# CITIBANK EUROPE PLC

**(Registered Number: 132781)**

# ANNUAL REPORT AND FINANCIAL STATEMENTS

**for the year ended 31 December 2020**

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## BOARD OF DIRECTORS AND OTHER INFORMATION

| | |
|---|---|
| **DIRECTORS** | Susan Dean – Chairperson – Non-Executive<br>Cecilia Ronan – Chief Executive Officer<br>Breffni Byrne – Independent Non-Executive<br>Desmond Crowley – Independent Non-Executive<br>Ebru Pakcan – Non-Executive (resigned on 2nd July 2020)<br>Jeanne Short – Independent Non-Executive<br>John Gollan – Independent Non-Executive<br>Patrick Dewilde – Non-Executive<br>Peter McCarthy – Non-Executive (appointed on 12th March 2020)<br>Silvia Carpitella – Executive (appointed on 15th December 2020)<br>Zdenek Turek – Executive (resigned on 2nd July 2020) |
| **COMPANY SECRETARY** | Fiona Mahon |
| **REGISTERED OFFICE** | 1 North Wall Quay, Dublin 1 |
| **SOLICITORS** | A&L Goodbody<br>International Financial Services Centre, North Wall Quay, Dublin 1<br><br>Arthur Cox Solicitors<br>Ten Earlsfort Terrace, Dublin 2<br><br>Matheson<br>70 Sir John Rogersons Quay, Dublin 2 |
| **AUDITOR** | KPMG<br>Statutory Auditor and Chartered Accountants<br>1 Harbourmaster Place, IFSC, Dublin 1 |
| **BANKERS** | Citibank NA, London Branch<br>Citigroup Centre, Canada Square,<br>Canary Wharf, London, E14 5LB |

# CITIBANK EUROPE PLC

**DIRECTORS' REPORT**
For the year ended 31 December 2020

The Directors present their report and the annual financial statements of Citibank Europe plc ("the Company" or "CEP") for the year ended 31 December 2020, 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 and for the year under review had branches across 21 European countries (2019: 21 European countries), and 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**

During the year ended 2020, in addition to widespread public health implications, Covid 19 pandemic has had an extraordinary impact on macroeconomic conditions. The Company's businesses, operations and financial condition have been impacted by economic dislocations and trends caused by the pandemic.

Despite these impacts, the Company reported a profit for the period of $443 million for the year ended 31 December 2020 (2019: $1,116 million) and has maintained strong capital and liquidity positions with consistently strong business operations.

The net operating income was $1,723 million for the year to 31 December 2020 (2019: $2,512 million). The reduction from prior year was due to a decrease in transaction volumes through the payment and commercial cards businesses mirroring the wider contraction in the global economy. It was coupled with reduced interest income from compressed rates across the US and Europe. The decline was offset with Markets and Securities Services' revenues which were positively impacted by increased market volatility and related growth in transaction volumes.

Operating expenses (excluding net credit losses) increased to $1,248 million for the year to December 2020 (2019: $1,195 million). Compensation costs rose as a result of increased headcount that demonstrated the continued investment in our Citi Solution Centres (shared services) in pursuit of an enhanced control environment and to support growth of our Markets and Private Banking businesses.

The Company recorded a net credit loss of $490 million for the year ended 31 December 2020 (2019: gain of $40.8 million). This was primarily driven by significant build of the expected credit loss reserve considering the uncertain macro-economic environment and contraction seen across regional economies caused by the pandemic with an expectation of a prolonged period of recovery. Note 21 and specifically the credit risk section contains further details.

The Company's total assets increased to $74.7 billion (2019: $62.1 billion). The growth was led by the Markets and Securities Services businesses due to the successful Brexit led transitions and portfolio build up in derivatives flow trading as well as increased financing seen across financial institutions and corporate customers.

### Future Developments

The Company continues to monitor the evolving landscape in relation to Covid 19, the ever changing geo-political situation across Europe and US and its impact on the financial markets and the Company's businesses.

Covid 19 is a global pandemic, which has impacted health and economic conditions of all the countries and jurisdictions where the Company operates. These impacts will continue to evolve by region and country, largely depending on further spread due to potential for new variants of the virus, timely development, production and distribution of effective vaccines.

Ongoing legislative and regulatory changes to address the economic impact from the pandemic, such as corporate relief measures and continued lower interest rates, could further affect the Company's businesses, operations and financial performance. A prolonged health crisis could further reduce economic activity, resulting in additional declines in employment, business and consumer confidence. These factors could further negatively impact global economic activity; cause a continued decline in the demand for the Company's products and services and in its revenues; and further increase the Company's credit and other costs.

The Company has a well-balanced business model that places it in a strong position to face the above-mentioned uncertainties and to benefit from opportunities for future growth. Once the market condition improves and recovery takes hold, the volumes in payments and commercial card businesses are expected to bounce back. The Company has seen a significant increase in transactional volumes and associated revenues in the Securities Services business and this is expected to continue through client acquisition and geographic expansion.

Additionally, as part of the ongoing strategy, the Company continues to invest in expanding its capabilities particularly in its Markets and Securities Services, Commercial Banking and Private Banking segments in order to leverage opportunities and grow a further diversified client portfolio. The future plan of continued investment in innovation and digitisation will enable it to enhance product offering in the TTS business segment and support market share growth in Commercial Bank and Private Bank.

### Key Performance Indicators

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

| | 31 December 2020 | 31 December 2019 | Variance |
|---|---|---|---|
| Profit before tax (USD '000) | 475,690 | 1,317,769 | -64% |
| Profit after tax (USD '000) | 443,096 | 1,116,113 | -60% |
| Operating efficiency* | 66% | 43% | 23% |
| Shareholders' funds (USD '000)** | 10,714,505 | 10,323,887 | 4% |
| Return on capital employed | 4% | 13% | -9% |
| Leverage ratio | 9% | 10% | -1% |

*Operating efficiency is a proportionate representation of operating expenses over net operating income (excluding interest expense).
** The Shareholders' funds equate to total equity attributable to equity shareholders, which is different from regulatory capital.

### Credit Rating

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

### Capital Management

The Company had regulatory capital of $9.6 billion as at 31 December 2020 ($8.9 billion as at 31 December 2019) which is entirely made up of Tier One equity. The capital ratio at 31 December 2020 was 18.6% (19.8% as at 31 December 2019) which exceeds the minimum 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 consideration to pay a dividend in relation to 2020 earnings in 2021 will be kept under review in light of uncertainties created by Covid 19 and Regulators' recommendations and will be finalised later in the year. (2020: $nil paid in relation to 2019 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 Framework and inform the Board on the Company's risk appetite by taking account of the current and future financial position of the Company. 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 Department 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.

### 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, diversity and inclusion along with fitness and probity.

### 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 in Lending to Related Parties 2013 (Code) issued by the 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 Code for Credit Institutions 2015 (the 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), the CBI is designated as the authority in charge of identifying O-SIIs which have been authorised within the State.

### Political Donations

During the year the Company did not make any political donations (2019: 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 2020 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 2020 and 2019.

### Accounting records

The Directors believe that they have complied with the requirement 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. 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 55.

**DIRECTORS' REPORT** (continued)
For the year ended 31 December 2020

### Going Concern

In considering going concern, the Company continues to closely monitor developments related to the outbreak of Covid 19. The potential impacts from Covid 19 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 concluded that the going concern basis is appropriate.

The reassessment was completed with reference to the strategic plan base and plausible downside scenarios which demonstrated that CEP has sufficient capital and liquidity buffers to withstand the current and forecasted market conditions over the going concern period of assessment. This analysis indicated that the Company would maintain capital and liquidity headroom over the minimum regulatory requirements throughout the going concern period.

The directors are confident that the Company will have sufficient funds to continue to meet its liabilities as they fall due for at least 12 months from the date of approval of the financial statements and therefore, have prepared the financial statements on a going concern basis. In addition, Citigroup Inc. continues to provide confirmation that it will provide sufficient funding to the Company to ensure that it maintains a sound financial position and to be able to meet its debt obligations for the foreseeable future.

### Auditor

In accordance with Section 383(2) of the Companies Act 2014, the auditors, KPMG, Statutory Auditors and Chartered Accountants, 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.

**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 2021

| | | | |
|---|---|---|---|
| Cecilia Ronan<br>Director | Silvia Carpitella<br>Director | John Gollan<br>Director | Fiona Mahon<br>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 2020, which comprise the Income Statement, the Statement of Other Comprehensive Income, the Statement of Financial Position, the Statement of Changes in Equity, the Statement of Cash Flows and related notes, including the summary of significant accounting policies set out in Note 1. The financial reporting framework that has been applied in their preparation is Irish Law and International Financial Reporting Standards (IFRS) as adopted by the European Union.

In our opinion, the accompanying financial statements:

- the financial statements give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2020 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 Company financial statements have been properly prepared in accordance with IFRS as adopted by the European Union, as applied in accordance with the provisions 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 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 therefore 19 years for the year ended 31 December 2020. 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 Director's 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 in which the global Covid 19 pandemic continues to unfold; and
    - the impact on regulatory capital requirements in the event of an economic slowdown or recession.
- We 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.
- Our procedures also included:
    - benchmarking key assumptions included in the Directors' downside scenarios relevant to liquidity and capital metrics. In particular, we considered sensitivities over the level of available financial resources indicated by the Company's financial forecasts taking account of the impact of alternative scenarios on these financial forecasts and assessing whether these downside scenarios applied, considered reasonably possible outcomes.

## Report on the audit of the financial statements

***Conclusions relating to going concern*** *(continued)*

Based on the work we have performed, we have not identified a material uncertainty 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 the going concern period.

We found the significant assumptions associated with the use of the going concern basis of accounting, outlined in disclosure in Note 1 to be acceptable.

### 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:

**IFRS 9 net credit losses – ECL models $508m (2019: $77m)**
*Refer to note 1 (i) and 1 (j) (accounting policies) and notes 15, 18, 19, 20, 21 and 31 (financial disclosures)*

**The key audit matter**

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 PD models**

The Probability of Default (PD) models are the key drivers of the expected credit loss calculation and also impact the staging of assets. ECLs may be inappropriate if significant PD models do not accurately predict defaults over time, become out of line with wider industry experience, or fail to reflect the credit risk of financial assets. This is particularly relevant for the current environment, where there are increased challenges in predicting defaults in light of the uncertainty created by Covid 19.

**Material qualitative adjustments**

Qualitative adjustments are raised by management to address known impairment model limitations and/or emerging trends.
There is a high degree of estimation uncertainty and management judgment involved in material qualitative adjustments

**Economic Scenarios**

Economic scenarios have a direct impact on the staging of loans and the resultant ECL. Significant management judgment is applied to the determination of the economic scenarios and the weightings applied to them especially when considering the current uncertain economic environment as a result of Covid 19.

**How the matter was addressed in our audit**

We performed end-to-end process walkthroughs to identify the key systems, applications and controls used in the ECL processes. We tested the design implementation and operating effectiveness of the key controls over the completeness and accuracy of the significant models, assumptions and key data inputs into the impairment models.

• We tested the design and implementation of key controls over the assessment and calculation of material significant increase in credit risk (SICR) indicators and criteria, including credit risk monitoring controls.

• In conjunction with our credit modelling specialists, we tested the design and implementation of key controls over the modelling process and methodologies, including model monitoring, validation and approval, as well as testing the design and implementation of key controls over model outputs and recognition and approval of material qualitative adjustments

• We tested the design and implementation of key controls relating to the estimation of significant macroeconomic assumptions used in measuring ECL including the economic scenarios and probability weightings applied to them.

• We re-performed the calculation of certain components of the ECL model calculation, including PD and material qualitative adjustments.

**Key audit matters: our assessment of risks of material misstatement** (continued)

| | |
|---|---|
| **Identification and quantification of Stage 3 loans**<br><br>There is a risk that individually assessed ECLs held against Stage 3 loans are not adequately identified or quantified. | • We involved our own credit modelling specialists to assist us in assessing the reasonableness of the Company's methodology for determining the economic scenarios used and the probability weightings applied to them.<br><br>• We assessed significant economic variables used, such as economic assumptions and forecasts, and challenged the overall reasonableness of the significant economic assumptions and forecasts comparing management's significant assumptions to observable industry forecasts.<br><br>• We assessed the completeness and adequacy of material qualitative adjustments, having regard for the risk profile of loan books, recent loss history and performance of the relevant portfolios and key uncertainties such as Covid 19.<br><br>• For a sample of loans, we critically assessed and challenged the reasonableness of management's significant assumptions by reference to the underlying documentation and through inquiry of management, whether the indicators for a credit impairment had been identified.<br><br>• For a risk-based selection of credit-impaired loans, we examined the forecasts of future cash flows prepared by management to support the significant assumptions with loan valuation, and challenged the significant assumptions through reference to supporting documentation, including where relevant, external information.<br><br>• We found the significant judgments used by management in determining the ECL charge and provision, including the accuracy of PD models, application of PMAs, economic scenarios and identification and quantification of Stage 3 loans, to be reasonable. |

**Key audit matters: our assessment of risks of material misstatement** (continued)

**Valuation of level 3 and more complex level 2 financial instruments**
*Refer to note 1 (i) (accounting policy) and note 24 (financial disclosures)*

**The key audit matter**

***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. Where significant pricing inputs are unobservable, involve complex valuation models or limited market data, 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).

***Risk of Fraud***: Management makes certain assumptions as they relate to the valuation of financial instruments. The valuation of hard to price financial instruments takes into consideration, among other matters, trader judgement regarding at least one significant unobservable input. The significant assumptions 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 valued using alternative pricing procedures due to at least one significant unobservable input

**How the matter was addressed in our audit**

- We performed end to end walkthroughs of the valuation process and tested the design, implementation and operating effectiveness of key controls identified.
- We tested the design and implementation of key controls in the following areas:
- Independent price verification (IPV) key inputs, s and risk factors subject to IPV; and
- Fair value adjustments (FVAs).
- IT systems relevant to the valuation including interfaces with risk systems and external pricing providers'; and
- Validation, completeness, implementation and usage of valuation models, including controls over adjustments to model limitations and assumptions; and

**In conjunction with our valuation specialists, we:**

- Independently valued a sample of positions in both level 2 and level 3 and assess the fair value
- Inspected external sources for price inputs used by management in performing IPV and recalculate IPV variances as well as FVAs;
- Determined, for a sample of instruments, an independent fair value hierarchy estimate and compare to the classification of these instruments; and
- Independently assessing the appropriateness of price verification methodology by examining the theoretical methodologies being used and assessing the appropriateness of price testing variance thresholds.

Overall, we found the valuations of level 3 and more complex level 2 financial instruments, including the significant pricing inputs, to be reasonable.

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

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

Materiality for the financial statements as whole was set at $52.2 million (2019: $52.5 million) determined with reference to a 3 year average benchmark of profit before tax of $1,043 million, of which it represents circa 5 per cent (2019: 5 per cent), which we consider to be one of the principal considerations for users of the financial statements in assessing the financial performance of the Company.

Our audit process included reporting to the Audit Committee all corrected and uncorrected misstatements we identified through our audit work with a value in excess of $2.6 million (2019: $3 million), in addition to other audit misstatements below that threshold that we believe warranted reporting on qualitative grounds.

Our audit of the Company was undertaken to the materiality level specified above and was all performed by a single engagement team in Dublin. 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 preparation of the other information presented in the Annual Report together with the financial statements. The other information comprises the information included in the directors' report and the non-financial statement included in the directors' report and the non-financial statement referenced on page 7.

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 financial statements are in agreement with the accounting records

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

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

• the disclosures of directors' remuneration and transactions required by Sections 305 to 312 of the Act are not made.

• the Company has 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 2019 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.

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

**Respective responsibilities and restrictions on use**

***Directors' responsibilities***

As explained more fully in their statement set out on pages 7 to 8, 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 Group and 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 Group or 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

***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.

N. Marshall

*N. Marshall* *31 March 2021*
**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 2020

| | Note | 2020 $ 000 | 2019 $ 000 |
|---|---|---|---|
| Interest income | 3 | 568,430 | 782,295 |
| Interest expense | 3 | (177,820) | (252,807) |
| **Net interest income** | | 390,610 | 529,488 |
| Fee and commission income | 4 | 1,168,222 | 1,268,492 |
| Fee and commission expense | 4 | (198,534) | (207,072) |
| **Net fee and commission income** | | 969,688 | 1,061,420 |
| Net trading income | 5 | 255,694 | 352,313 |
| Net investment income | 6 | 82,632 | 73,686 |
| Net income/(loss) from other financial instruments designated at fair value through profit or loss | 7 | 12,284 | (10,673) |
| Other operating income | 8 | 502,538 | 465,295 |
| **Total income** | | 2,213,446 | 2,471,529 |
| Net credit (loss)/gain | 21 | (489,963) | 40,843 |
| **Net operating income** | | 1,723,483 | 2,512,372 |
| Personnel expenses | 10 | (801,538) | (744,287) |
| Other expenses | 12 | (446,255) | (450,316) |
| **Total operating expenses** | | (1,247,793) | (1,194,603) |
| **Profit before tax** | | 475,690 | 1,317,769 |
| Corporate tax | 13 | (32,594) | (197,079) |
| **Profit for the year from continuing operations** | | 443,096 | 1,120,690 |
| **Loss from discontinued operations, net of tax** | 34 | - | (4,577) |
| **Profit for the year** | | 443,096 | 1,116,113 |

The accompanying notes on pages 21 to 100 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 31 March 2021 and signed on their behalf by:

| | | | |
|---|---|---|---|
| Cecilia Ronan<br>Director | Silvia Carpitella<br>Director | John Gollan<br>Director | Fiona Mahon<br>Company Secretary |

# CITIBANK EUROPE PLC

## STATEMENT OF OTHER COMPREHENSIVE INCOME
for the year ended 31 December 2020

| | Note | 2020 $ 000 | 2019 $ 000 |
|---|---|---|---|
| **Profit for the period** | | 443,096 | 1,116,113 |
| **Items that will not be reclassified to profit or loss** | | | |
| Loss on remeasurement of defined benefit liability | **14** | (29,914) | (34,777) |
| Related tax | **25** | 3,557 | 4,347 |
| **Items that may be reclassified to profit or loss** | | | |
| Foreign currency translation (loss)/gain | | (48,537) | 6,395 |
| Net gain/(loss) on hedge of net investment in foreign operation | | 13,354 | (3,980) |
| Movement in fair value reserve (FVOCI debt instruments) | | | |
| Debt instruments at FVOCI - net change in fair value | | 60,730 | 47,094 |
| Debt instruments at FVOCI - reclassified to profit or loss | **6** | (44,158) | (34,931) |
| Related tax | **25** | (3,940) | (913) |
| Other comprehensive expense for the year, net of tax | | (48,908) | (16,765) |
| **Total comprehensive income for the year** | | 394,188 | 1,099,348 |

The accompanying notes on pages 21 to 100 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 31 March 2021 and signed on their behalf by:

| | | | |
|---|---|---|---|
| Cecilia Ronan<br>Director | Silvia Carpitella<br>Director | John Gollan<br>Director | Fiona Mahon<br>Company Secretary |

# CITIBANK EUROPE PLC

## STATEMENT OF FINANCIAL POSITION

As at 31 December 2020

| | Note | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|---|
| **Assets** | | | |
| Cash and cash equivalents | **15** | 19,967,744 | 19,334,315 |
| Trading assets | **16, 22** | 729,657 | 1,121,192 |
| Derivative financial instruments | **17, 22** | 11,236,509 | 3,220,984 |
| Investment securities | **18** | 3,843,267 | 3,832,621 |
| Loans and advances to banks | **19** | 16,404,551 | 13,832,002 |
| Loans and advances to customers | **19** | 17,738,525 | 17,054,656 |
| Shares in subsidiary undertakings | **26** | 14,175 | 14,175 |
| Current tax asset | **25** | 56,064 | 21,842 |
| Other assets | **20** | 4,252,859 | 3,162,621 |
| Deferred tax assets | **25** | 248,229 | 224,656 |
| Property and equipment | **23** | 141,407 | 141,626 |
| Goodwill and Intangible assets | **24** | 99,373 | 91,022 |
| **Total assets** | | 74,732,360 | 62,051,712 |
| **Liabilities** | | | |
| Deposits by banks | **22** | 13,812,225 | 15,180,835 |
| Customer accounts | **22** | 33,198,315 | 28,030,086 |
| Derivative financial instruments | **17, 22** | 11,247,882 | 3,245,244 |
| Current tax liability | | 802 | 52,750 |
| Provisions | **27** | 115,366 | 47,463 |
| Deferred tax liabilities | **25** | 18,099 | 21,546 |
| Other liabilities | **28** | 5,625,166 | 5,149,901 |
| **Total liabilities** | | 64,017,855 | 51,727,825 |
| **Equity shareholders' funds** | | | |
| Share capital | **29** | 10,532 | 10,532 |
| Share premium account | **29** | 1,962,747 | 1,962,747 |
| Other reserves (net) | **37** | 768,804 | 794,925 |
| Retained earnings | | 7,972,422 | 7,555,683 |
| Total equity attributable to equity shareholders | | 10,714,505 | 10,323,887 |
| **Total liabilities and equity shareholders' funds** | | 74,732,360 | 62,051,712 |

The accompanying notes on pages 21 to 100 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 31 March 2021 and signed on their behalf by:

| Cecilia Ronan | Silvia Carpitella | John Gollan | Fiona Mahon |
|---|---|---|---|
| Director | Director | Director | Company Secretary |

# CITIBANK EUROPE PLC

## STATEMENT OF CHANGES IN EQUITY
for the year ended 31 December 2020

| | Note | Attributable to equity holders of the Company | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Share capital $ 000 | Share premium $ 000 | Capital reserve $ 000 | Merger reserve $ 000 | Translation reserve $ 000 | Fair value reserve $ 000 | Equity reserve $ 000 | Retained earnings $ 000 | Total $ 000 |
| **Balance at 1 January 2019** | | 10,532 | 1,962,747 | 826,688 | 23,478 | (54,807) | 4,333 | (3,018) | 6,470,000 | 9,239,953 |
| **Total comprehensive income/(loss):** | | | | | | | | | | |
| Profit for the period | | - | - | - | - | - | - | - | 1,116,113 | 1,116,113 |
| **Other comprehensive income/(loss), net of tax:** | | | | | | | | | | |
| Remeasurements of defined benefit liability/(asset) | **14** | - | - | - | - | - | - | - | (30,430) | (30,430) |
| Foreign currency translation differences for foreign operations | | - | - | - | - | 6,395 | - | - | - | 6,395 |
| Net loss on hedge of net investment in foreign operation | | - | - | - | - | (3,980) | - | - | - | (3,980) |
| Fair value reserve (FVOCI financial assets) | | - | - | - | - | - | 11,250 | - | - | 11,250 |
| Total other comprehensive income/(loss) | | - | - | - | - | 2,415 | 11,250 | - | (30,430) | (16,765) |
| Total comprehensive income/(loss) | | - | - | - | - | 2,415 | 11,250 | - | 1,085,683 | 1,099,348 |
| **Transactions with owners, recorded directly in equity** | | | | | | | | | | |
| Equity increase/(decrease) resulting from merger | **37** | - | - | - | (21,258) | - | - | - | - | (21,258) |
| Equity settled share-based payment | **30** | - | - | - | - | - | - | 5,844 | - | 5,844 |
| Total contributions by and distributions to owners | | - | - | - | (21,258) | - | - | 5,844 | - | (15,414) |
| **Balance at 31 December 2019** | | 10,532 | 1,962,747 | 826,688 | 2,220 | (52,392) | 15,583 | 2,826 | 7,555,683 | 10,323,887 |
| **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/(asset) | **14, 25** | - | - | - | - | - | - | - | (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 settled share-based payment | **30** | - | - | - | - | - | - | (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 |

The accompanying notes on pages 21 to 100 form an integral part of these financial statements.

# CITIBANK EUROPE PLC

## STATEMENT OF CASH FLOWS

for the year ended 31 December 2020

| | Note | 31 December 2020 $ 000 | 31 December 2019* $ 000 |
|---|---|---|---|
| **Cash flows from operating activities** | | | |
| Profit after tax | | 443,096 | 1,116,113 |
| *Adjustments for:* | | | |
| Income tax charged | **13** | 32,594 | 197,079 |
| Depreciation and amortisation | **12** | 59,643 | 57,604 |
| Net impairment losses/(recoveries) on loans and advances | **21** | 426,494 | (55,006) |
| Provision released and other movements during the year | **27** | 5,861 | 14,022 |
| Provision utilised during the year | **27** | (3,519) | (9,783) |
| Share based payment fair value adjustments | **30** | (3,570) | 5,844 |
| Remeasurement of post-employment defined benefit plans | **14** | (29,914) | (34,777) |
| Net interest income | **3** | (390,610) | (529,488) |
| Net gain on investment securities | **18** | (21,902) | (28,418) |
| Change in trading assets | **16, 22** | 391,535 | (119,705) |
| Change in derivative financial instrument assets | **17, 22** | (8,015,525) | (1,733,565) |
| Change in loans and advances to banks (more than 3 months) | **15, 19** | 739,091 | (346,742) |
| Change in loans and advances to customers | **19, 21** | (1,036,347) | 1,724,210 |
| Change in other assets | **20** | (1,124,460) | 827,615 |
| Change in deposits by banks | **22** | (1,368,610) | 879,732 |
| Change in customer account balances | **22** | 5,168,229 | 2,857,366 |
| Change in derivative financial instrument liabilities | **17, 22** | 8,002,638 | 1,742,295 |
| Change in other liabilities | **28** | 480,654 | (594,764) |
| | | 3,755,378 | 5,969,632 |
| Interest received | **3** | 568,430 | 782,295 |
| Interest paid | **3** | (177,820) | (252,807) |
| Income tax paid | | (103,664) | (156,177) |
| **Net cash flow from operating activities** | | 4,042,324 | 6,342,943 |
| **Cash flows from investing activities** | | | |
| Acquisition of investment securities | | (462,330) | (2,892,242) |
| Disposal of investment securities | | 490,158 | 3,145,599 |
| Acquisition of property and equipment | **23** | (28,141) | (11,074) |
| Proceeds from disposal of property and equipment | **23** | 2,331 | 380 |
| Acquisition of intangible assets | **24** | (24,342) | (21,454) |
| Cost of acquisition of business | | - | (27,400) |
| Proceeds from sale of discontinued business | **34** | - | 6,142 |
| **Net cash flow from investing activities** | | (22,324) | 199,951 |
| **Cash flows from financing activities** | | | |
| Payment of lease liabilities | **35** | (5,388) | (18,137) |
| Interest on lease liabilities | **35** | (1) | (2) |
| **Net cash flow (used in) financing activities** | | (5,389) | (18,139) |
| **Cash flows from discontinued operations** | | | |
| Change in assets associated with disposal group held for sale | | - | 624,148 |
| Change in liabilities associated with disposal group held for sale | | - | (4,614,811) |
| **Net cash flows from discontinued operations** | | - | (3,990,663) |
| **Net increase in cash and cash equivalents** | | 4,014,611 | 2,534,092 |
| Cash and cash equivalents at beginning of year | **15** | 31,519,195 | 28,952,529 |
| Effect of exchange translations and other adjustments | | (61,087) | 32,574 |
| **Cash and cash equivalents at end of year** | **15** | 35,472,719 | 31,519,195 |

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

## NOTES TO THE FINANCIAL STATEMENTS

### 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 (IFRS) as adopted by the EU and the company law of Republic of Ireland.

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 of the Company.

**c) Changes in accounting policy and disclosures**

*Standards issued and effective*

There are a number of accounting standards that have been issued by the International Accounting Standards Board (IASB), which became effective during 2020. They include:

- Amendments to references to Conceptual Framework in IFRS Standards
- Definition of a Business (Amendments to IFRS 3)
- Definition of Material (Amendments to IAS 1 and IAS 8)
- Covid 19-Related Rent Concessions (Amendment to IFRS 16)

The above amended standards and interpretations did not have a significant impact on the Company's financial statements:

*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)

### 1. Principal accounting policies (continued)

#### c) Changes in accounting policy and disclosures (continued)

The following amended standard and interpretation is currently being assessed for the impact on the Company's financial statements.

- Interest Rate Benchmark Reform (Amendments to IFRS 9, IAS 39 and IFRS 7)

LIBOR is currently used as the interest rate benchmark to price or value a wide range of financial products. Citi, and by extension the Company, is currently conducting a global LIBOR governance and implementation program which is focused on identifying and addressing the LIBOR transition impacts to Citi's clients, operational capabilities and legal and financial contracts, among others. The program operates globally across Citi's businesses and functions. Citi, and by extension the Company, also continues to engage with and monitor developments involving regulators, financial accounting bodies and others on LIBOR transition matters and relief. Moreover, Citi and by extension the Company, has been investing in its systems and infrastructure, as client activity moves away from LIBOR to alternative reference rates. Citi also has continued to identify its LIBOR transition exposures, including existing financial instruments that do not contain contract provisions that adequately contemplate the discontinuance of reference rates and that would require additional negotiation with counterparties. In addition, Citi has begun to mitigate its LIBOR transition exposures by, among other things, using alternative reference rates in certain newly issued financial instruments and products.

In September 2019, the IASB issued the Phase 1 of its response to IBOR Reform, which were amendments to IAS 39 and IFRS 9 addressing hedge accounting matters arising prior to the transition to new reference rate reform. Because the Company does not apply hedge accounting referencing LIBOR in its standalone financial statements, these amendments did not impact the Company. On 27 August 2020, the IASB issued the Phase 2 amendments which address transition and post-replacement issues, including issues broader than hedge accounting such as modifications of financial assets and liabilities. These amendments are effective for annual periods beginning on or after 1 January 2021, with earlier application permitted.

The Company does not plan to adopt these amendments earlier than 2021.

#### d) Interest income and interest expense

Interest income and expense on financial assets and liabilities are recognised in the income statement using the effective interest rate method (EIR). 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 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.

Interest income and expense presented in the income statement includes:

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

#### 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.

**1. Principal accounting policies** (continued)

**e) Net fee and commission income** (continued)

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.

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.

**1. Principal accounting policies** (continued)

**i) Financial assets and liabilities**

**Classification and Measurement**

*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.

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. 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.

**1. Principal accounting policies** (continued)

**i) Financial assets and liabilities** (continued)

**Classification and Measurement** (continued)

**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.

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.

*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.

*FVOCI*

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 2019 and as at 31 December 2020:

*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.

**1. Principal accounting policies** (continued)

**i) Financial assets and liabilities** (continued)

**Classification and Measurement** (continued)

*FVTPL*

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 2019 and as at 31 December 2020:

*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 benefitting from actual or expected short term price differences between buying and selling prices or from other price or interest rate variations. The term ‘positions’ shall include positions arising from client servicing and market making. Trading intent is evidenced on the basis of the strategies, policies and procedures established by the Company to manage the position or portfolio.

*Derivative contracts*

Derivatives 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;
- 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.

**1. Principal accounting policies** (continued)

**i) Financial assets and liabilities** (continued)

**Classification and Measurement** (continued)

**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.

**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 shall recalculate the gross carrying amount of the financial asset and shall recognise a modification gain or loss in the income statement within net operating income.

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)

**i) Financial assets and liabilities** (continued)

**Classification and Measurement** (continued)

**7. Fair Value Measurement** (continued)

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.

**j) Impairment of financial assets**

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)

*Expected credit loss impairment model* (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;
- 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.

Loans are written off when there is no realistic probability of recovery.

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)

*Expected credit loss impairment model* (continued)

*Delinquency Managed Exposures*

In particular, for consumer loan portfolios, 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)

*Expected credit loss impairment model* (continued)

*Significant increase in credit risk (SICR) (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 overlays may be applied to the model outputs if consistent with the objective of identifying a significant increase in credit risk.

If there is evidence that there is no longer a significant increase in credit risk relative to initial recognition, then the loss allowance on an instrument returns to being measured at 12-month ECL.

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

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

*Staging*

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

In order to determine the ECL reporting stage for an obligation, the Company determines whether the asset is already impaired (Stage 3) or not (Stage 1 and 2). Stage 2 is determined by the existence of a significant credit deterioration (or credit improvement) compared with the credit rating at initial recognition. 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.

*Expected life*

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

**1. Principal accounting policies** (continued)

**j) Impairment of financial assets** (continued)

*Expected credit loss impairment model* (continued)

*Financial guarantees*

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

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

*Stage 3 definition of default*

The definition of default is aligned to the CRR Article 178 definition of default and is consistent with that used for internal credit risk management purposes for the relevant financial instrument. The definition of default used for this purpose is applied consistently to all financial instruments unless information becomes available that demonstrates another default definition is more appropriate for a particular financial instrument.

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)

*Expected credit loss impairment model* (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.

**1. Principal accounting policies** (continued)

**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.

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.

**1. Principal accounting policies** (continued)

**l) Leases** (continued)

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.

**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**

Transactions in foreign currencies are recorded using the rate of exchange at the date of transaction. Monetary assets and liabilities denominated in currencies other than 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**

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.

**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. Please refer to Note 34 – 'Discontinued operations' for further information.

**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'.

*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 30 – 'Share-based incentive plans' for further details.

*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 22 – 'Financial assets and liabilities – Valuation process for Level 3 Fair Value Movements' further outlines the approach to valuation of financial instruments.

**2. Use of assumptions and estimates** (continued)

*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. 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.

*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) Own debt valuation adjustments 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.

**NOTES TO THE FINANCIAL STATEMENTS**

**2. Use of assumptions and estimates** (continued)

*Market valuation adjustments* (continued)

During 2020, the Company recorded CVA/FVA/DVA loss of approximately $11.6 million (2019: loss of $7.1 million).

**3. Net interest income**

| | 2020 | 2019 |
|---|---|---|
| **Interest income** | **$ 000** | **$ 000** |
| Cash and cash equivalents | 17,613 | 35,293 |
| Loans and advances to banks | 56,938 | 154,051 |
| Loans and advances to customers | 331,022 | 444,676 |
| Investment securities | 69,447 | 67,300 |
| Other interest income | 93,410 | 80,975 |
| | **568,430** | **782,295** |
| **Interest expense** | | |
| Deposits by banks | (62,967) | (103,180) |
| Customer accounts | (36,381) | (73,549) |
| Other interest expense | (78,472) | (76,078) |
| | **(177,820)** | **(252,807)** |
| **Net interest income** | **390,610** | **529,488** |

Included in interest income is a total of $13 million (2019: $2 million) received on impaired loans.

## NOTES TO THE FINANCIAL STATEMENTS

### 4. Net fee and commission income

| | 2020 | 2019 |
|---|---|---|
| **Fee and commission income** | **$ 000** | **$ 000** |
| Investment banking | 16,717 | 26,645 |
| Brokerage commissions | 154,946 | 193,562 |
| Custody and Fiduciary transactions | 337,317 | 278,793 |
| Transactional service fees | 362,171 | 355,324 |
| Committment fees | 157,139 | 176,626 |
| Credit and bank card | 34,388 | 78,768 |
| Deposit-related fees | 86,256 | 106,960 |
| Other | 19,288 | 51,814 |
| | **1,168,222** | **1,268,492** |
| **Fee and commission expense** | | |
| Clearing and settlement | (105,927) | (133,053) |
| Custody | (56,991) | (37,144) |
| Other | (35,616) | (36,875) |
| | **(198,534)** | **(207,072)** |
| **Net fee and commission income** | **969,688** | **1,061,420** |

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 $35.8 million in 2020 (2019: $44.5 million).

### 5. Net trading income

| | 2020 | 2019 |
|---|---|---|
| | **$ 000** | **$ 000** |
| Derivatives | 185,656 | 255,409 |
| Debt securities | 47,918 | 19,929 |
| Loans and advances | 22,120 | 76,975 |
| | **255,694** | **352,313** |

### 6. Net investment income

| | 2020 | 2019 |
|---|---|---|
| | **$ 000** | **$ 000** |
| Net gain on FVOCI investment securities | 44,158 | 34,931 |
| Equity securities | 38,474 | 38,755 |
| | **82,632** | **73,686** |

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

| | 2020 | 2019 |
|---|---|---|
| | $ 000 | $ 000 |
| Financial instruments | 12,284 | (10,673) |
| | **12,284** | **(10,673)** |

### 8. Other operating income

| | 2020 | 2019 |
|---|---|---|
| | $ 000 | $ 000 |
| Intercompany recoveries | 502,538 | 465,295 |
| | **502,538** | **465,295** |

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

| | 2020 | 2019 |
|---|---|---|
| | $ 000 | $ 000 |
| Audit fee | 693 | 770 |
| Other assurance | 347 | 412 |
| Tax advisory services | - | 145 |
| Other non-audit services | 2 | 2 |
| | **1,042** | **1,329** |

Additional fees paid to other KPMG member firms outside Ireland for services include local audit fees of $1.3 million (2019: $1.3 million) (of which $0.6 million (2019: $1 million) were to offices involved in the statutory audit of the Company), other assurance fees of $0.3 million (2019: $0.3 million), tax advisory fees of $nil (2019: $nil) and any other non-audit service fees of $0.04 million (2019: $0.02 million).

## NOTES TO THE FINANCIAL STATEMENTS

### 10. Personnel expenses

The average number of persons employed by the Company during the year was 10,238 (2019: 9,446). This comprises 10,071 Direct Staff Full Time and 168 Direct Staff Part-time. The average number of persons employed through the Company's continuing operations during the year was 10,238 (2019: 9,392).

The following table shows the average number of employees by function for 2020 and 2019:

| | 2020 | 2019 |
|---|---|---|
| Corporate and Investment Bank | 560 | 522 |
| Retail and Private banking | 349 | 402 |
| Corporate Functions | 3,619 | 2,927 |
| Independent Control Functions | 519 | 356 |
| Other operations | 5,191 | 5,239 |
| **Total number of staff** | **10,238** | **9,446** |

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

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| Wages and salaries | 640,037 | 577,592 |
| Social security costs | 119,992 | 104,394 |
| Share based payment expenses | 15,578 | 15,599 |
| Pensions and post retirement benefits | 16,276 | 33,067 |
| Restructuring costs | 9,655 | 13,635 |
| **Total personnel expenses** | **801,538** | **744,287** |

The Company operates 20 (2019: 20) defined contribution schemes across its branches. In addition, the Company also operates 13 (2019: 13) defined benefit schemes. In 2020 contributions of $16 million (2019: $33 million) were made to the schemes. For more details, please refer to Note 14.

### 11. Directors' emoluments

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| Directors' emoluments are as follows: | | |
| For qualifying services | 3,221 | 3,669 |
| For long term incentive schemes | - | 1,658 |
| Pension schemes | | |
| - Defined contribution scheme | 115 | 105 |
| | **3,336** | **5,432** |

As of 31 December 2020 retirement benefits were accruing to three directors (2019: four).

### 12. Other expenses

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| Research and development | 7,085 | 6,482 |
| Depreciation | 35,755 | 35,517 |
| Amortisation | 23,888 | 22,087 |
| Communications and technology | 127,111 | 149,056 |
| Contractors | 35,996 | 41,114 |
| Levies and regulatory charges | 65,892 | 60,851 |
| Premises | 22,237 | 25,203 |
| VAT | 34,717 | 25,284 |
| Travel & Entertainment | 3,706 | 12,262 |
| Other administrative expenses | 89,868 | 72,460 |
| | **446,255** | **450,316** |

### 13. Tax on profit on ordinary activities

**(a) Analysis of tax charge in the year:**

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| **Current tax:** | | |
| Corporate tax on profits of the period | (98,095) | (160,967) |
| Adjustments in repsect of corporation tax for earlier years | 34,193 | - |
| **Deferred tax:** | | |
| Current year deferred tax | 31,308 | (36,112) |
| **Total corporate tax** | (32,594) | (197,079) |
| - of this continuing operation | (32,594) | (197,079) |

**(b) Reconciliation of effective tax rate:**

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| Profit before tax from continued operations | 475,690 | 1,317,769 |
| (Loss) before tax from discontinued operations | - | (4,577) |
| **Total profit before tax** | 475,690 | 1,313,192 |
| **Corporate tax at Irish corporation tax rate of 12.5%** | (59,461) | (164,721) |
| Effects of: | | |
| Taxes paid in foreign jurisdictions | (32,482) | 6,098 |
| Deferred tax adjustments | 25,156 | (36,112) |
| Prior year adjustment current tax | 34,193 | (2,344) |
| **Total corporate tax expense** | (32,594) | (197,079) |
| - of this continuing operation | (32,594) | (197,079) |

The prior year comparatives of deferred tax and prior year adjustments have been represented to be consistent with the current year disclosure.

## NOTES TO THE FINANCIAL STATEMENTS

### 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 2020 were $13 million (2019: $14 million). The Company expects to make contributions of approximately $16 million in 2021. The defined benefit obligation includes benefits for current employees, former employees and current pensioners. The weighted average duration of the obligation is 18.3 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 2020 and 2019 encompassed the following:

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

| | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Present value of funded defined benefit obligation | (649,639) | (559,935) |
| Present value of unfunded defined benefit obligation | (17,579) | (15,431) |
| Total defined benefit obligation | (667,218) | (575,366) |
| Fair value of plan assets | 387,757 | 330,131 |
| Net liability recognised on the statement of financial position (Note 28) | (279,461) | (245,235) |
| Deferred tax asset (Note 25) | 33,203 | 30,534 |
| Net pension liability | (246,258) | (214,701) |

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

The analysis of the income statement charge is as follows:

| | 2020 $ 000 | 2019 $ 000 |
|---|---|---|
| **Operating costs:** | | |
| Current service cost | 4,609 | 4,250 |
| Administration expenses | 1,903 | 1,001 |
| Past service cost (incl. curtailments) | (15,836) | - |
| **Financing costs:** | | |
| Interest cost on defined benefit obligations | 6,310 | 9,614 |
| Interest income on scheme assets | (3,755) | (5,646) |
| Expense recognised in the income statement | (6,769) | 9,219 |
| of which attributable to discontinued operations | - | - |
| Expense recognised in the income statement for continuing operations | (6,769) | 9,219 |

**NOTES TO THE FINANCIAL STATEMENTS**

**14. Retirement benefit obligation** (continued)

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

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| Opening defined benefit obligation | (575,366) | (521,540) |
| Exchange rate adjustments | (55,459) | 9,575 |
| Current service cost | (4,609) | (4,250) |
| Interest cost on defined benefit obligations | (6,310) | (9,614) |
| Remeasurement loss due to changes in financial assumptions | (55,928) | (65,189) |
| Remeasurement gain/(loss) due to changes in demographic assumptions | 846 | (910) |
| Remeasurement loss due to changes in liability experience | (2,550) | (1,071) |
| Contributions by plan participants | (35) | (34) |
| Net benefits paid out | 16,926 | 18,220 |
| Past service cost (incl. curtailments) | 15,836 | - |
| Net increase in liabilities from acquisitions | (569) | (553) |
| Closing defined benefit obligation | (667,218) | (575,366) |

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

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| Opening fair value of plan assets | 330,131 | 302,646 |
| Exchange rate adjustments | 32,019 | (5,555) |
| Interest income on plan assets | 3,755 | 5,646 |
| Return on plan assets excluding interest income | 27,718 | 32,393 |
| Contributions by the employer | 12,640 | 14,188 |
| Contributions by the participants | 35 | 34 |
| Net benefits paid out | (16,926) | (18,220) |
| Administration costs incurred | (1,903) | (1,001) |
| Net increase in assets from disposals/acquisitions | 288 | - |
| Closing fair value of plan assets | 387,757 | 330,131 |

The actual return on plan assets is as follows:

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| Interest income on plan assets | 3,755 | 5,646 |
| Return on plan assets excluding interest income | 27,718 | 32,393 |
| Total return on plan assets | 31,473 | 38,039 |

**14. Retirement benefit obligation** (continued)

The interest income on scheme assets is set using the discount rate assumption. In 2020, there was an increase in asset values leading to a remeasurement gain of $28 million (2019: $32 million).

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

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| **Remeasurement (loss)/gain on scheme liabilities** | | |
| Remeasurement loss due to changes in financial assumptions | (55,928) | (65,189) |
| Remeasurement gain/(loss) due to changes in demographic assumptions | 846 | (910) |
| Remeasurement loss due to changes in liability experience | (2,550) | (1,071) |
| **Total remeasurement loss on scheme liabilities** | **(57,632)** | **(67,170)** |
| **Remeasurement gain on plan assets** | **27,718** | **32,393** |
| **Loss on remeasurement of defined benefit liability/asset** | **(29,914)** | **(34,777)** |

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:

| | 2020 | 2019 |
|---|---|---|
| Discount rate for assessing scheme liabilities | 0.60% | 1.10% |
| Future salary increases | 3.00% | 2.70% |
| Rate of increase for pensions in payment | 1.50% | 1.50% |
| Inflation rate assumption | 1.40% | 1.50% |

**14. Retirement benefit obligation** (continued)

The fair values of the plan assets are as follows:

| | **2020** $ 000 Total fair value | **2020** $ 000 Of which not quoted in active market | **2019** $ 000 Total fair value | **2019** $ 000 Of which not quoted in active market |
|---|---|---|---|---|
| Equities | 117,086 | - | 96,969 | - |
| Property | 166 | - | 171 | - |
| Government bonds | 116,940 | - | 87,027 | - |
| Corporate bonds | 115,231 | - | 115,898 | - |
| Other | 38,334 | 4,870 | 30,066 | 3,932 |
| Total fair value of assets | 387,757 | 4,870 | 330,131 | 3,932 |

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:

| | **2020 $ 000** | **2019 $ 000** |
|---|---|---|
| Effect of decreasing the discount rate assumption by 1% on liabilities | (136,390) | (117,308) |
| Effect of increasing the discount rate assumption by 1% on liabilities | 110,996 | 97,151 |
| Effect of increasing the pension increase rate by 1% on liabilities | (45,060) | (38,283) |
| Effect of decreasing the pension increase rate by 1% on liabilities | 36,088 | 31,344 |
| Effect of increasing the salary increase rate by 1% on liabilities | (10,351) | (10,517) |
| Effect of decreasing the salary increase rate by 1% on liabilities | 9,654 | 10,036 |
| Effect of participants living one extra year than expected on liabilities | (23,702) | (19,509) |

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

| | **2021 $ 000** | **2022 $ 000** | **2023 $ 000** | **2024 $ 000** | **2025 $ 000** | **2026-2030 $ 000** |
|---|---|---|---|---|---|---|
| Expected benefit payments | 16,422 | 16,622 | 17,975 | 18,422 | 19,677 | 105,934 |

### 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 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Cash and balances with central banks | 17,627,202 | 16,643,717 |
| Other demand deposits | 2,340,655 | 2,690,683 |
| Expected credit loss | (113) | (85) |
| **Cash and cash equivalents** | **19,967,744** | **19,334,315** |
| **Loans and advances to banks with maturity less than 3 months** | 15,504,975 | 12,184,880 |
| | **35,472,719** | **31,519,195** |

#### 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 | |
|---|---|---|
| | **2020** **$ 000** | **2019** **$ 000** |
| **Outstanding exposure as at 1 January** | **19,334,400** | **17,003,281** |
| New assets originated or purchased | 7,568,178 | 4,688,401 |
| Asset derecognised or matured | (6,934,721) | (2,357,282) |
| **At 31 December** | **19,967,857** | **19,334,400** |

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

| **ECL** | Stage 1 | |
|---|---|---|
| | **2020** **$ 000** | **2019** **$ 000** |
| **IFRS 9 ECL as at 1 January** | **85** | **47** |
| ECL on new assets originated or purchased | 85 | 49 |
| Exposure derecognised or matured | (57) | (11) |
| **At 31 December** | **113** | **85** |

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.

### 16. Trading assets

| | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Government bonds | 269,861 | 673,837 |
| Corporate bonds | 12,455 | 38,735 |
| Loans | 447,341 | 408,620 |
| | **729,657** | **1,121,192** |

### 17. Derivative financial instruments

| | 31 December 2020 | | | 31 December 2019 | | |
|---|---|---|---|---|---|---|
| | Notional amount | Fair value | | Notional amount | Fair value | |
| | | Assets | Liabilities | | Assets | Liabilities |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **Derivatives held for trading** | 712,286,599 | 11,234,165 | 11,247,882 | 240,406,369 | 3,218,885 | 3,245,244 |
| **Derivatives held for risk management** | 184,065 | 2,344 | - | 168,510 | 2,099 | - |
| **Total** | 712,470,664 | 11,236,509 | 11,247,882 | 240,574,879 | 3,220,984 | 3,245,244 |
| | | | | | | |
| **Derivatives held for trading** | | | | | | |
| **Foreign exchange** | 523,201,273 | 6,554,512 | 6,566,905 | 150,445,495 | 1,665,751 | 1,678,722 |
| *- OTC* | 523,201,273 | 6,554,512 | 6,566,905 | 150,445,495 | 1,665,751 | 1,678,722 |
| *- Organised market* | - | - | - | - | - | - |
| **Interest rate** | 185,020,001 | 4,577,341 | 4,579,621 | 88,832,482 | 1,538,321 | 1,543,387 |
| *- OTC* | 185,020,001 | 4,577,341 | 4,579,621 | 88,832,482 | 1,538,321 | 1,543,387 |
| *- Organised market* | - | - | - | - | - | - |
| **Equity** | 979,296 | 7,921 | 7,766 | 428,593 | 1,838 | 1,838 |
| *- OTC* | 979,296 | 7,921 | 7,766 | 428,593 | 1,838 | 1,838 |
| *- Organised market* | - | - | - | - | - | - |
| **Credit** | 3,079,059 | 90,446 | 91,109 | 682,467 | 11,749 | 20,080 |
| **Commodity** | 6,970 | 3,945 | 2,481 | 17,333 | 1,226 | 1,216 |
| **Total** | 712,286,599 | 11,234,165 | 11,247,882 | 240,406,369 | 3,218,885 | 3,245,244 |

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 2020 | | | 31 December 2019 | | |
|---|---|---|---|---|---|---|
| | 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 | - | 168,510 | 2,099 | - |
| **Total** | 184,065 | 2,344 | - | 168,510 | 2,099 | - |

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

## NOTES TO THE FINANCIAL STATEMENTS

### 18. Investment securities

| | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| **FVOCI investment securities** | | |
| Government bonds | 3,689,935 | 3,262,724 |
| Corporate bonds | - | 460,028 |
| **Total** | 3,689,935 | 3,722,752 |
| **FVTPL investment securities** | | |
| Equity securities | 153,332 | 109,869 |
| **Total investment securities** | 3,843,267 | 3,832,621 |

**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 | |
|---|---|---|
| | **2020 $ 000** | **2019 $ 000** |
| **Outstanding exposure as at 1 January** | **3,722,752** | **3,984,946** |
| New assets originated or purchased | 457,341 | 2,892,242 |
| Asset derecognised or matured | (490,158) | (3,128,291) |
| Foreign exchange adjustments and other movements | - | (26,145) |
| **At 31 December** | **3,689,935** | **3,722,752** |

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

| **ECL** | Stage 1 | |
|---|---|---|
| | **2020 $ 000** | **2019 $ 000** |
| **IFRS 9 ECL as at 1 January** | **1,715** | **1,272** |
| ECL on new assets originated or purchased | 4,685 | 1,303 |
| Exposure derecognised or matured | (98) | (798) |
| Foreign exchange adjustments and other movements | - | (62) |
| **At 31 December** | **6,302** | **1,715** |

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 2020<br>$ 000 | 31 December 2019<br>$ 000 |
|---|---|---|
| **Loans and advances to banks measured at amortised cost** | | |
| Gross exposure | 16,415,189 | 13,834,185 |
| Expected credit loss | (10,638) | (2,183) |
| | **16,404,551** | **13,832,002** |
| **Loans and advances to customers measured at amortised cost** | | |
| General governments | 472,437 | 241,010 |
| Corporations | 16,191,489 | 15,409,373 |
| Retail customers | 1,280,666 | 1,238,721 |
| Expected credit loss | (393,245) | (40,767) |
| | **17,551,347** | **16,848,337** |
| **Loans to customers held at fair value through the profit and loss** | 187,178 | 206,319 |
| | **17,738,525** | **17,054,656** |

Retail customers are in relation to the Private Bank business.

### 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 | |
|---|---|---|---|---|---|---|---|---|
| | 2020<br>$ 000 | 2019<br>$ 000 | 2020<br>$ 000 | 2019<br>$ 000 | 2020<br>$ 000 | 2019<br>$ 000 | 2020<br>$ 000 | 2019<br>$ 000 |
| **Outstanding exposure as at 1 January** | **29,832,566** | **30,560,342** | **762,045** | **1,132,051** | **128,678** | **124,704** | **30,723,289** | **31,817,097** |
| New assets originated or purchased | 18,793,139 | 4,003,110 | 462,408 | 153,796 | 37,846 | 11,349 | 19,293,393 | 4,168,255 |
| Asset derecognised or matured | (15,327,426) | (4,965,654) | (171,553) | (315,063) | 1,820 | (54,446) | (15,497,159) | (5,335,163) |
| Transfers to Stage 1 | 253,294 | 754,106 | (168,819) | (752,009) | (84,475) | (2,097) | - | - |
| Transfers to Stage 2 | (724,122) | (579,719) | 724,169 | 618,857 | (47) | (39,138) | - | - |
| Transfers to Stage 3 | (465,631) | (55,934) | (31,448) | (60,354) | 497,079 | 116,288 | - | - |
| Changes due to modifications not resulting in derecognition | - | - | - | - | - | - | - | - |
| Amounts written off | (25,797) | (9,491) | (1,705) | (172) | (960) | (23,080) | (28,462) | (32,743) |
| Foreign exchange adjustments and other movements | (59,247) | 125,806 | (51,541) | (15,061) | (20,492) | (4,902) | (131,280) | 105,843 |
| **At 31 December** | **32,276,776** | **29,832,566** | **1,523,556** | **762,045** | **559,449** | **128,678** | **34,359,781** | **30,723,289** |

| **ECL** | Stage 1 | | Stage 2 | | Stage 3 | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2020<br>$ 000 | 2019<br>$ 000 | 2020<br>$ 000 | 2019<br>$ 000 | 2020<br>$ 000 | 2019<br>$ 000 | 2020<br>$ 000 | 2019<br>$ 000 |
| **IFRS 9 ECL as at 1 January** | **13,527** | **10,815** | **18,961** | **35,034** | **10,462** | **25,018** | **42,950** | **70,867** |
| ECL on new assets originated or purchased | 31,885 | 5,875 | 200,923 | 16,275 | 142,019 | 6,199 | 374,827 | 28,349 |
| Exposure derecognised or matured | (3,340) | (17,653) | (6,057) | (10,771) | (499) | (16,977) | (9,896) | (45,401) |
| Transfers to Stage 1 | 1,741 | 15,907 | (1,267) | (15,906) | (474) | (1) | - | - |
| Transfers to Stage 2 | (1,792) | (666) | 1,793 | 666 | (1) | - | - | - |
| Transfers to Stage 3 | (542) | (76) | (2,084) | (6,337) | 2,626 | 6,413 | - | - |
| Changes due to modifications not resulting in derecognition | - | - | - | - | - | - | - | - |
| Amounts written off | - | (153) | - | - | - | (10,216) | - | (10,369) |
| Foreign exchange adjustments and other movements | (3,887) | (522) | (96) | - | (15) | 26 | (3,998) | (496) |
| **At 31 December** | **37,592** | **13,527** | **212,173** | **18,961** | **154,118** | **10,462** | **403,883** | **42,950** |

**20. Other assets**

| | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Receivables and Prepayments | 44,675 | 327,337 |
| Settlement clearing lines | 118,175 | 118,147 |
| Margin account receivables | 1,472,953 | 1,431,563 |
| Secondary loan trading | 2,364,448 | 1,261,536 |
| Other balances | 252,608 | 24,038 |
| | 4,252,859 | 3,162,621 |

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** | |
|---|---|---|
| | **2020 $ 000** | **2019 $ 000** |
| **Outstanding exposure as at 1 January** | **3,162,621** | **3,977,463** |
| New assets originated or purchased | 4,145,454 | 2,957,845 |
| Asset derecognised or matured | (3,055,216) | (3,772,687) |
| **At 31 December** | **4,252,859** | **3,162,621** |

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 2020 or 31 December 2019.

## 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 through risk frameworks and risk policies, which describe how the Company identifies, measures, mitigates, monitors and reports material risk. This ensures transparent lines of responsibility and accountability for the core risk governance processes performed by the Company.

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

In last quarter of 2020, the Board of Directors approved a revised risk governance structure. This involves the Credit Risk Committee and the Market Risk Sub Committee being subsumed into a new Risk Management Committee, and the Operational Risk Committee being subsumed into a new Business Risk and Control Committee. These new committees will be fully operational from 2021.

**Three lines of defence**

The risk management framework is based on a 'three 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 three lines of defence also collaborate with each other in structured fora and 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.

Each of the Company's businesses (the first line of defence) owns and manages the risks inherent in or arising from the business, and is 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 businesses and functions are required to manage and oversee their 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 (the 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.

**Independent Risk Management**

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

The Company's Independent Risk Management is an independent function within the CEP legal vehicle. The CEP'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 CEP management committees and other governance fora as appropriate. The CRO reports on the risk profile of the bank 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 a comprehensive, documented risk management frameworks and policies to support the management of the material risks identifying for its activities, and ensure accountability through its three 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 CEP, the core governance processes of the bank 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 and policies;
- how the risk is governed under the three lines of defence approach;
- supporting policies 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:

- Material risk 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;
- Assess 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;
- Enable 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;
- Adopt 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 missions, 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 flexible 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.

CEP 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 CEP 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

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

**21.2 Credit risk**

**Definition**

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

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

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

**21. Risk management** (continued)

**21.2 Credit Risk** (continued)

**Governance and Organisation**

Credit risk management framework, approved by 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 three 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
- Credit Risk Committee
- Impairment Working Group
- Product Review Committee

The Company has put in place CEP specific credit risk and remedial management policies. 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. Company credit risk profile is monitored by the Credit Risk Committee at each scheduled meeting, which is subsequently reported 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 utilises the internal risk rating system that accurately and reliably differentiates between degrees of credit risk. Each counterparty is assigned an internal rating, using dedicated rating tools. This internal rating corresponds to an evaluation of the level of default risk borne by the counterparty, expressed by means of an internal rating scale.

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 policies. Adherence to these limits is monitored by the credit risk team on an ongoing basis and reported to the Credit Committee and Board Risk Committee.

To manage the credit risk profile and limit the concentration risk, credit risk limits are set also 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.

**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-months 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 defaulted. 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.

**Provisions 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 risk and are subsequently presented to the Credit Risk Committee.

## NOTES TO THE FINANCIAL STATEMENTS

**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 central 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 upside and downside representative scenarios. A comprehensive review is performed at least annually on the design of the scenarios by a panel of experts that advises the 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, upside and downside scenarios over a 3-year forecast period for three of CEP's largest geographies by credit exposure.

| Country | Macro-economic Variable | Optimistic 2021 | Optimistic 2022 | Optimistic 2023 | Base 2021 | Base 2022 | Base 2023 | Pessimistic 2021 | Pessimistic 2022 | Pessimistic 2023 |
|---|---|---|---|---|---|---|---|---|---|---|
| #1 France | GDP | 7.13 | 4.06 | 2.72 | 6.37 | 3.52 | 2.35 | 5.63 | 3.00 | 2.05 |
| | Unemployment | 9.47 | 8.55 | 7.98 | 9.65 | 8.95 | 8.55 | 9.84 | 9.36 | 9.13 |
| #2 Germany | GDP | 3.79 | 2.90 | 2.08 | 2.75 | 2.22 | 1.66 | 1.90 | 1.57 | 1.25 |
| | Unemployment | 5.84 | 5.12 | 4.79 | 5.95 | 5.38 | 5.18 | 6.08 | 5.64 | 5.57 |
| #3 Spain | GDP | 7.50 | 4.17 | 2.91 | 6.25 | 3.12 | 2.14 | 5.26 | 2.20 | 1.40 |
| | Unemployment | 16.48 | 13.84 | 12.00 | 17.28 | 15.53 | 14.40 | 17.96 | 16.96 | 16.50 |

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, and as such are designed to reflect the impact of significant economic events such as Brexit and Covid 19. The probability weightings applied in measuring ECL are also reviewed quarterly and are shown below for the current and previous year-ends.

| | at 31 December 2020 | | | at 31 December 2019 | | |
|---|---|---|---|---|---|---|
| Scenario | Optimistic | Base | Pessimistic | Optimistic | Base | Pessimistic |
| Probability Weight | 24.38% | 50.81% | 24.81% | 18.84% | 59.66% | 21.50% |

After applying the above weightage, the model produced a combined ECL of $231 million. A model overlay was considered of which details are provided on page 60.

## NOTES TO THE FINANCIAL STATEMENTS

**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 2020, over 95% of the portfolio was in Stage 1. Additionally 61% of the total portfolio has a tenor of one year or less, and therefore the PD used in the ECL calculation is heavily weighted to be of one year or less.

The IFRS9 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.

| | at 31 December 2020 | | |
|---|---|---|---|
| | Optimistic | Base | Pessimistic |
| | $ 000 | $ 000 | $ 000 |
| Loss allowance | 195,757 | 226,219 | 266,712 |

As part of year-end ECL estimation process, given the unique nature of the conditions created by Covid 19, and due to the limitations of IFRS 9 model caused by the unavailability of similar historical data, and frequently changing upcoming horizon, management judgment was applied to make an estimate for a model overlay to be added to the year-end IFRS 9 modelled output of $231 million as mentioned on page 59.

In order to ensure the unprecedented events of 2020 are captured in the year-end ECL estimation process and to help management make an informed estimate, a number of key factors not fully captured by the ECL estimation process were considered:

- Elevated levels of economic volatility arising from countries repeatedly entering and exiting lockdowns, uncertainty over vaccine availability and efficacy against new strains.
- Lagged nature of economic data availability combined with high levels of economic volatility can result in newly produced forward looking scenarios quickly becoming dated.
- Governments support measures have included furlough schemes, statutory loan moratoria, government-guaranteed loans and direct grants. These supports have acted to reduce or delay the impact of the pandemic on economies but also resulted in significant increases in government national debt levels. The nature of Covid 19 shock and ongoing policy responses are expected to lead to a lengthening of the emergence period versus original model design.

In order to quantify some of these concerns and assist management in sizing a judgement based overlay, a number of sensitivities of the model were run incorporating a more severe pessimistic scenario and adjustments to scenario weightings. This sensitivity analysis produced a range of ECL estimations from $456 million to $540 million which was materially above the original IFRS 9 modelled output. Following appropriate governance and internal challenge a decision was taken for a model overlay of $276 million resulting in total reserves being in the upper range of estimations produced as part of the sensitivity analysis. In light of the unprecedented events of 2020, the longer-term impact of these events, and the timing and extent of economic recovery to remain uncertain, therefore management believe this quantum of overlay to be appropriate in ensuring the estimated reserves reflects the forward looking view of the economic analysis as of 31 December 2020.

**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 2020 | | | | | As at 31 December 2019 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Related amounts not offset in the statement of financial position | | | | | Related amounts not offset in the statement of financial position | | |
| | Maximum exposure $ 000 | Netting and set-off* $ 000 | Cash collateral $ 000 | Non-cash collateral** $ 000 | Net exposure $ 000 | Maximum exposure $ 000 | Netting and set-off* $ 000 | Cash collateral $ 000 | Non-cash collateral** $ 000 | Net exposure $ 000 |
| **On-balance sheet:** | | | | | | | | | | |
| Cash and cash equivalents | 19,967,744 | - | - | - | 19,967,744 | 19,334,315 | - | - | - | 19,334,315 |
| Trading assets | 729,657 | - | - | - | 729,657 | 1,121,192 | - | - | - | 1,121,192 |
| Derivative financial instruments | 14,204,720 | (2,968,211) | (1,301,614) | - | 11,236,509 | 4,183,702 | (962,718) | (454,552) | - | 3,220,984 |
| Investment securities | 3,843,267 | - | - | - | 3,843,267 | 3,832,621 | - | - | - | 3,832,621 |
| Loans and advances to banks | 16,404,551 | - | - | (12,263,767) | 4,140,784 | 13,832,002 | - | (85,584) | (9,032,092) | 4,714,326 |
| Loans and advances to customers | 17,738,525 | - | - | (1,083,196) | 16,655,329 | 17,054,656 | - | - | (1,919,186) | 15,135,470 |
| Other assets | 4,252,859 | - | - | - | 4,252,859 | 3,162,621 | - | - | - | 3,162,621 |
| | **77,141,323** | **(2,968,211)** | **(1,301,614)** | **(13,346,963)** | **60,826,149** | **62,521,109** | **(962,718)** | **(540,136)** | **(10,951,278)** | **50,521,529** |
| **Off-balance sheet:** | | | | | | | | | | |
| Letters of credit | 17,064,374 | - | - | - | 17,064,374 | 15,945,698 | - | - | - | 15,945,698 |
| Undrawn commitments to lend | 28,943,765 | - | - | - | 28,943,765 | 24,952,658 | - | - | - | 24,952,658 |
| Other commitments and guarantees | 1,009,116 | - | - | - | 1,009,116 | 1,029,380 | - | - | - | 1,029,380 |
| | **47,017,255** | **-** | **-** | **-** | **47,017,255** | **41,927,736** | **-** | **-** | **-** | **41,927,736** |

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.

* Derivatives financial instruments, which qualify for offsetting are in accordance with IAS 32.

** 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.

**21. Risk management** (continued)

**21.2 Credit Risk** (continued)

**Risk exposure** (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 | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **Outstanding exposure as at 1 January** | **96,492,053** | **93,287,025** | **2,201,641** | **2,540,037** | **177,104** | **128,241** | **98,870,798** | **95,955,303** |
| New assets originated or purchased | 40,146,222 | 22,069,458 | 762,806 | 603,115 | 70,589 | 13,079 | 40,979,617 | 22,685,652 |
| Asset derecognised or matured | (29,504,442) | (18,961,246) | (778,946) | (742,657) | (100,033) | (113,680) | (30,383,421) | (19,817,583) |
| Transfers to Stage 1 | 474,078 | 1,248,154 | (389,154) | (1,246,057) | (84,924) | (2,097) | - | - |
| Transfers to Stage 2 | (1,555,250) | (1,213,704) | 1,565,983 | 1,253,363 | (10,733) | (39,659) | - | - |
| Transfers to Stage 3 | (626,949) | (75,791) | (41,418) | (145,009) | 668,367 | 220,800 | - | - |
| Amounts written off | (25,797) | (10,019) | (1,705) | (172) | (33,630) | (23,080) | (61,132) | (33,271) |
| Foreign exchange adjustments and other movements | (41,457) | 148,176 | (56,224) | (60,979) | (20,494) | (6,500) | (118,175) | 80,697 |
| **At 31 December** | **105,358,458** | **96,492,053** | **3,262,983** | **2,201,641** | **666,246** | **177,104** | **109,287,687** | **98,870,798** |

| ECL | Stage 1 | | Stage 2 | | Stage 3 | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **IFRS 9 ECL as at 1 January** | **24,236** | **22,921** | **39,451** | **82,887** | **12,924** | **25,328** | **76,611** | **131,136** |
| ECL on new assets originated or purchased | 45,953 | 8,368 | 246,350 | 23,670 | 162,673 | 8,027 | 454,976 | 40,065 |
| Exposure derecognised or matured | (8,240) | (46,541) | (9,664) | (17,387) | (2,011) | (19,738) | (19,915) | (83,666) |
| Transfers to Stage 1 | 6,594 | 41,137 | (6,118) | (41,136) | (476) | (1) | - | - |
| Transfers to Stage 2 | (2,164) | (1,265) | 2,304 | 1,265 | (140) | - | - | - |
| Transfers to Stage 3 | (636) | (134) | (2,202) | (9,600) | 2,838 | 9,734 | - | - |
| Amounts written off | - | (153) | - | - | - | (10,216) | - | (10,369) |
| Foreign exchange adjustments and other movements | (2,976) | (97) | (961) | (248) | (16) | (210) | (3,953) | (555) |
| **At 31 December** | **62,767** | **24,236** | **269,160** | **39,451** | **175,792** | **12,924** | **507,719** | **76,611** |

“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.

## NOTES TO THE FINANCIAL STATEMENTS

**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 2020 and 31 December 2019:**

| Income statement | IFRS 9 ECL Stage 1 2020 $ 000 | Stage 1 2019 $ 000 | Stage 2 2020 $ 000 | Stage 2 2019 $ 000 | Stage 3 2020 $ 000 | Stage 3 2019 $ 000 | Total 2020 $ 000 | Total 2019 $ 000 |
|---|---|---|---|---|---|---|---|---|
| **Financial assets** | | | | | | | | |
| Cash and cash equivalents | (28) | (38) | - | - | - | - | (28) | (38) |
| Loans and advances to banks | (4,053) | (793) | (4,402) | 50 | - | 332 | (8,455) | (411) |
| Loans and advances to customers | (20,012) | (1,919) | (188,810) | 16,023 | (143,656) | 14,224 | (352,478) | 28,328 |
| Investment securities | (4,587) | (443) | - | - | - | - | (4,587) | (443) |
| Other assets | - | - | - | - | - | - | - | - |
| **Total On Balance Sheet** | **(28,680)** | **(3,193)** | **(193,212)** | **16,073** | **(143,656)** | **14,556** | **(365,548)** | **27,436** |
| **Off Balance Sheet** | | | | | | | | |
| Letters of credit | (5,512) | 1,646 | (1,544) | 12,406 | 150 | (1,086) | (6,906) | 12,966 |
| Undrawn commitments to lend | (2,992) | 208 | (36,307) | 14,957 | (19,362) | (1,066) | (58,661) | 14,099 |
| Other commitments and guarantees | 7 | 24 | - | - | - | - | 7 | 24 |
| **Total Off Balance Sheet** | **(8,497)** | **1,878** | **(37,851)** | **27,363** | **(19,212)** | **(2,152)** | **(65,560)** | **27,089** |
| **Recoveries of amounts previously written-off** | | | | | | | **3,115** | **20,968** |
| **Write-offs** | | | | | | | **(61,970)** | **(34,668)** |
| **Total Net Credit Recoveries/(Losses)** | | | | | | | **(489,963)** | **40,826** |
| - of this continuing operation | | | | | | | (489,963) | 40,843 |
| - of this discontinuing operation | | | | | | | - | (17) |

The following table shows the ECL reserve on financial assets in the statement of financial position.

**As at 31 December 2020 and 31 December 2019:**

| Statement of financial position | IFRS 9 ECL Stage 1 2020 $ 000 | Stage 1 2019 $ 000 | Stage 2 2020 $ 000 | Stage 2 2019 $ 000 | Stage 3 2020 $ 000 | Stage 3 2019 $ 000 | Total 2020 $ 000 | Total 2019 $ 000 |
|---|---|---|---|---|---|---|---|---|
| Cash and cash equivalents | 113 | 85 | - | - | - | - | 113 | 85 |
| Loans and advances to banks | 6,124 | 2,071 | 4,514 | 112 | - | - | 10,638 | 2,183 |
| Loans and advances to customers | 31,468 | 11,456 | 207,659 | 18,849 | 154,118 | 10,462 | 393,245 | 40,767 |
| Investment securities | 6,302 | 1,715 | - | - | - | - | 6,302 | 1,715 |
| Other assets | - | - | - | - | - | - | - | - |
| **Total On Balance Sheet** | **44,007** | **15,327** | **212,173** | **18,961** | **154,118** | **10,462** | **410,298** | **44,750** |
| **Off Balance Sheet** | | | | | | | | |
| Letters of credit | 9,551 | 4,039 | 14,781 | 13,237 | 1,246 | 1,396 | 25,578 | 18,672 |
| Undrawn commitments to lend | 9,178 | 4,832 | 42,206 | 7,253 | 20,428 | 1,066 | 71,812 | 13,151 |
| Other commitments and guarantees | 31 | 38 | - | - | - | - | 31 | 38 |
| **Total Off Balance Sheet** | **18,760** | **8,909** | **56,987** | **20,490** | **21,674** | **2,462** | **97,421** | **31,861** |
| **Total** | **62,767** | **24,236** | **269,160** | **39,451** | **175,792** | **12,924** | **507,719** | **76,611** |

**NOTES TO THE FINANCIAL STATEMENTS**

**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.

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 & Poors.

| **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 CCC- |
| 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 | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **Loans and advances to banks at amortised cost** | | | | | | | | |
| Rating 1 to 4- | 15,479,261 | 13,032,985 | 24,879 | 10,000 | - | - | 15,504,140 | 13,042,985 |
| Rating 5+ to 6- | 812,089 | 764,796 | 98,852 | 24,560 | 6 | - | 910,947 | 789,356 |
| Rating 7+ to 7- | 90 | 1,455 | 12 | 389 | - | - | 102 | 1,844 |
| Rating 8 to 10 | - | - | - | - | - | - | - | - |
| **Total** | 16,291,440 | 13,799,236 | 123,743 | 34,949 | 6 | - | 16,415,189 | 13,834,185 |
| Expected credit loss | (6,124) | (2,071) | (4,514) | (112) | - | - | (10,638) | (2,183) |
| **Carrying amount** | 16,285,316 | 13,797,165 | 119,229 | 34,837 | 6 | - | 16,404,551 | 13,832,002 |
| **Loans and advances to customers at amortised cost** | | | | | | | | |
| Rating 1 to 4- | 11,915,312 | 11,382,933 | 25,721 | 31,449 | 101,738 | 3,915 | 12,042,771 | 11,418,297 |
| Rating 5+ to 6- | 4,062,690 | 4,650,178 | 317,340 | 190,996 | 11,044 | 90,055 | 4,391,074 | 4,931,229 |
| Rating 7+ to 7- | 5,443 | - | 1,056,752 | 473,626 | 235,066 | 5,051 | 1,297,261 | 478,677 |
| Rating 8 to 10 | 1,891 | 219 | - | 31,025 | 211,595 | 29,657 | 213,486 | 60,901 |
| **Total** | 15,985,336 | 16,033,330 | 1,399,813 | 727,096 | 559,443 | 128,678 | 17,944,592 | 16,889,104 |
| Expected credit loss | (31,468) | (11,456) | (207,659) | (18,849) | (154,118) | (10,462) | (393,245) | (40,767) |
| **Carrying amount** | 15,953,868 | 16,021,874 | 1,192,154 | 708,247 | 405,325 | 118,216 | 17,551,347 | 16,848,337 |
| **Loans held at fair value through profit and loss** | | | | | | | 187,178 | 206,319 |
| **Total loans and advances to customers** | | | | | | | 17,738,525 | 17,054,656 |

**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 |
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| AAA to AA- | - | - | - | - | 49,312 | 67,933 | 49,312 | 67,933 |
| A+ to A- | - | - | - | - | - | - | - | - |
| Lower than A- | 381,931 | 253,493 | - | - | 220,549 | 605,904 | 602,480 | 859,397 |
| Unrated | 65,410 | 155,128 | 12,455 | 38,734 | - | - | 77,865 | 193,862 |
| **Total** | 447,341 | 408,621 | 12,455 | 38,734 | 269,861 | 673,837 | 729,657 | 1,121,192 |

**Credit quality – Investment Securities**

| | Government bonds (FVOCI) | | Corporate bonds (FVOCI) | | Equity securities (FVTPL) | | Total | |
|---|---|---|---|---|---|---|---|---|
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| AAA to AA- | 1,129,889 | 1,087,813 | - | 460,028 | 112,364 | 72,035 | 1,242,253 | 1,619,876 |
| A+ to A- | 49,036 | - | - | - | - | - | 49,036 | - |
| Lower than A- | 2,511,010 | 2,174,911 | - | - | - | - | 2,511,010 | 2,174,911 |
| Unrated | - | - | - | - | 40,968 | 37,834 | 40,968 | 37,834 |
| **Total** | 3,689,935 | 3,262,724 | - | 460,028 | 153,332 | 109,869 | 3,843,267 | 3,832,621 |

**NOTES TO THE FINANCIAL STATEMENTS**

**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 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Mining and quarrying | 313,136 | 409,256 |
| Manufacturing | 7,904,915 | 6,298,497 |
| Electricity, gas, water, steam and air conditioning supply | 632,695 | 544,616 |
| Construction | 200,809 | 181,529 |
| Wholesale and retail trade | 2,401,985 | 2,021,121 |
| Transport and storage | 911,885 | 1,122,277 |
| Accommodation and food service activities | 160,274 | 233,285 |
| Information and communication | 2,129,667 | 2,149,451 |
| Credit and insurance institutions | 27,725,724 | 25,029,801 |
| Real estate activities | 506,041 | 697,463 |
| Professional, scientific and technical activities | 294,597 | 373,389 |
| Administrative and support service activities | 761,309 | 698,049 |
| Public administration and defence, compulsory social security | 4,467,250 | 3,341,876 |
| Household/Retail | 2,275,849 | 1,336,567 |
| Other services | 2,319,572 | 3,455,749 |
| | 53,005,708 | 47,892,926 |

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

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

| | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Central Europe | 3,657,466 | 2,968,107 |
| Western Europe | 44,884,357 | 40,094,964 |
| Middle East / Africa | 1,484,251 | 1,771,856 |
| Central / South America | 776,540 | 491,834 |
| North America | 1,190,386 | 1,545,206 |
| Asia | 1,012,708 | 1,020,959 |
| | 53,005,708 | 47,892,926 |

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

**21. Risk management** (continued)

### 21.3 Market Risk

**Definition**

Market risk is the potential for losses 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. Market risk arises in both the Company's trading and non-trading portfolios.

**Sources of Market Risk**

*Trading portfolio*

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 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 a change in the credit spread.

*Non-trading portfolio:*

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 Market Risk Management Framework, approved by Board provides a holistic outline of how market risk in trading and in 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 Market 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)
- Market Risk Sub-Committee
- Product Review Committee

The ALCO and its sub-committee, the Market Risk Sub-Committee are the two primary committees tasked with governing market risk in the Company. Any new businesses or products being introduced in the Company or material changes to existing businesses/products must be approved by the Product Review Committee. 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 and management 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 Market Risk Sub-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** (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:

**Trading portfolio:**

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

*Value at Risk (VaR)*

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.

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; and
- A confidence interval is determined to estimate the potential loss, for Company's risk management purposes.

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 and stress tests are used in addition to VaR limits. These VaR and sensitivity limits are supplemented by triggers that ensure that increased levels of risk are discussed in a timely fashion between risk management and business management.

**Non-trading portfolio:**

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.

- 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.

- 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.

**21. Risk management** (continued)

**21.3 Market Risk** (continued)

**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 2020 | | | As at 31 December 2019 | | |
|---|---|---|---|---|---|---|
| | **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 | 19,967,744 | - | 19,967,744 | 19,334,315 | - | 19,334,315 |
| Trading assets | 729,657 | 729,657 | - | 1,121,192 | 1,121,192 | - |
| Derivative financial instruments | 11,236,509 | 11,236,509 | - | 3,220,984 | 3,220,984 | - |
| Investment securities | 3,843,267 | - | 3,843,267 | 3,832,621 | - | 3,832,621 |
| Loans and advances to banks | 16,404,551 | - | 16,404,551 | 13,832,002 | - | 13,832,002 |
| Loans and advances to customers | 17,738,525 | 187,178 | 17,551,347 | 17,054,656 | 206,319 | 16,848,337 |
| Other assets | 4,252,859 | - | 4,252,859 | 3,162,621 | - | 3,162,621 |
| **Total financial assets** | 74,173,112 | 12,153,344 | 62,019,768 | 61,558,391 | 4,548,495 | 57,009,896 |
| **Liabilities** | | | | | | |
| Deposits by banks | 13,812,225 | - | 13,812,225 | 15,180,835 | - | 15,180,835 |
| Customer accounts | 33,198,315 | - | 33,198,315 | 28,030,086 | - | 28,030,086 |
| Derivative financial instruments | 11,247,882 | 11,247,882 | - | 3,245,244 | 3,245,244 | - |
| Other liabilities | 5,625,166 | - | 5,625,166 | 5,149,901 | - | 5,149,901 |
| **Total financial liabilities** | 63,883,588 | 11,247,882 | 52,635,706 | 51,606,066 | 3,245,244 | 48,360,822 |

**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:

| **VaR** | **31 December 2020** | **$ 000** | **$ 000** | **$ 000** | **31 December 2019** |
|---|---|---|---|---|---|
| | Outstanding | MAX | MIN | AVG | Outstanding |
| Portfolio VAR | 3,316 | 8,292 | 2,111 | 4,035 | 2,461 |

**21. Risk management** (continued)

**21.3 Market Risk** (continued)

**Risk exposure** (continued)

**<u>Non-trading portfolio risk</u>**

*<u>Interest rate risk</u>*

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 2020** | **31 December 2019** |
| | **12 Month** | **12 Month** |
| | **$ 000** | **$ 000** |
| Income statement impact | 211,588 | 171,947 |
| **Total** | **211,588** | **171,947** |
| Equity impact | (83,497) | (63,603) |
| **Total** | **(83,497)** | **(63,603)** |

*<u>Currency risk</u>*

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 also actively monitors foreign currency risk that may arise in the normal course of its non-trading business, and is responsible for ensuring that exposures are appropriately managed.

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

| | **31 December 2020** | | **31 December 2019** | |
|---|---|---|---|---|
| | **EUR** | **CZK** | **EUR** | **CZK** |
| | **$ 000** | **$ 000** | **$ 000** | **$ 000** |
| Net exposure | (178,703) | (118,986) | (723,189) | 1,146,534 |

**21. Risk management** (continued)

## 21.4 Liquidity Risk

### Definition

Liquidity risk is defined as the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or other financial assets. 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 business, 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

Liquidity Risk Management Framework, approved by 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 Liquidity Risk Management Framework, the following committees perform an oversight role for liquidity risk related items:

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

Management of liquidity is the responsibility of the Company 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 position. The ultimate responsibility for liquidity risk oversight rests with the Board.

A liquidity plan is prepared annually and the liquidity profile is monitored on an on-going basis and reported daily.

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

### Risk measurement

The internal Liquidity Risk Management Framework includes 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. CRDIV 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, including liquidity ratios, which compare liquidity reserves with liquidity deficits. These indicators are also assessed where applicable for the major currencies.

## NOTES TO THE FINANCIAL STATEMENTS

**21. Risk management** (continued)

**21.4 Liquidity Risk** (continued)

**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.

| As at 31 December | Less than 12 months | | Over 12 months | | Total | |
|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **Assets** | | | | | | |
| Cash and cash equivalents | 19,967,744 | 19,334,315 | - | - | 19,967,744 | 19,334,315 |
| Loans and advances to banks | 15,806,918 | 13,518,960 | 597,633 | 313,042 | 16,404,551 | 13,832,002 |
| Loans and advances to customers | 12,531,473 | 11,148,101 | 5,207,052 | 5,906,555 | 17,738,525 | 17,054,656 |
| Derivative financial instruments | 4,461,027 | 890,424 | 6,775,482 | 2,330,560 | 11,236,509 | 3,220,984 |
| Trading assets | 50,945 | 223,146 | 678,712 | 898,046 | 729,657 | 1,121,192 |
| Investment securities | 381,750 | 587,842 | 3,461,517 | 3,244,779 | 3,843,267 | 3,832,621 |
| Other assets | 4,252,859 | 3,162,621 | - | - | 4,252,859 | 3,162,621 |
| **Total financial assets** | 57,452,716 | 48,865,409 | 16,720,396 | 12,692,982 | 74,173,112 | 61,558,391 |
| **Liabilities** | | | | | | |
| Deposits by banks | 11,592,968 | 9,624,459 | 2,219,257 | 5,556,376 | 13,812,225 | 15,180,835 |
| Customer accounts | 33,198,213 | 28,030,086 | 102 | - | 33,198,315 | 28,030,086 |
| Derivative financial instruments | 4,449,270 | 910,486 | 6,798,612 | 2,334,758 | 11,247,882 | 3,245,244 |
| Other liabilities | 5,625,166 | 5,149,901 | - | - | 5,625,166 | 5,149,901 |
| **Total financial liabilities** | 54,865,617 | 43,714,932 | 9,017,971 | 7,891,134 | 63,883,588 | 51,606,066 |

**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.

| As at 31 December | 1 year and less | | >1 year and < 5 years | | Greater than 5 years | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **Liabilities** | | | | | | | | |
| Deposits by banks | 11,706,845 | 9,864,146 | 2,242,524 | 5,695,618 | 1,107 | 1,579 | 13,950,476 | 15,561,343 |
| Customer accounts | 33,524,316 | 28,728,147 | 103 | - | - | - | 33,524,419 | 28,728,147 |
| Derivative financial instruments | 4,492,975 | 933,161 | 2,305,489 | 746,349 | 4,567,792 | 1,647,581 | 11,366,256 | 3,327,091 |
| Other liabilities | 5,680,421 | 5,278,154 | - | - | - | - | 5,680,421 | 5,278,154 |
| **Total undiscounted financial liabilities** | 55,404,557 | 44,803,608 | 4,548,116 | 6,441,967 | 4,568,899 | 1,649,160 | 64,521,572 | 52,894,735 |

**21. Risk management** (continued)

**21.4 Liquidity Risk** (continued)

**Risk Exposure** (continued)

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** | **2020** | **2019** | **2020** | **2019** | **2020** | **2019** | **2020** | **2019** |
| | **$ 000** | **$ 000** | **$ 000** | **$ 000** | **$ 000** | **$ 000** | **$ 000** | **$ 000** |
| Letters of credit | 6,441,884 | 5,800,015 | 9,850,402 | 9,420,088 | 772,088 | 725,595 | 17,064,374 | 15,945,698 |
| Undrawn commitments to lend | 7,016,129 | 4,120,396 | 21,336,846 | 20,041,065 | 590,790 | 791,197 | 28,943,765 | 24,952,658 |
| Other commitments and guarantees | 308 | 7,890 | 895,941 | 1,021,490 | 112,867 | - | 1,009,116 | 1,029,380 |
| **Total commitments and guarantees** | 13,458,321 | 9,928,301 | 32,083,189 | 30,482,643 | 1,475,745 | 1,516,793 | 47,017,255 | 41,927,736 |

**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** | **2020** | **2019** | **2020** | **2019** | **2020** | **2019** |
| | **$million** | **$million** | **$million** | **$million** | **$million** | **$million** |
| Cash and cash equivalents | 1,466 | 1,099 | 18,502 | 18,235 | 19,968 | 19,334 |
| Equity Instruments | - | - | 153 | 110 | 153 | 110 |
| Investment Securities & Debt Trading Instuments | 27 | 898 | 4,393 | 4,055 | 4,420 | 4,954 |
| - of which: covered bonds | - | - | - | - | - | - |
| - of which: asset-backed securities | - | - | - | - | - | - |
| - of which: by general governments | 27 | 550 | 3,939 | 3,429 | 3,966 | 3,979 |
| - of which: by financial corporations | - | 3,483 | 31 | 111 | 31 | 3,594 |
| - of which: by non-financial corporations | - | - | 2 | 10 | 2 | 10 |
| Loans and advances | 388 | 100 | 33,755 | 30,787 | 34,143 | 30,887 |
| Other Assets | 778 | 834 | 15,270 | 5,934 | 16,048 | 6,768 |
| Assets subtotal | 2,659 | 2,931 | 72,073 | 59,121 | 74,732 | 62,052 |

**21. Risk management** (continued)

### 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 CEP businesses, the markets in which it operates, its capital and liquidity, and the competitive, economic and regulatory environment.

**Governance and Organisation**

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 plan

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.

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.
- Operational Risk Committee (ORC): is the principal forum maintaining oversight over the adequacy and effectiveness of the operational risk framework and associated policies 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.

**21. Risk management** (continued)

### 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 three 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 sub-committees perform an oversight role for strategic risk related items

- Executive Committee
- Board Risk Committee

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 and associated KPIs which are reviewed and Board-approved annually, and updated in the interim as required. The Plan provides an overview of CEP's strategic objectives and financial performance, including its strategy in relation to Fintech, Information and Communication Technology, Data, Regulation, Talent and Outsourcing, as well as individual business strategies and financial projections over the planned period. 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. Risk management** (continued)

### 21.7 Inter-Affiliate Risk

**Definition**

Inter-Affiliate Risk is driven by inter-affiliate exposures and funding and can materialise as either 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;
- Reverse repos under which CEP borrows highly liquid assets from CBNA London; and
- Placement of CEP's surplus liquidity with CBNA London or other affiliates

**Governance and Organisation**

The credit and liquidity risk impacts of Inter-Affiliate Risk are managed in line with the applicable frameworks and policies 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

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. has been put in place.

From a liquidity perspective, a new risk appetite metric to monitor CEP's dependency on inter-company funding was introduced in the 2019 risk appetite statement. This metric measures available stable intercompany funding as a proportion of overall Available Stable Funding aligned to regulatory definitions of stable funding.

In December 2020, the Board of Directors approved an expanded definition of Inter-Affiliate Risk 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 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 2020 was as follows:

| | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| **Regulatory capital** | 9,592,497 | 8,868,459 |
| **Tier 1 capital ratio** | 18.6% | 19.8% |

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. Financial assets and liabilities

The below tables outline the total financial assets and liabilities held as at 31 December 2020 and as at 31 December 2019.

| | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Derivative financial instruments | 11,236,509 | 3,220,984 |
| Trading assets | 729,657 | 1,121,192 |
| Investment securities at FVTPL | 153,332 | 109,869 |
| Loans designated at FVTPL | 187,178 | 206,319 |
| **Total financial assets held at FVTPL** | **12,306,676** | **4,658,364** |
| Investment securities at FVOCI | 3,689,935 | 3,722,752 |
| **Total financial assets held at FVOCI** | **3,689,935** | **3,722,752** |
| Cash and cash equivalents | 19,967,744 | 19,334,315 |
| Loans and advances to banks at amortised cost | 16,404,551 | 13,832,002 |
| Loans and advances to customers at amortised cost | 17,551,347 | 16,848,337 |
| Other assets | 4,252,859 | 3,162,621 |
| **Total financial assets at amortised cost** | **58,176,501** | **53,177,275** |
| **Total financial assets** | **74,173,112** | **61,558,391** |

| | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Derivative financial instruments | 11,247,882 | 3,245,244 |
| Financial liabilities at FVTPL | 320,281 | 303,402 |
| **Total financial liabilities held at fair value** | **11,568,163** | **3,548,646** |
| Deposits by banks | 13,812,225 | 15,180,835 |
| Customer accounts | 33,198,315 | 28,030,086 |
| Other liabilities excluding liabilities at FVTPL | 5,304,885 | 4,846,499 |
| **Total financial liabilities at amortised cost** | **52,315,425** | **48,057,420** |
| **Total financial liabilities** | **63,883,588** | **51,606,065** |

**22. 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. Among other things, the standard requires the Company to maximise the use of observable inputs and minimise the use of unobservable inputs when measuring fair value.

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

### Fair value hierarchy

IFRS 13 specifies a hierarchy of inputs based on whether the inputs are observable or unobservable. Observable inputs reflect market data obtained from independent sources, 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.*

This hierarchy requires the use of observable market data when available. The Company considers relevant and observable market prices in its valuations where possible. The frequency of transactions and the size of the bid-ask spread when comparing similar transactions are all factors in determining the liquidity of markets and the relevance of observed prices in those markets.

The Company's policy with respect to transfers between levels of the fair value hierarchy is to recognise transfers into and out of each level as of the end of the reporting period.

### 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.

If quoted market prices are not available, fair values are based upon internally developed valuation techniques that use, where possible, current market-based or independently sourced market 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.

Where available, the Company may also make use of quoted prices for recent trading activity in positions with the same or similar characteristics to that being valued. The frequency and size of transactions and the amount of the bid-ask spread are among the factors considered in determining the liquidity of markets and the relevance of observed prices from those markets. If relevant and observable prices are available, those valuations would be classified as Level 2. If prices are not available, other valuation techniques would be used and the item would be classified as Level 3.

Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors or brokers. Vendors and brokers' valuations may be based on a variety of inputs ranging from observed prices to proprietary valuation models.

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.

**22. Financial assets and liabilities** (continued)

**Determination of Fair Value** (continued)

*Market valuation adjustments*

Liquidity adjustments are applied to items in Level 2 and Level 3 of the fair value hierarchy to ensure that the fair value reflects the liquidity or illiquidity of the market. The liquidity reserve may utilise the bid-ask spread for an instrument as one of the factors.

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

Bilateral or "own" credit-risk adjustments are applied to reflect the Company's own credit risk when valuing derivatives and liabilities measured at fair value. Counterparty and own credit adjustments consider the expected future cash flows between the Company and its counterparties under the terms of the instrument and the effect of credit risk on the valuation of those cash flows, rather than a point-in-time assessment of the current recognised net asset or liability. Furthermore, the credit-risk adjustments take into account the effect of credit-risk mitigants, such as pledged collateral and any legal right of offset (to the extent such offset exists) with a counterparty through arrangements such as netting agreements.

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. Citi has elected to measure certain portfolios of financial instruments, such as derivatives, that meet those criteria 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 and in accordance with the unit of account.

*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.

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

The Company uses the overnight indexed swap (OIS) curves as fair value measurement inputs for the valuation of certain collateralised interest-rate related derivatives. Citi uses the relevant benchmark curve for the currency of the derivative (e.g., the London interbank offered rate for U.S. dollar derivatives) as the discount rate for uncollateralised derivatives. The Company incorporates FVA into the fair value measurements due to what it believes to be an industry migration toward incorporating the market's view of funding risk premium in OTC derivatives. The Company's FVA methodology leverages the existing CVA methodology to estimate a funding exposure profile. The calculation of this exposure profile considers collateral agreements where the terms do not permit the firm to reuse the collateral received, including where counterparties post collateral to third-party custodians.

*Trading assets*

Where available, the Company uses quoted market prices to determine the fair value of trading assets; such items are classified as Level 1 of the fair value hierarchy. For corporate bonds, European commercial papers 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 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 for recent trading activity of assets with similar characteristics to the bond or loan being valued. Government bonds, corporate bonds, European commercial papers 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.

**22. 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 LIBOR and EURIBOR rates. 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.

*Debt securities in issue*

The fair value of debt securities in issue is estimated using discounted cash flows applying LIBOR and EURIBOR rates. The items are placed in Level 2 or Level 3 depending on the observability of the significant inputs to the model.

Own debt valuation adjustments are recognised on the Company's liabilities for which the fair value option has been elected using Company's credit spreads observed in the bond market. The fair value of liabilities for which the fair value option is elected (other than non-recourse and similar liabilities) is impacted by the narrowing or widening of the Company's credit spreads.

*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.

**22. Financial assets and liabilities** (continued)

### Financial instruments at fair value

The following table shows an analysis of financial instruments recorded at fair value by level of the fair value hierarchy:

| | Fair value at 31 December 2020 | | | | Fair value at 31 December 2019 | | | |
|---|---|---|---|---|---|---|---|---|
| | 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 | - | 10,751,011 | 485,498 | 11,236,509 | - | 3,164,851 | 56,133 | 3,220,984 |
| Trading assets | - | 645,367 | 84,290 | 729,657 | - | 1,005,626 | 115,566 | 1,121,192 |
| Investment securities | 794,261 | 2,951,151 | 97,855 | 3,843,267 | 1,365,183 | 2,357,568 | 109,869 | 3,832,620 |
| Loans held at fair value through profit or loss | - | 187,178 | - | 187,178 | - | 206,319 | - | 206,319 |
| **Financial assets held at fair value** | 794,261 | 14,534,707 | 667,643 | 15,996,611 | 1,365,183 | 6,734,364 | 281,568 | 8,381,115 |
| **Financial liabilities** | | | | | | | | |
| Derivative financial instruments | - | 10,761,190 | 486,692 | 11,247,882 | - | 3,187,575 | 57,669 | 3,245,244 |
| Other financial liabilities held for trading | - | 320,281 | - | 320,281 | 503 | 302,899 | - | 303,402 |
| **Financial liabilities held at fair value** | - | 11,081,471 | 486,692 | 11,568,163 | 503 | 3,490,474 | 57,669 | 3,548,646 |

Loans held at fair value through profit or loss, totalling $187 million (2019: $206 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.

**22. Financial assets and liabilities** (continued)

**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 Product Control within Finance performs independent price verification procedures to evaluate those fair value measurements. Product Control is independent of the individual business units and reports into the Global Head of Product Control. 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, Product Control reports it to management along with other price verification results.

In addition, the pricing models used in measuring fair value are governed by an independent control framework. Although the models are developed and tested by the individual business units, they are independently validated by the Model Validation Group 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.

**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 2020 | | | | | 31 December 2019 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Derivative financial assets | Trading assets | Investment securities | 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 |
| Balance at 1 January | 56,133 | 115,566 | 109,869 | (57,669) | 223,899 | 25,737 | 239,026 | 88,422 | (25,737) | 327,448 |
| Purchases | 187,513 | 50,238 | - | (187,513) | 50,238 | 58,247 | 139,710 | - | (59,776) | 138,181 |
| Issues | - | - | - | - | - | - | - | - | - | - |
| Sales | - | (88,407) | - | - | (88,407) | - | (275,693) | - | - | (275,693) |
| Settlements | (367) | - | - | 431 | 64 | (25,941) | - | - | 25,941 | - |
| Transfer into Level 3 | 232,449 | - | - | (232,706) | (257) | - | 14,539 | - | - | 14,539 |
| Transfer out of Level 3 | - | - | - | - | - | - | - | - | - | - |
| Total gains/(losses) | - | - | | - | | | | | | |
| - in Profit or loss | 9,770 | 6,893 | (12,014) | (9,235) | (4,586) | (1,910) | (2,017) | 21,447 | 1,903 | 19,423 |
| - in OCI | - | - | - | - | - | - | - | - | - | - |
| Balance at 31 December | 485,498 | 84,290 | 97,855 | (486,692) | 180,951 | 56,133 | 115,566 | 109,869 | (57,669) | 223,899 |

### 22. Financial assets and liabilities (continued)

**Movement in Level 3 financial instruments measured at fair value** (continued)

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

| | 2020 | | | | | 2019 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Derivative financial assets | Trading assets | Investment securities | 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)** | 9,770 | 6,893 | (12,014) | (9,235) | (4,586) | (1,910) | (2,017) | 21,447 | 1,903 | 19,423 |
| Realised gains and losses | | | | | | | | | | |
| - Net trading gain/(loss) | 9,770 | 6,893 | - | (9,235) | 7,428 | (1,910) | (2,017) | - | 1,903 | (2,024) |
| - Net investment income | - | - | (12,014) | - | (12,014) | - | - | 21,447 | - | 21,447 |
| Unrealised gains and losses | - | - | - | - | - | - | - | - | - | - |
| Total | 9,770 | 6,893 | (12,014) | (9,235) | (4,586) | (1,910) | (2,017) | 21,447 | 1,903 | 19,423 |

A key contributor to level 3 inventory movements were trading assets, where the Company has intention to sell in the near term. These assets contributed to $88 million (2019: $235 million) of sales.

**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.

**22. 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)

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.

*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.

## NOTES TO THE FINANCIAL STATEMENTS

### 22. 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 | Fair value $ '000 | Methodology | Input | Low | High |
|---|---|---|---|---|---|
| **Assets** | | | | | |
| | | Model-based | Equity Volatility (%) | 14.1 | 91.4 |
| | | Model-based | Forward Price (%) | 65.9 | 98.1 |
| | | Model-based | FX Rate ($) | 0.3 | 84.1 |
| | | Model-based | FX Volatility (%) | 1.5 | 12.6 |
| Derivative contracts | 485,498 | Model-based | Interest Rate (%) | 60.2 | 84.1 |
| | | Model-based | Contingent Event (%) | 100.0 | 100.0 |
| | | Price-based | Price ($) | 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 ($) | 97.0 | 100.0 |
| Investment equity securities | 97,855 | Price-based | Market Price of Common Stock; coversion factor from investor relations publication and liquidity discount | No discount for conversion ratio | 100% liquidity discount and price to earning ratio |
| **Liabilities** | | | | | |
| | | Model-based | Equity Volatility (%) | 14.1 | 91.4 |
| | | Model-based | Forward Price (%) | 65.9 | 98.1 |
| | | Model-based | FX Rate ($) | 0.3 | 84.1 |
| | | Model-based | FX Volatility (%) | 1.5 | 12.6 |
| Derivative contracts | 486,692 | 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 |

| 2019 | Fair value $ '000 | Methodology | Input | Low | High |
|---|---|---|---|---|---|
| **Assets** | | | | | |
| | | Model-based | FX Rate ($) | 7.7 | 132.5 |
| Derivative contracts | 56,133 | Model-based | Interest Rate (%) | 28.9 | 56.1 |
| | | Model-based | IR Normal Volatility (%) | 0.1 | 0.7 |
| | | Model-based | Inflation Volatility (%) | 0.2 | 2.5 |
| Trading assets | 115,566 | Price-based | Price ($) | 92.4 | 107.5 |
| Investment equity securities | 109,869 | Price-based | Market Price of Common Stock; coversion factor from investor relations publication and liquidity discount | No discount for conversion ratio | 100% liquidity discount and price to earning ratio |
| **Liabilities** | | | | | |
| | | Model-based | FX Rate ($) | 7.7 | 132.5 |
| Derivative contracts | 57,669 | Model-based | Interest Rate (%) | 28.9 | 56.1 |
| | | Model-based | IR Normal Volatility (%) | 0.1 | 0.7 |
| | | Model-based | Inflation Volatility (%) | 0.2 | 2.5 |

**22. 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)

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 the Company holds the instrument as an asset or a liability. For certain instruments, the pricing hedging and risk management are sensitive to the correlation between various inputs rather than on the analysis and aggregation of the individual inputs.

**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 business.

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.

## NOTES TO THE FINANCIAL STATEMENTS

### 22. Financial assets and liabilities (continued)

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

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 2020 | | Estimated fair value | | |
|---|---|---|---|---|---|
| | Carrying 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 | 4,252,859 | 4,252,859 | - | - | 4,252,859 |
| **Total financial assets** | **58,176,501** | **58,174,051** | **19,967,744** | **16,404,551** | **21,801,756** |
| **Liabilities** | | | | | |
| Deposits by banks | 13,812,225 | 13,766,328 | - | 13,766,328 | - |
| Customer accounts | 33,198,315 | 33,088,000 | - | 33,088,000 | - |
| Other liabilities | 5,304,885 | 5,287,257 | - | 2,953,797 | 2,333,460 |
| **Total financial liabilities** | **52,315,425** | **52,141,585** | **-** | **49,808,125** | **2,333,460** |

| | 31 December 2019 | | Estimated fair value | | |
|---|---|---|---|---|---|
| | Carrying value | Estimated fair value | Level 1 | Level 2 | Level 3 |
| | $000 | $000 | $000 | $000 | $000 |
| **Assets** | | | | | |
| Cash and cash equivalents | 19,334,315 | 19,334,315 | 19,334,315 | - | - |
| Loans and advances to banks | 13,832,002 | 13,832,001 | - | 13,832,001 | - |
| Loans and advances to customers | 16,848,336 | 16,844,925 | - | - | 16,844,925 |
| Other assets | 3,162,621 | 3,162,621 | - | - | 3,162,621 |
| **Total financial assets** | **53,177,274** | **53,173,861** | **19,334,315** | **13,832,001** | **20,007,546** |
| **Liabilities** | | | | | |
| Deposits from banks | 15,180,835 | 15,156,030 | - | 15,156,030 | - |
| Customer accounts | 28,030,086 | 27,984,285 | - | 27,984,285 | - |
| Other liabilities | 4,846,499 | 4,838,580 | - | 3,248,924 | 1,589,656 |
| **Total financial liabilities** | **48,057,420** | **47,978,895** | **-** | **46,389,239** | **1,589,656** |

**NOTES TO THE FINANCIAL STATEMENTS**

### 23. Property and equipment

| Cost | Right-of-use assets | | Leasehold improvements | | Vehicles, furniture and equipment | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **At 1 January** | **88,250** | **85,976** | **65,936** | **66,657** | **83,963** | **89,906** | **238,149** | **242,539** |
| Additions | 332 | 1,450 | 13,665 | 5,443 | 13,511 | 3,624 | 27,508 | 10,517 |
| Acquisitions | - | - | 252 | 181 | 383 | 480 | 635 | 661 |
| Disposals | (54) | (146) | (2,427) | (5,009) | (4,661) | (3,406) | (7,142) | (8,561) |
| Write-offs | - | - | (2,512) | (715) | (5,384) | (776) | (7,896) | (1,491) |
| Foreign exchange | 8,524 | 970 | (666) | (621) | 1,879 | (5,865) | 9,737 | (5,516) |
| **At 31 December** | **97,052** | **88,250** | **74,248** | **65,936** | **89,691** | **83,963** | **260,991** | **238,149** |

| Depreciation | Right-of-use assets | | Leasehold improvements | | Vehicles, furniture and equipment | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **At 1 January** | **18,315** | **-** | **28,970** | **29,135** | **49,238** | **52,384** | **96,523** | **81,519** |
| Charged in year | 19,503 | 20,234 | 6,892 | 6,266 | 10,897 | 3,912 | 37,292 | 30,412 |
| Acquisitions | - | - | 2 | 94 | - | 10 | 2 | 104 |
| Disposals | (68) | (146) | (2,433) | (4,494) | (4,659) | (3,683) | (7,160) | (8,323) |
| Write-offs | - | - | (473) | (526) | (5,074) | (823) | (5,547) | (1,349) |
| Foreign exchange | (3,635) | (1,773) | 921 | (1,505) | 1,188 | (2,562) | (1,526) | (5,840) |
| **At 31 December** | **34,115** | **18,315** | **33,879** | **28,970** | **51,590** | **49,238** | **119,584** | **96,523** |
| **Net carrying value** | **62,937** | **69,935** | **40,369** | **36,966** | **38,101** | **34,725** | **141,407** | **141,626** |

There were no capitalised borrowing costs related to the acquisition of property and equipment during the year (2019: $nil).

## 24. Intangible assets

| Cost | Goodwill | | Computer software | | Other Intangibles | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **At 1 January** | **46,085** | **45,138** | **158,142** | **161,227** | **32,408** | **34,354** | **236,635** | **240,719** |
| Additions | - | - | 21,393 | 18,795 | - | - | 21,393 | 18,795 |
| Transfer In | - | - | 7,054 | 2,775 | - | - | 7,054 | 2,775 |
| Acquisitions | - | - | - | 1,832 | - | - | - | 1,832 |
| Transfer out | - | - | - | (13,900) | - | - | - | (13,900) |
| Disposals | - | - | (1,813) | (8,118) | - | - | (1,813) | (8,118) |
| Impairment | - | - | (298) | (8) | - | - | (298) | (8) |
| Foreign exchange | 2,369 | 947 | 81 | (4,461) | 2,897 | (1,946) | 5,347 | (5,460) |
| **At 31 December** | **48,454** | **46,085** | **184,559** | **158,142** | **35,305** | **32,408** | **268,318** | **236,635** |

| Amortisation and impairment losses | Goodwill | | Computer software | | Other Intangibles | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 | $ 000 |
| **At 1 January** | **26,516** | **25,575** | **91,452** | **93,017** | **27,645** | **28,285** | **145,613** | **146,877** |
| Additions | - | - | 3,484 | 1,673 | 621 | 275 | 4,105 | 1,948 |
| Amortisation | - | - | 14,036 | 15,068 | 515 | 515 | 14,551 | 15,583 |
| Acquisitions | - | - | 18 | - | - | - | 18 | - |
| Transfer out | - | - | - | (8,889) | - | - | - | (8,889) |
| Disposals | - | - | (18) | (6,545) | - | - | (18) | (6,545) |
| Impairment | - | - | 1,012 | (1) | - | - | 1,012 | (1) |
| Foreign exchange | 935 | 941 | 71 | (2,871) | 2,658 | (1,430) | 3,664 | (3,360) |
| **At 31 December** | **27,451** | **26,516** | **110,055** | **91,452** | **31,439** | **27,645** | **168,945** | **145,613** |
| **Net carrying value** | **21,003** | **19,569** | **74,504** | **66,690** | **3,866** | **4,763** | **99,373** | **91,022** |

## NOTES TO THE FINANCIAL STATEMENTS

**24. Intangible assets** (continued)

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 Ireland and Greece market (Direct Custody and Clearing business) and the UK (Fund administration business). The cash flow projections in respect of the Direct Custody and Clearing business cover a ten year period and the cash flow projections in respect of the Fund administration business, management assess the discounted cash flows of the Market and Securities Services business over a five 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 Ireland cash flows is the EURIBOR rate. The discount rate used to estimate the UK Fund administration business cash flows is based on a review of comparable companies and relevant market data. The 10-year average of 10-year UK Gilt rate acts as the risk-free rate and the stock price volatility of comparable companies acts as market risk rate. The key assumptions reflect past experience or, if appropriate, consider external sources of information.

There was no evidence of impairment arising from the review of the goodwill for Ireland, Greece and the UK. 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** | **2020** | **2019** |
| - Ireland (Direct custody and clearing business) | 14,051 | 3% | -0.502 | -0.248 |
| - UK Fund administration business | 6,571 | 0% | - | - |
| - Greece (Direct custody and clearing business) | 381 | 3% | -0.502 | -0.248 |
| **Total** | **21,003** | | | |

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.

**25. Deferred tax**

**The movement on the deferred tax is as follows:**

| | **Balance at 1 January 2020 $ 000** | **Recognised in the Income statement $ 000** | **Recognised in statement of other comprehensive income $ 000** | **Balance at 31 December 2020 $ 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 |

**25. Deferred tax** (continued)

| | Balance at 1 January 2019 $ 000 | Recognised in the Income statement $ 000 | Recognised in statement of other comprehensive income $ 000 | Balance at 31 December 2019 $ 000 |
|---|---|---|---|---|
| Property, equipment and intangible assets | 227,786 | (41,047) | - | 186,739 |
| Investment securities at FVOCI | (11,862) | (4,863) | 913 | (15,812) |
| Pension and other retirement benefits | 27,242 | (1,055) | 4,347 | 30,534 |
| Allowances for expected credit losses | 1,520 | 6,367 | - | 7,887 |
| Tax loss carry-forward | 116 | - | - | 116 |
| Other temporary differences | 7,133 | 4,486 | - | 11,619 |
| Fx Translation | (26,248) | - | 8,275 | (17,973) |
| Total Deferred Tax | 225,687 | (36,112) | 13,535 | 203,110 |
| - of which Deferred Tax Asset | 254,374 | | | 224,656 |
| - of which Deferred Tax Liability | 28,687 | | | 21,546 |

Current tax asset of $56.1 million includes capital gains tax relief in relation to equity securities of $26.3 million and $6.7 million relates to overpayment of the corporation tax charge for the year 2020.

## 26. Shares in subsidiaries

| | 31 December 2020 $ 000 | 31 December 2019 $ 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 | Nature of business | Year end | Registered office | Percentage ownership |
|---|---|---|---|---|---|
| CitiCapital Leasing (March) Limited | England | Lease finance | 31 March | United Kingdom | 100% |

### 27. 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 2021.

| | **Restructuring provision $ 000** | **Provision for property costs $ 000** | **Other provisions $ 000** | **Total $ 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 used 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** |

| | **Restructuring provision $ 000** | **Provision for property costs $ 000** | **Other provisions $ 000** | **Total $ 000** |
|---|---|---|---|---|
| **31 December 2019** | | | | |
| **Opening balance** | 7,534 | 1,663 | 2,167 | 11,364 |
| Provisions made during the year | 21,224 | (1) | 2 | 21,225 |
| Provisions used during the year | (9,648) | (74) | (61) | (9,783) |
| Provisions released during the year | (6,199) | (163) | (800) | (7,162) |
| Exchange Adjustments | (84) | (22) | - | (106) |
| Other movements | 92 | - | (27) | 65 |
| **Closing balance** | **12,919** | **1,403** | **1,281** | **15,603** |
| **Commitments and guarantees** | | | | **31,860** |
| **Total provision balance** | | | | **47,463** |

### 28. Other liabilities

| | 31 December 2020 $ 000 | 31 December 2019* $ 000 |
|---|---|---|
| **Other liabilities** | | |
| Accounts payable | 3,537,310 | 3,078,549 |
| Margin Account Obligations | 1,123,088 | 1,300,816 |
| Short sales | 307,511 | 280,890 |
| Retirement obligations (Note 14) | 279,461 | 245,235 |
| Right-of use lease liability | 75,689 | 81,076 |
| Accruals and Deferred Income | 161,655 | 102,752 |
| Other | 140,452 | 60,583 |
| | 5,625,166 | 5,149,901 |

* Prior year comparative have been restated to reflect the updated 2020 classifications.

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.

### 29. Called up share capital

| | 31 December 2020 | 31 December 2019 | 31 December 2020 | 31 December 2019 |
|---|---|---|---|---|
| | 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 |

### 30. 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.

**30. Share-based incentive plans** (continued)

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 transferrable, 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:

| | **2020** | **2019** |
|---|---|---|
| Shares awarded | 192,366 | 209,285 |
| Weighted average fair market value per share | $77.83 | $62.47 |
| | **$ 000** | **$ 000** |
| Compensation cost charged to earnings | 16,432 | 15,599 |
| Fair value adjustments recorded to equity | (3,570) | 5,844 |
| Total carrying amount of equity-settled transaction liability | 24,596 | 26,645 |

| | **2020 $ Million** | **2019 $ Million** |
|---|---|---|
| Stock Awards | | |
| Granted in 2020 | 13.4 | - |
| Granted in 2019 | 1.5 | 11.5 |
| Granted in 2018 | 0.6 | 1.7 |
| Granted in 2017 | 0.1 | 0.4 |
| Granted in 2016 | - | 0.1 |
| Cash Accrued | 0.8 | 1.9 |
| Total Expense | 16.4 | 15.6 |

The Company did not operate or have any stock option programme (2019: nil).

### 31. Contingent liabilities and commitments

The following tables give the nominal principal amounts and risk weighted amounts of contingent liabilities and commitments. The nominal principal amounts indicate the volume of business outstanding at the statement of financial position date and do not represent amounts at risk.

| | Contract amount 31 December 2020 $ 000 | Contract amount 31 December 2019 $ 000 |
|---|---|---|
| **Undrawn credit lines** | 28,943,765 | 24,952,658 |
| **Other commitments** | | |
| - less than 1 yr | 6,442,192 | 5,263,993 |
| - 1 yr and over | 11,631,298 | 11,711,085 |
| **Total** | 47,017,255 | 41,927,736 |

Other commitments primarily relate to the Trade business in Ireland. The Company held an ECL of $97 million as at 31 December 2020 (2019: ECL of $32 million), with respect to its commitments.

### 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** | |
|---|---|---|---|---|---|---|---|---|
| | **2020 $ 000** | **2019 $ 000** | **2020 $ 000** | **2019 $ 000** | **2020 $ 000** | **2019 $ 000** | **2020 $ 000** | **2019 $ 000** |
| **Outstanding exposure as at 1 January** | **40,439,714** | **37,760,993** | **1,439,596** | **1,407,986** | **48,426** | **3,537** | **41,927,736** | **39,172,516** |
| New assets originated or purchased | 9,182,110 | 7,527,860 | 300,398 | 449,319 | 32,743 | 1,730 | 9,515,251 | 7,978,909 |
| Asset derecognised or matured | (3,696,921) | (4,737,332) | (607,393) | (427,594) | (101,853) | (59,234) | (4,406,167) | (5,224,160) |
| Transfers to Stage 1 | 220,784 | 494,048 | (220,335) | (494,048) | (449) | - | - | - |
| Transfers to Stage 2 | (831,128) | (633,985) | 841,814 | 634,506 | (10,686) | (521) | - | - |
| Transfers to Stage 3 | (161,318) | (19,857) | (9,970) | (84,655) | 171,288 | 104,512 | - | - |
| Amounts written off | - | (528) | - | - | (32,670) | - | (32,670) | (528) |
| Foreign exchange adjustments and other movements | 17,790 | 48,515 | (4,683) | (45,918) | (2) | (1,598) | 13,105 | 999 |
| **At 31 December** | **45,171,031** | **40,439,714** | **1,739,427** | **1,439,596** | **106,797** | **48,426** | **47,017,255** | **41,927,736** |

| **ECL** | **Stage 1** | | **Stage 2** | | **Stage 3** | | **Total** | |
|---|---|---|---|---|---|---|---|---|
| | **2020 $ 000** | **2019 $ 000** | **2020 $ 000** | **2019 $ 000** | **2020 $ 000** | **2019 $ 000** | **2020 $ 000** | **2019 $ 000** |
| **IFRS 9 ECL as at 1 January** | **8,909** | **10,787** | **20,490** | **47,853** | **2,461** | **310** | **31,860** | **58,950** |
| ECL on new assets originated or purchased | 9,298 | 1,141 | 45,427 | 7,395 | 20,654 | 1,828 | 75,379 | 10,364 |
| Exposure derecognised or matured | (4,745) | (28,079) | (3,607) | (6,616) | (1,512) | (2,761) | (9,864) | (37,456) |
| Transfers to Stage 1 | 4,853 | 25,230 | (4,851) | (25,230) | (2) | - | - | - |
| Transfers to Stage 2 | (372) | (599) | 511 | 599 | (139) | - | - | - |
| Transfers to Stage 3 | (94) | (58) | (118) | (3,263) | 212 | 3,321 | - | - |
| Amounts written off | - | - | - | - | - | - | - | - |
| Foreign exchange adjustments and other movements | 911 | 487 | (865) | (248) | - | (237) | 46 | 2 |
| **At 31 December** | **18,760** | **8,909** | **56,987** | **20,490** | **21,674** | **2,461** | **97,421** | **31,860** |

### 32. Business transfer under common control

There was no transaction of business transfer under common control for year ended 31 December 2020.

*Retail business within the UK Branch*

On 16 September 2019, the retail business within the UK Branch was transferred to Citibank UK Limited (CUKL), a newly incorporated company in the UK. The Company received a consideration of $6.1 million for the disposed retail business within the UK Branch. No goodwill was recognised as the consideration deemed in excess was recorded in merger reserve. Revenue and expenses in relation to this business were recognised in the Company's income statement up to 16 September 2019.

The assets and liabilities which were transferred in prior years stated below:

| Assets | 2019<br>$ 000 |
|---|---|
| Cash and cash equivalents | 4,368,356 |
| Loans and advances to customers | 35,820 |
| Other assets | 10,401 |
| **Total Assets** | 4,414,577 |

| Liabilities | 2019<br>$ 000 |
|---|---|
| Customer accounts | 4,398,871 |
| Other liabilities | 15,706 |
| **Total Liabilities** | 4,414,577 |

*Italian direct custody and clearing business (DCC)*

On 16 October 2019, the Company purchased the DCC business of Citibank N.A. Milan Branch for $27.4 million in consideration. The assets which were transferred comprised of customer contracts, employees and associated obligations and office equipment. No goodwill was recognised as the consideration deemed in excess was charged to merger reserve. Revenue and expenses in relation to this business were recognised in the Company's income statement from 16 October 2019.

| | $ million |
|---|---|
| Consideration received in relation to UK Consumer business sale | 6.1 |
| Consideration paid in relation to purchase of Italian DCC business | (27.4) |
| **Total** | **(21.3)** |

### 33. 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.

### 33. 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.

| Carrying amount | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Airplanes, ships and other assets | 275,570 | 390,530 |
| Commercial and other real estate | 786,680 | 453,840 |
| **Total** | 1,062,250 | 844,370 |

The above exposure is the asset based financing provided to 36 entities (2019: 35). The assets held within these entities amounted to $7,043 million (2019: $5,433 million). The Company has further commitments of $227 million (2019: $295 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.

### 34. Discontinued operations

There were no Discontinued Operations reported for the year ended 2020. In 2019, the Company reported the Retail business within the UK Branch as "Discontinued operation" after meeting the criteria for such a designation under IFRS 5.

The table below details the income statement relating to the Discontinued Operations.

**Income statement**

| Results of discontinued operation (Retail business of UK branch) | 31 December 2020 $ 000 | 31 December 2019 $ 000 |
|---|---|---|
| Total revenues | - | 24,925 |
| - of this: Interest income | - | 677 |
| - of this: Net fee and commission income | - | 24,117 |
| Total expenses | - | (29,653) |
| - of this: Interest expense | - | (11,468) |
| - of this: Personnel expense | - | (5,705) |
| **Loss before income tax** | - | (4,728) |
| Income tax credit | - | 151 |
| **Total comprehensive expense for the year** | - | (4,577) |

**NOTES TO THE FINANCIAL STATEMENTS**

### 35. 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.

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| **Balance at 1 January** | **69,935** | **85,976** |
| Additions to right-of-use assets | 332 | 1,450 |
| Disposals | (54) | (146) |
| Depreciation charge for the year | (19,435) | (20,088) |
| Foreign exchange | 12,159 | 2,743 |
| **Balance at 31 December** | **62,937** | **69,935** |

*Lease liabilities*

| **Maturity analysis** | 31 December<br>2020<br>$ 000 | 31 December<br>2019<br>$ 000 |
|---|---|---|
| Expiring: | | |
| - within one year | 61,448 | 39,663 |
| - between one and five years | 12,579 | 39,330 |
| - in five years and more | 1,662 | 2,083 |
| **Total discounted lease liabilities at 31 December** | 75,689 | 81,076 |
| **Lease liabilities included in the statement of financial position at 31 December** | **75,689** | **81,076** |
| Current | 61,448 | 39,663 |
| Non-current | 14,241 | 41,413 |

*Amounts recognised in profit or loss*

| **Leases under IFRS 16** | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| Interest on lease liabilities | 1 | 2 |

*Amounts recognised in statement of cash flows*

| | 2020<br>$ 000 | 2019<br>$ 000 |
|---|---|---|
| **Total cash outflow for leases** | 5,388 | 18,139 |

## 36. 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 | 2020 $ 000 | 2019 $ 000 |
|---|---|---|
| Salaries and other short term benefits | 11,200 | 9,585 |
| Post-Employment Benefits | 567 | 505 |
| Termination Benefits | - | 560 |
| | 11,767 | 10,650 |

At 31 December 2020, the number of the key management personnel was 10 (2019: 9).

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 2020, there were no outstanding exposures to Directors including loans (2019: $nil).

A number of arm's length 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 and these are also provided at arm's length. The table below summarises balances with related parties.

| | 31-Dec-20 | | | 31-Dec-19 | | |
|---|---|---|---|---|---|---|
| **Assets** | **Parent company undertakings $ 000** | **Other Citigroup undertakings $ 000** | **Total $ 000** | **Parent company undertakings $ 000** | **Other Citigroup undertakings $ 000** | **Total $ 000** |
| Cash and cash equivalents | - | 1,807,645 | 1,807,645 | - | 2,206,134 | 2,206,134 |
| Loans and advances to banks | - | 12,618,454 | 12,618,454 | - | 9,394,604 | 9,394,604 |
| Loans and advances to customers | - | 174,598 | 174,598 | - | 37,154 | 37,154 |
| Other assets | - | 954,204 | 954,204 | - | 679,697 | 679,697 |
| Derivatives | - | 5,612,503 | 5,612,503 | - | 1,347,877 | 1,347,877 |
| **Liabilities** | | | | | | |
| Deposits by banks | - | 11,819,578 | 11,819,578 | - | 13,864,850 | 13,864,850 |
| Customer accounts | - | 942,861 | 942,861 | - | 655,555 | 655,555 |
| Other liabilities | - | 424,187 | 424,187 | - | 461,249 | 461,249 |
| Derivatives | - | 6,538,332 | 6,538,332 | - | 2,001,608 | 2,001,608 |
| **Commitments and guarantees** | - | 1,373,973 | 1,373,973 | - | 842,313 | 842,313 |
| **Income statement** | | | | | | |
| Interest and similar income | - | 32,694 | 32,694 | - | 124,445 | 124,445 |
| Interest payable | - | (59,567) | (59,567) | - | (96,293) | (96,293) |
| Net fee and commission expenses | - | 185,383 | 185,383 | - | 216,288 | 216,288 |
| Net income from other financial instruments at FVTPL | - | 3,489 | 3,489 | - | - | - |
| Other operating income | - | 476,827 | 476,827 | - | 452,120 | 452,120 |
| Net trading income | - | (413,015) | (413,015) | - | (354,553) | (354,553) |
| Personnel expenses | - | (709) | (709) | - | (592) | (592) |
| Other expenses | - | (155,535) | (155,535) | - | (154,636) | (154,636) |

**36. Related party transactions** (continued)

No dividends were paid by the Company to its direct parent, Citibank Holding Ireland Limited (CHIL) in relation to 2020 earning during the year (2019: $nil).

**37. 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.

**38. 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 will be available to the public and may be obtained from its offices at 1 North Wall Quay, IFSC, Dublin 1.

**39. Approval of financial statements**

The financial statements of the Company were approved by the Board of Directors on the 31 March 2021.