(Registered Number: 132781)

ANNUAL REPORT AND FINANCIAL STATEMENTS

for the year ended 31 December 2019

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BOARD OF DIRECTORS AND OTHER INFORMATION

DIRECTORS	Susan Dean – Chairperson – Non-Executive Zdenek Turek – Executive Barry O'Leary – Independent Non-Executive (resigned 30 th December 2019) Breffni Byrne – Independent Non-Executive Cecilia Ronan – Executive Deepak Jain – Non-Executive (resigned 6 th September 2019) Desmond Crowley – Independent Non-Executive (appointed 7 th November 2019) Ebru Pakcan – Non-Executive Jeanne Short – Independent Non-Executive John Gollan – Independent Non-Executive (appointed 29 th March 2019) Jim Farrell – Independent Non-Executive (resigned 31 st July 2019) Patrick Dewilde – Non-Executive (appointed 24 th January 2019) Peter McCarthy - Non-Executive (appointed on 12 th March 2020)
COMPANY SECRETARY	Fiona Mahon
REGISTERED OFFICE	1 North Wall Quay, Dublin 1
SOLICITORS	A&L Goodbody International Financial Services Centre, North Wall Quay, Dublin 1 Arthur Cox Solicitors Earlsfort Centre, Earlsfort Terrace, Dublin 2 Matheson 70 Sir John Rogersons Quay, Dublin 2
AUDITOR	KPMG Statutory Auditor and Chartered Accountants 1 Harbourmaster Place, IFSC, Dublin 1
BANKERS	Citibank NA, London Branch Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB

DIRECTORS' REPORT

For the year ended 31 December 2019

The Directors present their report and the annual financial statements of Citibank Europe plc ("the Company" or "CEP") for the year ended 31 December 2019, 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 (2018: 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 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.

On 16 September 2019, the retail consumer business, consisting primarily of consumer deposits and a small consumer loan portfolio was divested to the newly created entity Citibank UK Limited in the United Kingdom (UK) with the same ultimate Parent Company. Please refer to Note 33 for more details.

Business Review

The Company reported profit for the period of \$1,116 million for the year ended 31 December 2019 (2018: \$879 million). The increase in profitability was driven due to strong performance in TTS as well as certain episodic events including net credit gains.

The net operating income was \$2,512 million for the year to 31 December 2019 (2018: \$2,316 million). The increase was mainly driven by transaction volumes, growth in payment services, trade finance and commercial cards. This was partially offset by lower deal volumes and fee income due to prolonged trade tensions and slower global economic growth.

Operating expenses (excluding net credit gain on loans and advances) remained relatively stable at \$1,195 million for the year to December 2019 (2018: \$1,241 million). Compensation costs rose due to increase in the overall headcount and salaries, which was partially offset by lower intercompany expenses.

The Company recorded a net credit gain of \$40.8 million for the year ended 31 December 2019, as compared with a net credit loss in prior year (2018: loss of \$9.9 million). This was primarily driven by higher recoveries and reduction of overall IFRS 9 stage 2 expected credit losses as a result of refinement of the basis on which obligor default is determined to accord with current regulatory requirements.

The Company's total assets saw a growth to \$62.1 billion (2018: \$60.6 billion). The growth was led by higher cash placements as a result of growth in customer deposits and derivatives volume due to Brexit related transitions.

DIRECTORS' REPORT (continued)

For the year ended 31 December 2019

Future Developments

The Company is monitoring the Brexit trade negotiations between the United Kingdom and European Union ("EU") and its potential impact. Appropriate governance structures have been established to monitor the Company's strategic responses up to and beyond the end of transition period. As part of the Company's overall Brexit strategy, the Board has initiated a process of migrating private banking business and its clients from the Company's UK branch to Luxembourg branch in 2020. The Company is expected to see further Markets and Securities services client migrations from the UK to the Company's Ireland branch during the transition period of 2020.

The Company is constantly monitoring the emerging information and the evolving situation in relation to COVID 19 and its impact on the financial markets and the Company's businesses. For further analysis, please refer to Note 41 'Post Balance Sheet Event'.

Key Performance Indicators

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

	31 December	31 December	
	2019	2018	
Profit before tax	1,317,769	1,075,255	
Profit after tax	1,116,113	879,190	
Operating efficiency*	43%	50%	
Shareholders' funds**	10,323,887	9,239,953	
Return on capital employed	13%	12%	
Leverage ratio	10%	9%	

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

** The Shareholders' funds equates 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), A1 (Moody's) and A (Fitch).

Capital Management

The Company had regulatory capital of \$8.9 billion as at 31 December 2019 (\$7.9 billion as at 31 December 2018) which is entirely made up of Tier One equity. The capital ratio at 31 December 2019 was 19.8% (17.5% as at 31 December 2018) which exceeds the minimum requirement. Further information on the Company's capital requirements and risk management is available in the Pillar 3 disclosure document (<u>http://citigroup.com/citi/investor/reg.htm</u>). For further details, please refer to Note 22 – 'Risk management'.

Dividends

The consideration to pay dividend in relation to 2019 earnings will be kept under review in light of uncertainties created by COVID 19 and will be finalised later in the year after a clearer assessment can be made. (2018:\$589 million paid in relation to 2017 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.

DIRECTORS' REPORT (continued)

For the year ended 31 December 2019

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 advise 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 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 (2018: 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 2019 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 2019 and 2018.

DIRECTORS' REPORT (continued)

For the year ended 31 December 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 Global Citizenship Report which can be accessed on the ultimate parent group Citigroup Inc. website <u>www.citigroup.com</u>. 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 22 - 'Risk management' on page 56.

Going Concern

The Directors have reviewed the business activities and financial position of the Company and have a reasonable expectation that it has adequate resources to continue in operational existence for the foreseeable future. Therefore the Directors have prepared these financial statements on the going concern basis.

Auditor

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

Directors' Compliance Statement

As required by Section 225 of the Companies Act 2014, the Directors acknowledge that they are responsible for securing 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 secure 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.

DIRECTORS' REPORT (continued)

For the year ended 31 December 2019

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

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 European Union (Credit Institutions: Financial Statements Act 2014 and with the requirements of the Company comply with the provisions of the Companies Act 2014 and with the financial statements used records are kept by its subsidiaries. This enables the company to ensure that the financial statements 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:

31st March 2020

Chona

hous Maha

Zdenek Turek Director

Cecilia Ronan Director John Gollan Director

Fiona Mahon **Company Secretary**

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 2019 set out on pages 15 to 97, 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:

- give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2019 and of its profit for the year then ended;
- have been properly prepared in accordance with IFRS as adopted by the European Union;
- have been properly prepared in accordance with the requirements of the Companies Act 2014.

Basis for opinion

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

We were appointed as auditor by the Directors in May 2001. The period of total uninterrupted engagement is the 18 years ended 31 December 2019. 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.

Emphasis of matter

We draw attention to note 41 of the financial statements concerning the uncertain impact of Covid19 on the Company. The ultimate impact of Covid19 on the Company cannot presently be determined. Our opinion is not modified in respect of this matter.

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.

We summarise below the key audit matters in arriving at our audit opinion above, in order of significance, together with our key audit procedures to address those matters and, as required for public interest entities, our results from those procedures:

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

IFRS 9 net credit losses – ECL models \$77m (2018: \$131m)

Refer to note 1 (i) and 1 (j) (accounting policies) and notes 16, 19, 20, 21, 22 and 32 (financial disclosures)

The key audit matter

The determination of impairment requires a significant amount of management judgement and the calculations depend on reliable data.

The calculation of expected credit losses ("ECL") uses complex and inherently judgemental modelling techniques.

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 PD models do not accurately predict defaults over time, become out of line with wider industry experience, or fair to reflect the credit risk of financial assets.

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 and operating effectiveness of the key controls over the completeness and accuracy of the key data inputs into the ECL models.

• We tested controls over the criteria relating to the authorisation of the SICR criteria, the validation metrics, and the application of the criteria in the models.

• In conjunction with our modelling specialists, we tested the design and implementation of 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.

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

• We challenged the appropriateness of the key judgements in the Company's ECL models.

• We challenged the overall adequacy of ECL, having regard for the risk profile of loan portfolios, recent loss history and performance of the relevant portfolios.

• For a risk-based selection of loans, we critically assessed, by reference to the underlying documentation and through inquiry of management, whether the indicators for a credit impairment had been identified. We challenged the reasonableness of management's judgement in this regard.

We found the judgments used by management in determining the ECL charge and provision recognised to be appropriate.

Valuation of defined benefit pension liability \$575m (2018: \$522m)

Refer to note 1 (s) (accounting policy) and note 15 (financial disclosures)

The key audit matter

The Company operates a number of defined benefit pension schemes which in total are significant in the context of both the overall balance sheet and the results of the Company.

The valuations of the pension obligations are calculated with reference to a number of actuarial assumptions and inputs including discount rate, rate of inflation and mortality rates. The treatment of curtailments, settlements, past service costs and other amendments can significantly impact the balance sheet and results of the Company.

We regard the determination of the Company's defined benefit pension liability as a key audit matter because its valuation is complex and requires judgement in choosing appropriate actuarial assumptions. Small changes in these assumptions can have a material impact on the pension liability.

How the matter was addressed in our audit

• We obtained an understanding of the process around the defined benefit pension schemes and tested the design and implementation and operating effectiveness of the key controls relating to the defined benefit pension schemes.

• We tested key data to source documentation, on a sample basis, establishing the obligation to members, and vice versa.

• In conjunction with our actuarial specialists, we challenged the reasonableness of the key assumptions used in the calculation of the liability, comparing them to industry benchmarks.

• We assessed the adequacy of the Company's disclosures in respect of the pension liability key assumptions.

Overall, we found the key assumptions and methodologies used by management in the valuation of the retirement benefit obligations to be appropriate.

Valuation of level 3 and more complex level 2 financial instruments

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

The key audit matter

The valuation of certain financial instruments is considered to be a significant risk due to error or fraud when the unobservable pricing inputs, which require a degree of management judgement, drive a material part of the resulting valuation and such valuation could result in a material misstatement.

These are typically classified as level 3 instruments in the fair value hierarchy; however certain instruments could also be classified as level 2 depending on the observability of the inputs.

How the matter was addressed in our audit

• We performed an end to end process walkthrough of the valuation process and tested the design, implementation and operating effectiveness of key controls identified, including in the following areas:

- Independent price verification ('IPV') key inputs, including completeness of positions and risk factors subject to IPV;
- Fair value adjustments ("FVAs");
- Validation, completeness, implementation and usage of valuation models, including key controls over adjustments to model limitations and assumptions; and
- Levelling of positions in the fair value hierarchy.

• We engaged valuation specialists to independently value a sample of complex positions and independently assessed the fair value hierarchy classification.

• We inspected external sources for price inputs used by management in performing IPV and recalculated IPV variances as well as FVAs.

Overall, we found the valuations of level 3 and more complex level 2 financial instruments to be acceptable.

Common control transactions (total equity impact \$22m (2018: \$34m))

Refer to note 1 (y) (accounting policy) and note 33 (financial disclosures)

The key audit matter

The Company executed two common control transactions during the year:

- 1) The purchase of the Direct Custody and Clearing business from Citibank NA, Milan branch; and
- 2) The transfer of its UK Retail Business to Citibank UK Limited.

Accounting for common control transactions is complex and requires the use of judgement. Due to the significance of the transactions and their material impact on the financial statements of the Company, as well as the complexities involved in accounting for the transactions, special audit consideration was required.

How the matter was addressed in our audit

• We tested the design and implementation of key controls around the governance of transactions.

• We assessed whether the transactions represented transactions under common control and therefore accounting at book value was appropriate.

• We inspected the valuation reports provided by external experts, in respect of the fair value of consideration paid and evaluated the reasonableness of the assumptions contained therein.

• We inspected underlying contractual agreements to identify the key terms and conditions underpinning the transaction.

• We inspected the accuracy of the calculations associated with the transaction, including the adjustments to the merger reserve.

We found that the common control transactions were accounted for appropriately

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

Materiality for the financial statements as whole was set at \$60 million (2018: \$50 million) determined with reference to a benchmark of profit before tax of \$1,316 million, of which it represents circa 5 per cent (2018: 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 \$3 million (2018: \$2.5 million), in addition to other audit misstatements below that threshold that we believe warranted reporting on qualitative grounds.

We tailored the scope of our audit to ensure that we performed a sufficient level of audit procedures to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Company, the accounting processes and controls, and the industry in which the Company operates.

We have nothing to report on going concern

We are required to report to you if we have concluded that the use of the going concern basis of accounting is inappropriate or there is an undisclosed material uncertainty that may cast significant doubt over the use of that basis for a period of at least twelve months from the date of approval of the financial statements. We have nothing to report in these respects.

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 information 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 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 information and returns adequate for our audit have been received from branches of the Company not visited by us, 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.

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 Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

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

A fuller description of our responsibilities is provided on IAASA's website at <u>https://www.iaasa.ie/getmedia/b2389013-1cf6-458b 9b8fa98202dc9c3a/Description of auditors responsibilities for audit.pdf</u>.

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. Maeshall

N. Marshall for and on behalf of KPMG Chartered Accountants, Statutory Audit Firm 1 Harbourmaster Place IFSC Dublin 1 31 March 2020

INCOME STATEMENT

for the year ended 31 December 2019

	Note	2019 \$ 000	2018 \$ 000
Interest income	4	782,295	650,394
Interest expense	4	(252,807)	(142,744)
Net interest income	-	529,488	507,650
Fee and commission income	5	1,268,492	1,279,642
Fee and commission expense	5	(207,072)	(177,517)
Net fee and commission income		1,061,420	1,102,125
Net trading income	6	352,313	144,656
Net investment income	7	73,686	50,965
Net (loss)/income from other financial instruments designated at fair value through profit or loss	8	(10,673)	3,900
Other operating income	9	465,295	516,558
Total income	-	2,471,529	2,325,854
Net credit gain/(loss)	22	40,843	(9,893)
Net operating income		2,512,372	2,315,961
Personnel expenses	11	(744,287)	(720,229)
Other expenses	13	(450,316)	(520,477)
Total operating expenses	-	(1,194,603)	(1,240,706)
Profit before tax		1,317,769	1,075,255
Corporate tax	14	(197,079)	(188,475)
Profit for the year from continuing operations	-	1,120,690	886,780
Loss from discontinued operations, net of tax	34	(4,577)	(7,590)
Profit for the year	-	1,116,113	879,190

The accompanying notes on pages 20 to 97 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 31st March 2020 and signed on their behalf by:

Zdenek Turek Director

Chona

Director

Cecilia Ronan

Toll hous Maka

Fiona Mahon **Company Secretary**

John Gollan Director

STATEMENT OF OTHER COMPREHENSIVE INCOME

for the year ended 31 December 2019

	Note	2019 \$ 000	2018 \$ 000
Profit for the period	_	1,116,113	879,190
Items that will not be reclassified to profit or loss			
(Loss)/gain on remeasurement of defined benefit liability/asset	15	(34,777)	6,089
Related tax	26	4,347	(1,145)
Items that may be reclassified to profit or loss			
Foreign currency translation		6,395	6,607
Net loss on hedge of net investment in foreign operation		(3,980)	(3,528)
Movement in fair value reserve (FVOCI debt instruments)			
Debt instruments at FVOCI - net change in fair value		47,094	(5,454)
Debt instruments at FVOCI - reclassified to profit or loss	7	(34,931)	(5,990)
Related tax	26	(913)	(3,525)
Other comprehensive expense for the year, net of tax	_	(16,765)	(6,946)
Total comprehensive income for the year	_	1,099,348	872,244

The accompanying notes on pages 20 to 97 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 31st March 2020 and signed on their behalf by:

Chona

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Fiona Mahon Company Secretary

Zdenek Turek Director

Cecilia Ronan Director

John Gollan Director

STATEMENT OF FINANCIAL POSITION

As at 31 December 2019

	Note	31 December 2019 \$ 000	31 December 2018 \$ 000
Assets			
Cash and cash equivalents	16	19,334,315	17,003,234
Trading assets	17,23	1,121,192	1,001,487
Derivative financial instruments	18, 23	3,220,984	1,487,419
Investment securities	19	3,832,621	4,072,096
Loans and advances to banks	20	13,832,002	13,250,086
Loans and advances to customers	20	17,054,656	18,750,539
Assets associated with disposal group held for sale	34	-	624,148
Shares in subsidiary undertakings	27	14,175	14,175
Current tax asset		21,842	34,615
Other assets	21	3,162,621	3,977,463
Deferred tax as sets	26	224,656	254,374
Property and equipment	24	141,626	75,044
Goodwill and Intangible assets	25	91,022	93,842
Total assets		62,051,712	60,638,522
Liabilities			
Deposits by banks	23	15,180,835	14,301,103
Customer accounts	23	28,030,086	25,172,720
Derivative financial instruments	18,23	3,245,244	1,502,949
Liabilities associated with disposal group held for sale	34	-	4,614,811
Current tax liability		52,750	47,037
Provisions	28	47,463	70,314
Deferred tax liabilities	26	21,546	28,687
Other liabilities	29	5,149,901	5,660,948
Total liabilities		51,727,825	51,398,569
Equity shareholders' funds			
Share capital	30	10,532	10,532
Share premium account	30	1,962,747	1,962,747
Other reserves (net)	38	794,925	796,674
Retained earnings		7,555,683	6,470,000
Total equity attributable to equity shareholders		10,323,887	9,239,953
Total liabilities and equity shareholders' funds		62,051,712	60,638,522

The accompanying notes on pages 20 to 97 form an integral part of these financial statements.

The financial statements were approved by the Board of Directors on 31st March 2020 and signed on their behalf by:

Chona

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Zdenek Turek Director

Cecilia Ronan Director

John Gollan Director

Fiona Mahon Company Secretary

STATEMENT OF CHANGES IN EQUITY for the year ended 31 December 2019

				Attri	butable to	equity holder	s of the C	ompany		
	Note	Share capital \$ 000	Share premium \$ 000	-	Merger reserve \$ 000	Translation reserve \$ 000	Fair value reserve \$ 000	Equity reserve \$ 000	Retained earnings \$ 000	Total \$ 000
Balance at 1 January 2018		10,532	1,962,747	824,123	57,578	(57,886)	19,302	763	6,174,866	8,992,025
Total comprehensive income/(loss):										
Profit for the period		-	-	-	-	-	-	-	879,190	879,190
Other comprehensive income/(loss), net of tax:	15								4.044	4.044
Remeasurements of defined benefit liability/(asset) Foreign currency translation differences for foreign	15	-	-	-	-	-	-	-	4,944	4,944
operations		-	-	-	-	6,607	-	-	-	6,607
Net loss on hedge of net investment in foreign operation		-	-	-	-	(3,528)	-	-	-	(3,528)
Fair value reserve (FVOCI financial assets)		-	-	-	-	-	(14,969)	-	-	(14,969)
Total other comprehensive income/(loss)		-	-	-	-	3,079	(14,969)	-	4,944	(6,946)
Total comprehensive income/(loss)	:	-	-	-	-	3,079	(14,969)	-	884,134	872,244
Transactions with owners, recorded directly in equity										<u> </u>
Issue of ordinary shares related to merger		-	-	-	-	-	-	-	-	-
Equity increase/(decrease) resulting from merger	38	-	-	2,565	(34,100)	-	-	-	-	(31,535)
Equity settled share-based payment	31	-	-	-	-	-	-	(3,781)	-	(3,781)
Dividends/remittances		-	-	-	-	-	-	-	(589,000)	(589,000)
Total contributions by and distributions to owners		-	-	2,565	(34,100)	-	-	(3,781)	(589,000)	(624,316)
Balance at 31 December 2018		10,532	1,962,747	826,688	23,478	(54,807)	4,333	(3,018)	6,470,000	9,239,953
Restated 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)	15								(30,430)	(30,430)
Foreign currency translation differences for foreign	15	-	-	-	-		-	-	(30,430)	(30,430)
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										
Issue of ordinary shares related to merger		-	-	-	-	-	-	-	-	-
Equity increase/(decrease) resulting from merger	38	-	-	-	(21,258)	-	-	-	-	(21,258)
Equity settled share-based payment	31	-	-	-	-	-	-	5,844	-	5,844
Dividends/remittances		-	-	-		-	-	-	-	-
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

The accompanying notes on pages 20 to 97 form an integral part of these financial statements.

STATEMENT OF CASH FLOWS

for the year ended 31 December 2019

for the year ended 31 December 2019			
		31 December	31 December
	Net	2019 © 000	2018
	Note	\$ 000	\$ 000
Cash flows from operating activities Profit after tax		1,116,113	879,190
Adjustments for:		1,110,115	879,190
Income tax charged	14	197,079	188,475
Depreciation and amortisation	13	57,604	31,217
Net impairment (losses)/recoveries on loans and advances	20	(40,843)	9,893
Loss on disposal of property and equipment		(95)	(164)
Provision released and other movements during the year	28	14,022	(535)
Expenses related to share based payment	31	15,599	13,595
Expenses related to post-employment defined benefit plans	15	9,219	9,146
Interest income	4	(782,295)	(650,394)
Interest expense	4	252,805	142,744
Gains on investment securities		19,184	(5,293)
Change in trading assets	17	(119,705)	(34,073)
Change in derivative financial instrument assets		(1,733,565)	126,111
Change in loans and advances to banks (more than 3 months)		(346,331)	539,200
Change in loans and advances to customers		1,695,883	(687,099)
Change in other assets	21	814,842	(189,118)
Change in deposits by banks		879,732	5,625,879
Change in customer account balances	10	2,857,366	(2,914,251)
Change in derivative financial instrument liabilities	18	1,742,295	(164,056)
Change in investment securities	19	(15,758)	189,953
Change in other liabilities	20	(492,910)	(15,911)
Provision utilized during the year	28	(9,783) 6,130,458	(4,549) 3,089,961
Interest received	4	782,295	650,394
Interest paid	4	(252,805)	(142,744)
Income tax paid	-	(139,375)	(113,443)
Share based payment related payment		(13,686)	(11,302)
Defined benefit related payment	15	(14,188)	(12,915)
Net cash flow from operating activities		6,492,699	3,459,951
A G			
Cash flows from investing activities			
Acquisition of investment securities		(2,892,242)	(2,630,967)
Disposal of investment securities		3,128,291	1,261,540
Acquisition of property and equipment	24	(11,178)	(47,940)
Proceeds from disposal of property and equipment		95	164
Acquisition of intangible assets	25	(20,627)	(14,140)
Cost of acquisition of business	33	(27,400)	-
Proceeds from sale of discontinued business	33	6,142	-
Net Cash and cash equivalents gained during merger		-	3,433,602
Net cash flow from investing activities		183,081	2,002,259
Cash flows from financing activities			
Dividends paid to parent		-	(589,000)
Change in liabilities arising from financing activities	16	(66,689)	31,941
Payment of lease liabilities	36	(18,137)	-
Interest on lease liabilities		(2)	-
Net cash flow (used in) financing activities		(84,828)	(557,059)
Cash flows from discontinued operations			$(111 \ (15))$
Operating cash flow from discontinued operation		- 624,148	(411,615)
Change in assets associated with disposal group held for sale Change in liabilities associated with disposal group held for sale		(4,614,811)	(121,090) 4,523,367
Net cash flows from discontinued operations		(3,990,663)	3,990,662
Act cash nows nom discontinucu operations		(3,770,003)	3,770,002
Net increase in cash and cash equivalents		2,600,289	8,895,814
-	17		
Cash and cash equivalents at beginning of year	16	28,952,529	20,025,568
Effect of exchange translations and other adjustments	17	(33,623)	31,148
Cash and cash equivalents at end of year	16	31,519,195	28,952,529
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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 2019. They include:

A. IFRS 16 – Leases. In January 2016, the IASB issued IFRS 16, which sets out the principles for the recognition, measurement, presentation and disclosure of leases. The standard removes the current requirement for lessees to classify leases as finance leases or operating leases by introducing a single lessee accounting model that requires the recognition of lease assets and lease liabilities on the statement of financial position for most leases. Lessees will also recognise depreciation expense on the lease asset and interest expense on the lease liability in the income statement. There are no significant changes to lessor accounting aside from enhanced disclosure requirements. IFRS 16 was implemented on 1 January 2019. The Company calculated the lease assets and lease liabilities as at the beginning of the reporting period being 1 January 2019 and recognised the difference as an adjustment to assets.

On adoption of IFRS 16, the Company recognised lease liabilities in relation to leases which had previously been classified as 'operating leases' and expensed to income statement under the principles of IAS 17 Leases. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1 January 2019. The weighted average lessee's incremental borrowing rate applied to the lease liabilities on 1 January 2019 was **1.26%**.

The Company elected to adopt the modified retrospective approach, which means the comparative information presented for 2018 is not restated and disclosed under IAS 17 and its related interpretations.

Refer to Note 3 for the transition disclosure in relation to it.

B. IFRIC 23 – Uncertainty over Income Tax Treatments. The interpretation provides requirements that add to the requirements in IAS 12 – Income Taxes by specifying how to reflect the effects of uncertainty in accounting for income taxes. The interpretation applies for annual reporting periods beginning on or after 1 January 2019 with early adoption permitted. The interpretation did not have a significant impact on the Company.

There are a certain accounting standards that have been issued by the IASB during 2019. However, the following amended standards and interpretations did not have a significant impact on the Company's financial statements:

- Prepayment Features with Negative Compensation (Amendments to IFRS 9)
- Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)
- Annual Improvements to IFRS Standards 2015–2017 Cycle
- Plan Amendment, Curtailment or Settlement (Amendments to IAS 19)

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

c) Changes in accounting policy and disclosures (continued)

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:

- 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)
- IFRS 17 Insurance Contracts

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)

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.

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.

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

e) Net fee and commission income (continued)

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

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

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

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

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

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

NOTES TO THE FINANCIAL STATEMENTS

- 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;
- 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.

NOTES TO THE FINANCIAL STATEMENTS

- 1. Principal accounting policies (continued)
 - i) Financial assets and liabilities (continued)

Classification and Measurement (continued)

1. Financial Assets – Derivatives and Equity Instruments

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

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

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

2. Financial Assets – Debt Instruments

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

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

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

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

Amortised Cost

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

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

Recognition and Initial Measurement

The Company initially recognises loans and advances, deposits and debt securities 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.

NOTES TO THE FINANCIAL STATEMENTS

- 1. **Principal accounting policies** (continued)
 - i) Financial assets and liabilities (continued)

Classification and Measurement (continued)

2. Financial Assets – Debt Instruments (continued)

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 2018 and as at 31 December 2019:

Investment debt securities

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

<u>FVTPL</u>

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

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

The following financial assets were classified and measured as FVTPL as at 31 December 2018 and as at 31 December 2019:

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.

NOTES TO THE FINANCIAL STATEMENTS

- 1. Principal accounting policies (continued)
 - i) Financial assets and liabilities (continued)

<u>Classification and Measurement</u> (continued)

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 separates derivatives embedded in financial liabilities where they are not closely related to the host contract.

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:

• The remaining amount of the change in the fair value of the liability is recorded in P&L.

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

4. Reclassifications

Financial asset classification is determined at initial recognition and reclassifications are expected to be extremely rare. A financial asset can only be reclassified if the business model for managing the financial asset changes.

Reclassification of financial liabilities is not permitted.

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 operating income.

NOTES TO THE FINANCIAL STATEMENTS

- 1. Principal accounting policies (continued)
 - i) Financial assets and liabilities (continued)

Classification and Measurement (continued)

5. Modifications (continued)

Financial assets (continued)

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 take into account in pricing a transaction.

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.

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

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;
- Lease receivables recognised by the Company, acting as the lessor, that are within the scope of IFRS 16 (Leases);
- 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.

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.

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

j) Impairment of financial assets (continued)

Expected credit loss impairment model (continued)

Measurement of ECL (continued)

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 making an assessment of 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.

NOTES TO THE FINANCIAL STATEMENTS

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)

A financial asset will move from Stage 1 to Stage 2 if there has been a significant increase in credit risk relative to initial recognition. The Company assesses whether the credit risk of a financial instrument has increased significantly since initial recognition. Determining whether there has been a significant increase in credit risk requires judgement. When making this assessment, the Company considers the increase in the risk of default (both in relative terms and absolute terms) over the expected life of the financial asset. A given change in absolute terms of the risk of a default since initial recognition 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. A change in the probability of default of the obligor is driven primarily by the obligor risk rating. Internal and external credit risk rating categories will capture the further qualitative indicators that act as backstops. Under the IFRS 9 ECL model, the 30 days past due presumption is rebutted because the Company has developed a model with reasonable and supportable information including internal risk rating of obligors to determine whether there has been a significant increase of credit risk without having to rely on a days past due backstop.

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 (12-month expected credit losses) and Stage 2 (lifetime expected credit losses), 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.

NOTES TO THE FINANCIAL STATEMENTS

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 mitigant 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 mitigant is 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, non-accrual, 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 caseby-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).

NOTES TO THE FINANCIAL STATEMENTS

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 23 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 and 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.

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

l) Leases

Policy applicable from 1 January 2019

Until 31 December 2018, leases of property and equipment where the Company, as lessee, had substantially all the risks and rewards of ownership were classified as finance leases and were capitalised and depreciated as described in Note 24. The finance cost was 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. Leases in which a significant portion of the risks and rewards of ownership were not transferred to the Company as lessee were classified as operating leases. Rentals payable under operating leases were charged to the income statement on a straight line basis over the lease term and were included within "Other expenses".

From 1 January 2019, 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 and any other property not being classed as investment property.

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.

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

I) Leases (continued)

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

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

The lease liability is measured at amortised cost using the effective interest rate method. The lease liability is remeasured to reflect changes in lease payments caused by a change in index or rate (other than in floating interest rates) and if the Company is reasonably certain to exercise a purchase option, or if there is a change in the amount the Company is expected to pay under a residual value guarantee.

Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Policy applicable before 1 January 2019

Finance and operating leases – as lessor

Where the Company leases out equipment and there is a transfer of substantially all of the risks and rewards of ownership to the lessee, the lease is accounted for as a finance lease. Operating leases are leases other than finance leases.

Finance and operating leases – as lessee

Assets held under finance lease contracts are capitalised and depreciated as described in Note 1 (m) below. Finance charges are allocated to accounting periods so as to produce a constant periodic rate of interest on the remaining balance of the obligation for each accounting period. Rentals payable under operating leases are charged to the income statement on a straight line basis over the lease term and are included within "Other administrative expenses".

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.

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

n) Intangible assets

Good will

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

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 under Other expenses P&L line.

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.

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

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 using 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 the 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.

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.
NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

s) Employee benefits (continued)

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.

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.

NOTES TO THE FINANCIAL STATEMENTS

1. Principal accounting policies (continued)

u) Accounting for government grants

Grants are credited to the income statement to offset the matching expenditure. Grants received, which are repayable if defined conditions are not met, are credited to Other operating income on a straight-line basis over that period.

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.

NOTES TO THE FINANCIAL STATEMENTS

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 22 -'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 31 – '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 15 – '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.

NOTES TO THE FINANCIAL STATEMENTS

2. Use of assumptions and estimates (continued)

Valuation of financial instruments

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

Market valuation adjustments

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")

CVA and FVA are applied to over-the-counter ("OTC") derivative instruments in which the base valuation generally discounts expected cash flows using the relevant base interest rate curve for the currency of the derivative (e.g. LIBOR for uncollateralised U.S. dollar derivatives). As not all counterparties have the same credit risk as that implied by the relevant base curve, a CVA is necessary to incorporate the market view of both counterparty credit risk and Citi's own credit risk in the valuation. FVA reflects a market funding risk premium inherent in the uncollateralised portion of derivative portfolios and in collateralised derivatives where the terms of the agreement do not permit the reuse of the collateral received.

Citi's CVA methodology comprises of two steps. First, the credit 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, including pledged cash or other collateral and any legal right of offset that exists with counterparty through arrangements such as netting agreements. Individual derivative contracts that are subject to an enforceable master netting agreement with a counterparty are aggregated 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, rather than using the current recognised net asset or liability as a basis to measure the CVA.

Second, 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.

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

Own debt valuation adjustments ("DVA") are recognised on debt securities in issue that are designated at fair value using Citigroup's credit spreads observed in the bond market. Accordingly, the fair value of debt securities in issue is impacted by the narrowing or widening of Citigroup's credit spreads.

CVA and DVA may not be realised upon a settlement or termination in the normal course of business. In addition, all or a portion of the credit valuation adjustments may be reversed or otherwise adjusted in future periods in the event of changes in the credit risk of Citigroup or its counterparties, or changes in the credit mitigants (collateral and netting agreements) associated with the derivative instruments.

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

During 2019, the Company recorded CVA/FVA/DVA loss of approximately \$7.1 million (2018: gain of \$0.5 million).

NOTES TO THE FINANCIAL STATEMENTS

3. Transition disclosures

International Financial Reporting Standard 16 Leases (IFRS 16) was issued in January 2016 and sets out the principles for the recognition, measurement, presentation and disclosure for leases. IFRS 16 requires lessees to recognise liabilities for operating leases and corresponding right-of-use (ROU) assets on the balance sheet. The Company adopted the standard prospectively on 1 January 2019 and recognised a lease liability of \$99 million and a corresponding ROU asset of \$86 million. The operating lease liability was measured at the present value of the remaining lease payments, while the ROU asset at adoption was measured at the amount of the lease liability, adjusted by the amount of any prepaid or accrued lease payments previously recognised on the balance sheet.

The Company relied on its assessment of whether the leases are onerous under IAS 37, immediately before the date of initial application as an alternative to performing an impairment review. There were none noted at transition.

	1 January 2019 \$ 000
Operating lease commitments at 31 December 2018 as disclosed under IAS 17 in the Company's financial statements	24,375
Restated operating lease commitments on 1 January 2019	105,816
Discounted using the incremental borrowing rate at 1 January 2019	99,213
Lease liabilities recognised at 1 January 2019	99,213

4. Net interest income

	2019	2018
Interest income	\$ 000	\$ 000
Cash and cash equivalents	35,293	10,955
Loans and advances to banks	154,051	122,012
Loans and advances to customers	444,676	411,808
Investment securities	67,300	48,702
Other interest income	80,975	56,917
	782,295	650,394
Interest expense		
Deposits by banks	(103,180)	(9,347)
Customer accounts	(73,549)	(52,566)
Other interest expense	(76,078)	(80,831)
	(252,807)	(142,744)
Net interest income	529,488	507,650

Included in interest income is a total of \$2 million (2018: \$13 million) received on impaired loans.

NOTES TO THE FINANCIAL STATEMENTS

5. Net fee and commission income

	2019	2018*
Fee and commission income	\$ 000	\$ 000
Investment banking	26,645	36,800
Brokerage commissions	193,562	189,651
Custody and Fiduciary transactions	278,793	259,690
Transactional service fees	355,324	316,715
Committment fees	176,626	226,892
Credit and bank card	78,768	76,453
Deposit-related fees	106,960	85,521
Other	51,814	87,921
	1,268,492	1,279,642
Fee and commission expense		
Clearing and settlement	(133,053)	(110,591)
Custody	(37,144)	(34,605)
Other	(36,875)	(32,321)
	(207,072)	(177,517)
Net fee and commission income	1,061,420	1,102,125

* The 'other' line item has been split out further in 2019 in order to give additional detail to the reader on the nature of income included within this note. Prior year comparatives have been restated to reflect the updated 2019 classifications.

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 \$44.5 million in 2019 (2018: \$38.4 million).

6. Net trading income

	2019	2018
	\$ 000	\$ 000
Derivatives	255,409	147,630
Debt securities	19,929	22,320
Loans and advances	76,975	(25,294)
	352,313	144,656

NOTES TO THE FINANCIAL STATEMENTS

7. Net investment income

	2019	2018
	\$ 000	\$ 000
Net gain on FVOCI investment securities	34,931	5,990
Equity securities	38,755	44,975
	73,686	50,965

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

	2019 \$ 000	2018 \$ 000
Financial instruments	(10,673)	3,900
	(10,673)	3,900
9. Other operating income	2019	2018
	\$ 000	\$ 000
Intercompany recoveries	465,295	516,558
	465,295	516,558

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.

10. Auditor's remuneration

	2019	2018
	\$ 000	\$ 000
Audit fee	770	746
Other assurance	412	299
Tax advisory services	145	14
Other non-audit services	2	57
	1,329	1,116

Additional fees paid to other KPMG member firms outside Ireland for services include local audit fees of \$1.3 million (2018: \$1.4 million) (of which \$1 million (2018: \$1 million) were to offices involved in the statutory audit of the Company), other assurance fees of \$0.3 million (2018: \$0.3 million), tax advisory fees of \$nil (2018: \$nil) and any other non-audit service fees of \$0.02 million (2018: \$0.09 million).

NOTES TO THE FINANCIAL STATEMENTS

11. Personnel expenses

The average number of persons employed by the Company during the year was 9,446 (2018: 9,293). This comprises 9,276 Direct Staff Full Time and 170 Direct Staff Part-time. The average number of persons employed through the Company's continuing operations during the year was 9,392 (2018: 9,209).

The following table shows the average number of employees by function for 2019 and 2018:

	2019	2018
Corporate and Investment Bank	522	643
Retail and Private banking	402	273
Corporate Functions	2,927	3,615
Independent Control Functions	356	322
Other operations	5,239	4,440
Total number of staff	9,446	9,293

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

	2019 \$ 000	2018 \$ 000
Wages and salaries	577,592	564,210
Social security costs	104,394	102,131
Share based payment expenses	15,599	13,618
Pensions and post retirement benefits	33,067	28,769
Restructuring costs	13,635	11,501
Total personnel expenses	744,287	720,229

The Company operates 20 (2018:20) defined contribution schemes across its branches. In addition, the Company also operates 13 (2018: 12) defined benefit schemes. In 2019 contributions of \$33 million (2018: \$29 million) were made to the schemes. For more details, please refer to Note 15.

12. Directors' emoluments

	2019 \$ 000	2018 \$ 000
Directors' emoluments are as follows:		
For qualifying services	3,669	3,847
For long term incentive schemes	1,658	1,562
Pension schemes - Defined contribution scheme	105	106
Compensation for loss of office	-	-
	5,432	5,515

As of 31 December 2019 retirement benefits were accruing to four directors (2018: five).

NOTES TO THE FINANCIAL STATEMENTS

13. Other expenses

•	2019 \$ 000	2018* \$ 000
	\$ 000	φυσσ
Research and development	6,482	6,298
Depreciation	35,517	16,452
Amortisation	22,087	21,275
Communications and technology	149,056	137,147
Contractors	41,114	44,272
Levies and regulatory charges	60,851	40,946
Premises	25,203	46,013
VAT	25,284	38,209
Travel & Entertainment	12,262	30,812
Other administrative expenses	72,460	139,053
	450,316	520,477

*The 'other administrative expenses' line item has been split out further in 2019 in order to give additional detail to the reader on the nature of expenses included within this note. Prior year comparatives have been restated to reflect the updated 2019 classifications.

14. Tax on profit on ordinary activities

(a) Analysis of tax charge in the year:

	2019 \$ 000	2018 \$ 000
Current tax:		
Corporate tax on profits of the period	(160,967)	(143,385)
Deferred tax:		
Current year deferred tax	(36,112)	(45,090)
Total corporate tax	(197,079)	(188,475)
- of this continuing operation	(197,079)	(188,475)
(b) Reconciliation of effective tax rate:		
	2019	2018
	\$ 000	\$ 000
Profit before tax from continued operations	1,317,769	1,075,255
(Loss) before tax from discontinued operations	(4,577)	(7,590)
Total profit before tax	1,313,192	1,067,665
Corporate tax at Irish corporation tax rate of 12.5%	(164,721)	(134,407)
Effects of:		
Taxes paid in foreign jurisdictions	6,098	(12,474)
Capital allowances and other temporary differences	4,969	4,707
Non deductible expenses	(7,313)	(1,211)
Total corporate tax expense	(160,967)	(143,385)
- of this continuing operation	(160,967)	(143,385)

NOTES TO THE FINANCIAL STATEMENTS

15. 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 2019 were \$14 million (2018: \$13 million). The Company expects to make contributions of approximately \$13 million in 2020. The defined benefit obligation includes benefits for current employees, former employees and current pensioners. The weighted average duration of the obligation is 18.5 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 2019 and 2018 encompassed the following:

On 27 April 2018, a new cash balance pension plan was setup for Citibank Europe plc, Germany Branch (CEP) at when employees with pension promises were transferred to CEP from CGME and contributions to plan assets were made accordingly.

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

	31 December 2019 \$ 000	31 December 2018 \$ 000
Present value of funded defined benefit obligation	(559,935)	(506,249)
Present value of unfunded defined benefit obligation	(15,431)	302,646
Total defined benefit obligation	(575,366)	(203,603)
Fair value of plan assets	330,131	(15,291)
Net liability recognised on the statement of financial position (Note 29)	(245,235)	(218,894)
Deferred tax asset (Note 26)	30,534	27,242
Net pension liability	(214,701)	(191,652)
The unfunded deficit is kept under review by the Directors on an ongoing basis.		
The analysis of the income statement charge is as follows:		
	2019	2018
	\$ 000	\$ 000
Operating costs:		
Current service cost	4,250	4,031
Administration expenses	1,001	1,097
Financing costs:		
Interest cost on defined benefit obligations	9,614	9,436
Interest income on scheme assets	(5,646)	(5,418)
Expense recognised in the income statement	9,219	9,146
of which attributable to discontinued operations		
Expense recognised in the income statement for continuing operations	9,219	9,146

NOTES TO THE FINANCIAL STATEMENTS

15. Retirement benefit obligation (continued)

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

	2019	2018
	\$ 000	\$ 000
Opening defined benefit obligation	(521,540)	(554,924)
Exchange rate adjustments	9,575	25,690
Current service cost	(4,250)	(4,031)
Interest cost on defined benefit obligations	(9,614)	(9,436)
Remeasurement (loss)/gain due to changes in financial assumptions	(65,189)	19,590
Remeasurement (loss)/gain due to changes in demographic assumptions	(910)	2,052
Remeasurement (loss)/gain due to changes in liability experience	(1,071)	1,246
Contributions by plan participants	(34)	(53)
Net benefits paid out	18,220	15,279
Net increase in liabilities from acquisitions	(553)	(16,953)
Closing defined benefit obligation	(575,366)	(521,540)
	2019 \$ 000	2018 \$ 000
Opening fair value of plan assets	\$ 000	\$ 000
Opening fair value of plan assets Exchange rate adjustments	\$ 000 302,646	\$ 000 315,302
Exchange rate adjustments	\$ 000 302,646 (5,555)	\$ 000 315,302 (14,820)
Exchange rate adjustments Interest income on plan assets	\$ 000 302,646	\$ 000 315,302 (14,820) 5,418
Exchange rate adjustments Interest income on plan assets Return/(loss) on plan assets excluding interest income	\$ 000 302,646 (5,555) 5,646	\$ 000 315,302 (14,820)
Exchange rate adjustments Interest income on plan assets	\$ 000 302,646 (5,555) 5,646 32,393	\$ 000 315,302 (14,820) 5,418 (16,799)
Exchange rate adjustments Interest income on plan assets Return/(loss) on plan assets excluding interest income Contributions by the employer	\$ 000 302,646 (5,555) 5,646 32,393 14,188	\$ 000 315,302 (14,820) 5,418 (16,799) 12,915
Exchange rate adjustments Interest income on plan assets Return/(loss) on plan assets excluding interest income Contributions by the employer Contributions by the participants	\$ 000 302,646 (5,555) 5,646 32,393 14,188 34	\$ 000 315,302 (14,820) 5,418 (16,799) 12,915 53
Exchange rate adjustments Interest income on plan assets Return/(loss) on plan assets excluding interest income Contributions by the employer Contributions by the participants Net benefits paid out	\$ 000 302,646 (5,555) 5,646 32,393 14,188 34 (18,220)	\$ 000 315,302 (14,820) 5,418 (16,799) 12,915 53 (15,279)
Exchange rate adjustments Interest income on plan assets Return/(loss) on plan assets excluding interest income Contributions by the employer Contributions by the participants Net benefits paid out Administration costs incurred	\$ 000 302,646 (5,555) 5,646 32,393 14,188 34 (18,220)	\$ 000 315,302 (14,820) 5,418 (16,799) 12,915 53 (15,279) (1,097)
Exchange rate adjustments Interest income on plan assets Return/(loss) on plan assets excluding interest income Contributions by the employer Contributions by the participants Net benefits paid out Administration costs incurred Net increase in assets from acquisitions	\$ 000 302,646 (5,555) 5,646 32,393 14,188 34 (18,220) (1,001)	\$ 000 315,302 (14,820) 5,418 (16,799) 12,915 53 (15,279) (1,097) 16,953

	\$ 000	\$ 000
Interest income on plan assets	5,646	5,418
Return/(loss) on plan assets excluding interest income	32,393	(16,799)
Total return/(loss) on plan assets	38,039	(11,381)

NOTES TO THE FINANCIAL STATEMENTS

15. Retirement benefit obligation (continued)

The interest income on scheme assets is set using the discount rate assumption. In 2019, there was an increase in asset values leading to a remeasurement gain of \$32 million. In 2018, there was a decrease in asset values leading to a remeasurement loss of \$17 million.

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

	2019	2018
	\$ 000	\$ 000
Remeasurement (loss)/gain on scheme liabilities		
Remeasurement (loss)/gain due to changes in financial assumptions	(65,189)	19,590
Remeasurement (loss)/gain due to changes in demographic assumptions	(910)	2,052
Remeasurement (loss)/gain due to changes in liability experience	(1,071)	1,246
Total remeasurement (loss)/gain on scheme liabilities	(67,170)	22,888
Remeasurement gain/(loss) on plan assets	32,393	(16,799)
(Loss)/gain on remeasurement of defined benefit liability/asset	(34,777)	6,089

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 22.5 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:

	2019	2018
Discount rate for assessing scheme liabilities	1.10%	1.90%
Future salary increases	2.70%	2.60%
Rate of increase for pensions in payment	1.50%	1.80%
Inflation rate assumption	1.50%	1.80%

NOTES TO THE FINANCIAL STATEMENTS

15. Retirement benefit obligation (continued)

The fair values of the plan assets are as follows:

			\$ 000		
	20	19	-	20	18
	Total fair value	Of which not quoted in active market		Total fair value	Of which not quoted in active market
Equities	96,969	-		67,741	-
Property	171	-		124	-
Government bonds	87,027	-		91,581	-
Corporate bonds	115,898	-		107,483	-
Other	30,066	3,932		35,717	3,716
Total fair value of assets	330,131	3,932	-	302,646	3,716

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:

	2019	2018
	\$ 000	\$ 000
Effect of decreasing the discount rate assumption by 1% on liabilities	(117,308)	(99,436)
Effect of increasing the discount rate assumption by 1% on liabilities	97,151	83,308
Effect of increasing the pension increase rate by 1% on liabilities	(38,283)	(32,687)
Effect of decreasing the pension increase rate by 1% on liabilities	31,344	27,068
Effect of increasing the salary increase rate by 1% on liabilities	(10,517)	(8,704)
Effect of decreasing the salary increase rate by 1% on liabilities	10,036	8,357
Effect of participants living one extra year than expected on liabilities	(19,509)	(15,989)

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

	2020 \$ 000	2021 \$ 000	2022 \$ 000	2023 \$ 000	2024 \$ 000	2025- 2029 \$ 000
Expected benefit payments	16,849	15,901	15,453	17,241	16,364	89,606

NOTES TO THE FINANCIAL STATEMENTS

16. Notes to the cash flows statement

a) Cash and cash equivalents

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

	31 December 2019 \$ 000	31 December 2018 \$ 000
Cash and balances with central banks	16,643,717	15,251,474
Other demand deposits	2,690,683	1,751,807
Expected credit loss	(85)	(47)
Cash and cash equivalents	19,334,315	17,003,234
Loans and advances to banks with maturity less than 3 months	12,184,880	11,949,295
	31,519,195	28,952,529

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	Sta	age 1
	2019	2018
	\$ 000	\$ 000
Outstanding exposure as at 1 January	17,003,281	14,589,546
New assets originated or purchased	4,688,401	17,407,438
Asset derecognised or matured	(2,357,282)	(14,993,703)
At 31 December	19,334,400	17,003,281

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

ECL	Stage	e 1
	2019	2018
	\$ 000	\$ 000
IFRS 9 ECL as at 1 January	47	106
ECL on new assets originated or purchased	49	47
Exposure derecognised or matured	(11)	(106)
At 31 December	85	47

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 20.

NOTES TO THE FINANCIAL STATEMENTS

16. Notes to the cash flows statement (continued)

c) Change in liabilities arising from financing activities

	Repurchase	Repurchase
	agreements	agreements
	2019	2018
	\$ 000	\$ 000
Opening balance at 1 January	152,181	120,240
Proceeds from repurchase agreement	(66,689)	31,941
Closing balance at 31 December	85,492	152,181

17. Trading assets

	31 December 2019 \$ 000	31 December 2018 \$ 000
Government bonds	673,837	510,473
Corporate bonds	38,735	14,570
Loans	408,620	476,444
	1,121,192	1,001,487

NOTES TO THE FINANCIAL STATEMENTS

18. Derivative financial instruments

	31 D	ecember 201	9	31 D	ecember 201	8
	Notional	Fair v	alue	Notional	Fair v	alue
	amount			amount		
		Assets	Liabilities		Assets	Liabilities
	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000
Derivatives held for trading	240,406,369	3,218,885	3,245,244	140,090,559	1,487,419	1,501,410
Derivatives held for risk management	168,510	2,099	-	171,750	-	1,539
Total	240,574,879	3,220,984	3,245,244	140,262,309	1,487,419	1,502,949
Derivatives held for trading						
Foreign exchange	150,445,495	1,665,751	1,678,722	72,890,030	947,700	945,490
- OTC	150,445,495	1,665,751	1,678,722	72,890,030	947,700	945,490
- Organised market	-	-	-	-	-	-
Interest rate	88,832,482	1,538,321	1,543,387	66,103,596	521,507	530,024
- OTC	88,832,482	1,538,321	1,543,387	66,103,596	521,507	530,024
- Organised market	-	-	-	-	-	-
Equity	428,593	1,838	1,838	819,795	10,548	10,548
- OTC	428,593	1,838	1,838	819,795	10,548	10,548
- Organised market	-	-	-	-	-	-
Credit	682,467	11,749	20,080	265,150	2,015	9,707
Commodity	17,333	1,226	1,216	11,988	5,650	5,642
Other	-	-	-	-	-	-
Total	240,406,369	3,218,885	3,245,244	140,090,559	1,487,419	1,501,410

See Note 22 – 'Risk management' for more details on how the Company uses derivative financial instruments as part of its risk management policies and procedures.

	31 December 2019		31 December 2		2018	
	Notional amount		Fair value	Notional amount		Fair value
	\$ 000	Assets \$ 000	Liabilities \$ 000	\$ 000	Assets \$ 000	Liabilities \$ 000
Derivatives held for risk management						
Instrument type:						
Foreign exchange	168,510	2,099	-	171,750	-	1,539
Total	168,510	2,099	-	171,750	-	1,539

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

19. Investment securities

	31 December	
	2019	2018
	\$ 000	\$ 000
FVOCI investment securities		
Government bonds	3,262,724	3,648,733
Corporate bonds	460,028	334,941
Total	3,722,752	3,983,674
FVTPL investment securities		
Equity securities	109,869	88,422
Total investment securities	3,832,621	4,072,096

Expected credit loss – Investment securities

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

Exposure	Sta	
	2019 \$ 000	2018 \$ 000
Outstanding exposure as at 1 January	3,984,946	2,839,160
New assets originated or purchased	2,892,242	2,706,427
Asset derecognised or matured	(3,128,291)	(1,580,296)
Foreign exchange adjustments and other movements	(26,145)	19,655
At 31 December	3,722,752	3,984,946

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

ECL	Stag	ge 1
	2019	2018
	\$ 000	\$ 000
IFRS 9 ECL as at 1 January	1,272	2,097
ECL on new assets originated or purchased	1,303	867
Exposure derecognised or matured	(798)	(1,673)
Foreign exchange adjustments and other movements	(62)	(19)
At 31 December	1,715	1,272

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

NOTES TO THE FINANCIAL STATEMENTS

20. 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 2019	31 December 2018*
	\$ 000	\$ 000
Loans and advances to banks measured at amortised cost		
Gross exposure	13,834,185	13,251,858
Expected credit loss	(2,183)	(1,772)
	13,832,002	13,250,086
Loans and advances to customers measured at amortised cost		
General governments	241,010	175,516
Corporations	15,409,373	17,298,956
Retail customers	1,238,721	1,090,767
Expected credit loss	(40,767)	(69,094)
	16,848,337	18,496,144
Loans to customers held at fair value through the profit and loss	206,319	254,395
	17,054,656	18,750,539

*The 'loans and advances to customers' line item has been split out further in 2019 in order to give additional detail to the reader on the nature of loans included within this note. Prior year comparatives have been restated to reflect the updated 2019 classifications. 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	5	Stage 1	5	Stage 2	St	age 3		Total
	2019	2018	2019	2018	2019	2018	2019	2018
	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000
Outstanding exposure as at 1 January	30,560,342	23,597,410	1,132,051	1,127,147	124,704	388,891	31,817,097	25,113,448
New assets originated or purchased	4,003,110	28,884,532	153,796	716,144	11,349	74,862	4,168,255	29,675,538
Asset derecognised or matured	(4,965,654)	(21,644,070)	(315,063)	(951,216)	(54,446)	(307,206)	(5,335,163)	(22,902,492)
Transfers to Stage 1	754,106	145,819	(752,009)	(140,696)	(2,097)	(5,123)	-	-
Transfers to Stage 2	(579,719)	(358,972)	618,857	370,233	(39,138)	(11,261)	-	-
Transfers to Stage 3	(55,934)	(43,356)	(60,354)	(744)	116,288	44,100	-	-
Changes due to modifications not resulting in derecognition Amounts written off	-	-	-	(4,679)	-	4,113	-	(566)
	(9,491)	(3,931)	(172)	(1,059)	(23,080)	(64,106)	(32,743)	(69,096)
Foreign exchange adjustments and other movements	125,806	(17,090)	(15,061)	16,921	(4,902)	434	105,843	265
At 31 December	29,832,566	30,560,342	762,045	1,132,051	128,678	124,704	30,723,289	31,817,097
ECL	S	Stage 1	S	Stage 2	St	age 3		Total
	2019	2018	2019	2018	2019	2018	2019	2018
	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000
IFRS 9 ECL as at 1 January	10,815	10,311	35,034	45,901	25,018	61,544	70,867	117,756
ECL on new assets originated or purchased	5,875	1,356	16,275	29,866	6,199	23,633	28,349	54,855
Exposure derecognised or matured	(17,653)	(8,313)	(10,771)	(34,252)	(16,977)	(2,092)	(45,401)	(44,657)
Transfers to Stage 1	15,907	8,410	(15,906)	(8,336)	(1)	(74)	-	-
Transfers to Stage 2	(666)	(671)	666	671	-	-	-	-
Transfers to Stage 3	(76)	(20)	(6,337)	(18)	6,413	38	-	-
Changes due to modifications not resulting in derecognition	-	(1,421)	-	2,620	-	(263)	-	936
Amounts written off	(153)	(353)	-	(175)	(10,216)	(57,724)	(10,369)	(58,252)
Foreign exchange adjustments and other movements	(522)	1,516	-	(1,243)	26	(44)	(496)	229

NOTES TO THE FINANCIAL STATEMENTS

21. Other assets

	31 December	31 December
	2019	2018*
	\$ 000	\$ 000
Receivables and Prepayments	327,337	922,422
Settlement clearing lines	118,147	404,118
Margin account receivables	1,431,563	446,106
Secondary loan trading	1,261,536	1,958,860
Other balances	24,038	245,957
	3,162,621	3,977,463

*The 'other balances' line item has been split out further in 2019 in order to give additional detail to the reader on the nature of other assets included within this note. Prior year comparatives have been restated to reflect the updated 2019 classifications.

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	S	tage 1
	2019	2018
	\$ 000	\$ 000
Outstanding exposure as at 1 January	3,977,463	3,788,346
New assets originated or purchased	2,957,845	642,725
Asset derecognised or matured	(3,772,687)	(453,608)
At 31 December	3,162,621	3,977,463

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

ECL	Stage	1
	2019 \$ 000	2018 \$ 000
IFRS 9 ECL as at 1 January	-	62
ECL on new assets originated or purchased Exposure derecognised or matured	-	(62)
At 31 December	-	-

There were no ECL movements reported under IFRS 9 stage 2 and 3 for other assets.

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management

22.1 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 CEP 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 CEP identifies, measures, mitigates, monitors and reports material risk. This ensures transparent lines of responsibility and accountability for the core risk governance processes performed by CEP.

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 (the second line of defence), including independent Risk Management, Finance, Independent Compliance Risk Management, Legal, and Human Resources ("HR"), set standards against which business, operations and control functions are required to manage and oversee risks, including compliance with applicable laws, regulatory requirements, policies and standards of ethical conduct. These functions are involved in identifying, measuring, monitoring, or controlling aggregate risks, and are independent from 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.

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 CEP'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 Board Risk Committee and Board. Board Risk Committee annually recommends approval of risk appetite limits in the form of the risk appetite statement to the Board.

Material risk identification and assessment process

The Company has a formalised process for the identification and assessment of material risks across the bank, which is consistent with the three lines of defence model, and comprised of both a top down and bottom up assessment of risks to CEP. The material risk identification and assessment process provides the Company with the opportunity to consider the risks to its business, while raising awareness of those risks through broad participation from within the Company.

This process ensures that the Company's view of identified, assessed and emerging risks evolves in conjunction with changes in Company's strategy, risk profile and with changing market conditions.

The material risk identification and assessment process informs the Company's strategic plan and, in turn, risk appetite setting and other formal processes, among others ICAAP, ILAAP, and recovery planning.

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.1 Risk management missions, organisation and governance (continued)

Stress testing

CEP defines stress testing as an internal risk management tool and a key regulatory requirement used to perform forwardlooking capital and liquidity and solvency adequacy assessments. CEP conducts stress testing internally for monitoring of capital and liquidity adequacy, and also for external supervisory requirements such as the biennial EBA stress test. These processes are designed to assess the resilience of CEP's balance sheet, capital and funding plans to adverse economic or financial scenarios on a forward looking basis.

22.2 Credit risk

Definition

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

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

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

Governance and Organisation

Credit risk management framework, approved by 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 defense. 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.

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.2 Credit Risk (continued)

Impairment and provisioning under IFRS

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

- **Stage 1** includes assets with no significant increase in credit risk since initial recognition. A 12-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.

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 2019				As at 31 December 2018				
		F		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	19,334,315	-	-	-	19,334,315	17,003,234	-	-	-	17,003,234
Trading assets	1,121,192	-	-	-	1,121,192	1,001,487	-	-	-	1,001,487
Derivative financial instruments	4,183,702	(962,718)	(454,552)	-	3,220,984	1,950,632	(463,213)	(124,878)	-	1,487,419
Investment securities	3,832,621	-	-	-	3,832,621	4,072,096	-	-	-	4,072,096
Loans and advances to banks	13,832,002	-	(85,584)	(9,032,092)	4,714,326	13,250,086	-	(151,088)	(9,662,089)	3,436,909
Loans and advances to customers	17,054,656	-	-	(1,919,186)	15,135,470	18,750,539	-	-	(1,804,019)	16,946,520
Other assets	3,162,621		-	-	3,162,621	3,977,463	-	-		3,977,463
	62,521,109	(962,718)	(540,136)	(10,951,278)	50,521,529	60,005,537	(463,213)	(275,966)	(11,466,108)	47,800,250
Off-balance sheet:										
Letters of credit	15,945,698	-	-	-	15,945,698	16,283,284	-	-	-	16,283,284
Undrawn commitments to lend	24,952,658	-	-	-	24,952,658	21,582,823	-	-	-	21,582,823
Other commitments and guarantees	1,029,380	-	-	-	1,029,380	1,306,409	-	-		1,306,409
	41,927,736	-	-	-	41,927,736	39,172,516	-	-	-	39,172,516

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.

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.2 Credit Risk (continued)

Risk exposure (continued)

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

(97)

24,236

1,454

22,921

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

Exposure	Stage 1		5	Stage 2	St	Stage 3		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	
	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	
Outstanding exposure as at 1 January	93,287,025	81,860,259	2,540,037	2,092,225	128,241	517,668	95,955,303	84,470,152	
New assets originated or purchased	22,069,458	85,174,434	603,115	1,671,716	13,079	74,862	22,685,652	86,921,012	
Asset derecognised or matured	(18,961,246)	(73,111,553)	(742,657)	(1,838,391)	(113,680)	(434,855)	(19,817,583)	(75,384,799)	
Transfers to Stage 1	1,248,154	224,353	(1,246,057)	(218,102)	(2,097)	(6,251)	-	-	
Transfers to Stage 2	(1,213,704)	(811,387)	1,253,363	822,648	(39,659)	(11,261)	-	-	
Transfers to Stage 3	(75,791)	(46,751)	(145,009)	(1,204)	220,800	47,955	-	-	
Changes due to modifications not resulting in derecognition	-	-	-	(4,679)	-	4,113	-	(566)	
Amounts written off	(10,019)	(4,428)	(172)	(1,097)	(23,080)	(64,106)	(33,271)	(69,631)	
Foreign exchange adjustments and other movements	148,176	2,098	(60,979)	16,921	(6,500)	116	80,697	19,135	
At 31 December	96,492,053	93,287,025	2,201,641	2,540,037	177,104	128,241	98,870,798	95,955,303	
ECL	2019 \$ 000	Stage 1 2018 \$ 000	2019 \$ 000	Stage 2 2018 \$ 000	St 2019 \$ 000	age 3 2018 \$ 000	2019 \$ 000	Total 2018 \$ 000	
	\$ 000	\$ 000	\$ 000	\$ 000	\$ UUU	φ 000	\$ 000	\$ 000	
IFRS 9 ECL as at 1 January	22,921	21,435	82,887	91,412	25,328	61,904	131,136	174,751	
ECL on new assets originated or purchased	8,368	12,253	23,670	76,588	8,027	23,942	40,065	112,783	
Exposure derecognised or matured	(46,541)	(17,744)	(17,387)	(78,946)	(19,738)	(2,462)	(83,666)	(99,152)	
Transfers to Stage 1	41,137	9,212	(41,136)	(9,138)	(1)	(74)	-	-	
Transfers to Stage 2	(1,265)	(1,802)	1,265	1,802	-	-	-	-	
Transfers to Stage 3	(134)	(20)	(9,600)	(19)	9,734	39	-	-	
Changes due to modifications not resulting in derecognition	-	(1,421)	-	2,620	-	(263)	-	936	
Amounts written off	(153)	(446)	-	(179)	(10,216)	(57,724)	(10,369)	(58,349)	

Change in estimate:

other movements At 31 December

Foreign exchange adjustments and

During the year, the Company refined the basis on which obligor default is determined to be in accordance with current regulatory requirements. As a result of this refinement, \$23m of ECL related to loans and advances to banks and customers classified in stage 2 at 31 December 2018 are classified within stage 1 at 31 December 2019, and \$3m of financial instruments classified in stage 2 at 31 December 2018 are classified within stage 3 at 31 December 2019.

(248)

39,451

(1,253)

82,887

(211)

12,923

(34)

25,328

(556)

76,610

167

131,136

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.2 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 2019 and 31 December 2018:

	IFRS 9 ECL							
	St	age 1	Sta	age 2	Sta	ge 3	Т	otal
Income statement	2019	2018	2019	2018	2019	2018	2019	2018
income statement	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000
Financial assets								
Cash and cash equivalents	(38)	59	-	-	-	-	(38)	59
Loans and advances to banks	(793)	170	50	(101)	332	(332)	(411)	(263)
Loans and advances to customers	(1,919)	(516)	16,023	10,968	14,224	36,848	28,328	47,300
Investment securities	(443)	825	-	-	-	-	(443)	825
Other assets		(96)		-	-	-		(96)
Total On Balance Sheet	(3,193)	442	16,073	10,867	14,556	36,516	27,436	47,825
Off balance sheet								
Letters of credit	1,646	(2,005)	12,406	(1,819)	(1,086)	61	12,966	(3,763)
Undrawn commitments to lend	208	87	14,957	(533)	(1,066)	-	14,099	(446)
Other commitments and guarantees	24	(11)		-	-	-	24	(11)
Total Off Balance Sheet	1,878	(1,929)	27,363	(2,352)	(2,152)	61	27,089	(4,220)
Recoveries of amounts previously								
written-off							20,968	16,133
Write-offs							(34,668)	(69,631)
Total Net Credit Recoveries/(Losses)							40,826	(9,893)
- of this continuing operation							40,843	(9,893)
- 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 2019 and 31 December 2018:

	IFRS 9 ECL								
	St	Stage 1		Stage 2		Stage 3		Total	
Statement of financial position	2019	2018	2019	2018	2019	2018	2019	2018	
Statement of mancial position	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	
Cash and cash equivalents	85	47	-	-	-	-	85	47	
Loans and advances to banks	2,071	1,278	112	162	-	332	2,183	1,772	
Loans and advances to customers	11,456	9,537	18,849	34,872	10,462	24,686	40,767	69,095	
Investment securities	1,715	1,272	-	-	-	-	1,715	1,272	
Other assets	-	-	-		-			-	
Total On Balance Sheet	15,327	12,134	18,961	35,034	10,462	25,018	44,750	72,186	
Off Balance Sheet									
Letters of credit	4,039	5,685	13,237	25,643	1,396	310	18,672	31,638	
Undrawn commitments to lend	4,832	5,040	7,253	22,210	1,066	-	13,151	27,250	
Other commitments and guarantees	38	62	-	-	-	-	38	62	
Total Off Balance Sheet	8,909	10,787	20,490	47,853	2,462	310	31,861	58,950	
Total	24,236	22,921	39,451	82,887	12,924	25,328	76,611	131,136	

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.2 Credit Risk (continued)

Credit quality

The Company groups its exposures based on their credit quality as explained below.

- Performing exposure: are those exposures that are not non-performing exposures. Performing exposures are classified Stage 1 or Stage 2.
- Non-performing exposure (NPE) as defined in Note 1(j) on page 31. NPEs are classified Stage 3.

	12-mon	12-month ECL		ECL not npaired	Lifetime E impa		Total	
	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000
Loans and advances to banks								
at amortised cost								
Performing	13,799,236	13,209,939	34,949	40,695	-	-	13,834,185	13,250,634
Non performing non default	-	-	-	-	-	-	-	-
Non performing in default	-	-	-	-		1,224	-	1,224
Total	13,799,236	13,209,939	34,949	40,695	-	1,224	13,834,185	13,251,858
Expected credit loss	(2,071)	(1,278)	(112)	(162)	-	(332)	(2,183)	(1,772)
Carrying amount	13,797,165	13,208,661	34,837	40,533		892	13,832,002	13,250,086
Loans and advances to								
customers at amortised cost								
Performing	16,033,330	17,350,403	727,096	357,008	-	-	16,760,426	17,707,411
Non performing non default	-	-	-	734,348	-	-	-	734,348
Non performing in default	-	-	-	-	128,678	123,480	128,678	123,480
Total	16,033,330	17,350,403	727,096	1,091,356	128,678	123,480	16,889,104	18,565,239
Expected credit loss	(11,456)	(9,537)	(18,849)	(34,872)	(10,462)	(24,686)	(40,767)	(69,095)
Carrying amount	16,021,874	17,340,866	708,247	1,056,484	118,216	98,794	16,848,337	18,496,144
Loans held at fair value through profit and loss							206,319	254,395
Total loans and advances to customers							17,054,656	18,750,539

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.2 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
	2019	2018	2019	2018	2019	2018	2019	2018
AAA to AA-	-	119,705	-	-	67,933	-	67,933	119,705
A+to A-	-	14,296	-	-	-	-	-	14,296
Lower than A-	253,493	342,443	-	-	605,904	461,987	859,397	804,430
Unrated	155,128	-	38,734	14,570	-	48,486	193,862	63,056
Total	408,621	476,444	38,734	14,570	673,837	510,473	1,121,192	1,001,487

<u>Credit quality – Investment Securities</u>

	Government bonds (FVOCI)		Corporate bonds (FVOCI)		Equity securities (FVTPL)		Total	
	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000
	2019	2018	2019	2018	2019	2018	2019	2018
AAA to AA- A+ to A-	1,087,813	1,755,353 57,796	460,028	334,941 -	72,035	13,872 36,074	1,619,876 -	2,104,166 93,870
Lower than A-	2,174,911	1,835,584	-	-	-	-	2,174,911	1,835,584
Unrated	-	-	-	-	37,834	38,476	37,834	38,476
Total	3,262,724	3,648,733	460,028	334,941	109,869	88,422	3,832,621	4,072,096

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.2 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 2019 \$ 000	31 December 2018 \$ 000
Mining and quarrying	409,256	512,510
Manufacturing	6,298,497	8,134,456
Electricity, gas, water, steam and air conditioning supply	544,616	615,703
Construction	181,529	140,582
Wholesale and retail trade	2,021,121	2,386,273
Transport and storage	1,122,277	954,918
Accommodation and food service activities	233,285	217,577
Information and communication	2,149,451	2,122,419
Credit and insurance institutions	25,029,801	20,767,442
Real estate activities	697,463	441,551
Professional, scientific and technical activities	373,389	426,587
Administrative and support service activities	698,049	966,931
Public administration and defence, compulsory social security	3,341,876	2,708,744
Household/Retail	1,336,567	1,342,442
Other services	3,455,749	5,196,315
	47,892,926	46,934,450

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 2019 \$ 000	31 December 2018 \$ 000
Central Europe	2,968,107	2,507,633
Western Europe	40,094,964	39,633,973
Middle East / Africa	1,771,856	1,537,055
Central / South America	491,834	625,806
North America	1,545,206	1,236,913
Asia	1,020,959	1,393,070
	47,892,926	46,934,450

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

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.3 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 emanates from 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 prices. These positions arise mainly from customer flows. The products traded include foreign exchange ("FX") spot, swaps and forwards 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 direct or indirect interest rate changes.
- Currency risk: The valuation risk resulting from direct or indirect currency price changes.
- Credit spread risk: The valuation risk resulting from a direct or indirect 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, 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 to the instrument due to a given change in the underlying market risk factor.

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 defense. 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
- Asset & Liability Committee ("ALCO")
- Executive Committee
- Market Risk Sub-Committee
- Product Review Committee

The ALCO and its sub-committee, the Market Risk 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 Head of Market Risk relies on a number of business specific market risk managers to manage day to day market risk related responsibilities in line with the framework and policy guidelines.

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.3 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 critical measurement concepts associated with 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. IRE is calculated separately for each currency and reflects the re-pricing gaps in the positions.
- 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: The net of the present value of all relevant on and off balance sheet assets, less the present value of all relevant on and off balance sheet liabilities.
 - Economic value sensitivity: 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.

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.3 Market Risk (continued)

Risk Measurement (continued)

<u>Interest rate risk</u>

The Company measures interest rate risk using both income and valuation metrics. These metrics provide complementary views of the impact of interest rate risk on the balance sheet over varying time horizons. The IRE measure used in the table below is a static measure based on existing positions, computed as a change in expected NIM in each currency resulting solely from unanticipated changes in interest rates. Factors such as changes in volumes, margins and the impact of prior-period pricing decisions are not captured by this measure and it assumes that businesses make no additional changes in pricing or balances in response to the unanticipated rate changes.

Currency risk

It is the policy of the Company to reduce foreign currency risk that may arise in the normal course of business. The Company deals in financial instruments in a number of currencies, and open currency positions arise for funding mismatches and accruals of interest and expense provisions in currencies other than USD. Treasury monitors open foreign currency positions on a daily basis ensuring that exposures are less than agreed allocated limits.

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 3	1 December 20	19	As at 31	December 20	18
	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	19,334,315	-	19,334,315	17,003,234	-	17,003,234
Loans and advances to banks	13,832,002	-	13,832,002	13,250,086	-	13,250,086
Loans and advances to customers	17,054,656	206,319	16,848,337	18,750,539	254,395	18,496,144
Derivative financial instruments	3,220,984	3,220,984	-	1,487,419	1,487,419	-
Trading assets	1,121,192	1,121,192	-	1,001,487	1,001,487	-
Investment securities	3,832,621	-	3,832,621	4,072,096	-	4,072,096
Other assets	3,162,621	-	3,162,621	3,977,463	-	3,977,463
Total financial assets	61,558,391	4,548,495	57,009,896	59,542,324	2,743,301	56,799,023
Liabilities						
Deposits by banks	15,180,835	-	15,180,835	14,301,103	-	14,301,103
Customer accounts	28,030,086	-	28,030,086	25,172,720	-	25,172,720
Derivative financial instruments	3,245,244	3,245,244	-	1,502,949	1,502,949	-
Other liabilities	5,149,901	-	5,149,901	5,660,948	-	5,660,948
Total financial liabilities	51,606,066	3,245,244	48,360,822	46,637,720	1,502,949	45,134,771

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.3 Market Risk (continued)

Risk exposure (continued)

Trading price risk

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

	31 December	31 December			
VaR	2019	\$ 000	\$ 000	\$ 000	2018
	Outstanding	MAX	MIN	AVG	Outstanding
Portfolio VAR	2,461	2,667	1,449	2,049	1,478

Non-trading price risk

Interest rate risk

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

	Interest rate exposure report					
Currency	31 December 2019	31 December 2018				
	12 Month	12 Month				
Income statement impact	\$ 000	\$ 000				
USD	(132)	332				
EUR	(9,146)	(5,225)				
RON	(6,036)	(2,535)				
CZK	1,214	250				
HUF	(2,617)	(6,686)				
GBP	2,141	5,793				
JPY	(5)	2				
Other	(1,904)	(1,163)				
Total	(16,485)	(9,232)				
Equity impact						
Total	(63,603)	(71,060)				

Currency risk

Based on the net exposures at period end, the following table shows the impact on these net exposures of a reasonably possible movement of the respective currencies against the US dollar, with all other variables held constant, on the income statement. The percentage below is a representation of standard deviation from the mean of the currency pair to USD.

	Net exposure		(%)		Income statement impact		Equity impact	
As at 31 December	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000
EUR	9,262	275,228	0.68%	1.37%	2,332	1,039	2,395	4,812
HUF	29,919	139,081	1.33%	2.00%	8,961	17,187	9,359	14,403
RON	128,984	116,804	0.86%	1.30%	8,930	9,728	10,036	11,250
GBP	37,441	164,593	2.50%	1.71%	9,361	12,481	10,296	15,296

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.4 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 defense.

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. CR DIV 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

22. Risk management (continued)

22.4 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.

	Less that	n 12 months	Over 2	12 months		Total	
As at 31 December	2019	2018	2019	2018	2019	2018	
	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	
Assets							
Cash and cash equivalents	19,334,315	17,003,234	-	-	19,334,315	17,003,234	
Loans and advances to banks	13,518,960	12,953,842	313,042	296,244	13,832,002	13,250,086	
Loans and advances to customers	11,148,101	13,406,816	5,906,555	5,343,723	17,054,656	18,750,539	
Derivative financial instruments	890,424	615,695	2,330,560	871,724	3,220,984	1,487,419	
Trading assets	223,146	256,547	898,046	744,940	1,121,192	1,001,487	
Investment securities	587,842	1,533,509	3,244,779	2,538,587	3,832,621	4,072,096	
Other assets	3,162,621	3,977,463	-	-	3,162,621	3,977,463	
Total financial assets	48,865,409	49,747,105	12,692,982	9,795,219	61,558,391	59,542,324	
Liabilities							
Deposits by banks	9,624,459	10,299,629	5,556,376	4,001,474	15,180,835	14,301,103	
Customer accounts	28,030,086	25,172,620	-	100	28,030,086	25,172,720	
Derivative financial instruments	910,486	615,489	2,334,758	887,460	3,245,244	1,502,949	
Other liabilities	5,149,901	5,660,948	-	-	5,149,901	5,660,948	
Total financial liabilities	43,714,932	41,748,686	7,891,134	4,889,034	51,606,066	46,637,720	

Contractual maturities of undiscounted cash flows of financial liabilities

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

	1 year and less		>1 year and <5 years		Greater th	an 5 years	Total	
As at 31 December	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000
Liabilities								
Deposits by banks	9,864,146	10,568,365	5,695,618	4,117,688	1,579	6,950	15,561,343	14,693,003
Customer accounts	28,728,147	25,829,419	-	103	-	-	28,728,147	25,829,522
Derivative financial instruments	933,161	631,548	746,349	392,550	1,647,581	577,982	3,327,091	1,602,080
Other liabilities	5,278,154	5,808,653	-	-	-	-	5,278,154	5,808,653
Total undis counted financial liabilities	44,803,608	42,837,985	6,441,967	4,510,341	1,649,160	584,932	52,894,735	47,933,258

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.4 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 t	han 5 years	Total	
As at 31 December	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000	2019 \$ 000	2018 \$ 000
Letters of credit	5,800,015	10,989,555	9,420,088	4,689,453	725,595	604,276	15,945,698	16,283,284
Undrawn commitments to lend	4,120,396	2,865,825	20,041,065	18,110,470	791,197	606,528	24,952,658	21,582,823
Other commitments and guarantees	7,890	335,788	1,021,490	970,621	-	-	1,029,380	1,306,409
Total commitments and guarantees	9,928,301	14,191,168	30,482,643	23,770,544	1,516,793	1,210,804	41,927,736	39,172,516

Analysis of encumbered and un-encumbered assets

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

	As at	31 December 201	9	As at 31 December 2018			
Assets	Encumbered	Un-Encumbered	Total	Encumbered	Un-Encumbered	Total	
	\$million	\$million	\$million	\$million	\$million	\$million	
Cash and cash equivalents	1,099	18,235	19,334	817	16,186	17,003	
Equity Instruments	-	110	110	-	89	89	
Investment Securities & Debt Trading Instuments	898	4,055	4,954	325	5,212	5,537	
- of which: covered bonds	-	-	-	-	-	-	
- of which: asset-backed securities	-	-	-	-	-	-	
- of which: by general governments	550	3,429	3,979	325	3,863	4,188	
- of which: by financial corporations	3,483	111	3,594	-	338	338	
- of which: by non-financial corporations	-	10	10	-	2	2	
Loans and advances other than loans on demand	100	30,787	30,887	813	31,187	32,001	
Other Assets	834	5,934	6,768	1,302	4,709	6,010	
Assets subtotal	2,931	59,121	62,052	3,257	57,382	60,639	

22.5 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 is inherent in the Company's business activities and, as with other risk types is managed through a control framework comprising of three lines of defense.

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.5 Operational Risk (continued)

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

Governance and Organisation

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.

22.6 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.

NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.6 Strategic 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
- Board

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.

22.7 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

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NOTES TO THE FINANCIAL STATEMENTS

22. Risk management (continued)

22.7 Inter-Affiliate Risk (continued)

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. For details, please refer to the relevant sections.

Risk measurement

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

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.

22.8 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 2019 was as follows:

	31 December 2019	31 December 2018
	\$ 000	\$ 000
Regulatory capital	8,868,459	7,920,890
Tier 1 capital ratio	19.8%	17.5%

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.

NOTES TO THE FINANCIAL STATEMENTS

23 Financial assets and liabilities

The below tables outline the total financial assets and liabilities held as at 31 December 2019 and as at 31 December 2018.

	31 December	31 December
	2019	2018
	\$ 000	\$ 000
Derivative financial instruments	3,220,984	1,487,419
Trading assets	1,121,192	1,001,487
Investment securities	3,832,621	4,072,096
Loans designated at FVTPL	206,319	254,395
Total financial assets held at fair value	8,381,116	6,815,397
Cash and cash equivalents	19,334,315	17,003,234
Loans and advances to banks at amortised cost	13,832,002	13,250,086
Loans and advances to customers at amortised cost	16,848,336	18,496,144
Other assets	3,162,621	3,977,463
Total financial assets at amortised cost	53,177,274	52,726,927
Total financial assets	61,558,390	59,542,324
	31 December	31 December
	2019	2018
	\$ 000	\$ 000
Derivative financial instruments	3,245,244	1,502,949
Financial liabilities at FVTPL	303,402	345,868
Total financial liabilities held at fair value	3,548,646	1,848,817
Deposits by banks	15,180,835	14,301,103
Customer accounts	28,030,086	25,172,720
Other liabilities excluding liabilities at FVTPL	4,846,499	5,315,080
Total financial liabilities at amortised cost	48,057,420	44,788,903
Total financial liabilities	51,606,065	46,637,720

NOTES TO THE FINANCIAL STATEMENTS

23. Financial assets and liabilities (continued)

Fair value definition

IFRS 13 - Fair Value Measurement, defines fair value, establishes a framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. 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.

NOTES TO THE FINANCIAL STATEMENTS

23. Financial assets and liabilities (continued)

Determination of Fair Value (continued)

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.

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.

NOTES TO THE FINANCIAL STATEMENTS

23. Financial assets and liabilities (continued)

Determination of Fair Value (continued)

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.

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.

NOTES TO THE FINANCIAL STATEMENTS

23. Financial assets and liabilities (continued)

Financial instruments at fair value

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

	Fair value at 31 December 2019			Fair	value at 31 I	December 2018* Level 3 Total \$ 000 \$ 000		
	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	-	3,164,851	56,133	3,220,984	-	1,461,682	25,737	1,487,419
Trading assets	-	1,005,626	115,566	1,121,192	-	762,461	239,026	1,001,487
Investment securities	1,365,183	2,357,568	109,869	3,832,620	2,024,556	1,959,118	88,422	4,072,096
Loans held at fair value through profit or loss	-	206,319	-	206,319	-	254,395	-	254,395
Financial assets held at fair value	1,365,183	6,734,364	281,568	8,381,115	2,024,556	4,437,656	353,185	6,815,397
Financial liabilities								
Derivative financial instruments	-	3,187,575	57,669	3,245,244	-	1,477,212	25,737	1,502,949
Other financial liabilities held for trading	503	302,899	-	303,402	-	345,868	-	345,868
Financial liabilities held at fair value	503	3,490,474	57,669	3,548,646	-	1,823,080	25,737	1,848,817

Loans held at fair value through profit or loss, totalling \$206 million (2018: \$254 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.

NOTES TO THE FINANCIAL STATEMENTS

23. 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. Reports are distributed to the EMEA Risk Committee and in monthly meetings with senior management. 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 2019				31 December 2018					
	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	25,737	239,026	88,422	(25,737)	327,448	-	37,469	48,171	-	85,640
Purchases	58,247	139,710	-	(59,776)	138,181	25,737	229,910	35,888	(25,737)	265,798
Issues	-	-	-	-	-	-	-	-	-	-
Sales	-	(275,693)	-	-	(275,693)	-	(26,493)	-	-	(26,493)
Settlements	(25,941)	-	-	25,941	-	-	-	-	-	-
Transfer into Level 3	-	14,539	-	-	14,539	-	-	-	-	-
Transfer out of Level 3 Total gains/(losses)	-	-	-	-	-	-	-	-	-	-
- in Profit or loss	(1,910)	(2,017)	21,447	1,903	19,423	-	(1,860)	4,363	-	2,503
- in OCI	-	-	-	-	-	-	-	-	-	-
Balance at 31 December	56,133	115,566	109,869	(57,669)	223,899	25,737	239,026	88,422	(25,737)	327,448

NOTES TO THE FINANCIAL STATEMENTS

23. 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:

	2019						2018			
	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)	(1,910)	(2,017)	21,447	1,903	19,423	-	(1,860)	4,363	-	2,503
Realised gains and losses										
- Net trading gain/(loss)	(1,910)	(2,017)	-	1,903	(2,024)	-	(1,860)	-	-	(1,860)
- Net investment income	-	-	21,447	-	21,447	-	-	4,363	-	4,363
Unrealised gains and losses	-	-	-	-	-	-	-	-	-	-
Total	(1,910)	(2,017)	21,447	1,903	19,423		(1,860)	4,363	-	2,503

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 \$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.

NOTES TO THE FINANCIAL STATEMENTS

23. Financial assets and liabilities (continued)

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

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. The adjustments are typically computed with reference to proxy analysis using third party data. Examples of the approach used to derive sensitivity adjustments are outlined below:

- Rates: Valuation uncertainty is gauged from a combination of consensus market data and proxy analysis using third party data providers.
- Credit and Securitised Markets: Valuation uncertainty is gauged from a combination of consensus market data, brokers and proxy analysis using third party data providers.

Price

2010

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.

2019	Fair value				
	\$ '000	Methodology	Input	Low	High
Assets					
		Model-based	FX Rate (\$)	7.7	132.5
	56 100	Model-based	Interest Rate (%)	28.9	56.1
Derivative contracts	56,133	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	Quoted market price if available to which a discount has been applied for the illiquidity and the conversion rate variability.	Final conversion rate has been applied for Series B Preferred Stock into Class A Common Stock.		100% discount for conversion rate variability
Liabilities					
		Model-based	FX Rate (\$)	7.7	132.5
Desireting souther to	57 (()	Model-based	Interest Rate (%)	28.9	56.1
Derivative contracts	57,669	Model-based	IR Normal Volatility (%)	0.1	0.7
		Model-based	Inflation Volatility (%)	0.2	2.5

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

NOTES TO THE FINANCIAL STATEMENTS

23. Financial assets and liabilities (continued)

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

2018	Fair value				
	\$ '000	Methodology	Input	Low	High
Assets					
Derivative contracts	37,452	Model-based	Contingent event	100.0	100.0
Trading assets	239,026	Price-based	Price	0.0	100.0
Investment equity securities	88,422	Quoted market price if available to which a discount has been applied for the illiquidity and the conversion rate variability.	Final conversion rate has been applied for Series B Preferred Stock into Class A Common Stock.		100% discount for conversion rate variability
Liabilities					
Derivative contracts	37,290	Model-based	Contingent event	100.0	100.0

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

23. 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 Decemb	er 2019	Est	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 by 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		

	31 Decem	ber 2018	Est	Estimated fair value			
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3		
	\$000	\$000	\$000	\$000	\$000		
Assets							
Cash and cash equivalents	17,003,234	17,003,234	17,003,234	-	-		
Loans and advances to banks	13,250,086	13,249,800	-	13,249,800	-		
Loans and advances to customers	18,496,144	18,417,480	-	-	18,417,480		
Other assets	3,496,170	3,496,170	-	-	3,496,170		
Total financial assets	52,245,634	52,166,684	17,003,234	13,249,800	21,913,650		
Liabilities							
Deposits from banks	14,301,103	14,257,888	-	14,257,888	-		
Customer accounts	25,172,720	25,096,654	-	25,096,654	-		
Other liabilities	5,315,080	5,299,019	-	2,742,133	2,556,885		
Total financial liabilities	44,788,903	44,653,560	-	42,096,675	2,556,885		

NOTES TO THE FINANCIAL STATEMENTS

24. Property and equipment

Please refer to Note 3 for tabular disclosures showing the impact of transitioning to IFRS 16.

			Vehicles,	
	Right-of-use	Leashold	furniture and	
	assets	improvements	equipment	Total
Cost	\$ 000	\$ 000	\$ 000	\$ 000
At 1 January 2018	-	51,954	81,585	133,539
Additions	-	29,640	14,585	44,225
Acquisitions	-	1,721	1,994	3,715
Disposals	-	(2,334)	(5,783)	(8,117)
Write-offs	-	(7,489)	(1,881)	(9,370)
Foreign exchange		(6,835)	(594)	(7,429)
At 31 December 2018	-	66,657	89,906	156,563
Recognition of right-of-use asset on initial application of IFRS 16	85,976	-	-	85,976
At 1 January 2019	85,976	66,657	89,906	242,539
Additions	1,450	5,443	3,624	10,517
Acquisitions	-	181	480	661
Disposals	(146)	(5,009)	(3,406)	(8,561)
Write-offs	-	(715)	(776)	(1,491)
Foreign exchange	970	(621)	(5,865)	(5,516)
At 31 December 2019	88,250	65,936	83,963	238,149
Depreciation				
At 1 January 2018	-	22,434	54,030	76,464
Charged in year	-	11,037	5,366	16,403
Acquisitions	-	-	2	2
Disposals	-	(1,351)	(3,042)	(4,393)
Write-offs	-	(3,295)	(1,638)	(4,933)
Foreign exchange		310	(2,334)	(2,024)
At 31 December 2018	-	29,135	52,384	81,519
Recognition of right-of-use asset on initial application of IFRS 16	-	-	-	-
At 1 January 2019	-	29,135	52,384	81,519
Charged in year	20,234	6,266	3,912	30,412
Acquisitions	-	94	10	104
Disposals	(146)	(4,494)	(3,683)	(8,323)
Write-offs	-	(526)	(823)	(1,349)
Foreign exchange	(1,773)	(1,505)	(2,562)	(5,840)
At 31 December 2019	18,315	28,970	49,238	96,523
Net book value				
At 31 December 2019	69,935	36,966	34,725	141,626
At 31 December 2018		37,522	37,522	75,044
=				

There were no capitalised borrowing costs related to the acquisition of property and equipment during the year (2018: \$nil).

NOTES TO THE FINANCIAL STATEMENTS

25. Intangible assets

Cost \$ 000 \$ 000 \$ 000 \$ 000 \$ 000 1 January 2018 47,773 149,558 34,913 232,244 Additions - 13,992 - 13,992 Acquisitions - 148 - 148 Disposals - (2,332) - (2,332) Impairment - (8) - (8) Foreign exhange (2655) (131) (559) (3,326) At 31 December 2018 45,138 161,227 34,354 240,719 Additions - 18,795 - 18,795 Transfer In - 2,775 - 2,775 Acquisitions - (8,18) - (8) Impairment - (8) - (8) Impairment - (8) - (8) Impairment - (8) - (8) Impairment - 2,383 561 13,994 <		Goodwill	Computer software	Other Intangibles	Total
Additions - 13,992 - 13,992 Acquisitions - 148 - 148 Disposals - 2,332) - 2,232) Impairment - (8) - (8) - (8) Foreign exchange (2,635) (13) (559) (3,326) At 31 December 2018 45,138 161,227 34,354 240,719 Additions - 1,875 - 2,775 Transfer In - 2,775 - 2,775 Acquisitions - 1,832 - 1,832 Transfer to Citibank UK Limited / other group companies - (13,900) - (13,900) Disposals - 8(8,118) - (8) - (8) Foreign exchange 947 (4,461) (1,946) (5,461) At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses - 2,333 651 13,984 Disposals - 2,7,167 74,939 27,28	Cost	\$ 000	\$ 000	\$ 000	\$ 000
Acquisitions - 148 - 148 Disposals - (2,332) - (2,332) Impairment - (8) - (8) Foreign exchange (2,635) (131) (559) (3,226) At31 December 2018 45,138 161,227 34,354 240,719 Additions - 1,8795 - 1,8795 Transfer In - 2,775 - 2,775 Acquisitions - 1,832 - 1,832 Transfer to Citibank UK Limited / other group companies - (13,900) - (13,900) Disposals - (8,118) - (8,118) Impairment - (8) - (8) Foreign exchange 947 (4,461) (1,946) (5,461) Ata31 December 2019 46,085 151,422 32,408 236,635 Amortisation - 2,383 548 2,931 Additions - 2,383 548 2,931 Additions - 1,673	1 January 2018	47,773	149,558	34,913	232,244
Disposals - (2,332) - (2,332) Impairment - (8) - (8) Foreign exchange (2,635) (131) (559) (3,326) At 31 December 2018 45,138 161,227 34,354 240,719 Additions - 18,795 - 18,795 Transfer In - 2,775 - 2,775 Acquisitions - 1,832 - 1,832 Transfer to Citibank UK Limited / other group companies - (13,900) - (13,900) Disposals - (8,118) - (8,118) - (8,118) Impairment - (8) - (8) - (8) At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses - 2,383 548 2,931 Additions - 2,383 548 2,931 Additions - 13,333 651 13,984 Disposals - 16,73 275 1,948 <	Additions	-	13,992	-	13,992
Impairment - (8) - (8) Foreign exchange (2,635) (131) (559) (3,326) At 31 December 2018 45,138 161,227 34,354 240,719 Additions - 18,795 - 18,795 Transfer In - 2,775 - 2,775 Acquisitions - 18,322 - 1,832 Transfer to Citibank UK Limited / other group companies - (13,900) - (13,900) Disposals - (8,118) - (8,118) - (8,118) Impairment - (8) - (8) - (8) Foreign exchange 947 (4,4d1) (1,946) (5,461) At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses - - (2,177) - (2,177) I January 2018 27,167 74,939 27,285 129,391 Additions - 13,333 651 13,984 Disposals - (2,17	Acquisitions	-	148	-	148
Foreign exchange (2,635) (131) (559) (3,326) At 31 December 2018 45,138 161,227 34,354 240,719 Additions - 18,795 - 18,795 Transfer In - 2,775 - 2,775 Acquisitions - 1,832 - 1,332 Transfer to Citibank UK Limited / other group companies - (13,900) - (13,900) Disposals - (8,118) - (8,118) - (8,118) Impairment - (8) - (8) - (8) Foreign exchange 9477 (4,461) (1,946) (5,461) At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses - 2,383 548 2,931 Additions - 2,383 548 2,931 Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 -	Disposals	-	(2,332)	-	(2,332)
At 31 December 2018 45,138 161,227 34,354 240,719 Additions - 18,795 - 18,795 Transfer In - 2,775 - 2,775 Acquisitions - 1,832 - 1,832 Transfer to Citibank UK Limited / other group companies - (13,900) - (13,900) Disposals - (8,118) - (8,118) - (8,118) Impairment - (8) - (13) - - (13) - - (13) - (1)	Impairment	-	(8)	-	(8)
Additions - 18,795 - 18,795 Transfer In - 2,775 - 2,775 Acquisitions - 1,832 - 1,832 Transfer to Citibank UK Limited / other group companies - (13,900) - (13,900) Disposals - (8,118) - (8,118) Impairment - (8) - (8) Foreign exchange 947 (4,461) (1,946) (5,461) At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses - 2,383 548 2,931 Additions - 2,383 548 2,931 Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions -<	Foreign exchange	(2,635)	(131)	(559)	(3,326)
Transfer In - 2,775 - 2,775 Acquisitions - 1,832 - 1,832 Transfer to Citibank UK Limited / other group companies - (13,900) - (13,900) Disposals - (8,118) - (8,118) Impairment - (8) - (8) Foreign exchange 947 (4,461) (1,946) (5,461) At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses - 2,383 548 2,931 Additions - 2,383 548 2,931 Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 1,673 275 1,948 Amortisation <td< td=""><td>At 31 December 2018</td><td>45,138</td><td>161,227</td><td>34,354</td><td>240,719</td></td<>	At 31 December 2018	45,138	161,227	34,354	240,719
Acquisitions-1,832-1,832Transfer to Citibank UK Limited / other group companies- $(13,900)$ - $(13,900)$ Disposals- $(8,118)$ - $(8,118)$ Impairment- (8) - (8) Foreign exchange947 $(4,461)$ $(1,946)$ $(5,461)$ At 31 December 201946.085158,14232,408236.635Amortisation and impairment losses-2,3835482,931Additions-2,3835482,931Amortisation-13,33365113,984Disposals- $(2,177)$ - $(2,177)$ Inpairment-6,262-6,262Foreign exchange $(1,592)$ $(1,723)$ (199) $(3,514)$ At 31 December 201825,57593,01728,285146,877Additions-1,6732751,948Arnotisation-15,06851515,583Transfer to Citibank UK Limited / other group companies- $(6,545)$ - $(6,545)$ Disposals- $(6,545)$ - $(6,545)$ - $(6,545)$ Inpairment- (1) - (1) $(1,10)$ $(3,360)$ Disposals- $(6,545)$ - $(6,545)$ - $(6,545)$ Inpairment- (1) - (1) $(1,10)$ $(3,360)$ At 31 December 201926,51691,45227,645145,613Net carryi	Additions	-	18,795	-	18,795
Tansfer to Citibank UK Limited / other group companies $(13,900)$ $(13,900)$ Disposals $(8,118)$ $(8,118)$ Inpairment $(8,118)$ $(8,118)$ Inpairment (8) (8) Foreign exchange 947 $(4,461)$ At 31 December 2019 $46,085$ $158,142$ At 31 December 2019 $46,085$ $158,142$ Additions $ 2,383$ 548 29,391Additions $ 2,383$ Amortisation $ 13,333$ 651 Disposals $ (2,177)$ $-$ (2,177) $ (2,177)$ $-$ Inpairment $ 6,262$ $-$ Foreign exchange $(1,592)$ $(1,723)$ (199) (3,514) $25,575$ $93,017$ $28,285$ $146,877$ Additions $ 16,73$ 275 $1,948$ Amortisation $ 15,068$ 515 $15,583$ Transfer to Citibank UK Limited / other group companies $ (6,545)$ $-$ Disposals $ (1)$ $ (1)$ Foreign exchange 941 $(2,871)$ $(1,430)$ $(3,360)$ At 31 December 2019 $26,516$ $91,452$ $27,645$ $145,613$ Net carrying value $ 19,569$ $66,690$ $4,763$ $91,022$	Transfer In	-	2,775	-	2,775
Disposals - (8,118) - (8,118) Impairment - (8) - (8) Foreign exchange 947 (4,461) (1,946) (5,461) At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses - 2,383 548 2,931 Additions - 2,383 548 2,931 Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 16,73 275 1,948 Amortisation - 16,73 275 1,948 Amortisation - 16,73 275 1,948 Amortisation - 16,645 - (6,545) Disposals - (6,545) - </td <td>Acquisitions</td> <td>-</td> <td>1,832</td> <td>-</td> <td>1,832</td>	Acquisitions	-	1,832	-	1,832
Impairment-(8)-(8)Foreign exchange 947 (4,461)(1,946)(5,461)At 31 December 2019 $46,085$ $158,142$ $32,408$ $236,635$ Amortisation and impairment losses $27,167$ $74,939$ $27,285$ $129,391$ Additions- $2,383$ 548 $2,931$ Amortisation- $13,333$ 651 $13,984$ Disposals- $(2,177)$ - $(2,177)$ Impairment- $6,262$ - $6,262$ Foreign exchange $(1,592)$ $(1,723)$ (199) $(3,514)$ At 31 December 2018 $25,575$ $93,017$ $28,285$ $146,877$ Additions- $16,73$ 275 $1,948$ Amortisation- $10,678$ 515 $15,583$ Transfer to Citibank UK Limited / other group companies- $(6,545)$ -Impairment- (1) - (1) Foreign exchange 9411 $(2,871)$ $(1,430)$ $(3,360)$ At 31 December 2019 $26,516$ $91,452$ $27,645$ $145,613$ Net ca	Transfer to Citibank UK Limited / other group companies	-	(13,900)	-	(13,900)
Foreign exchange 947 (4,461) (1,946) (5,461) At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses 27,167 74,939 27,285 129,391 Additions - 2,383 548 2,931 Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 1,673 275 1,948 Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (6,545) - (6,545) Disposals - (1) - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645<	Disposals	-	(8,118)	-	(8,118)
At 31 December 2019 46,085 158,142 32,408 236,635 Amortisation and impairment losses 27,167 74,939 27,285 129,391 Additions - 2,383 548 2,931 Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 1,673 275 1,948 Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (6,545) - (6,545) Inpairment - (1) - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,7	Impairment	-	(8)	-	(8)
Amortisation and impairment losses 27,167 74,939 27,285 129,391 Additions - 2,383 548 2,931 Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 1,673 275 1,948 Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (6,545) - (6,545) Impairment - (1) - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,763 91,022	Foreign exchange	947	(4,461)	(1,946)	(5,461)
1 January 201827,16774,93927,285129,391Additions-2,3835482,931Amortisation-13,33365113,984Disposals-(2,177)-(2,177)Impairment-6,262-6,262Foreign exchange(1,592)(1,723)(199)(3,514)At 31 December 201825,57593,01728,285146,877Additions-1,6732751,948Amortisation-15,06851515,583Transfer to Citibank UK Limited / other group companies-(6,545)-Disposals-(6,545)-(6,545)Impairment-(1)-(1)Foreign exchange941(2,871)(1,430)(3,360)At 31 December 201926,51691,45227,645145,613Net carrying value-19,56966,6904,76391,022	At 31 December 2019	46,085	158,142	32,408	236,635
Additions - 2,383 548 2,931 Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 1,673 275 1,948 Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (6,545) - (6,545) Disposals - (1) - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) Disposals - 01 - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) - At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 <td< td=""><td>Amortisation and impairment losses</td><td></td><td></td><td></td><td></td></td<>	Amortisation and impairment losses				
Amortisation - 13,333 651 13,984 Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 1,673 275 1,948 Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (6,545) - (6,545) Inpairment - (1) - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,763 91,022	1 January 2018	27,167	74,939	27,285	129,391
Disposals - (2,177) - (2,177) Impairment - 6,262 - 6,262 Foreign exchange (1,592) (1,723) (199) (3,514) At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 1,673 275 1,948 Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (8,889) - Disposals - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value - 19,569 66,690 4,763 91,022	Additions	-	2,383	548	2,931
Impairment- $6,262$ - $6,262$ Foreign exchange(1,592)(1,723)(199)(3,514)At 31 December 201825,57593,01728,285146,877Additions-1,6732751,948Amortisation-15,06851515,583Transfer to Citibank UK Limited / other group companies-(8,889)-Disposals-(6,545)-(6,545)Impairment-(1)-(1)Foreign exchange941(2,871)(1,430)(3,360)At 31 December 201926,51691,45227,645145,613Net carrying value19,56966,6904,76391,022	Amortisation	-	13,333	651	13,984
Foreign exchange(1,592)(1,723)(199)(3,514)At 31 December 201825,57593,01728,285146,877Additions-1,6732751,948Amortisation-15,06851515,583Transfer to Citibank UK Limited / other group companies-(8,889)-Disposals-(6,545)-(6,545)Impairment-(1)-(1)Foreign exchange941(2,871)(1,430)(3,360)At 31 December 201926,51691,45227,645145,613Net carrying value19,56966,6904,76391,022	Disposals	-	(2,177)	-	(2,177)
At 31 December 2018 25,575 93,017 28,285 146,877 Additions - 1,673 275 1,948 Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (8,889) - Disposals - (6,545) - (6,545) Impairment - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,763 91,022	Impairment	-	6,262	-	6,262
Additions - 1,673 275 1,948 Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (8,889) - - Disposals - (6,545) - (6,545) Impairment - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,763 91,022	Foreign exchange	(1,592)	(1,723)	(199)	(3,514)
Amortisation - 15,068 515 15,583 Transfer to Citibank UK Limited / other group companies - (8,889) - Disposals - (6,545) - (6,545) Impairment - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value - - 19,569 66,690 4,763 91,022	At 31 December 2018	25,575	93,017	28,285	146,877
Transfer to Citibank UK Limited / other group companies - (8,889) Disposals - (6,545) - (6,545) Impairment - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,763 91,022	Additions	-	1,673	275	1,948
Disposals - (6,545) - (6,545) Impairment - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,763 91,022	Amortisation	-	15,068	515	15,583
Impairment - (1) - (1) Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,763 91,022	Transfer to Citibank UK Limited / other group companies	-	(8,889)		
Foreign exchange 941 (2,871) (1,430) (3,360) At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value 19,569 66,690 4,763 91,022	Disposals	-	(6,545)	-	(6,545)
At 31 December 2019 26,516 91,452 27,645 145,613 Net carrying value Instrume Instrum Instrume Instrum	Impairment	-		-	(1)
Net carrying value 19,569 66,690 4,763 91,022	Foreign exchange		(2,871)		(3,360)
At 31 December 2019 19,569 66,690 4,763 91,022	At 31 December 2019	26,516	91,452	27,645	145,613
	Net carrying value				
At 31 December 2018 19,563 68,210 6,069 93,842	At 31 December 2019	19,569	66,690	4,763	91,022
	At 31 December 2018	19,563	68,210	6,069	93,842

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 Netherlands 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.

NOTES TO THE FINANCIAL STATEMENTS

25. Intangible assets (continued)

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	Discou	unt rate
Institutional Clients Group	\$ 000	rate	2019	2018
- Ireland (Direct custody and clearing business)	12,864	2%	-0.248	-0.121
- UK Fund administration business	6,356	0%	-	-
- Greece (Direct custody and clearing business)	349	5%	-0.248	-0.121
Total	19,569			

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

The results of the test indicated that no impairment of the goodwill is necessary. Management believes that reasonable changes in key assumptions used to determine the recoverable amounts would not result in a material impairment.

26. Deferred tax

The movement on the deferred tax is as follows:

		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

NOTES TO THE FINANCIAL STATEMENTS

26. Deferred tax (continued)

		Recognised in the Income statement \$ 000	Recognised in statement of other comprehensive income \$ 000	Balance at 31 December 2018 \$ 000
Property, equipment and intangible assets	264,616	(36,830)	-	227,786
Investment securities at FVOCI	(2,113)	(6,224)	(3,525)	(11,862)
Pension and other retirement benefits	29,953	(1,566)	(1,145)	27,242
Allowances for expected credit losses	1,520	-	-	1,520
Tax loss carry-forward	116	-	-	116
Other temporary differences	7,603	(470)	-	7,133
Fx Translation	(15,039)	-	(11,209)	(26,248)
Total Deferred Tax	286,656	(45,090)	(15,879)	225,687
- of which Deferred Tax Asset				254,374
- of which Deferred Tax Liability				28,687

27. Shares in subsidiaries

	31 December 2019 \$ 000	31 December 2018 \$ 000
Beginning of period Disposal	14,175	14,175
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%

NOTES TO THE FINANCIAL STATEMENTS

28. 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 2020.

Restructuring provision	Provision for property costs	Other provisions	Total
\$ 000	\$ 000	\$ 000	\$ 000
7,534	1,663	2,167	11,364
21,224	(1)	2	21,225
(9,648)	(74)	(61)	(9,783)
(6,199)	(163)	(800)	(7,162)
(84)	(22)	-	(106)
92	-	(27)	65
12,919	1,403	1,281	15,603
			31,860
			47,463
	provision \$ 000 7,534 21,224 (9,648) (6,199) (84) 92	provision property costs \$ 000 \$ 000 7,534 1,663 21,224 (1) (9,648) (74) (6,199) (163) (84) (22) 92 -	provision property costs provisions \$ 000 \$ 000 \$ 000 7,534 1,663 2,167 21,224 (1) 2 (9,648) (74) (61) (6,199) (163) (800) (84) (22) - 92 - (27)

	Restructuring provision	Provision for property costs	Other provisions	Total
	\$ 000	\$ 000	\$ 000	\$ 000
31 December 2018				
Opening balance	9,280	1,913	5,255	16,448
Provisions made during the year	6,345	6	(2,057)	4,294
Provisions used during the year	(4,053)	(117)	(379)	(4,549)
Provisions released during the year	(4,006)	(96)	(732)	(4,834)
Exchange Adjustments	28	(43)	130	115
Other movements	(60)	-	(50)	(110)
Closing balance	7,534	1,663	2,167	11,364
Commitments and guarantees				58,950
Total provision balance				70,314

NOTES TO THE FINANCIAL STATEMENTS

29. Other liabilities

	31 December	31 December
	2019	2018*
	\$ 000	\$ 000
Other liabilities		
Accounts payable	3,078,549	3,764,108
Margin Account Obligations	1,215,324	824,743
Securities sold under repurchase agreements	85,492	152,181
Short sales	280,890	273,765
Retirement obligations (Note 15)	245,235	218,894
Right-of use lease liability	81,076	-
Accruals and Deferred Income	102,752	242,973
Other	60,583	184,284
	5,149,901	5,660,948

* The 'other' line item has been split out further in 2019 in order to give additional detail to the reader on the nature of liabilities included within this note. Prior year comparatives have been restated to reflect the updated 2019 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.

30. Called up share capital

	31 December 2019	31 December 2018	31 December 2019	31 December 2018
	Number of Ord	linary 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	9,741,290	9,741,290	10,532	10,532
Share premium				
At the end of the year			1,962,747	1,962,747

31. Share-based incentive plans

As part of the Company's remuneration programme it participates in a number of Citigroup share-based incentive plans. These plans involve the granting of stock options, restricted or deferred share awards and share payments. Such awards are used to attract, retain and motivate officers and employees to provide incentives for their contributions to the long-term performance and growth of the Company, and to align their interests with those of the shareholders. The award programmes are administered by the Personnel and Compensation Committee of the Citigroup Inc. Board of the Directors, which is composed entirely of non-employee Directors.

In the share award programme Citigroup issues common shares in the form of restricted share awards, deferred share awards and share payments. For all stock award programmes during the applicable vesting period, the shares awarded are not issued to participants (in the case of a deferred stock award) or cannot be sold or transferred by the participants (in the case of a restricted stock award), until after the vesting conditions have be satisfied. Recipients of deferred share awards do not have any shareholder rights until shares are delivered to them, but they generally are entitled to receive dividend-equivalent payments during the vesting period. Recipients of restricted share awards are entitled to a limited voting right and to receive dividend or dividend-equivalent payments during the vesting period. Once a share award vests the shares become freely transferrable, but in the case of certain employees, may be subject to transfer restriction by their terms or share ownership commitment.

NOTES TO THE FINANCIAL STATEMENTS

31. Share-based incentive plans (continued)

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:

	2019	2018
Shares awarded	209,285	156,884
Weighted average fair market value per share	\$62.47	\$75.16
	\$ 000	\$ 000
Compensation cost charged to earnings	15,599	13,618
Fair value adjustments recorded to equity	5,844	(3,781)
Total carrying amount of equity-settled transaction liability	26,645	17,678
	2019	2018
	\$ Million	\$ Million
Stock Awards		
Granted in 2019	11.5	-
Granted in 2018	1.7	10.2
Granted in 2017	0.4	0.8
Granted in 2016	0.1	0.4
Granted in 2015	-	0.1
Cash Accrued	1.9	2.1
<u>Total Expense</u>	15.6	13.6

The Company did not operate or have any stock option programme (2018: nil).

NOTES TO THE FINANCIAL STATEMENTS

32. 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 2019 \$ 000	Contract amount 31 December 2018 \$ 000
24,952,658	21,582,823
5,263,993	11,325,343
11,711,085	6,264,350
41,927,736	39,172,516
	2019 \$ 000 24,952,658 5,263,993 11,711,085

Other commitments primarily relate to the Trade business in Ireland. The Company held an ECL of \$32 million as at 31 December 2019 (2018: ECL of \$59 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		S	Stage 2 St		age 3	Total	
	2019	2018	2019	2018	2019	2018	2019	2018
	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000	\$ 000
Outstanding exposure as at 1 January	37,760,993	37,045,797	1,407,986	965,078	3,537	128,777	39,172,516	38,139,652
New assets originated or purchased	7,527,860	35,533,312	449,319	955,572	1,730	-	7,978,909	36,488,884
Asset derecognised or matured	(4,737,332)	(34,439,876)	(427,594)	(887,175)	(59,234)	(127,649)	(5,224,160)	(35,454,700)
Transfers to Stage 1	494,048	78,534	(494,048)	(77,406)	-	(1,128)	-	-
Transfers to Stage 2	(633,985)	(452,415)	634,506	452,415	(521)	-	-	-
Transfers to Stage 3	(19,857)	(3,395)	(84,655)	(460)	104,512	3,855	-	-
Amounts written off	(528)	(497)	-	(38)	-	-	(528)	(535)
Foreign exchange adjustments and other movements	48,515	(467)	(45,918)	-	(1,598)	(318)	999	(785)
At 31 December	40,439,714	37,760,993	1,439,596	1,407,986	48,426	3,537	41,927,736	39,172,516

ECL	Sta	age 1	St	age 2	Stag	ge 3	Te	otal
	2019 \$ 000	2018 \$ 000						
IFRS 9 ECL as at 1 January	10,787	8,859	47,853	45,501	310	370	58,950	54,730
ECL on new assets originated or purchased	1,141	9,983	7,395	46,722	1,828	309	10,364	57,014
Exposure derecognised or matured	(28,079)	(7,590)	(6,616)	(44,694)	(2,761)	(370)	(37,456)	(52,654)
Transfers to Stage 1	25,230	802	(25,230)	(802)	-	-	-	-
Transfers to Stage 2	(599)	(1,131)	599	1,131	-	-	-	-
Transfers to Stage 3	(58)	-	(3,263)	(1)	3,321	1	-	-
Amounts written off	-	(93)	-	(4)	-	-	-	(97)
Foreign exchange adjustments and other movements	487	(43)	(248)	-	(237)	-	2	(43)
At 31 December	8,909	10,787	20,490	47,853	2,461	310	31,860	58,950

NOTES TO THE FINANCIAL STATEMENTS

33. Business transfer under common control

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 are stated below:

Assets	\$ 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	\$ 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.

Consideration reflected in merger reserve

	\$ million
Consideration received in relation to UK Consumber business sale	6.1
Consideration paid in relation to purchase of Italian DCC business	(27.4)
Total	(21.3)

NOTES TO THE FINANCIAL STATEMENTS

34. Discontinued operations and asset and liabilities held for sale

In 2018, the Company reported the Retail business within the UK Branch as "Held for Sale" and "Discontinued operation" after meeting the criteria for such a designation under IFRS 5.

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

A. Income statement

Results of discontinued operation (Retail business of UK branch)	31 December 2019 \$ 000	31 December 2018 \$ 000
Total revenues	24,925	22,993
- of this: Interest income	677	758
- of this: Net fee and commission income	24,117	22,229
Total expenses	(29,653)	(30,583)
- of this: Interest expense	(11,468)	(11,569)
- of this: Personnel expense	(5,705)	(7,309)
Loss before income tax	(4,728)	(7,590)
Income tax credit	151	-
Total comprehensive expense for the year	(4,577)	(7,590)

B. Cash flows and statement of financial position

Cash flows from (used in) discontinued operation	31 December 2019 \$ 000	31 December 2018 \$ 000
Net cash from operating activities		411,615
Net increase in cash and cash equivalents	-	411,615

The table below details the assets and liabilities in relation to assets held for sale of the Retail business of UK branch for the period in 2018.

31 December 2019 \$ 000	31 December 2018 \$ 000
-	562,057
-	29,591
-	32,500
-	624,148
-	4,571,046
-	43,765
-	4,614,811
	2019 \$ 000 - - - - - - - - -

NOTES TO THE FINANCIAL STATEMENTS

35. Involvement with unconsolidated structured entities

Nature, purpose and extent of the Company's interests in unconsolidated structured entities

The Company engages in various business activities with structured entities which are designed to achieve a specific business purpose. A structured entity is one that has been set up so that any voting rights or similar rights are not the dominant factor in deciding who controls the entity. An example is when voting rights relate only to administrative tasks and the relevant activities are directed by contractual arrangements.

Structured entities are consolidated when the substance of the relationship between the Company and the structured entities indicate that the structured entities are controlled by the Company. The entities covered by this disclosure note are not consolidated because the Company does not control them through voting rights, contract, funding agreements, or other means. The extent of the Company's interests to unconsolidated structured entities will vary depending on the type of structured entities.

Asset Based Financing

The Company provides loans and other forms of financing to structured entities that hold assets. Those loans are subject to the same credit approvals as all other loans originated or purchased by the Company.

The Company does not have the power to direct the activities that most significantly impact these structured entities economic performance, and thus it does not consolidate them. These vehicles are funded usually via a syndicate of lenders.

The table below sets out an analysis of carrying amounts of interests held by the Company in unconsolidated structured entities and the maximum exposure to loss. All exposures are included in loans and advances to customers.

	31 December 2019	31 December 2018
Carrying amount	\$ 000	\$ 000
Airplanes, ships and other assets	390,530	530,335
Commercial and other real estate	453,840	181,380
Total	844,370	711,715

The above exposure is the asset based financing provided to 35 entities (2018: 33). The assets held within these entities amounted to \$5,433 million (2018: \$1,597 million). The Company has further commitments of \$295 million (2018: \$278 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.

NOTES TO THE FINANCIAL STATEMENTS

36. Leases

A. Leases as a lessee

Information about leases for which the Company is a lessee is presented below.

Right-of-use assets

Right-of-use assets related to leased office buildings in branches.

Balance at 1 January 2019	Right-of-use assets \$ 000 85,976
Additions to right-of-use assets	1,450
Disposals	(146)
Depreciation charge for the year	(20,088)
Foreign exchange	2,743
Balance at 31 December 2019	69,935
Lease liabilities	
Maturity analysis	31 December
March My under 515	2019
	\$ 000
Expiring:	39,663
- within one year - between one and five year	39,003
- in five years and more	2,083
Total discounted lease liabilities at 31 December	81,076
Lease liabilities included in the statement of financial position at 31 December	81,076
Current	39,663
Non-current	41,413
Amounts recognised in profit or loss	
	2019
2019 - Leases under IFRS 16	\$ 000
Interest on lease liabilities	2
	2018
2018 – Operating leases under IAS 17	\$ 000
Lease expense	22,521
Amounts recognised in statement of cash flows	
0 9 9 7	2019
	\$ 000
	10.100

18,139

NOTES TO THE FINANCIAL STATEMENTS

37. Related party transactions

The Company is a wholly owned subsidiary undertaking of Citibank Holdings Ireland Limited, which is incorporated in Ireland. The largest Group in which the results of the Company are consolidated is that headed by Citigroup Inc., which is incorporated in the United States of America. The Company defines related parties as the Board of Directors, senior management, their close family members, parent and fellow subsidiaries and associated companies. The Company considers the key management of the Company to be the members of the Executive Committee (ExCo).

Transactions with key management personnel

Key management personnel compensation comprised the following:

	2019	2018
Remuneration	\$ 000	\$ 000
Salaries and other short term benefits	9,585	8,968
Post-Employment Benefits	505	423
Termination Benefits	560	
	10,650	9,392

At 31 December 2019, the number of the key management personnel was 9 (2018: 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 2019, there were no outstanding exposures to Directors including loans (2018: \$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 1	31 December 2019 31 December 2018				
Assets	Parent company of undertakings \$ 000	Other Citigroup undertakings \$ 000	Total \$ 000	Parent company undertakings \$ 000	Other Citigroup undertakings \$ 000	Total \$ 000
Cash and cash equivalents	φ υυυ -	2,206,134	2,206,134	φ 000 -	1,534,101	1,534,101
Loans and advances to banks	-	9,394,604	9,394,604	-	10,142,359	10,142,359
Loans and advances to customers	-	37,154	37,154	-	24,265	24,265
Other assets	-	679,697	679,697	-	148,247	148,247
Derivatives	-	1,347,877	1,347,877	-	758,903	758,903
Liabilities						
Deposits by banks	-	13,864,850	13,864,850	-	12,701,810	12,701,810
Customer accounts	-	655,555	655,555	-	916,472	916,472
Other liabilities	-	461,249	461,249	-	378,875	378,875
Derivatives	-	2,001,608	2,001,608	-	894,405	894,405
Commitments and guarantees	-	842,313	842,313	-	22,626	22,626
Income statement						
Interest and similar income	-	124,445	124,445	-	54,807	54,807
Interest payable	-	(96,293)	(96,293)	-	(21,155)	(21,155)
Net fee and commission income	-	216,288	216,288	-	246,871	246,871
Other operating income	-	452,120	452,120	-	438,163	438,163
Net trading income	-	(354,553)	(354,553)	-	18,530	18,530
Personnel expenses	-	(592)	(592)	-	-	-
Other expenses	-	(154,636)	(154,636)	-	(217,375)	(217,375)

NOTES TO THE FINANCIAL STATEMENTS

37. Related party transactions (continued)

No dividends were paid by the Company to its direct parent, Citibank Holding Ireland Limited (CHIL) in relation to 2019 earning during the year (2018: \$589 million paid in relation to 2017 earnings).

38. 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.

39. Parent companies

The Company is a subsidiary undertaking of Citibank Holding Ireland Limited (CHIL), incorporated in Ireland.

The largest Group in which the results of the Company are consolidated is Citigroup Inc., registered at 1209 Orange Street, Wilmington, New Castle, DE, 19810, United States of America. The audited consolidated financial statements of Citigroup Inc. are made available to the public annually in accordance with Securities and Exchange Commission regulations and may be obtained from http://www.citigroup.com/citi/investor/corporate_governance.html

The smallest Group in which the results of the Company are consolidated is CHIL. Copies of the Group accounts will be available to the public and may be obtained from its offices at 1 North Wall Quay, IFSC, Dublin 1.

40. Approval of financial statements

The financial statements of the Company were approved by the Board of Directors on the 31st March 2020.

41. Post Balance Sheet Event

A novel strain of coronavirus (COVID-19) that first surfaced in China was classified as a pandemic by the World Health Organisation on March 11, 2020, impacting countries globally. The potential impacts from COVID-19 remain uncertain, including, among other things, on economic conditions, businesses and consumers. The extent of these impacts on the Company are unclear, although they will likely adversely affect its businesses, results of operations and financial condition.

This is a non-adjusting event and an estimate of the financial effect cannot be made at the point in time as the situation remains a rapidly evolving one.