL increase of $24 million.

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 reviews provisions periodically and at the Impairment Working Group (IWG) which is jointly chaired by the CEP Financial Controller and the CEP Head of Credit Policy & Remedial Management and are subsequently presented to the Risk Management Committee.

21. Risk management (continued)

21.2. Credit risk (continued)

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 Forecast 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.

Periodically, the Company carries out stress testing of more extreme shocks to calibrate its determination of the optimistic and pessimistic representative scenarios. A comprehensive review is performed at least annually on the design of the scenarios by a panel of experts that advises senior management.

In developing its IFRS 9 forecasting models, key drivers are identified such as credit risk and credit losses based on the sector, product and geography characteristics attaching to each financial instrument and using an analysis of historical data has estimated relationships between the identified macro-economic drivers and credit risk and credit losses. The key drivers include GDP growth, unemployment rates, equity indices and commodity prices. Citi estimates each economic driver for credit risk over the forecast period followed by a reversion to a long run economic average.

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

Country	Macro-economic Variable	Optimistic 2022	Optimistic 2023	Optimistic 2024	Base 2022	Base 2023	Base 2024	Pessimistic 2022	Pessimistic 2023	Pessimistic 2024
#1 France	GDP	3.44	2.12	1.92	2.69	1.58	1.55	1.95	1.07	1.25
	Unemployment	7.49	7.08	6.84	7.75	7.55	7.46	8.03	8.03	8.08
#2 Germany	GDP	3.83	2.96	1.97	2.79	2.27	1.54	1.95	1.62	1.13
	Unemployment	5.05	4.85	4.64	5.22	5.16	5.06	5.41	5.48	5.50
#3 Spain	GDP	4.86	5.10	2.76	3.70	4.20	2.04	2.75	3.35	1.37
	Unemployment	12.14	11.09	10.77	13.28	13.07	13.41	14.25	14.78	15.75

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 both 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.

	at 31 December 2021			at 31 December 2020		
Scenario	Optimistic	Base	Pessimistic	Optimistic	Base	Pessimistic
Probability Weight	15%	55%	30%	24%	51%	25%

After applying the above weights, the model produced a combined ECL of $105 million (31 December 2020: $231 million). In addition to the modelled ECL, a model overlay was considered of which details are provided on next page.

21. Risk management (continued)

21.2. Credit risk (continued)

Sensitivity of ECL to future economic conditions and estimation of model 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. Credit quality and tenor characteristics of CEP portfolio are of particular importance in limiting the level of ECL sensitivity. At 31 December 2021, over 96% (31 December 2020: 95%) 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 are based on a model run and exclude management overlays in the range below.

	at 31 December 2021		
	Optimistic	Base	Pessimistic
	$ 000	$ 000	$ 000
Loss allowance	92,392	102,739	115,184

Total ECLs at 31 December 2021 were $238 million (31 December 2020 : $508 million), including total management overlays of $134 million (31 December 2020: $276 million). As part of the year-end ECL estimation process, the macro-economic uncertainty due to on-going market and economic volatility and to ensure the latent impact caused by Covid 19 is captured by the model outputs a management overlay continues to be applied in the context of a post model adjustment of $109 million. As at 31 December 2021, an additional overlay was introduced to mitigate the emerging risks posed by the geo-political tension in the Russian/Ukraine region of $25 million.

The elevated level of ECL at 31 December 2020 resulted from both the economic shock experienced during the previous year and the uncertainty in outlook resulting from the pandemic. The subsequent economic recovery, the scale of government supports and stimulus, and the success of the vaccine rollout have contributed to the reduction in the ECL stock of $269 million held by the Company during 2021. This reduction is driven by a number of factors, including overall improvement in credit quality and the improved macro-economic outlook, which have contributed to a lower modelled ECL requirement. Additionally, the level of management overlays have gradually reduced as economic activity has recovered and market confidence has improved.

21. Risk management (continued)

21.2. Credit risk (continued)

Risk exposure

At the Company level, there are regular, focused reviews of individual obligors and portfolios by the Credit Risk Committee which reports to the Board Risk Committee. A breakdown of the Company's total credit exposure including commitments are as follows:

	As at 31 December 2021					As at 31 December 2020 (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
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
On-balance sheet:										
Cash and cash equivalents	27,481,967	—	—	—	27,481,967	19,967,744	—	—	—	19,967,744
Trading assets**	4,443,100	—	—	—	4,443,100	1,812,643	—	—	—	1,812,643
Derivative financial instruments	15,328,787	(2,203,149)	(1,790,941)	(1,194,543)	13,125,638	14,204,720	(2,968,211)	(1,301,614)	—	11,236,509
Investment securities	7,525,015	—	—	—	7,525,015	3,843,267	—	—	—	3,843,267
Loans and advances to banks	11,035,066	—	—	(6,948,926)	4,086,140	16,404,551	—	—	(12,263,767)	4,140,784
Loans and advances to customers	22,438,392	(1,185,209)	—	(7,058,010)	14,195,173	17,738,525	—	—	(1,083,196)	16,655,329
Other assets**	4,831,623	—	—	—	4,831,623	2,098,897	—	—	—	2,098,897
	93,083,950	(3,388,358)	(1,790,941)	(15,201,479)	75,688,656	76,070,347	(2,968,211)	(1,301,614)	(13,346,963)	59,755,173
Off-balance sheet:										
Letters of credit	13,802,037	—	—	—	13,802,037	17,064,374	—	—	—	17,064,374
Undrawn commitments to lend	26,577,342	—	—	—	26,577,342	28,943,765	—	—	—	28,943,765
Other commitments and guarantees	4,337,195	—	—	—	4,337,195	1,009,116	—	—	—	1,009,116
	44,716,574	—	—	—	44,716,574	47,017,255	—	—	—	47,017,255

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 Loans and advances to customers carrying value in the Statement of Financial Position is 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 statement of financial position.

* 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.

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

21. Risk management (continued)

21.2. Credit risk (continued)

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	
	2021	2020 (Restated)	2021	2020	2021	2020	2021	2020 (Restated)
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Outstanding exposure as at 1 January	**103,204,496**	**96,492,053**	**3,262,983**	**2,201,641**	**666,246**	**177,104**	**107,133,725**	**98,870,798**
New assets originated or purchased*	34,247,490	37,992,260	717,529	762,806	65,777	70,589	35,030,796	38,825,655
Asset derecognised or matured	(25,043,795)	(29,504,442)	(987,272)	(778,946)	(256,038)	(100,033)	(26,287,105)	(30,383,421)
Transfers to Stage 1	1,000,103	474,078	(913,471)	(389,154)	(86,632)	(84,924)	—	—
Transfers to Stage 2	(1,527,862)	(1,555,250)	1,527,915	1,565,983	(53)	(10,733)	—	—
Transfers to Stage 3	(73,431)	(626,949)	(34,123)	(41,418)	107,554	668,367	—	—
Amounts written off	(2,075)	(25,797)	(14)	(1,705)	—	(33,630)	(2,089)	(61,132)
Other movements	—	(41,457)	—	(56,224)	—	(20,494)	—	(118,175)
At 31 December	**111,804,926**	**103,204,496**	**3,573,547**	**3,262,983**	**496,854**	**666,246**	**115,875,327**	**107,133,725**

ECL	Stage 1		Stage 2		Stage 3		Total	
	2021	2020	2021	2020	2021	2020	2021	2020
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
IFRS 9 ECL as at 1 January	**62,767**	**24,236**	**269,160**	**39,451**	**175,792**	**12,923**	**507,719**	**76,610**
ECL on new assets originated or purchased	5,167	9,648	924	19,839	14,809	239	20,900	29,726
Exposure derecognised or matured	(9,684)	(5,631)	(58,844)	(15,101)	(67,488)	(2,741)	(136,016)	(23,473)
Transfers to Stage 1	39,936	6,594	(39,690)	(6,118)	(246)	(476)	—	—
Transfers to Stage 2	(13,419)	(2,164)	13,419	2,304	—	(140)	—	—
Transfers to Stage 3	(106)	(636)	(2,793)	(2,202)	2,899	2,838	—	—
Net remeasurement of loss allowance	(17,180)	(5,413)	2,784	79,216	19,887	78,724	5,491	152,527
Amounts written off	(120)	—	(12)	—	(16,762)	—	(16,894)	—
Other movements	(15,102)	36,133	(77,996)	151,771	(49,618)	84,425	(142,716)	272,329
At 31 December	**52,259**	**62,767**	**106,952**	**269,160**	**79,273**	**175,792**	**238,484**	**507,719**

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

"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.

As at 31 December 2021 and 31 December 2020:

	IFRS 9 ECL							
	Stage 1		Stage 2		Stage 3		Total	
Income statement	2021	2020	2021	2020	2021	2020	2021	2020
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Financial assets								
Cash and cash equivalents	(857)	(28)	—	—	—	—	(857)	(28)
Loans and advances to banks	4,399	(4,053)	2,085	(4,402)	(1,316)	—	5,168	(8,455)
Loans and advances to customers	18,497	(20,012)	132,222	(188,810)	92,930	(143,656)	243,649	(352,478)
Investment securities	3,557	(4,587)	—	—	—	—	3,557	(4,587)
Total On Balance Sheet	**25,596**	**(28,680)**	**134,307**	**(193,212)**	**91,614**	**(143,656)**	**251,517**	**(365,548)**
Off Balance Sheet								
Letters of credit	(18,983)	(5,512)	6,390	(1,544)	(8,779)	150	(21,372)	(6,906)
Undrawn commitments to lend	3,879	(2,992)	21,511	(36,307)	13,684	(19,362)	39,074	(58,661)
Other commitments and guarantees	16	7	—	—	—	—	16	7
Total Off Balance Sheet	**(15,088)**	**(8,497)**	**27,901**	**(37,851)**	**4,905**	**(19,212)**	**17,718**	**(65,560)**
Recoveries of amounts previously written-off							**5,834**	**3,115**
Write-offs							**(26,429)**	**(61,970)**
Total Net Credit Recoveries/ (Losses)							**248,640**	**(489,963)**

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.

As at 31 December 2021 and 31 December 2020:

	IFRS 9 ECL							
	Stage 1		Stage 2		Stage 3		Total	
Statement of financial position	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
	\$ 000	**\$ 000**	**\$ 000**	**\$ 000**	**\$ 000**	**\$ 000**	**\$ 000**	**\$ 000**
Cash and cash equivalents	970	113	—	—	—	—	970	113
Loans and advances to banks	1,725	6,124	2,429	4,514	1,317	—	5,471	10,638
Loans and advances to customers	12,971	31,468	75,437	207,659	61,188	154,118	149,596	393,245
Investment securities	2,745	6,302	—	—	—	—	2,745	6,302
Other assets	—	—	—	—	—	—	—	—
Total On Balance Sheet	**18,411**	**44,007**	**77,866**	**212,173**	**62,505**	**154,118**	**158,782**	**410,298**
Off Balance Sheet								
Letters of credit	28,534	9,551	8,391	14,781	10,024	1,246	46,949	25,578
Undrawn commitments to lend	5,299	9,178	20,695	42,206	6,744	20,428	32,738	71,812
Other commitments and guarantees	15	31	—	—	—	—	15	31
Total Off Balance Sheet	**33,848**	**18,760**	**29,086**	**56,987**	**16,768**	**21,674**	**79,702**	**97,421**
Total	**52,259**	**62,767**	**106,952**	**269,160**	**79,273**	**175,792**	**238,484**	**507,719**

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	
	2021	2020	2021	2020	2021	2020	2021	2020
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Loans and advances to banks at amortised cost								
Rating 1 to 4-	10,673,775	15,479,261	6	24,879	—	—	10,673,781	15,504,140
Rating 5+ to 6-	313,948	812,089	43,845	98,852	2,516	6	360,309	910,947
Rating 7+ to 7-	50	90	6,397	12	—	—	6,447	102
Rating 8 to 10	—	—	—	—	—	—	—	—
Total	**10,987,773**	**16,291,440**	**50,248**	**123,743**	**2,516**	**6**	**11,040,537**	**16,415,189**
Expected credit loss	(1,725)	(6,124)	(2,429)	(4,514)	(1,317)	—	(5,471)	(10,638)
Carrying amount	**10,986,048**	**16,285,316**	**47,819**	**119,229**	**1,199**	**6**	**11,035,066**	**16,404,551**
Loans and advances to customers at amortised cost								
Rating 1 to 4-	11,883,956	11,915,312	163,665	25,721	30,861	101,738	12,078,482	12,042,771
Rating 5+ to 6-	6,753,136	4,062,690	491,688	317,340	10,593	11,044	7,255,417	4,391,074
Rating 7+ to 7-	3,354	5,443	791,426	1,056,752	197,548	235,066	992,328	1,297,261
Rating 8 to 10	364	1,891	—	—	65,571	211,595	65,935	213,486
Total	**18,640,810**	**15,985,336**	**1,446,779**	**1,399,813**	**304,573**	**559,443**	**20,392,162**	**17,944,592**
Expected credit loss	(12,971)	(31,468)	(75,437)	(207,659)	(61,188)	(154,118)	(149,596)	(393,245)
Carrying amount	**18,627,839**	**15,953,868**	**1,371,342**	**1,192,154**	**243,385**	**405,325**	**20,242,566**	**17,551,347**
Loans held at fair value through profit and loss							1,010,617	187,178
Total loans and advances to customers							**21,253,183**	**17,738,525**

21. Risk management (continued)

21.2. Credit risk (continued)

Credit quality – Trading Assets

The credit quality of the Company's financial assets are 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	
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
	2021	2020 (Restated)	2021	2020	2021	2020	2021	2020
AAA to A-	—	—	—	—	465,894	49,311	465,894	49,311
BBB+ to B-	1,052,154,	1,008,961	—	—	2,086,604	220,549	3,138,758	1,229,510
CCC+ and lower	356,513	170,278	2,540	—	—	—	359,053	170,278
Unrated	479,395	351,088	—	12,455	—	—	479,395	363,543
Total	**1,888,062**	**1,530,327**	**2,540**	**12,455**	**2,552,498**	**269,860**	**4,443,100**	**1,812,642**

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

Credit quality – Investment Securities

	Government bonds (FVOCI)		Corporate bonds (FVOCI)		Equity securities (FVTPL)		Total	
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
	2021	2020	2021	2020	2021	2020	2021	2020
AAA to A-	5,186,233	1,178,925	435,973	—	57,141	112,364	5,679,347	1,291,289
BBB+ to B-	1,764,949	2,511,010	—	—	—	—	1,764,949	2,511,010
CCC+ and lower	—	—	—	—	—	—	—	—
Unrated	—	—	—	—	80,719	40,968	80,719	40,968
Total	**6,951,182**	**3,689,935**	**435,973**	**—**	**137,860**	**153,332**	**7,525,015**	**3,843,267**

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 2021	31 December 2020 (Restated)
	$ 000	$ 000
Mining and quarrying	310,196	301,772
Manufacturing	8,293,855	8,112,287
Electricity, gas, water, steam and air conditioning supply	733,966	632,695
Construction	160,876	221,553
Wholesale and retail trade	2,435,451	2,456,623
Transport and storage	737,237	912,414
Accommodation and food service activities	117,675	185,992
Information and communication	1,945,081	2,314,241
Credit and insurance institutions	36,694,569	28,183,237
Real estate activities	724,048	506,041
Professional, scientific and technical activities	414,959	305,552
Administrative and support service activities	899,170	831,789
Public administration and defence, compulsory social security	10,433,020	5,202,173
Household/Retail	1,563,970	1,540,926
Other services	1,076,107	227,437
	66,540,180	**51,934,732**

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

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

	31 December 2021	31 December 2020 (Restated)
	$ 000	$ 000
Central Europe	3,165,890	3,657,466
Western Europe	53,747,715	43,188,281
Middle East / Africa	1,153,038	1,487,672
Central / South America	252,582	776,540
North America	5,942,054	1,802,752
Asia	2,278,901	1,022,021
	66,540,180	**51,934,732**

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
- Market Risk Review Group

The Risk Management Committee is the primary committee tasked with governing market risk in the trading book in the Company, 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.

From a Company perspective, key measurement approaches include, but are not limited to the following:

The primary measurement approach for market risk in the trading book is value at risk (VAR).

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.

VaR cannot necessarily provide an indication of the potential size of loss when an extreme event occurs. Hence, a comprehensive set of factor sensitivity limits are used in addition to VaR limits. These VaR and sensitivity limits are supplemented by triggers and stress tests that ensure that increased levels of risk are discussed in a timely fashion between risk management and business management.

Risk exposure

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

	As at 31 December 2021			As at 31 December 2020 (Restated)		
	Carrying amount	Trading portfolios	Non-trading portfolios	Carrying amount	Trading portfolios	Non-trading portfolios
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Assets						
Cash and cash equivalents	27,481,967	—	27,481,967	19,967,744	—	19,967,744
Trading assets*	4,443,100	4,443,100	—	1,812,643	1,812,643	—
Derivative financial instruments	13,125,638	13,125,638	—	11,236,509	11,236,509	—
Investment securities	7,525,015	—	7,525,015	3,843,267	—	3,843,267
Loans and advances to banks	11,035,066	—	11,035,066	16,404,551	—	16,404,551
Loans and advances to customers	21,253,183	1,010,617	20,242,566	17,738,525	187,178	17,551,347
Other assets*	4,831,623	—	4,831,623	2,098,897	—	2,098,897
Total financial assets	**89,695,592**	**18,579,355**	**71,116,237**	**73,102,136**	**13,236,330**	**59,865,806**
Liabilities						
Deposits by banks	11,147,567	—	11,147,567	13,812,225	—	13,812,225
Customer accounts	38,977,221	—	38,977,221	33,198,315	—	33,198,315
Derivative financial instruments	14,429,404	14,429,404	—	11,247,882	11,247,882	—
Subordinated liabilities	4,772,830	—	4,772,830	—	—	—
Other liabilities*	9,159,483	—	9,159,483	4,554,190	—	4,554,190
Total financial liabilities	**78,486,505**	**14,429,404**	**64,057,101**	**62,812,612**	**11,247,882**	**51,564,730**

*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 2021		**2021**		**31 December 2020**
USD $ 000	Outstanding	MAX	AVG	MIN	Outstanding
CEP VAR	10,092	13,145	3,102	1,810	3,316

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 Market 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 Market Risk team monitors the market risk profile on an ongoing basis and reports to the Risk Management Committee, the ALCO and the BRC/Board on the trading portfolio and 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.

From a Company perspective, key measurement approaches by source of risk include, but are not limited to the following:

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 balance sheet exposures.

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 2021	**31 December 2020**
	12 Month	**12 Month**
	$ 000	**$ 000**
Income statement impact	183,679	211,588
Total	**183,679**	**211,588**
Equity impact	(184,346)	(83,497)
Total	**(184,346)**	**(83,497)**

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.

21. Risk management (continued)

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

Currency risk (continued)

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

	31 December 2021		31 December 2020	
	EUR	GBP	EUR	CZK
	$ 000	$ 000	$ 000	$ 000
Net exposure	(2,093,573)	288,015	(178,703)	(118,986)

21.4. Liquidity Risk

Definition

Liquidity risk is defined as the risk that the Company will not be able to meet both expected and unexpected current and future cash flow 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 normal and stress circumstances.

Company's funding and liquidity objectives aim to maintain liquidity to fund the existing asset base and grow the core businesses, while at the same time maintaining sufficient liquidity, structured appropriately, to continue operating under a variety of market conditions, including both short and long-term stresses.

Governance and Organisation

The Treasury Risk Management Framework, approved by the Board, provides 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 defence.

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.

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 capital structure and position. The ultimate responsibility for liquidity risk management rests with the Board.

A liquidity plan and Internal Liquidity Adequacy Assessment Procedure (ILAAP) are prepared on an annual basis and the liquidity profile is monitored on an on-going basis 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 Market and Liquidity Risk reports directly to the Company's CRO and is responsible for second line of defence independent oversight of market and liquidity risk in the Banking and Trading books.

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 the Regulator. Capital Requirements Directive IV and V (CRD IV and CRD V) related liquidity metrics are monitored and reported, namely the liquidity coverage ratio (LCR) and net stable funding requirement (NSFR). 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).

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 12 months		Over 12 months		Total	
As at 31 December	2021	2020 (Restated)	2021	2020 (Restated)	2021	2020 (Restated)
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Assets						
Cash and cash equivalents	27,481,967	19,967,744	—	—	27,481,967	19,967,744
Loans and advances to banks	10,657,762	15,806,918	377,304	597,633	11,035,066	16,404,551
Loans and advances to customers	16,405,824	12,531,473	4,847,359	5,207,052	21,253,183	17,738,525
Derivative financial instruments	6,291,106	4,461,027	6,834,532	6,775,482	13,125,638	11,236,509
Trading assets*	32,596	163,243	4,410,504	1,649,400	4,443,100	1,812,643
Investment securities	1,295,901	381,750	6,229,114	3,461,517	7,525,015	3,843,267
Other assets*	4,831,623	2,098,897	—	—	4,831,623	2,098,897
Total financial assets	66,996,779	55,411,052	22,698,813	17,691,084	89,695,592	73,102,136
Liabilities						
Deposits by banks	10,995,778	11,592,968	151,789	2,219,257	11,147,567	13,812,225
Customer accounts	38,974,549	33,198,213	2,672	102	38,977,221	33,198,315
Derivative financial instruments	7,242,142	4,449,270	7,187,262	6,798,612	14,429,404	11,247,882
Subordinated liabilities	—	—	4,772,830	—	4,772,830	—
Other liabilities*	9,159,483	4,554,190	—	—	9,159,483	4,554,190
Total financial liabilities	66,371,952	53,794,641	12,114,553	9,017,971	78,486,505	62,812,612

*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.

	1 year and less		>1 year and < 5 years		Greater than 5 years		Total	
As at 31 December	**2021**	**2020 (Restated)**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020 (Restated)**
	$ 000	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**
Liabilities								
Deposits by banks	11,044,864	11,706,845	150,515	2,242,524	2,160	1,107	11,197,539	13,950,476
Customer accounts	39,148,531	33,524,316	257	103	2,430	—	39,151,218	33,524,419
Derivative financial instruments	6,415,976	4,492,975	3,702,020	2,305,489	4,386,919	4,567,792	14,504,915	11,366,256
Subordinated liabilities	—	—	856,928	—	4,074,370	—	4,931,298	—
Other liabilities*	9,200,370	4,598,925	—	—	—	—	9,200,370	4,598,925
Total undiscounted financial liabilities	**65,809,741**	**54,323,061**	**4,709,720**	**4,548,116**	**8,465,879**	**4,568,899**	**78,985,340**	**63,440,076**

*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.

	1 year and less		>1 year and < 5 years		Greater than 5 years		Total	
As at 31 December	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
	$ 000	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**
Letters of credit	4,232,601	6,441,884	8,923,212	9,850,402	646,224	772,088	13,802,037	17,064,374
Undrawn commitments to lend	5,881,244	7,016,129	20,047,930	21,336,846	648,168	590,790	26,577,342	28,943,765
Other commitments and guarantees	2,237,605	308	2,070,731	895,941	28,859	112,867	4,337,195	1,009,116
Total commitments and guarantees	**12,351,450**	**13,458,321**	**31,041,873**	**32,083,189**	**1,323,251**	**1,475,745**	**44,716,574**	**47,017,255**

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	**2021**	**2020**	**2021**	**2020 (Restated)**	**2021**	**2020 (Restated)**
	$million	**$million**	**$million**	**$million**	**$million**	**$million**
Cash and cash equivalents	1,118	1,466	26,364	18,502	27,482	19,968
Equity Instruments	—	—	138	153	138	153
Investment Securities & Debt Trading Instruments*	2,418	27	7,524	5,476	9,942	5,503
– of which: covered bonds	—	—	—	—	—	—
– of which: asset-backed securities	—	—	—	—	—	—
– of which: by general governments	2,301	27	7,189	3,939	9,490	3,966
– of which: by financial corporations	118	—	309	31	427	31
– of which: by non-financial corporations	—	—	1	2	1	2
– of which: securitisations	—	—	24	—	—	—
Loans and advances	17	388	34,159	33,755	34,176	34,143
Other Assets*	4,805	778	13,709	13,116	18,514	13,894
Assets subtotal	8,358	2,659	81,894	71,002	90,252	73,661

*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 the risk of failing to comply with applicable laws, regulations, ethical standards, regulatory administrative actions or Company policies. Operational risk does not encompass strategic risk or the risk of loss resulting solely from authorised judgments made with respect to taking credit, market, liquidity, or insurance risk.

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 Risk Committee
- Executive 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 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
- Operational risk scenario analysis
- Capture of operational risk event data
- Formal assurance programme
- Issue/corrective action planning

Management 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 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 utilizes third parties in many ways to achieve its strategic goals. This utilization 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

Cybersecurity risk is defined as "the risk to organizational operations (including mission, functions, image, reputation), organizational assets, individuals, other organizations, and the nation due to the potential for unauthorized 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 resulting from adverse business decisions, inappropriate business plans, ineffective business strategy execution, or the failure to respond to changes in the macro-economic environment. It arises in many of the Company's business activities, including:

- business decisions;
- forecasting processes;
- client selection;
- future developments; and
- product development;

Strategic risk includes decision risk, operating environment risk, geopolitical risk, environmental, social and governance risk, and structural FX risk.

Governance and Organisation

The Enterprise Risk Governance 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 Enterprise Risk Governance Framework, the following committees and their sub-committees perform an oversight role for strategic risk related items:

- Board Risk Committee
- Executive Committee
- Operating Committee

21. Risk management (continued)

21.6. Strategic risk (continued)

The Operating 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 turn, 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 Risk Management. The Board ultimately reviews and approves the Strategic Plan.

The Head of Enterprise 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.

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 balance sheet 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 to 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

21. Risk management (continued)

21.7. Inter-Affiliate Risk (continued)

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.

The Board of Directors approved an expanded definition of Inter-Affiliate Risk (December 2020) to also include Operational Risk (including Execution Risk) to cover risks in relation to the Company's dependence on major Citi-wide programmes covering remediation, transformation and strategic development.

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, recognizing 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

CEPs Operating Committee has direct oversight of reputational risk in CEP, and has escalation lines up to CEPs Executive Committee. All product lines and functions are responsible for identifying and managing material reputation risks and for promptly escalating concerns to CEPs Operating 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 Product Review 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.

Regulatory capital (unaudited)

The Company's unaudited regulatory capital position at 31 December 2021 was as follows:

	31 December 2021 $ 000	31 December 2020 $ 000
Regulatory capital	10,919,190	9,592,497
Tier 1 capital ratio	20.0%	18.6%

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.

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.

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 2021 and as at 31 December 2020.

	31 December 2021	31 December 2020 (Restated)
	$ 000	$ 000
Derivative financial instruments	13,125,638	11,236,509
Trading assets*	4,443,100	1,812,643
Investment securities at FVTPL	137,860	153,332
Loans designated at FVTPL	1,010,617	187,178
Total financial assets held at FVTPL	**18,717,215**	**13,389,662**
Investment securities at FVOCI	7,387,155	3,689,935
Total financial assets held at FVOCI	**7,387,155**	**3,689,935**
Cash and cash equivalents	27,481,967	19,967,744
Loans and advances to banks at amortised cost	11,035,066	16,404,551
Loans and advances to customers at amortised cost	20,242,566	17,551,347
Other assets*	4,831,623	2,098,897
Total financial assets at amortised cost	**63,591,222**	**56,022,539**
Total financial assets	**89,695,592**	**73,102,136**

	31 December 2021	31 December 2020 (Restated)
	$ 000	$ 000
Derivative financial instruments	14,429,404	11,247,882
Financial liabilities at FVTPL*	2,122,465	50,871
Total financial liabilities held at fair value	**16,551,869**	**11,298,753**
Deposits by banks	11,147,567	13,812,225
Customer accounts	38,977,221	33,198,315
Other liabilities excluding liabilities at FVTPL*	7,037,018	4,503,318
Subordinated liabilities	4,772,830	—
Total financial liabilities at amortised cost	**61,934,636**	**51,513,858**
Total financial liabilities	**78,486,505**	**62,812,611**

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

23. Financial assets and liabilities (continued)

Fair value definition
IFRS 13 – *Fair Value Measurement*, defines fair value, establishes a framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date 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 positions and includes the impact of the Company's own credit risk on derivatives and other liabilities 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 active 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 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

The Company generally uses quoted market prices in an active market to calculate the fair value of a financial asset or liability and classifies such items as Level 1. In some cases, where a market price is available, the Company will make use of acceptable practical expedients to calculate fair value, in which case the items are classified as Level 2.

The Company may also apply a price-based methodology that utilizes, 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 values are 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.

The Company uses the following procedures to determine the fair value of financial assets and financial liabilities irrespective of whether they are "held for trading" or have been "designated at fair value" including an indication of the level in the fair value hierarchy in which each financial instrument is generally classified. Where appropriate, the description includes details of the valuation models, the key inputs to those models and any significant assumptions.

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

Trading assets
Where available, the Company uses quoted market prices in active markets to determine the fair value of trading assets; such items are classified as Level 1 of the fair value hierarchy. For corporate bonds, government bonds and loans the Company generally determines the fair value utilising internal valuation techniques. Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors. Vendors compile prices from various sources and may apply matrix pricing for similar bonds or loans where no price is observable. If available, the Company may also use quoted prices or other market information obtained from recent trading activity of assets with similar characteristics to the bond or loan being valued. Government bonds, corporate bonds or loans priced using such methods are generally classified as Level 2.

However, when less liquidity exists, a quoted price is stale or prices from independent sources vary, they are generally classified as Level 3.

23. Financial assets and liabilities (continued)

Determination of fair value (continued)

Investment securities
Investment securities measured at FVOCI or designated at fair value through profit or loss are measured at fair value by reference to quoted market prices when available. In these instances, they may be classified as Level 1.

If quoted market prices are not available, then fair values are estimated based on other recognised valuation techniques. The key inputs depend upon the type of investment security and the nature of inputs to the valuation technique. The item is placed in either Level 2 or Level 3 depending on the observability of the significant inputs to the model.

Loans and advances and other lending
The fair value for loans and advances and other lending are estimated using internal valuation techniques such as discounted cash flow analyses. Cash flows are discounted using relevant benchmarks. If available, the Company may also use quoted prices for recent trading activity of assets with similar characteristics to the loan being valued. The items are placed in Level 2 or Level 3 depending on the observability of the significant inputs to the model. In certain cases, the fair value approximates carrying value because the instruments are short term in nature or reprice frequently.

Other financial assets and liabilities
Fair values of customer account deposit liabilities, subordinated loans, other assets and other liabilities are estimated using discounted cash flows, applying market rates where practicable. Where market rates are used an adjustment is made for the Company's credit spread.

The carrying amount of cash and balances at central banks is a reasonable approximation of fair value due to the short term nature of the balances.

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 2021				Fair value at 31 December 2020 (Restated)			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Financial assets								
Derivative financial instruments	784	12,931,035	193,819	13,125,638	—	10,751,011	485,498	11,236,509
Trading assets*	2,418,745	1,946,664	77,691	4,443,100	—	1,728,353	84,290	1,812,643
Investment securities	6,895,366	491,789	137,860	7,525,015	794,261	2,951,151	97,855	3,843,267
Loans held at fair value through profit or loss	—	917,004	93,613	1,010,617	—	187,178	—	187,178
Financial assets held at fair value	**9,314,895**	**16,286,492**	**502,983**	**26,104,370**	**794,261**	**15,617,693**	**667,643**	**17,079,597**
Financial liabilities								
Derivative financial instruments	59	14,238,754	190,591	14,429,404	—	10,761,190	486,692	11,247,882
Other financial liabilities held for trading*	1,213,624	908,841	—	2,122,465	—	50,871	—	50,871
Financial liabilities held at fair value	**1,213,683**	**15,147,595**	**190,591**	**16,551,869**	**—**	**10,812,061**	**486,692**	**11,298,753**

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

23. Financial assets and liabilities (continued)

Financial instruments at fair value (continued)

Loans held at fair value through profit or loss, totalling $1,010 million (2020: $187 million) are included in the statement of financial position within loans and advances to customers.

The fair values in this note are stated at a year-end reporting date and may be significantly different from the amounts which will actually be paid on the maturity or settlement dates of the instruments.

As discussed above, the Company classifies financial instruments as Level 3 of the fair value hierarchy when there is reliance on at least one significant unobservable input to the valuation model. In addition to these unobservable inputs, the valuation models for Level 3 financial instruments typically also rely on a number of inputs that are readily observable either directly or indirectly. The gains and losses presented on next page include changes in the fair value related to both observable and unobservable inputs.

The Company often economically 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 on next page do not reflect the effect of offsetting losses and gains on hedging instruments that have been classified by the Company 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.

Valuation process for Level 3 fair value measurements

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

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

Reports of Level 3 inventory of each business line of the Company are distributed to senior management in Finance, Risk and the individual business lines. Whenever a valuation adjustment is needed to bring the price of an asset or liability to its exit price, Valuation Control reports it to management along with other price verification results.

In addition, the pricing models used in measuring fair value are governed by an independent control framework. Although the models are developed and tested by the individual business units, they are independently validated by the Model Validation Group within Model Risk Management and reviewed by Finance with respect to their impact on the price verification procedures. The purpose of this independent control framework is to assess model risk arising from models' theoretical soundness, calibration techniques where needed, and the appropriateness of the model for a specific product in a defined market. To ensure their continued applicability, models are independently reviewed annually. In addition, Risk Management approves and maintains a list of products permitted to be valued under each approved model for a given business.

23. Financial assets and liabilities (continued)

Movement in Level 3 financial instruments measured at fair value

The Company classifies financial instruments as Level 3 of the fair value hierarchy when there is a reliance on at least one significant unobservable input to the valuation model. The gains and losses presented below include changes in the fair value related to the observable and unobservable inputs.

	31 December 2021						31 December 2020 (Restated)				
	Derivative financial assets	Trading assets	Investment securities	Outstanding loans held at fair value through profit/ loss	Derivative financial liabilities	Total	Derivative financial assets	Trading assets	Investment securities	Derivative financial liabilities	Total
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Balance at 1 January	485,498	84,290	97,855	—	(486,692)	180,951	56,133	115,566	109,869	(57,669)	223,899
Reclassified from Trading assets to loans and advances measured at FVTPL	—	(44,601)	—	44,601	—	—	—	—	—	—	—
Purchases	1,562	24,983	—	37,429	—	63,974	187,513	50,238	—	(187,513)	50,238
Issues	—	—	—	—	—	—	—	—	—	—	—
Sales	—	(20,580)	—	—	—	(20,580)	—	(88,407)	—	—	(88,407)
Settlements	6,393	—	—	—	(5,033)	1,360	(367)	—	—	431	64
Transfer into Level 3	94,429	349	—	11,586	(94,669)	11,695	232,449	—	—	(232,706)	(257)
Transfer out of Level 3	(129,367)	(132)	—	(3)	131,569	2,067	—	—	—	—	—
Total gains/(losses)											
– in Profit or loss	(264,696)	33,382	40,005	—	264,234	72,925	9,770	6,893	(12,014)	(9,235)	(4,586)
– in OCI	—	—	—	—	—	—	—	—	—	—	—
Balance at 31 December	**193,819**	**77,691**	**137,860**	**93,613**	**(190,591)**	**312,392**	**485,498**	**84,290**	**97,855**	**(486,692)**	**180,951**

Total gains or losses for the year are presented in the income statement as follows:

	2021						2020				
	Derivative financial assets	Trading assets	Investment securities	Outstanding loans held at fair value through profit/ loss	Derivative financial liabilities	Total	Derivative financial assets	Trading assets	Investment securities	Derivative financial liabilities	Total
	$ 000	$ 000	$ 000		$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Interest income	—	—	—	—	—	—	—	—	—	—	—
Total gains/(losses)	(264,696)	33,382	40,005	—	264,234	72,925	9,770	6,893	(12,014)	(9,235)	(4,586)
Realised gains and losses											
– Net trading gain/(loss)	(264,696)	33,382	—	—	264,234	32,920	9,770	6,893	—	(9,235)	7,428
– Net investment	—	—	40,005	—	—	40,005	—	—	(12,014)	—	(12,014)
Unrealised gains and losses	—	—	—	—	—	—	—	—	—	—	—
Total	**(264,696)**	**33,382**	**40,005**	**—**	**264,234**	**72,925**	**9,770**	**6,893**	**(12,014)**	**(9,235)**	**(4,586)**

Level 3 transfer-ins and transfer-outs on assets and liabilities were driven by significance testing performed on callable swaps and exotic interest rate derivatives. Level 3 decrease on gains or losses for assets and liabilities were driven by deal contingent forward trades.

23. Financial assets and liabilities (continued)

Qualitative overview including sensitivities and inter-relationships of the significant unobservable inputs and ranges used by the Company in level 3 fair value measurements

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

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

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

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

Credit Spread
Credit spread is a component of the security representing its credit quality. Credit spread is relevant primarily for fixed income and credit instruments; however, the ranges for the credit spread input can vary across instruments. For example, certain fixed income instruments typically have lower credit spreads, whereas certain instruments with high-risk counterparties are typically subject to higher credit spreads when they are uncollateralised or have a longer tenor. Other instruments, which are dependent upon or derived from one or more underlying instruments, also have credit spreads that vary with the attributes of the underlying obligor. Stronger companies have tighter credit spreads, and weaker companies have wider credit spreads.

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.

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

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

23. Financial assets and liabilities (continued)

Qualitative overview including sensitivities and inter-relationships of the significant unobservable inputs and ranges used by the Company in level 3 fair value measurements (continued)

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

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

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

23. Financial assets and liabilities (continued)

Qualitative overview including sensitivities and inter-relationships of the significant unobservable inputs and ranges used by the Company in level 3 fair value measurements (continued)

2021	Fair value $ 000	Methodology	Input	Low	High
Assets					
		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	193,819	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	77,691	Price-based	Price ($)	—	109.8
Loans held at fair value through profit/loss	93,613	Price-based	Price ($)	91.0	99.3
Investment equity securities	137,860	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	190,591	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

23. Financial assets and liabilities (continued)

Qualitative overview including sensitivities and inter-relationships of the significant unobservable inputs and ranges used by the Company in level 3 fair value measurements (continued)

2020 Assets	Fair value $ 000	Methodology	Input	Low	High
Derivative contracts	485,498	Model-based	Equity Volatility (%)	14.1	91.4
		Model-based	Forward Price (%)	65.9	98.1
		Model-based	FX Rate ($)	0.3	84.1
		Model-based	FX Volatility (%)	1.5	12.6
		Model-based	Interest Rate (%)	60.2	84.1
		Model-based	Contingent Event (%)	100.0	100.0
		Price-based	Price ($)	100.0	100.0
		Model-based	IR Normal Volatility (%)	0.1	0.7
		Model-based	Inflation Volatility (%)	0.3	2.3
Trading assets	84,290	Price-based	Price ($)	97.0	100.0
Investment equity securities	97,855	Price-based	Market Price of Common Stock; conversion factor from investor relations publication and liquidity discount	No discount for conversion ratio	100% liquidity discount and price to earning ratio
Liabilities					
Derivative contracts	486,692	Model-based	Equity Volatility (%)	14.1	91.4
		Model-based	Forward Price (%)	65.9	98.1
		Model-based	FX Rate ($)	0.3	84.1
		Model-based	FX Volatility (%)	1.5	12.6
		Model-based	Interest Rate (%)	60.2	84.1
		Model-based	Contingent Event (%)	100.0	100.0
		Price-based	Price ($)	100.0	100.0
		Model-based	IR Normal Volatility (%)	0.1	0.7
		Model-based	Inflation Volatility (%)	0.3	2.3

The unobservable input in relation to FX rate represents the minimum and maximum tenor on currency pairs to USD.

The impact of key unobservable inputs on the Level 3 fair value measurements may not be independent of one another. In addition, the amount and direction of the impact on a fair value measurement for a given change in an unobservable input depends on the nature of the instrument as well as whether it is recorded 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.

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.

23. Financial assets and liabilities (continued)

Estimated fair value of financial instruments not carried at fair value (continued)

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 2021		Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
	$ 000	$ 000	$ 000	$ 000	$ 000
Assets					
Cash and cash equivalents	27,481,967	27,481,967	27,481,967	—	—
Loans and advances to banks	11,035,066	11,035,066	—	11,035,066	—
Loans and advances to customers	20,242,566	20,233,512	—	—	20,233,512
Other assets	4,831,623	4,831,623	—	—	4,831,623
Total financial assets	**63,591,222**	**63,582,168**	**27,481,967**	**11,035,066**	**25,065,135**
Liabilities					
Deposits by banks	11,147,567	11,115,752	—	11,115,752	—
Customer accounts	38,977,221	38,865,980	—	38,865,980	—
Subordinated liabilities	4,772,830	4,759,209	—	4,759,209	—
Other liabilities	7,037,018	7,016,935	—	5,160,152	1,856,783
Total financial liabilities	**61,934,636**	**61,757,876**	**—**	**59,901,093**	**1,856,783**

23. Financial assets and liabilities (continued)

Estimated fair value of financial instruments not carried at fair value (continued)

31 December 2020 (Restated)	Carrying value	Estimated fair value	Estimated fair value Level 1	Level 2	Level 3
	$ 000	$ 000	$ 000	$ 000	$ 000
Assets					
Cash and cash equivalents	19,967,744	19,967,744	19,967,744	—	—
Loans and advances to banks	16,404,551	16,404,551	—	16,404,551	—
Loans and advances to customers	17,551,347	17,548,897	—	—	17,548,897
Other assets*	2,098,897	2,098,897	—	—	2,098,897
Total financial assets	**56,022,539**	**56,020,089**	**19,967,744**	**16,404,551**	**19,647,794**
Liabilities					
Deposits from banks	13,812,225	13,766,328	—	13,766,328	—
Customer accounts	33,198,315	33,088,000	—	33,088,000	—
Subordinated liabilities	—	—	—	—	—
Other liabilities*	4,503,318	4,488,354	—	2,953,797	1,534,557
Total financial liabilities	**51,513,858**	**51,342,682**	**—**	**49,808,125**	**1,534,557**

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

24. Property and equipment

Cost	Right-of-use assets 2021	Right-of-use assets 2020	Leasehold improvements 2021	Leasehold improvements 2020	Vehicles, furniture and equipment 2021	Vehicles, furniture and equipment 2020	Total 2021	Total 2020
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
At 1 January	**97,052**	**88,250**	**74,248**	**65,936**	**89,691**	**83,963**	**260,991**	**238,149**
Additions	17,287	332	7,695	13,665	13,992	13,511	38,974	27,508
Acquisitions	—	—	193	252	288	383	481	635
Disposals	(8,579)	(54)	(2,281)	(2,427)	(6,099)	(4,661)	(16,959)	(7,142)
Write-offs	—	—	(283)	(2,512)	(2,299)	(5,384)	(2,582)	(7,896)
Foreign exchange	6,569	8,524	(5,215)	(666)	(4,734)	1,879	(3,380)	9,737
At 31 December	**112,329**	**97,052**	**74,357**	**74,248**	**90,839**	**89,691**	**277,525**	**260,991**

Depreciation	Right-of-use assets 2021	Right-of-use assets 2020	Leasehold improvements 2021	Leasehold improvements 2020	Vehicles, furniture and equipment 2021	Vehicles, furniture and equipment 2020	Total 2021	Total 2020
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
At 1 January	**34,115**	**18,315**	**33,879**	**28,970**	**51,590**	**49,238**	**119,584**	**96,523**
Charged in year	20,417	19,503	6,652	6,892	12,715	10,897	39,784	37,292
Acquisitions	—	—	284	2	57	—	341	2
Disposals	(1,730)	(68)	(2,666)	(2,433)	(8,098)	(4,659)	(12,494)	(7,160)
Write-offs	—	—	(260)	(473)	(1,947)	(5,074)	(2,207)	(5,547)
Foreign exchange	(2,202)	(3,635)	(1,228)	921	(3,597)	1,188	(7,027)	(1,526)
At 31 December	**50,600**	**34,115**	**36,661**	**33,879**	**50,720**	**51,590**	**137,981**	**119,584**
Net carrying value	**61,729**	**62,937**	**37,696**	**40,369**	**40,119**	**38,101**	**139,544**	**141,407**

There were no capitalised borrowing costs related to the acquisition of property and equipment during the year (2020: $nil).

25. Intangible assets

Cost	**Goodwill**		**Computer software**		**Other Intangibles**		**Total**	
	2021	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
	$ 000	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**
At 1 January	**48,454**	**46,085**	**184,559**	**158,142**	**35,305**	**32,408**	**268,318**	**236,635**
Additions	—	—	42,225	21,393	—	—	42,225	21,393
Transfer In	—	—	—	7,054	—	—	—	7,054
Acquisitions	—	—	114	—	—	—	114	—
Transfer out	—	—	—	—	—	—	—	—
Disposals	—	—	(1,165)	(1,813)	—	—	(1,165)	(1,813)
Impairment	—	—	—	(298)	—	—	—	(298)
Foreign exchange	(1,441)	2,369	(1,243)	81	(2,742)	2,897	(5,426)	5,347
At 31 December	**47,013**	**48,454**	**224,490**	**184,559**	**32,563**	**35,305**	**304,066**	**268,318**

Amortisation and impairment losses	**Goodwill**		**Computer software**		**Other Intangibles**		**Total**	
	2021	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
	$ 000	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**
At 1 January	**27,451**	**26,516**	**110,055**	**91,452**	**31,439**	**27,645**	**168,945**	**145,613**
Additions	—	—	15,062	3,484	—	621	15,062	4,105
Amortisation	—	—	14,689	14,036	835	515	15,524	14,551
Acquisitions	—	—	—	18	138	—	138	18
Transfer out	—	—	—	—	—	—	—	—
Disposals	—	—	(1,246)	(18)	—	—	(1,246)	(18)
Impairment	—	—	37	1,012	—	—	37	1,012
Foreign exchange	(267)	935	(898)	71	(2,318)	2,658	(3,483)	3,664
At 31 December	**27,184**	**27,451**	**137,699**	**110,055**	**30,094**	**31,439**	**194,977**	**168,945**
Net carrying value	**19,829**	**21,003**	**86,791**	**74,504**	**2,469**	**3,866**	**109,089**	**99,373**

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 EURIBOR rate. The key assumptions reflect past experience or, if appropriate, consider external sources of information.

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:

Cash generating unit	**Goodwill**	**Growth**	**Discount rate**	
Institutional Clients Group	**$ 000**	**rate**	**2021**	**2020**
– Direct custody and clearing business	13,321	8%	-1.420	-0.502
– Fund administration business	6,508	0%	—	—
Total	**19,829**			

The model is sensitive to changes in the growth rate. The growth rate is aligned to business' strategic plan.

The results of the test indicated that no impairment of the goodwill is necessary. 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 2021	**Recognised in the Income statement**	**Recognised in statement of other comprehensive income**	**Balances at 31 December 2021**
	$ 000	**$ 000**	**$ 000**	**$ 000**
Property, equipment and intangible assets	169,259	542	—	169,801
Investment securities at FVOCI	(19,752)	—	24,144	4,392
Pension and other retirement benefits	33,203	(149)	(3,616)	29,438
Allowances for expected credit losses	5,765	(6,366)	—	(601)
Tax loss carry-forward	48,336	(2,979)	—	45,357
Other temporary differences	15,197	(3,578)	—	11,619
FX Translation	(21,878)	—	(10,908)	(32,786)
Total Deferred Tax	230,130	(12,530)	9,620	227,220
– of which Deferred Tax Asset	248,229			247,461
– of which Deferred Tax Liability	18,099			20,241

	Balances at 1 January 2020	**Recognised in the Income statement**	**Recognised in statement of other comprehensive income**	**Balances at 31 December 2020**
	$ 000	**$ 000**	**$ 000**	**$ 000**
Property, equipment and intangible assets	186,739	(17,480)	—	169,259
Investment securities at FVOCI	(15,812)	—	(3,940)	(19,752)
Pension and other retirement benefits	30,534	(888)	3,557	33,203
Allowances for expected credit losses	7,887	(2,122)	—	5,765
Tax loss carry-forward	116	48,220	—	48,336
Other temporary differences	11,619	3,578	—	15,197
FX Translation	(17,973)	—	(3,905)	(21,878)
Total Deferred Tax	203,110	31,308	(4,288)	230,130
– of which Deferred Tax Asset	224,656			248,229
– of which Deferred Tax Liability	21,546			18,099

26. Deferred tax (continued)

Current tax asset of $43.9 million includes capital gains tax relief in relation to equity securities of $24.2 million, with the remainder in relation to the branches including $11.4 million in relation to the Italian branch and $5.9 million in relation to the Czech Republic branch for the year 2021.

27. Shares in subsidiaries

	31 December 2021 $ 000	31 December 2020 $ 000
Beginning of period	14,175	14,175
Disposal	—	—
End of period	**14,175**	**14,175**

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	$ 000	Interest Rate	Maturity Date
2021	GBP	808,730	0.98% + 5 years SONIA	6 December 2026
2021	EUR	3,964,100	0.99% + 7 years ESTR	31 October 2028

As at 31 December 2021, subordinated liabilities consists of $4,773 million (2020: $nil) of subordinated loan borrowings from Citibank Holdings Ireland Limited. Charges incurred during the year with respect to subordinated loans and charged to the income statement amounted to $2 million (2020: $nil).

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 2021 (2020: 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 property costs are mainly related to provision for onerous contracts. Provisions for onerous contracts are recorded when the unavoidable costs of meeting the obligation under the contract exceed the economic benefits expected to arise from that contract, taking into account impairment of property and equipment assets.

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 balance sheet date. The provisions are expected to be used during the year ending 31 December 2022.

	Restructuring provision	**Provision for property costs**	**Other provisions**	**Total**
	$ 000	**$ 000**	**$ 000**	**$ 000**
31 December 2021				
Opening balance	14,285	1,443	2,217	17,945
Provisions made during the year	1,071	3	2	1,076
Provisions utilised during the year	(4,682)	—	—	(4,682)
Provisions released during the year	(3,529)	—	(481)	(4,010)
Exchange Adjustments	(412)	(32)	(14)	(458)
Other movements	(570)	1	(72)	(641)
Closing balance	**6,163**	**1,415**	**1,652**	**9,230**
Commitments and guarantees				**79,702**
Total provision balance				**88,932**

	Restructuring provision	**Provision for property costs**	**Other provisions**	**Total**
	$ 000	**$ 000**	**$ 000**	**$ 000**
31 December 2020				
Opening balance	12,919	1,403	1,281	15,603
Provisions made during the year	13,040	3	828	13,871
Provisions utilised during the year	(3,519)	—	—	(3,519)
Provisions released during the year	(10,149)	—	—	(10,149)
Exchange Adjustments	326	37	37	400
Other movements	1,668	—	71	1,739
Closing balance	**14,285**	**1,443**	**2,217**	**17,945**
Commitments and guarantees				**97,421**
Total provision balance				**115,366**

30. Other liabilities

	31 December 2021	31 December 2020 (Restated)
	$ 000	$ 000
Other liabilities		
Accounts payable*	4,289,939	2,397,664
Margin account obligations	895,527	1,123,088
Securities sold under repurchase agreements	1,064,886	—
Short sales*	2,118,447	38,100
Retirement obligations (Note 14)	228,367	279,461
Right-of use lease liability	70,780	75,689
Accruals and deferred income	182,147	161,655
Other*	309,390	478,533
	9,159,483	**4,554,190**

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

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.

31. Called up share capital

	31 December 2021	31 December 2020	31 December 2021	31 December 2020
	Number of Ordinary shares		$ 000	$ 000
Authorised				
At the end of the year	5,000,000,000	5,000,000,000	4,691,500	4,691,500
Share capital				
Allotted, called-up and fully paid				
Ordinary shares of a par value of €1 each	9,741,290	9,741,290	10,532	10,532
Share premium				
At the end of the year			1,962,747	1,962,747

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:

	2021	**2020**
Shares awarded	341,241	192,366
Weighted average fair market value per share	$62.85	$77.83

	2021	**2020**
	$ 000	**$ 000**
Compensation cost charged to earnings	24,102	16,432
Fair value adjustments recorded to equity	(494)	(3,570)
Total carrying amount of equity-settled transaction liability	32,851	24,596

32. Share-based incentive plans (continued)

	2021	2020
	$ 000	$ 000
Stock Awards		
Granted in 2021	17,697	
Granted in 2020	2,107	13,416
Granted in 2019	708	1,464
Granted in 2018	189	593
Granted in 2017	4	88
Granted in 2016	17	17
Cash Accrued	3,396	854
Total Expense	**24,118**	**16,432**

The Company did not operate or have any stock option programme (2020: $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	Contract amount
	31 December 2021	31 December 2020
	$ 000	$ 000
Undrawn credit lines	26,577,342	28,943,765
Other commitments		
– less than 1 yr	6,470,206	6,442,192
– 1 yr and over	11,669,026	11,631,298
Total	**44,716,574**	**47,017,255**

Other commitments primarily relate to the Trade business in Ireland. The Company held an ECL of $80 million as at 31 December 2021 (2020: ECL of $97 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	
	2021	2020	2021	2020	2021	2020	2021	2020
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
Outstanding exposure as at 1 January	**45,171,031**	**40,439,714**	**1,739,427**	**1,439,596**	**106,797**	**48,426**	**47,017,255**	**41,927,736**
New assets originated or purchased	3,502,694	9,182,110	541,066	300,398	28,800	32,743	4,072,560	9,515,251
Asset derecognised or matured	(6,129,481)	(3,696,921)	(209,985)	(607,393)	(33,589)	(101,853)	(6,373,055)	(4,406,167)
Transfers to Stage 1	453,001	220,784	(452,725)	(220,335)	(276)	(449)	—	—
Transfers to Stage 2	(477,847)	(831,128)	477,899	841,814	(52)	(10,686)	—	—
Transfers to Stage 3	(44,584)	(161,318)	(19,162)	(9,970)	63,746	171,288	—	—
Amounts written off	(186)	—	—	—	—	(32,670)	(186)	(32,670)
Other movements	—	17,790	—	(4,683)	—	(2)	—	13,105
At 31 December	**42,474,628**	**45,171,031**	**2,076,520**	**1,739,427**	**165,426**	**106,797**	**44,716,574**	**47,017,255**

ECL	Stage 1		Stage 2		Stage 3		Total	
	2021	2020	2021	2020	2021	2020	2021	2020
	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000	$ 000
IFRS 9 ECL as at 1 January	**18,760**	**8,909**	**56,987**	**20,490**	**21,674**	**2,461**	**97,421**	**31,860**
ECL on new assets originated or purchased	752	1,653	132	1,263	435	5	1,319	2,921
Exposure derecognised or matured	(2,080)	(2,760)	(5,941)	(9,046)	(6,564)	(1,854)	(14,585)	(13,660)
Transfers to Stage 1	6,385	4,853	(6,142)	(4,851)	(243)	(2)	—	—
Transfers to Stage 2	(322)	(372)	322	511	—	(139)	—	—
Transfers to Stage 3	(96)	(94)	(890)	(118)	986	212	—	—
Net remeasurement of loss allowance	(3,214)	(4,530)	4,143	16,896	5,562	9,482	6,491	21,848
Other movements	13,663	11,101	(19,525)	31,842	(5,082)	11,509	(10,944)	54,452
At 31 December	**33,848**	**18,760**	**29,086**	**56,987**	**16,768**	**21,674**	**79,702**	**97,421**

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 are stated below:

Assets	**2021**
	$ 000
Tangible assets	4
Other assets	71
Total Assets	**75**

Liabilities	**2021**
	$ 000
Staff Leaving Indemnity Provision	40
Other liabilities	35
Total Liabilities	**75**

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.

The Trustee and Fiduciary Business did not have any separately identifiable assets, tangible or intangible, on CEP's balance sheet.

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, and thus it does not consolidate them. 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 and the maximum exposure to loss. All exposures are included in loans and advances to customers.

	31 December 2021	31 December 2020
Carrying amount	**$ 000**	**$ 000**
Airplanes, ships and other assets	149,254	275,570
Commercial and other real estate	1,008,100	786,680
Total	**1,157,354**	**1,062,250**

The above exposure is the asset based financing provided to 30 entities (2020: 36). The assets held within these entities amounted to $13,386 million (2020: $7,043 million). The Company has further commitments of $208 million (2020: $227 million) to these entities.

The asset based financing represents the balance sheet 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.

	2021	2020
	$ 000	**$ 000**
Balances at 1 January	**62,937**	**69,935**
Additions to right-of-use assets	17,287	332
Disposals	(8,579)	(54)
Depreciation charge for the year	(18,687)	(19,435)
Foreign exchange	8,771	12,159
Balances at 31 December	**61,729**	**62,937**

36. Leases (continued)

Lease liabilities

Maturity analysis	31 December 2021 $ 000	31 December 2020 $ 000
Expiring:		
– within one year	4,489	61,448
– between one and five years	27,103	12,579
– in five years and more	39,188	1,662
Total discounted lease liabilities at 31 December	**70,780**	**75,689**
Lease liabilities included in the statement of financial position at 31 December	**70,780**	**75,689**
Current	4,489	61,448
Non-current	66,291	14,241

Amounts recognised in profit or loss

Leases under IFRS 16	2021 $ 000	2020 $ 000
Interest on lease liabilities	—	1

Amounts recognised in statement of cash flows

	2021 $ 000	2020 $ 000
Total cash outflow for leases	4,909	5,388

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	2021 $ 000	2020 $ 000
Salaries and other short term benefits	7,716	11,200
Post-Employment Benefits	536	567
Termination Benefits	987	—
	9,239	11,767

At 31 December 2021, the number of the key management personnel was 11 (2020: 10).

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 2021, there were no outstanding exposures to Directors including loans (2020: $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-Dec-2021			31-Dec-2020		
	Parent company undertakings	Other Citigroup undertakings	Total	Parent company undertakings	Other Citigroup undertakings	Total
Assets	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**	**$ 000**
Cash and cash equivalents	—	4,960,161	4,960,161	—	1,807,645	1,807,645
Loans and advances to banks	—	7,767,888	7,767,888	—	12,618,454	12,618,454
Loans and advances to customers	—	9,579	9,579	—	174,598	174,598
Other assets	—	3,417,622	3,417,622	—	954,204	954,204
Derivatives	—	7,000,164	7,000,164	—	5,612,503	5,612,503
Liabilities						
Deposits by banks	—	8,170,894	8,170,894	—	11,819,578	11,819,578
Customer accounts	—	887,752	887,752	—	942,861	942,861
Other liabilities	—	1,283,859	1,283,859	—	424,187	424,187
Derivatives	—	10,206,130	10,206,130	—	6,538,332	6,538,332
Subordinated liabilities	4,772,830	—	4,772,830	—	—	—
Commitments and guarantees	—	769,497	769,497	—	1,373,973	1,373,973
Income statement						
Interest and similar income	—	27,524	27,524	—	32,694	32,694
Interest payable	(1,889)	(32,365)	(34,254)	—	(59,567)	(59,567)
Net fee and commission expenses	—	260,411	260,411	—	185,383	185,383
Net income from other financial instruments at FVTPL	—	(273)	(273)	—	3,489	3,489
Other operating income	—	634,254	634,254	—	476,827	476,827
Net trading income	—	(1,929,618)	(1,929,618)	—	(413,015)	(413,015)
Net investment income	—	1	1	—	—	—
Personnel expenses	—	(313)	(313)	—	(709)	(709)
Other expenses	—	(247,489)	(247,489)	—	(155,535)	(155,535)

No dividends were paid by the Company to its direct parent, Citibank Holding Ireland Limited (CHIL) in relation to 2021 earnings during the year (2020: $nil).

38. Prior year adjustment

As mentioned in Note 1 - '*Principal Accounting Policies*,' the Company initially recognises or derecognises regular-way trading assets on the trade date, which is the date that the Company becomes a party to the contractual provisions of the financial instrument. The Company previously considered purchases and sales of secondary loan trading portfolio to be classified as regular-way. Therefore, the Company recognised or derecognised the inventory on the trade date and recognised a corresponding trade date payable or receivable respectively. 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 going forward.

38. Prior year adjustment (continued)

The change from regular-way to non-regular-way means that secondary loan trading inventory will not be recognised or derecognised until settlement date, meaning that the associated trade date receivables and trade date payables will no longer be recognised. However, fair value gains or losses will continue to be recognised in the income statement from trade date, therefore there is no impact to the timing of fair value gains or losses in the income statement. The impact of the reclassification on comparatives is disclosed below:

	As originally reported 31 December 2020 $ 000	Adjustment $ 000	As restated 31 December 2020 $ 000
Assets			
Cash and cash equivalents	19,967,744	—	19,967,744
Trading assets	729,657	1,082,986	1,812,643
Derivative financial instruments	11,236,509	—	11,236,509
Investment securities	3,843,267	—	3,843,267
Loans and advances to banks	16,404,551	—	16,404,551
Loans and advances to customers	17,738,525	—	17,738,525
Shares in subsidiary undertakings	14,175	—	14,175
Current tax asset	56,064	—	56,064
Other assets	4,252,859	(2,153,962)	2,098,897
Deferred tax assets	248,229	—	248,229
Property and equipment	141,407	—	141,407
Goodwill and Intangible assets	99,373	—	99,373
Total assets	**74,732,360**	**(1,070,976)**	**73,661,384**
Liabilities			
Deposits by banks	13,812,225	—	13,812,225
Customer accounts	33,198,315	—	33,198,315
Derivative financial instruments	11,247,882	—	11,247,882
Current tax liability	802	—	802
Subordinated liabilities	—	—	—
Provisions	115,366	—	115,366
Deferred tax liabilities	18,099	—	18,099
Other liabilities	5,625,166	(1,070,976)	4,554,190
Total liabilities	**64,017,855**	**(1,070,976)**	**62,946,879**
Equity shareholders' funds			
Share capital	10,532	—	10,532
Share premium account	1,962,747	—	1,962,747
Other reserves (net)	768,804	—	768,804
Retained earnings	7,972,422	—	7,972,422
Total equity attributable to equity shareholders	**10,714,505**	**—**	**10,714,505**
Total liabilities and equity shareholders' funds	**74,732,360**	**(1,070,976)**	**73,661,384**

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

While at the date of this report the geopolitical uncertainty involving Ukraine and Russia has escalated into a military conflict with unprecedent levels of economic sanctions being applied to the Russian economy as explained in the Directors Report, the management has concluded these events to be non-adjusting.

41. Approval of financial statements

The financial statements of the Company were approved by the Board of Directors on the 31 March 2022.

42. European Union Taxonomy Regulation (Unaudited)

In accordance with Article 8 of the EU Taxonomy Regulation[1] and underlying Disclosures Delegated Act[2], Citibank Europe Plc is required to provide key performance indicators on the share of the balance sheet associated with sustainable activities. For the year ended 31 December 2021, the Company is required to identify economic activities that are "taxonomy eligible" relevant to climate change mitigation and climate change adaptation objectives. Practically, "taxonomy eligible activities" means economic activities contributing to climate objectives according to EU Climate Delegated Acts. Activities defined as taxonomy eligible will be subject to further screening to determine whether they are taxonomy aligned, and thus considered environmentally sustainable.

As the EU Taxonomy is still being developed and because data from corporates on taxonomy-aligned activities is limited, the Company does not fully utilise taxonomy to inform its' business strategy. CEP is in the early stages of developing an approach to incorporating taxonomy alignment in its business strategy, product design processes and engagement with clients and counterparties. As the EU Taxonomy develops further and taxonomy-alignment data becomes available, CEP will utilise the taxonomy to a greater extent within the business.

[1] Regulation(EU) 2020/852 of the European Parliament and of Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment.

[2] Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014

42. European Union Taxonomy Regulation (Unaudited)

Taxonomy Regulation - Mandatory reporting

Taxonomy-eligible activities illustrate the extent of Citibank Europe Plc's activities in the non-trading portfolio towards economic activities covered by the EU Taxonomy. Consequently, the presented metrics below do not illustrate Citibank Europe Plc's proportion of green assets because these require classification as taxonomy-aligned activities.

	% as at	
	31 December 2021	Content of regulatory metric
1. Taxonomy-eligible activities as a proportion of total covered assets	6 %	Activities with Financial and Non-financial corporates subject to NFRD, households and local governments covered by the EU Taxonomy Climate Delegated Act divided by total covered assets.
2. Taxonomy non-eligible activities as a proportion of total covered assets	94 %	Activities with Financial and Non-financial corporates subject to NFRD, households and local governments not covered by the EU Taxonomy Climate Delegated Act divided by total covered assets.
3. Exposures to sovereigns as a proportion of total covered assets	93 %	Exposures to sovereigns divided by total covered assets. Sovereigns include exposures to central governments, central banks and supranational issuers.
4. Derivatives as a proportion of total covered assets	— %	Derivatives in the non-trading portfolio divided by total covered assets.
5. Trading book as a proportion of total covered assets	46 %	Exposures in the trading book divided by total covered assets.
6. On-demand interbank exposures as a proportion of total covered assets	22 %	Exposures in the on-demand interbank market divided by total covered assets.
7. Total covered assets	$37.8 bn	Total assets excluding exposures to sovereigns and trading book.

Total covered assets amount to USD 37.8 billion, excluding exposures to sovereign and trading book. As the EU Taxonomy becomes more embedded within CEP, we anticipate the proportion of Taxonomy Eligible activities to increase. Exposure to non-NFRD compliant clients has not yet been able to be determined, however we continue to develop our industry data sourcing and methodologies and will continue to review the impact these have on our disclosures in future period.

The above metrics are unaudited and have been prepared to the best of our ability.