



standard
chartered

Pillar 3 Disclosures
31 December 2020

Supporting our clients, colleagues and communities

Here for good



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Standard Chartered Bank is headquartered in London where it is authorised by the UK's Prudential Regulation Authority (PRA), and Standard Chartered PLC Group and Standard Chartered Bank are regulated by the Financial Conduct Authority (FCA) and the PRA. Within this document 'the Group' refers to Standard Chartered PLC together with its subsidiary undertakings. Unless the context requires, within this document, 'China' refers to the People's Republic of China and, for the purposes of this document only, excludes Hong Kong Special Administrative Region (Hong Kong), Macau Special Administrative Region (Macau) and Taiwan. 'Korea' or 'South Korea' refers to the Republic of Korea. Greater China & North Asia (GCNA) includes China, Hong Kong, Japan, Korea, Macau and Taiwan; ASEAN & South Asia (ASA) includes Australia, Bangladesh, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Singapore, Sri Lanka, Thailand and Vietnam; and Africa & Middle East (AME) includes Bahrain, Egypt, Iraq, Jordan, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia and the United Arab Emirates (UAE). Throughout this document unless specified the disclosures are at Group level. Throughout this document, unless another currency is specified, the word 'dollar' or symbol '\$' means United States dollar. Throughout this document IRB refers to internal ratings based models. The Group does not use the Foundation IRB approach.

1. Introduction

1.1 Purpose and basis of preparation

The Pillar 3 Disclosures comprise detailed information on the underlying drivers of risk-weighted assets (RWA), capital, leverage and liquidity ratios as at 31 December 2020 in accordance with the European Union's (EU) Capital Requirements Regulation (CRR) and the Prudential Regulation Authority's (PRA) Rulebook.

The disclosures have been prepared in line with the disclosure templates introduced by the European Banking Authority's (EBA) guidelines on disclosure requirements (EBA/GL/2016/11) published in December 2016.

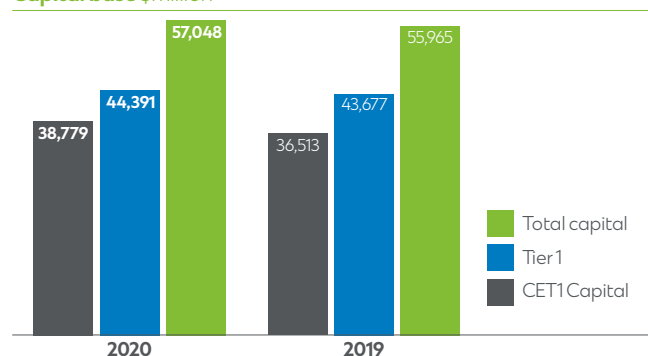
This report presents the annual Pillar 3 disclosures of Standard Chartered PLC ('the Group') as at 31 December 2020 and should be read in conjunction with the Group's Annual Report and Accounts.

The information presented in this Pillar 3 report is not required to be, and has not been, subjected to external audit.

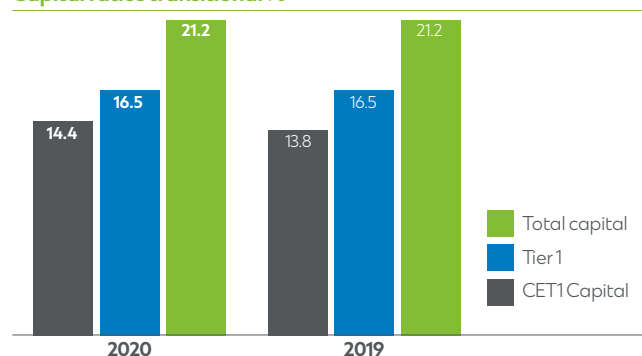
1.2 Highlights

- The Group's capital and leverage position is managed within the Board-approved risk appetite. The Group is well capitalised with low leverage and high levels of loss-absorbing capacity
- The Group is well capitalised with a Common Equity Tier 1 (CET1) ratio of 14.4 per cent, well ahead of the current requirement of 10.0 per cent
- The Group is not highly leveraged and its leverage ratio of 5.2 per cent is well ahead of the current leverage requirement of 3.6 per cent
- The Group continues to manage its balance sheet proactively, with a particular focus on the efficient management of RWA

Capital base \$million



Capital ratios transitional %



RWA by risk type 2020 \$million



RWA by risk type 2019 \$million



1.2 Highlights continued

Table 1: Key metrics for the Group (KM1)

	31.12.20 \$million	30.09.20 \$million	30.06.20 \$million	31.03.20 \$million	31.12.19 \$million
Available capital amounts¹					
Common Equity Tier 1 (CET1)	38,779	38,449	37,625	36,467	36,513
Common Equity Tier 1 (CET1) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	38,385	38,061	37,260	36,171	36,154
Tier 1	44,391	44,060	43,237	41,087	43,677
Tier 1 as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	43,997	43,672	42,872	40,791	43,318
Total capital	57,048	57,051	56,468	53,458	55,965
Total capital as IFRS 9 or analogous ECLs transitional arrangements had not been applied	56,654	56,663	56,103	53,162	55,606
Risk-weighted assets amounts¹					
Total risk-weighted assets (RWA)	268,834	266,664	262,552	272,653	264,090
Total risk-weighted assets if IFRS 9 or analogous ECLs transitional arrangements had not been applied	269,007	266,838	262,659	272,760	264,220
Risk-based capital ratios as a percentage of RWA					
Common Equity Tier 1 ratio	14.4%	14.4%	14.3%	13.4%	13.8%
Common Equity Tier 1 ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	14.3%	14.3%	14.2%	13.3%	13.7%
Tier 1 ratio	16.5%	16.5%	16.5%	15.1%	16.5%
Tier 1 ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	16.4%	16.4%	16.3%	15.0%	16.4%
Total capital ratio	21.2%	21.4%	21.5%	19.6%	21.2%
Total capital ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	21.1%	21.2%	21.4%	19.5%	21.1%
Additional CET1 buffer requirements as a percentage of RWA¹					
Capital conservation buffer requirement (2.5% from 2019)	2.50%	2.50%	2.50%	2.50%	2.50%
Countercyclical buffer requirement	0.14%	0.15%	0.14%	0.15%	0.35%
Bank G-SIB and/or D-SIB additional requirements	1.00%	1.00%	1.00%	1.00%	1.00%
Total of bank CET1 specific buffer requirements	3.64%	3.65%	3.64%	3.65%	3.85%
CET1 available after meeting the bank's minimum capital requirements	8.09%	8.05%	7.96%	6.54%	7.44%
Total capital requirement	9.96%	10.00%	10.01%	10.04%	10.24%
UK leverage ratio					
Total UK leverage ratio exposure measure	834,765	819,300	806,596	823,495	801,252
UK leverage ratio	5.2%	5.2%	5.2%	4.9%	5.2%
UK leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	5.1%	5.2%	5.2%	4.8%	5.2%
Liquidity Coverage Ratio					
Total HQLA	162,019	155,965	152,828	150,302	151,901
Total net cash outflow	111,378	108,095	107,697	107,446	107,632
LCR ratio	145.5%	144.3%	142.0%	140.0%	141.3%

¹ Capital requirements are presented using transitional provisions

Standard Chartered adopted IFRS 9 on 1 January 2018 which increased expected credit loss (ECL) provisions for financial accounting. Standard Chartered applies regulatory transitional arrangements to the financial accounting provisions recognised from the date, as permitted by paragraph 4 of article 473a of the CRR, introduced by Regulation (EU) 2017/2395 and amended by Regulation (EU) 2020/873 of the European Parliament and of the Council.

Under this approach, the balance of expected credit loss (ECL) provisions in excess of the regulatory defined expected loss (EL) and additional ECL on standardised portfolios, net

of related tax, are phased into the CET1 capital base over five years. The proportion phased in for the increase in the balance on day one of IFRS 9 adoption, and any subsequent increase to 31 December 2019 is 2020, 30 per cent; 2021, 50 per cent; and 2022, 75 per cent. From 2023 onwards there is no transitional relief on these components. The proportion phased in for any increase in the balance from 1 January 2020 at each reporting date is 2020 to 2021, 0 per cent; 2022, 25 per cent; 2023, 50%; 2024, 75%. From 2025 there is no transitional relief. The current period includes IFRS 9 capital relief (Transitional) of \$394 million including dynamic relief of \$97 million.

1.2 Highlights continued

Table 2 shows information about the Group's total loss-absorbing capacity (TLAC) available, and TLAC requirements, applied at the resolution group level under a Single Point of Entry resolution strategy.

Table 2: Key metrics – TLAC requirements (KM2)

	31.12.20 \$million	30.09.20 \$million	30.06.20 \$million	31.03.20 \$million	31.12.19 \$million
Resolution group					
Total loss-absorbing capacity (TLAC) available	83,040	81,079	80,472	77,585	75,649
Fully loaded ECL accounting model TLAC available	82,646	80,714	80,107	77,289	75,290
Total RWA at the level of the resolution group	268,834	266,664	262,552	272,653	264,090
TLAC as a percentage of RWA	30.9%	30.4%	30.6%	28.5%	28.6%
Fully loaded ECL accounting model TLAC as a percentage of fully loaded ECL accounting model RWA (%)	30.7%	30.3%	30.5%	28.3%	28.5%
UK Leverage ratio exposure measure at the level of the resolution group	834,765	819,300	806,596	823,495	801,252
TLAC as a percentage of UK Leverage exposure measure	9.9%	9.9%	10.0%	9.4%	9.4%
Fully loaded ECL accounting model TLAC as a percentage of fully loaded ECL accounting model UK Leverage exposure measure	9.9%	9.9%	10.0%	9.4%	9.4%
Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	Yes	Yes	Yes	Yes	Yes
Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	No	No	No	No	No
If the capped subordination exemption applies, the amount of funding issued that ranks pari passu with Excluded Liabilities and that is recognised as external TLAC, divided by funding issued that ranks pari passu with Excluded Liabilities and that would be recognised as external TLAC if no cap was applied (%)	N/A	N/A	N/A	N/A	N/A

1.3 Regulatory disclosure framework

The Group complies with the Basel III framework as implemented in the United Kingdom. The Basel III framework is built on the three pillars of the Basel II framework.

Pillar 1: Sets the minimum capital requirements for credit risk, market risk and operational risk

Pillar 2: Considers through the Supervisory Review and Evaluation Process whether further capital is required in addition to Pillar 1 calculations

Pillar 3: Aims to provide a consistent and comprehensive disclosure framework that enhances comparability between banks and further promotes improvements in risk management. Pillar 3 requires all material risks to be disclosed, enabling a comprehensive view of the bank's risk profile

The Pillar 3 Disclosures 2020 comprise all information required to be included in the UK and are prepared at the Group consolidated level. Where disclosure has been withheld as proprietary or non-material, as permitted by the rules, appropriate comment has been included. It is the Group's intention that the Pillar 3 Disclosures be viewed as an integral, albeit separately reported, element of the Annual Report and Accounts. The Group considers a number of factors in determining where disclosure is made between the Annual Report and Accounts and Pillar 3, including International Financial Reporting Standards (IFRS), regulatory requirements and industry best practice. Pages 139 to 140 of this document provide a summary of differences and cross references between the Annual Report and Accounts and the Pillar 3 Disclosures.

Remuneration

The qualitative and quantitative Pillar 3 remuneration disclosures for the 2020 performance year are set out on pages 163 to 165 of the Directors' remuneration report in the 2020 Annual Report and Accounts. Information is provided on the key components of our remuneration approach and how we develop our approach. The disclosures follow the requirements set out in Part 8 of the CRR and the Basel Committee on Banking Supervision (BCBS) standards issued in March 2017.

G-SIB

The Group has been identified as a Global Systemically Important Bank (G-SIB) by the Financial Stability Board (FSB) since November 2012. The Group's score from the BCBS's methodology for assessing and identifying G-SIBs has resulted in an additional loss-absorbency requirement of 1 per cent of CET1. The EU's Capital Requirements Directive (CRD) mandates the Group to publicly disclose the value of its Global Systemically Important Institution (G-SII) indicators on an annual basis. The terms 'G-SIB' and 'G-SII' are interchangeable – 'G-SIB' is used by the FSB and Basel Committee, whereas CRD refers to 'G-SII'. The Standard Chartered PLC 2019 G-SII disclosure is published on: <https://www.sc.com/en/investors/financial-results/>.

1.3 Regulatory disclosure framework continued

Frequency

In accordance with Group policy the Pillar 3 Disclosures are made quarterly as at 31 March, 30 June, 30 September and 31 December in line with the EBA guidelines on materiality, proprietary and confidentiality and on disclosure frequency, and the Guidelines on disclosure requirements (EBA/GL/2014/14 and EBA/GL/2016/11). Disclosures are published on the Standard Chartered PLC website aligning with the publication date of the Group's Interim, Half Year and Annual Report and Accounts.

Verification

Whilst the Pillar 3 Disclosures 2020 are not required to be externally audited, the document has been verified internally in accordance with the Group's policies on disclosure and its financial reporting and governance processes. Controls comparable to those for the 2020 Annual Report and Accounts have been applied to confirm compliance with PRA regulations..

- Items excluded on the grounds of materiality:
 - Quantitative disclosures of specialised lending exposures where the simple risk-weight approach is used, non-deducted participations in insurance undertakings, composition of collateral for exposures to derivatives and securities financing transactions, off-balance sheet collateral received, effect on the RWAs of credit derivatives used as CRM techniques and Collateral obtained by taking possession and execution processes
 - Qualitative and quantitative disclosures on exposures to equities not included in the trading book

1.4 Risk management

The management of risk is a key component of the Group's business. One of the main risks we incur arises from extending credit to customers through our trading and lending operations. Beyond credit risk, we are also exposed to a range of other risk types such as country, traded, capital and liquidity, operational, reputational, compliance, conduct, information and cyber security and financial crime risks that are inherent in our strategy, product range and geographical coverage.

In the Risk management approach section of the 2020 Annual Report and Accounts we describe our approach and strategy for managing risk. We discuss our risk management practices, monitoring and mitigation, and governance in relation to our main activities and significant risks.

The Group is exposed to 10 key risks:

- Credit risk (refer to section Credit risk in pages 254 to 256 of the 2020 Annual Report and Accounts)
- Traded risk (refer to section Traded risk on pages 257 to 258 of the 2020 Annual Report and Accounts)
- Capital and liquidity risk (refer to section Capital and liquidity risk on pages 259 to 260 of the 2020 Annual Report and Accounts)
- Operational and Technology risk (refer to section Operational and Technology risk on page 261 of the 2020 Annual Report and Accounts)
- Information and cyber security risk (refer to section Information and cyber security risk on pages 262 to 263 of the 2020 Annual Report and Accounts)
- Compliance risk (refer to section Compliance risk on page 264 of the 2020 Annual Report and Accounts)
- Financial crime risk (refer to section Financial crime risk on page 265 of the 2020 Annual Report and Accounts)
- Model risk (refer to section Model risk on page 266 of the 2020 Annual Report and Accounts)
- Reputational and Sustainability risk (refer to section Reputational Sustainability risk on pages 267 to 268 of the 2020 Annual Report and Accounts)
- Climate risk (refer to section Climate – material cross cutting risk on page 269 of the 2020 Annual Report and Accounts)

Credit Risk

Credit risk is the potential for loss due to the failure of a counterparty to meet its obligations to pay the Group. Credit exposures arise from both the banking and trading books.

Credit risk is managed through a framework that sets out policies and procedures covering the measurement and management of credit risk. The Credit Risk Function, as a second line control function, performs independent challenge, monitoring and oversight of the credit risk management practices of the Business and Functions engaged in or supporting revenue generating activities which constitute the First Line of defence. Risk appetite is defined by the Group and approved by the Board. It is the maximum amount and type of risk that the Group is willing to assume in pursuit of its strategies. Credit exposure limits are approved within a defined credit approval authority framework.

The Group manages its credit exposures following the principle of diversification across products, geographies, client segments and industry sectors.

The Group uses the Advanced Internal Ratings Based (IRB) approach to calculate credit risk capital requirements with the approval of our relevant regulators. This approach builds on the Group's risk management practices and is the result of a continuing investment in data warehouses and risk models.

For portfolios where the Group does not have IRB approval, or where the exposures are permanently exempt from the IRB approach, the Standardised Approach (SA) is used.

Refer to Credit Risk (pages 254 to 256) in the 2020 Annual Report and Accounts where we describe the main components of credit risk management, including our credit risk profile, credit risk measurement and policies set in line with risk appetite. For the scope and main content of reporting to senior management, refer to page 254 in the 2020 Annual Report and Accounts.

1.4 Risk management continued

Traded Risk

Traded Risk is the potential for loss resulting from activities undertaken by the bank in financial markets. Under the Enterprise Risk Management Framework, the Traded Risk Framework brings together Market Risk, Counterparty Credit Risk, Issuer Risk, XVA, Algorithmic Trading and Pension Risk. Traded Risk Management is the core risk management function supporting market-facing businesses, predominantly Financial Markets and Treasury Markets.

Market risk is the potential for loss of economic value due to adverse changes in financial market rates or prices. The Group's exposure to market risk arises predominantly from these sources:

- Trading book:
 - The Group provides clients access to financial markets, facilitation of which entails the Group taking moderate market risk positions. All trading teams support client activity; there are no proprietary trading teams. Hence, income earned from market risk-related activities is primarily driven by the volume of client activity rather than risk-taking
- Non-trading book:
 - The Treasury Markets desk is required to hold a liquid assets buffer, much of which is held in high-quality marketable debt securities
 - The Group has capital invested and related income streams denominated in currencies other than US dollars. To the extent that these are not hedged, the Group is subject to structural foreign exchange risk which is reflected in reserves

The primary categories of market risk for the Group are interest rate risk, foreign exchange rate risk, commodity risk and equity risk.

We use a value at risk (VaR) model for the measurement of the market risk capital requirements for part of the trading book exposures where permission to use such model has been granted by the PRA. Where our market risk exposures are not approved for inclusion in a VaR model, the capital requirements are determined using the standard rules set by the regulatory framework.

Counterparty credit risk is the risk that a counterparty defaults before satisfying its obligations under a derivative, a securities financing transaction (SFT) or a similar contract.

Refer to Traded risk 257 to 258 in the 2020 Annual Report and Accounts where we describe the main components of traded risk management, including our traded risk profile.

Operational and Technology Risk

We define operational and Technology risk as the potential for loss resulting from inadequate or failed internal processes, Technology events, human error, or from the impact of external events (including legal risk). The Group aims to control operational risks to ensure that operational losses (financial or reputational), do not cause material damage to the Group's franchise. The Group applies the Standardised Approach for measuring the capital requirements for operational risk. For risk-weighted assets and capital requirements resultant from operational risk, refer to table 20 on page 26 and to page 261 of the 2020 Annual Report and Accounts.

1.5 Enhancements and future developments of Pillar 3

The Basel Committee on Banking Supervision (BCBS), EU The Basel Committee on Banking Supervision (BCBS), EU and UK authorities release Pillar 3 disclosure standards and guidelines. We refine our disclosures to meet the requirements under the regulatory and accounting standards as they evolve.

In January 2015, the BCBS issued the requirements for the first phase of the Committee's review of the Pillar 3 disclosure framework. The focus of the first phase was on disclosure requirements in the areas of credit, market, counterparty credit, equity and securitisation risks. The revised BCBS Pillar 3 framework has been implemented in the EU by Guidelines issued by the European Banking Authority (EBA) that were finalised in December 2016 and have come into effect from 31 December 2017.

In March 2017, the BCBS issued the final standard for the second phase of its review of the Pillar 3 disclosure framework. The standard consolidates existing Basel Committee disclosure requirements into the Pillar 3 framework, covering the composition of capital and Total loss-absorbing capacity (TLAC), the leverage ratio, the liquidity ratios, the indicators for determining global systemically important banks, the countercyclical capital buffer, interest rate risk in the banking book and remuneration. The disclosure requirements as set out in the standard have been phased in from year-end 2017. The 2020 year-end disclosure document incorporates some of these templates, although the additional disclosure requirements arising from the March 2017 BCBS standard have yet to be implemented in the EU.

In December 2018, the Basel Committee published the finalised standard for the third phase of its Pillar 3 review which covers disclosure requirements resulting from the finalisation of the regulatory framework, including credit risk, operational risk, the leverage ratio and credit valuation adjustment (CVA) risk risk-weighted assets (RWA) as calculated by internal models and according to the standardised approaches; and an overview of risk management, RWA and key prudential metrics. The disclosure requirements as set out in the standard have been phased in from year-end 2020. Also in December 2018, the EBA issued guidelines on the disclosure of non-performing and forborne exposures that came into effect from 31 December 2019.

In July 2020, the PRA produced amended versions of the EBA's published guidelines on Covid-19 disclosure. These guidelines address data gaps associated with measures implemented in response to the crisis and are included in the 2020 year-end disclosure.

1.6 Accounting and regulatory consolidation

The Pillar 3 Disclosures are prepared at the Group consolidated level. The accounting policy for financial consolidation is provided in the notes to the financial statements in the 2020 Annual Report and Accounts. All banking subsidiaries are fully consolidated for both regulatory and accounting purposes. For associates and joint ventures,

the regulatory treatment may differ from the accounting policy, which applies the equity accounting method.

The regulatory consolidation approaches used by the Group are shown in the following table, which identifies the principal undertakings, including investments, associates and joint ventures, which are all principally engaged in the business of banking and provision of other financial services.

Table 3: Regulatory consolidation

Type	Description	Regulatory consolidation	Principal undertakings within each category
Investment (non significant)	The Group holds no more than 10 per cent of the issued share capital	The Group risk-weights the investment subject to the CRD threshold calculation	–
Associate	The Group holds more than 10 per cent and less than 20 per cent of the issued share capital	The Group risk-weights the investment subject to the CRD threshold calculation	China Bohai Bank
Joint Venture	The Group enters into a contractual arrangement to exercise joint control over an undertaking	Where the Group's liability to the joint venture is greater than the capital held, full consolidation is undertaken. Otherwise joint ventures are proportionately consolidated	–
Subsidiary	The Group holds more than 50 per cent of the issued share capital of a financial entity	The Group fully consolidates the undertaking	Standard Chartered Bank Standard Chartered Bank Korea Limited Standard Chartered Bank Malaysia Berhad Standard Chartered Bank (Pakistan) Limited Standard Chartered Bank (Taiwan) Limited Standard Chartered Bank (Hong Kong) Limited Standard Chartered Bank (China) Limited Standard Chartered Bank (Singapore) Limited Standard Chartered Bank (Thai) Public Company Limited Standard Chartered Bank Nigeria Limited Standard Chartered Bank Kenya Limited Standard Chartered Private Equity Managers (Hong Kong) Limited
Excluded entities	Insurance or corporate entities excluded from the scope of banking prudential consolidation	The Group risk-weights the investment subject to the CRD threshold calculation	Standard Chartered Assurance Ltd Standard Chartered Insurance Ltd

Table 4: Outline of the differences in the scopes of consolidation (LI3)

Name of the entity	Description of the entity	Method of accounting consolidation	2020			
			Method of regulatory consolidation			
			Full consolidation	Proportional consolidation	Neither consolidated nor deducted	Deducted
Standard Chartered Assurance Ltd	Insurance entity	Full consolidation			✓	
Standard Chartered Insurance Ltd	Insurance entity	Full consolidation			✓	

1.7 Significant subsidiaries

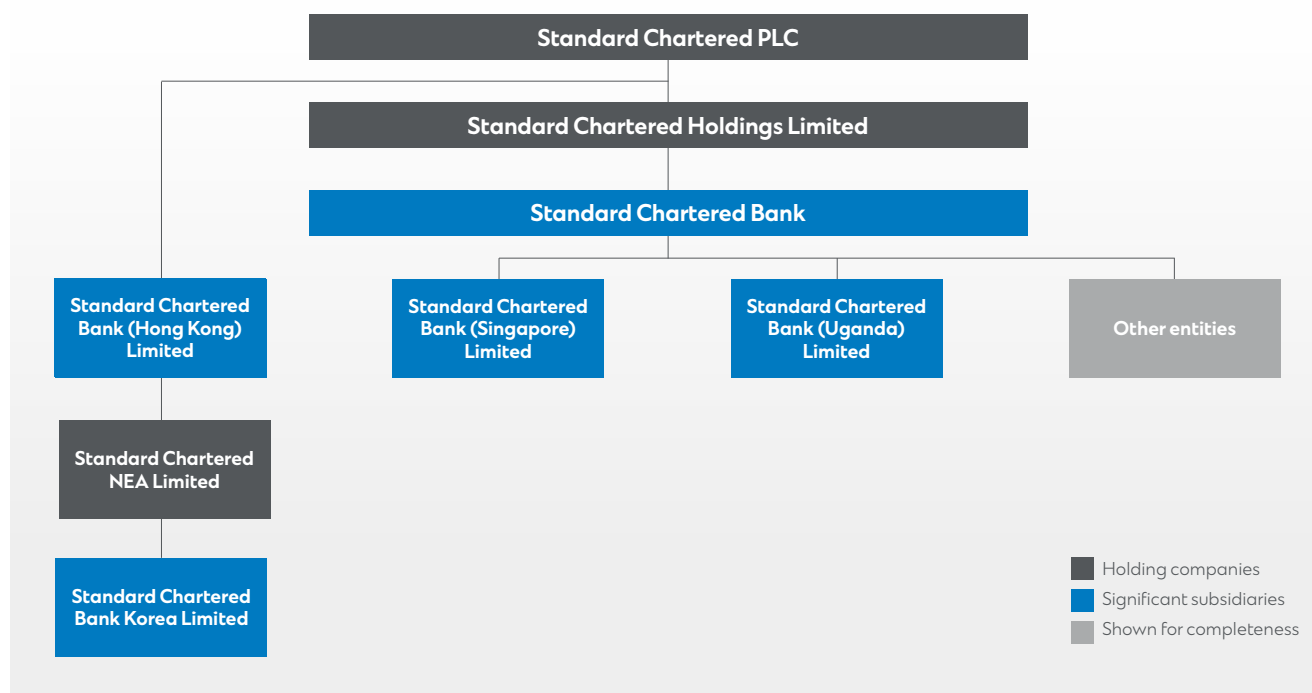
CRR Article 13 requires the application of disclosure requirements to significant subsidiaries of EU parent institutions and subsidiaries which are of material significance to their local market.

Standard Chartered Bank is the main operating subsidiary of the Group. The Group has two other significant subsidiaries, Standard Chartered Bank (Hong Kong) Limited (regulated by the Hong Kong Monetary Authority) and Standard Chartered Bank Korea Limited (regulated by the Financial Supervisory Service (FSS) in Korea). Standard Chartered Bank Singapore

Limited (regulated by the Monetary Authority of Singapore) and Standard Chartered Bank Uganda Limited (regulated by the Bank of Uganda) are subsidiaries that are of material significance to their local market. Standard Chartered Bank (Hong Kong) Limited and Standard Chartered Bank Korea Limited disclose separate Pillar 3 reports in compliance with their local regulations. Annex 1 provides a summary of the disclosure for the significant subsidiaries.

The chart below represents a simplified regulatory structure of the Group, including the subsidiaries covered by CRR Article 13e.

Simplified structure of the Group



1.8 Comparison of accounting balance sheet and exposure at default

The differences between the financial and prudential consolidated balance sheets arise primarily from differences in the basis of consolidation and the requirement to not

consolidate for prudential purposes insurance entities which are subject to full consolidation for financial purposes.

Table 5 splits the regulatory balance sheet measured under IFRS into each regulatory risk category. The regulatory risk category drives the approach applied in the calculation of regulatory exposures and RWA.

Table 5: Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories (L1)

	2020						
	Carrying values as reported in published financial statements \$million	Carrying values under the scope of regulatory consolidation \$million	Subject to credit risk framework \$million	Subject to counter-party credit risk framework \$million	Subject to securitisation framework \$million	Subject to market risk framework \$million	Not subject to capital requirements or subject to deduction from capital \$million
Assets							
Cash and balances at central banks	66,712	66,717	66,717	–	–	–	–
Financial assets held at fair value through profit or loss	106,787	106,787	4,574	92,539	8,680	93,533	–
Derivative financial instruments	69,467	69,467	–	69,467	–	69,467	–
Loans and advances to banks	44,347	44,347	40,224	3,015	–	3,015	–
Loans and advances to customers	281,699	281,699	263,792	2,389	13,129	2,389	–
Investment securities	153,315	153,315	148,310	–	1,202	25,266	–
Other assets	48,688	48,679	24,930	11,992	–	11,757	–
Current tax assets	808	808	808	–	–	–	–
Prepayments and accrued income	2,122	2,122	2,122	–	–	–	–
Interests in associates and joint ventures	2,162	2,181	2,181	–	–	–	–
Goodwill and intangible assets	5,063	5,073	677	–	–	–	4,396
Property, plant and equipment	6,515	6,515	6,515	–	–	–	–
Deferred tax assets	919	919	882	–	–	–	37
Asset classified as held for sale	446	446	446	–	–	–	–
Total assets	789,050	789,075	562,178	179,402	23,010	205,428	4,433
Liabilities							
Deposits by banks	30,255	30,255	–	–	–	–	30,255
Customer accounts	439,339	439,339	–	–	–	–	439,339
Repurchase agreements and other similar secured borrowing	1,903	1,903	–	1,903	–	–	–
Financial liabilities held at fair value through profit or loss	68,373	68,373	–	51,001	–	5,728	11,644
Derivative financial instruments	71,533	71,533	–	71,533	–	71,533	–
Debt securities in issue	55,550	55,550	–	–	–	–	55,550
Other liabilities	47,904	48,074	3,754	10,136	–	10,136	37,938
Current tax liabilities	660	659	–	–	–	–	659
Accruals and deferred income	4,546	4,495	–	–	–	–	4,495
Subordinated liabilities and other borrowed funds	16,654	16,654	–	–	–	–	16,654
of which: considered as Additional Tier 1 capital	267	267	–	–	–	–	267
of which: considered as Tier 2 capital	16,387	16,387	–	–	–	–	16,387
Deferred tax liabilities	695	695	–	–	–	–	695
Provisions for liabilities and charges	466	466	–	–	–	–	466
Retirement benefit obligation	443	443	–	–	–	–	443
Total liabilities	738,321	738,439	3,754	134,574	–	87,397	614,791
Equity							
Share capital and share premium account	7,058	7,058	–	–	–	–	–
Other reserves	12,688	12,688	–	–	–	–	–
Retained earnings	26,140	26,047	–	–	–	–	–
Other equity instruments	4,518	4,518	–	–	–	–	–
Non-controlling interest	325	325	–	–	–	–	–
Total equity	50,729	50,636	–	–	–	–	–
Total equity and liabilities	789,050	789,075	3,754	134,574	–	87,397	614,791

1.8 Comparison of accounting balance sheet and exposure at default continued

Table 5: Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories (LI1) continued

	2019						
	Carrying values as reported in published financial statements \$million	Carrying values under the scope of regulatory consolidation \$million	Subject to credit risk framework \$million	Subject to counter-party credit risk framework \$million	Subject to securitisation framework \$million	Subject to market risk framework \$million	Not subject to capital requirements or subject to deduction from capital \$million
Assets							
Cash and balances at central banks	52,728	53,477	53,477	–	–	–	–
Financial assets held at fair value through profit or loss	92,818	92,981	9,976	65,001	4,657	82,728	–
Derivative financial instruments	47,212	47,228	–	47,228	–	47,228	–
Loans and advances to banks	53,549	54,806	53,465	1,341	–	1,341	–
Loans and advances to customers	268,523	276,137	259,191	1,469	15,477	1,469	–
Investment securities	143,731	144,674	126,065	–	3,649	36,338	–
Other assets	42,022	42,432	23,179	10,101	–	9,169	–
Current tax assets	539	539	539	–	–	–	–
Prepayments and accrued income	2,700	2,771	2,771	–	–	–	–
Interests in associates and joint ventures	1,908	1,908	1,908	–	–	–	–
Goodwill and intangible assets	5,290	5,427	–	–	–	–	5,427
Property, plant and equipment	6,220	6,258	6,258	–	–	–	–
Deferred tax assets	1,105	1,223	1,108	–	–	–	115
Asset classified as held for sale	2,053	1,195	1,195	–	–	–	–
Total assets	720,398	731,056	539,132	125,140	23,783	178,273	5,542
Liabilities							
Deposits by banks	28,562	28,754	–	–	–	–	28,754
Customer accounts	405,356	414,242	–	–	–	–	414,242
Repurchase agreements and other similar secured borrowing	1,935	2,276	–	2,276	–	–	–
Financial liabilities held at fair value through profit or loss	66,974	66,974	–	45,829	–	4,153	16,992
Derivative financial instruments	48,484	48,490	–	48,490	–	48,490	–
Debt securities in issue	53,026	53,026	–	–	–	–	53,026
Other liabilities	41,591	41,511	2,090	7,824	–	14,347	25,432
Current tax liabilities	703	700	–	–	–	–	700
Accruals and deferred income	5,369	5,414	–	–	–	–	5,414
Subordinated liabilities and other borrowed funds	16,207	16,313	–	–	–	–	16,313
of which: considered as Additional Tier 1 capital	258	260	–	–	–	–	260
of which: considered as Tier 2 capital	15,948	16,053	–	–	–	–	16,053
Deferred tax liabilities	611	651	–	–	–	–	651
Provisions for liabilities and charges	450	450	–	–	–	–	450
Retirement benefit obligation	469	480	–	–	–	–	480
Total liabilities	669,737	679,281	2,090	104,419	–	66,990	578,767
Equity							
Share capital and share premium account	7,082	7,082	–	–	–	–	–
Other reserves	11,685	11,685	–	–	–	–	–
Retained earnings	26,070	25,984	–	–	–	–	–
Other equity instruments	5,511	5,870	–	–	–	–	–
Non-controlling interest	313	1,154	–	–	–	–	–
Total equity	50,661	51,775	–	–	–	–	–
Total equity and liabilities	720,398	731,056	2,090	104,419	–	66,990	578,767

1.8 Comparison of accounting balance sheet and exposure at default continued

Table 6 shows the effect of regulatory adjustments required to derive the Group's exposure at default (EAD) for the purposes of calculating its credit risk capital requirements. The differences between the carrying values under regulatory scope of consolidation and amounts considered for regulatory purposes shown in Table 6 are mainly due to derivatives netting benefits, provisions, collateral and off-balance sheet exposures. The total EAD for credit and counterparty credit

risk is further split by geography, industry and maturity in Tables 41 to 43; standardised credit risk before and after the effect of CRM is presented in Table 67; standardised credit and counterparty credit risk by risk weight is presented in Tables 68 to 69 and IRB credit and counterparty credit risk before and after the effect of Credit Risk Mitigation (CRM) is presented in Table 54. Information on the standardised and IRB counterparty credit risk exposures can be found in section 4.2. Further detail on the EAD under the securitisation framework can be found in Table 70.

Table 6: Main sources of differences between regulatory exposure amounts and carrying values in financial statements (L12)

	2020		
	Subject to Credit risk framework \$million	Subject to CCR framework \$million	Subject to Securitisation framework \$million
Total assets amount under regulatory scope of consolidation	562,178	179,402	23,010
Derivatives netting benefit ²	–	(83,608)	–
Differences due to consideration of provisions	5,655	–	–
Differences due to consideration of collateral	–	–	–
Differences due to capital deductions	–	–	–
Differences due to off-balance sheet amounts recognised in regulatory exposures	98,883	88,104	1,302
Differences due to the impact of the use of own-models in exposures	–	26,682	–
Other	(988)	190	1
Regulatory exposure at default pre credit risk mitigation	665,728	210,770	24,314

	2019		
	Subject to Credit risk framework \$million	Subject to CCR framework \$million	Subject to Securitisation framework \$million
Total assets amount under regulatory scope of consolidation ¹	539,132	125,140	23,783
Derivatives netting benefit ²	–	(62,661)	–
Differences due to consideration of provisions	3,675	–	–
Differences due to consideration of collateral	–	–	–
Differences due to capital deductions	–	–	–
Differences due to off-balance sheet amounts recognised in regulatory exposures	89,205	89,782	1,508
Differences due to the impact of the use of own-models in exposures	–	19,887	–
Other	1,609	206	(0)
Regulatory exposure at default pre credit risk mitigation	633,621	172,354	25,290

1. Regulatory balance sheet primarily includes full consolidation of PT Bank Permata Tbk a joint venture (JV)

2. Reflects the effect of master netting agreements in addition to the netting permitted under International Accounting Standard (IAS) 32 requirement

The CRR provisions on prudential valuation require banks to quantify several valuation uncertainties pertaining to the valuation of assets and liabilities recorded at fair value for accounting purposes. The amounts by which the resulting Prudent Valuation Adjustments (PVA) exceed any associated Fair Value Adjustments are referred to as the Additional

Valuation Adjustments (AVAs) and their aggregate is deducted from CET1 capital. AVAs arise from uncertainties related to market prices, close-out costs, model risk, unearned credit spreads, investing and funding costs, concentrated positions, future administrative costs, early terminations and operational risks.

1.8 Comparison of accounting balance sheet and exposure at default continued

Table 7: Prudent valuation adjustment (PVA) (PV1)

	2020							
	Equity \$million	Interest rates \$million	FX \$million	Credit \$million	Commodities \$million	Total \$million	Of which: In the trading book \$million	Of which: In the banking book \$million
1 Closeout uncertainty	68	270	27	33	11	409	180	229
2 Of which Mid-market value	13	104	17	24	4	162	88	74
3 Of which Closeout cost	–	57	7	2	4	70	70	–
4 Of which Concentration	54	110	3	7	3	177	22	155
5 Early termination	–	–	–	–	–	–	–	–
6 Model risk	–	1	1	–	–	2	2	–
7 Operational risk	2	17	3	3	1	26	19	7
8 Investing and funding costs	–	–	–	–	–	1	1	–
9 Unearned credit spreads	–	–	–	–	–	26	26	–
10 Future administrative costs	3	4	–	18	–	26	20	5
11 Other	–	–	–	–	–	–	–	–
12 Total adjustment	74	293	30	54	12	490	249	241

2019								
	Equity \$million	Interest rates \$million	FX \$million	Credit \$million	Commodities \$million	Total \$million	Of which: In the trading book \$million	Of which: In the banking book \$million
1 Closeout uncertainty	77	332	18	31	12	469	186	283
2 Of which Mid-market value	11	140	13	27	6	198	106	92
3 Of which Closeout cost	–	65	4	1	4	75	75	–
4 Of which Concentration	65	126	1	2	1	196	5	191
5 Early termination	–	–	–	–	–	–	–	–
6 Model risk	–	–	–	–	–	1	1	–
7 Operational risk	1	21	2	4	1	29	20	9
8 Investing and funding costs	–	–	–	–	–	2	2	–
9 Unearned credit spreads	–	–	–	–	–	33	33	–
10 Future administrative costs	7	6	–	5	–	18	7	11
11 Other	–	44	–	20	–	63	63	–
12 Total adjustment	85	402	20	59	14	615	312	303

2. Capital

2.1 Capital management

The Group's capital and leverage positions are managed within the Board-approved risk appetite. The Group is well capitalised with low leverage and high levels of loss-absorbing capacity.

The Risk management approach section of the 2020 Annual Report and Accounts sets out our approach to capital management (pages 259 to 260).

2.2 Capital resources

All capital instruments included in the capital base meet the requirements set out in the CRR for their respective tier of capital, except for those that are subject to a grandfathering period. Grandfathered capital instruments will be fully phased out of their respective tier of capital by 1 January 2022.

For regulatory purposes, capital is categorised into two tiers, depending on the degree of permanence and loss-absorbency exhibited. These are Tier 1 and Tier 2 capital which are described below.

Tier 1 capital

- Tier 1 capital is going concern capital and is available for use to cover risks and losses whilst enabling the organisation to continue trading
- Tier 1 capital comprises permanent share capital, profit and loss account and other eligible reserves, equity non-controlling interests and Additional Tier 1 instruments, after the deduction of certain regulatory adjustments
- Permanent share capital is an item of capital issued by an organisation to an investor, which is fully paid-up and where

the proceeds of issue are immediately and fully available. It can only be redeemed on the winding-up of the organisation. Profit and loss account and other eligible reserves are accumulated resources included in shareholders' funds in an organisation's balance sheet, with certain regulatory adjustments applied

- Equity non-controlling interests represent the equity stakes held by non-controlling shareholders in the Group's undertakings
- Additional Tier 1 securities are deeply subordinated instruments which have loss-absorbing qualities such as discretionary coupons, principal write-down or conversion to equity and can therefore be included as Tier 1 capital

Tier 2 capital

Tier 2 capital is gone concern capital to help ensure senior creditors and depositors can be repaid if the organisation fails. Tier 2 capital consists of capital instruments which are normally of medium to long-term maturity with an original maturity of at least five years. For regulatory purposes, it is a requirement that these instruments be amortised on a straight-line basis in their final five years of maturity.

Details of the Group's capital instruments (both Tier 1 and 2 capital) are set out in the Standard Chartered PLC Main Features of Capital Instruments document available on the Group's website at <https://www.sc.com/en/investors/credit-ratings-fixed-income/#capitalsecurities>.

Table 8 summarises the consolidated capital position of the Group.

Table 8: Reconciliation between financial total equity and regulatory CET1 before regulatory adjustments

	2020 \$million	2019 \$million
Total equity per balance sheet (financial view)	50,729	50,661
Consolidation and regulatory adjustments	301	1,114
Total equity per balance sheet (regulatory view)	51,030	51,775
Foreseeable dividend	(481)	(871)
Other equity instruments (included in AT1)	(6,012)	(7,007)
Non-controlling interests	(145)	(431)
Common Equity Tier 1 capital before regulatory adjustments	44,392	43,466

2.2 Capital resources continued

Table 9: Composition of regulatory capital (CC1)

	2020 Transitional position \$million	2020 End point adjustment \$million	2020 End point position \$million	2019 Transitional position \$million
Common Equity Tier 1 (CET1) capital: instruments and reserves				
Capital instruments and the related share premium accounts	5,564	–	5,564	5,584
Of which: Share premium accounts	3,989	–	3,989	3,989
Retained earnings ¹	25,723	–	25,723	24,044
Accumulated other comprehensive income (and other reserves)	12,688	–	12,688	11,685
Non-controlling interests (amount allowed in consolidated CET1)	180	–	180	723
Independently reviewed interim and year-end profits/(loss) ²	718	–	718	2,301
Foreseeable dividends ³	(481)	–	(481)	(871)
Common Equity Tier 1 capital before regulatory adjustments	44,392	–	44,392	43,466
Common Equity Tier 1 capital: regulatory adjustments				
Additional value adjustments	(490)	–	(490)	(615)
Intangible assets	(4,274)	–	(4,274)	(5,318)
Deferred tax assets that rely on future profitability	(138)	–	(138)	(129)
Fair value reserves related to gains or losses on cash flow hedges	52	–	52	59
Negative amounts resulting from the calculation of expected loss amounts	(701)	–	(701)	(822)
Gains or losses on liabilities at fair value resulting from changes in own credit	52	–	52	(2)
Defined-benefit pension fund assets	(40)	–	(40)	(26)
Fair value gains and losses from own credit risk related to derivative liabilities	(48)	–	(48)	(38)
Exposure amounts which could qualify for risk weight of 1250%	(26)	–	(26)	(62)
Of which: securitisation positions	(18)	–	(18)	(57)
Of which: free deliveries	(8)	–	(8)	(5)
Total regulatory adjustments to Common Equity Tier 1 capital	(5,613)	–	(5,613)	(6,953)
Common Equity Tier 1 capital	38,779	–	38,779	36,513
Additional Tier 1 (AT1) capital: instruments				
Capital Instruments and the related share premium accounts	5,632	(1,114)	4,518	7,184
Of which: classified as equity under applicable accounting standards	5,463	(945)	4,518	7,007
Of which: classified as liabilities under applicable accounting standards	169	(169)	–	177
Additional Tier 1 (AT1) capital before regulatory adjustments⁴	5,632	(1,114)	4,518	7,184
Additional Tier 1 capital: regulatory adjustments				
Direct and indirect holdings by an institution of own Additional Tier 1 (AT1) instruments and subordinated loans	(20)	–	(20)	(20)
Total regulatory adjustments to Additional Tier 1 capital	(20)	–	(20)	(20)
Additional Tier 1 capital	5,612	(1,114)	4,498	7,164
Tier 1 capital (T1 = CET1 + AT1)	44,391	(1,114)	43,277	43,677
Tier 2 (T2) capital: instruments and provisions				
Capital instruments and the related share premium accounts	11,811	1,761	13,572	11,726
Qualifying items and the related share premium accounts subject to phase out from T2	679	(679)	–	328
Qualifying own funds instruments included in consolidated T2 issued by subsidiaries and held by third parties	197	–	197	264
Tier 2 capital before regulatory adjustments⁴	12,687	1,082	13,769	12,318
Tier 2 capital: regulatory adjustments				
Direct and indirect holdings by an institution of own Tier 2 instruments and subordinated loans	(30)	–	(30)	(30)
Reciprocal cross-holdings in Tier 2 instruments and other TLAC liabilities	N/A	N/A	N/A	N/A
Investments in the capital and other TLAC liabilities of banking, financial and insurance entities that are outside the scope of regulatory consolidation, where the bank does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold)	N/A	N/A	N/A	N/A
Investments in the other TLAC liabilities of banking, financial and insurance entities that are outside the scope of regulatory consolidation and where the bank does not own more than 10% of the issued common share capital of the entity: amount previously designated for the 5% threshold but that no longer meets the conditions (for G-SIBs only)	N/A	N/A	N/A	N/A

2.2 Capital resources continued

Table 9: Composition of regulatory capital (CC1) continued

	2020 Transitional position \$million	2020 End point adjustment \$million	2020 End point position \$million	2019 Transitional position \$million
Significant investments in the capital and other TLAC liabilities of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	N/A	N/A	N/A	N/A
Total regulatory adjustments to Tier 2 capital	(30)	-	(30)	(30)
Tier 2 capital	12,657	1,082	13,739	12,288
Total capital (TC = T1 + T2)	57,048	(32)	57,016	55,965
Total risk-weighted assets⁵	268,834	-	268,834	264,090
Amounts below the thresholds for deduction (before risk weighting)				
Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	891	-	891	1,170
Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	2,208	-	2,208	1,942
Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	750	-	750	1,061
Applicable caps on the inclusion of provisions in Tier 2				
Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	-	-	-	-
Cap on inclusion of provisions in Tier 2 under standardised approach	515	-	515	619
Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	-	-	-	-
Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	1,031	-	1,031	973
Risk-weighted assets				
Credit risk	218,006	-	218,006	213,551
Credit valuation adjustment risk	2,435	-	2,435	2,113
Operational risk	26,800	-	26,800	27,620
Market risk	21,593	-	21,593	20,806
Total risk-weighted assets⁵	268,834	-	268,834	264,090
Capital ratios				
Common Equity Tier 1 capital	14.4%	-	14.4%	13.8%
Tier 1 capital	16.5%	(0.4)%	16.1%	16.5%
Total capital	21.2%	-	21.2%	21.2%
Capital buffers				
Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirement, plus systemic risk buffer, plus systemically important institution buffer expressed as a percentage of risk exposure amount.)	10.0%	-	10.0%	10.2%
Of which: capital conservation buffer requirement	2.50%	-	2.50%	2.50%
Of which: countercyclical buffer requirement	0.14%	-	0.14%	0.35%
Of which systemic risk buffer requirement	-	-	-	-
Of which: Global systemically important institution (G-SII) or Othersystemically important institution (O-SII) buffer	1.0%	-	1.0%	1.0%
Common Equity Tier 1 available to meet buffers (as percentage of risk exposure amount)	8.1%			7.4%

1 Retained earnings under CRD include the effect of regulatory consolidation adjustments

2 Independently reviewed year-end profits are in accordance with regulatory consolidation rules

3 Foreseeable dividends as at 2020 year-end represent ordinary dividends and preference dividends

4 End point Tier 2 capital includes ineligible AT1 capital subject to grandfathering including any excess over AT1 limit

5 RWA are not covered by the scope of the Audit

2.2 Capital resources continued

The main movements in capital in the period were:

- CET1 increased by \$2.3 billion as retained profits of \$0.7 billion, a \$0.7 billion lower deduction for software resulting from adoption of CRR II Quick fix measures, favourable foreign currency translation impacts of \$0.7 billion and other comprehensive reserve movements of \$0.3 billion were only part offset by the part completed share buy-back of \$0.2 billion and the \$0.5 billion decrease in non-controlling interests mainly due to the sale of Permata
- AT1 decreased to \$5.6 billion as the call of \$2 billion of existing 6.5 per cent AT1 securities and the ongoing de-recognition of legacy Tier 1 was partly offset by the issuance of \$1 billion of new 6.0 per cent AT1 securities, increasing the efficiency of the Group's AT1 stock
- Tier 2 capital increased by \$0.4 billion as new issuances of \$2.4 billion of new Tier 2 instruments and the recognition of ineligible AT1 were partly offset by regulatory amortisation and the redemption of \$2.7 billion of Tier 2 during the year

The Group's current CET1 requirement is 10.0 per cent, comprising:

- A minimum Pillar 1 CET1 requirement of 4.5 per cent
- A Pillar 2A CET1 requirement of 1.8 per cent being 56 per cent of the total Pillar 2A requirement of 3.2 per cent
- A capital conservation buffer of 2.5 per cent
- A G-SII buffer of 1.0 per cent
- A countercyclical capital buffer of 0.1 per cent

Table 10: Reconciliation of regulatory capital to balance sheet (CC2)

	2020		2019	
	Balance sheet as in published financial statements \$million	Under regulatory scope of consolidation \$million	Balance sheet as in published financial statements \$million	Under regulatory scope of consolidation \$million
Assets				
Cash and balances at central banks	66,712	66,717	52,728	53,477
Financial assets held at fair value through profit or loss	106,787	106,787	92,818	92,981
Derivative financial instruments	69,467	69,467	47,212	47,228
Loans and advances to banks	44,347	44,347	52,207	53,464
Loans and advances to customers	281,699	281,699	267,133	274,747
Reverse repurchase agreements and other similar secured lending	–	–	2,810	2,810
Investment securities	153,315	153,315	143,789	144,674
Other assets	48,688	48,679	42,072	42,481
Current tax assets	808	808	539	539
Prepayments and accrued income	2,122	2,122	2,700	2,771
Interests in associates and joint ventures	2,162	2,181	2,708	1,908
Goodwill and intangible assets	5,063	5,073	5,290	5,427
Of which: goodwill	2,616	2,616	3,079	3,198
Of which: other intangibles (excluding MSRs)	2,447	2,457	2,211	2,229
Of which: MSRs	–	–	–	–
Property, plant and equipment	6,515	6,515	6,220	6,258
Deferred tax assets	919	919	1,075	1,193
Assets classified as held for sale	446	446	1,195	1,195
Total assets	789,050	789,075	720,496	731,153
Liabilities				
Deposits by banks	30,255	30,255	28,562	28,754
Customer accounts	439,339	439,339	405,356	414,242
Repurchase agreements and other similar secured borrowing	1,903	1,903	1,935	2,276
Financial liabilities held at fair value through profit or loss	68,373	68,373	66,974	66,974
Derivative financial instruments	71,533	71,533	48,484	48,490
Debt securities in issue	55,550	55,550	53,026	53,026
Other liabilities	47,904	48,074	41,630	41,908
Current tax liabilities	660	659	703	700
Accruals and deferred income	4,546	4,495	5,370	5,415
Subordinated liabilities and other borrowed funds	16,654	16,654	16,207	16,313
of which: considered as Additional Tier 1 capital	267	267	258	260
of which: considered as Tier 2 capital	16,387	16,387	15,948	16,053
Deferred tax liabilities	695	695	624	664
Of which: DTLs related to goodwill	681	681	581	618
Of which: DTLs related to intangible assets (excluding MSRs)	14	14	43	46
Of which: DTLs related to MSRs	–	–	–	–

2.2 Capital resources continued

Table 10: Reconciliation of regulatory capital to balance sheet (CC2) continued

	2020		2019	
	Balance sheet as in published financial statements \$million	Under regulatory scope of consolidation \$million	Balance sheet as in published financial statements \$million	Under regulatory scope of consolidation \$million
Provisions for liabilities and charges	466	466	423	423
Retirement benefit obligations	443	443	469	480
Liabilities included in disposal groups held for sale	–	–	–	–
Total liabilities	738,321	738,439	669,763	679,665
Shareholders' Equity				
Share capital and share premium account	7,058	7,058	7,079	7,082
Of which: amount eligible for CET1	2,541	2,541	1,567	1,570
Of which: amount eligible for AT1	4,517	4,517	5,512	5,512
Other reserves & Retained earnings	38,828	38,735	37,829	37,742
Total parent company shareholders' equity	45,886	45,793	44,908	44,824
Other equity instruments	4,518	4,518	5,513	5,512
Total equity excluding non-controlling interests	50,404	50,311	50,421	50,336
Non-controlling interest	325	325	313	1,154
Total equity	50,729	50,636	50,734	51,490
Total equity and liabilities	789,050	789,075	720,497	731,155

2.3 Minimum requirement for own funds and eligible liabilities

From 1 January 2019, a requirement for total loss-absorbing capacity (TLAC) was introduced, as defined in the final standards adopted by the Financial Stability Board (FSB). In the EU, TLAC requirements were implemented by the Capital Requirements Regulation II (CRR II) which was published in the Official Journal of the European Union on the 7 June 2019 and came into effect on 27 June 2019. It included a new framework on minimum requirement for own funds and eligible liabilities (MREL).

MREL is intended to ensure that there is sufficient equity and specific types of liabilities to facilitate an orderly resolution that minimises any impact on financial stability and ensures the continuity of critical functions and avoids exposing taxpayers to loss. The new framework is complemented with new disclosure requirements. As the specific EU format for disclosure is yet to be agreed, the disclosures are based on the formats provided in the Basel Committee Standards for Pillar 3 Phase 2 disclosures requirements.

The Group's fully phased minimum requirement for own funds and eligible liabilities (MREL) is 22.5 per cent of RWA from 1 January 2022. The Group's combined buffer (the capital conservation, global systemically important institution (G-SII) and countercyclical buffers) is additive to the minimum requirement, resulting in a total MREL requirement of 26.1¹ per cent of RWA from 1 January 2022. As at 31 December 2020, the Group's MREL position was 30.9 per cent of RWA and 9.9 per cent of leverage exposure.

Details of the Group's MREL eligible instruments are set out in the Standard Chartered PLC Main Features of Capital Instruments document available on the Group's website at <https://www.sc.com/en/investors/credit-ratings-fixed-income/#capitalsecurities>.

¹ Fully phased requirements are based on FY20 RWA and Pillar 2A

2.3 Minimum requirement for own funds and eligible liabilities continued

Table 11 shows details of the composition of the Groups MREL.

Table 11: TLAC composition for G-SIBs (TLAC1)

	2020 \$million	2019 \$million
Regulatory capital elements of TLAC and adjustments		
Common Equity Tier 1 capital (CET1)	38,779	36,513
Additional Tier 1 capital (AT1) before TLAC adjustments	5,612	7,164
AT1 ineligible as TLAC as issued out of subsidiaries to third parties	–	–
Other adjustments	–	–
AT1 instruments eligible under the TLAC framework	5,612	7,164
Tier 2 capital (T2) before TLAC adjustments	12,657	12,288
Amortised portion of T2 instruments where remaining maturity > 1 year	3,063	1,922
T2 capital ineligible as TLAC as issued out of subsidiaries to third parties	–	–
Other adjustments	–	(72)
T2 instruments eligible under the TLAC framework	15,720	14,139
TLAC arising from regulatory capital	60,111	57,815
Non-regulatory capital elements of TLAC		
External TLAC instruments issued directly by the bank and subordinated to excluded liabilities	–	–
External TLAC instruments issued directly by the bank which are not subordinated to excluded liabilities but meet all other TLAC term sheet requirements	22,937	17,837
Of which: amount eligible as TLAC after application of the caps	22,937	17,837
External TLAC instruments issued by funding vehicles prior to 1 January 2022	–	–
Eligible ex ante commitments to recapitalise a G-SIB in resolution	–	–
TLAC arising from non-regulatory capital instruments before adjustments	22,937	17,837
Non-regulatory capital elements of TLAC: adjustments		
TLAC before deductions	83,048	75,652
Deductions of exposures between MPE resolution groups that correspond to items eligible for TLAC (not applicable to SPE G-SIBs)	–	–
Deduction of investments in own other TLAC liabilities	(8)	(3)
Other adjustments to TLAC	–	–
TLAC after deductions	83,040	75,649
Risk-weighted assets and leverage exposure measure for TLAC purposes		
Total risk-weighted assets adjusted as permitted under the TLAC regime	268,834	264,090
UK Leverage exposure measure	834,765	801,252
TLAC ratios and buffers		
TLAC (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime)	30.9%	28.6%
TLAC (as a percentage of leverage exposure)	9.9%	9.4%
CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements	8.1%	7.5%
Institution-specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss absorbency requirement, expressed as a percentage of risk-weighted assets)	3.6%	3.9%
Of which: capital conservation buffer requirement	2.5%	2.5%
Of which: bank specific countercyclical buffer requirement	0.1%	0.4%
Of which: higher loss absorbency requirement	1.0%	1.0%

2.3 Minimum requirement for own funds and eligible liabilities continued

Table 12 shows information regarding the ranking of the Group's liabilities at the resolution group level.

Table 12: Resolution entity – creditor ranking at legal entity level (TLAC3)

Description of creditor ranking	2020			
	Creditor ranking			Total \$million
	1 \$million	2 \$million	3 \$million	
	Tertiary non- preferential debt ²	Tertiary non- preferential debt – Tier 2 securities	Ordinary non- preferential debt ³	
Total capital and liabilities net of credit risk mitigation ¹	6,284	15,876	31,906	54,066
Of which: are excluded liabilities	–	–	(360)	(360)
Total capital and liabilities less excluded liabilities	6,284	15,876	31,546	53,706
Of which: are potentially eligible as TLAC	6,284	15,876	21,830	43,990
Of which: with 1 year ≤ residual maturity < 2 years	–	1,956	2,750	4,706
Of which: with 2 years ≤ residual maturity < 5 years	–	3,853	9,584	13,437
Of which: with 5 years ≤ residual maturity < 10 years	–	4,054	6,360	10,414
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	5,836	3,136	8,972
Of which: perpetual securities	6,284	177	–	6,461

Description of creditor ranking	2019			
	Creditor ranking			Total \$million
	1 \$million	2 \$million	3 \$million	
	Tertiary non- preferential debt ²	Tertiary non- preferential debt – Tier 2 securities	Ordinary non- preferential debt ³	
Total capital and liabilities net of credit risk mitigation ¹	7,279	14,401	21,220	42,900
Of which: are excluded liabilities	–	–	(738)	(738)
Total capital and liabilities less excluded liabilities	7,279	14,401	20,482	42,162
Of which: are potentially eligible as TLAC	7,279	14,401	17,869	39,549
Of which: with 1 year ≤ residual maturity < 2 years	–	–	2,794	2,794
Of which: with 2 years ≤ residual maturity < 5 years	–	5,549	7,865	13,414
Of which: with 5 years ≤ residual maturity < 10 years	–	3,160	5,303	8,463
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	5,515	1,906	7,421
Of which: perpetual securities	7,279	177	–	7,456

1 Excludes CET1 and is based on accounting carrying values

2 AT1 Preference shares and Contingent Convertible Capital Instruments

3 Senior bonds, derivative liabilities, tax claims etc

TLAC2 is a G-SII disclosure requirement to provide the ranking of the liability structure of all of the Group's material sub-groups in as defined by the FSB TLAC Term Sheet. The group has 5 material sub-groups; Standard Chartered Bank, Standard Chartered Bank (Hong Kong) Limited, Standard Chartered Bank Korea Limited, Standard Chartered Bank (China) Limited, and Standard Chartered Bank (Singapore) Limited for which disclosure would be required.

2.3 Minimum requirement for own funds and eligible liabilities continued

Table 13: Standard Chartered Bank – creditor ranking (TLAC2)

	2020					Total \$million
	Creditor ranking					
	1 \$million	2 \$million	2 \$million	3 \$million	3 \$million	
Is the resolution entity the creditor/ investor?	No ¹	Yes	No	Yes	Yes	
Description of creditor ranking	Tertiary non- preferential debt – common shares	Tertiary non- preferential debt – AT1 cocos	Tertiary non- preferential debt – Tier 2 securities	Tertiary non- preferential debt – Tier 2 securities	Secondary non- preferential debt	
Total capital and liabilities net of credit risk mitigation ²	19,024	4,500	342	13,612	3,837	41,315
Of which: are excluded liabilities	–	–	–	–	–	–
Total capital and liabilities less excluded liabilities	19,024	4,500	342	13,612	3,837	41,315
Of which: are potentially eligible as TLAC	19,024	4,500	342	13,612	3,837	41,315
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–	960	2,431	3,391
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–	2,000	–	2,000
Of which: with 5 years ≤ residual maturity < 10 years	–	–	–	3,134	1,406	4,540
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	291	7,340	–	7,631
Of which: is perpetual securities	19,024	4,500	51	179	–	23,753

	2019					Total \$million
	Creditor ranking					
	1 \$million	2 \$million	2 \$million	3 \$million	3 \$million	
Is the resolution entity the creditor/ investor?	No ¹	Yes	No	Yes	Yes	
Description of creditor ranking	Tertiary non- preferential debt – common shares	Tertiary non- preferential debt – AT1 cocos	Tertiary non- preferential debt – Tier 2 securities	Tertiary non- preferential debt – Tier 2 securities	Secondary non- preferential debt	
Total capital and liabilities net of credit risk mitigation ²	19,024	6,500	709	12,337	2,102	40,671
Of which: are excluded liabilities	–	–	–	–	–	–
Total capital and liabilities less excluded liabilities	19,024	6,500	709	12,337	2,102	40,671
Of which: are potentially eligible as TLAC	19,024	6,500	709	12,337	2,102	40,671
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–	–	–	–
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–	2,960	2,102	5,062
Of which: with 5 years ≤ residual maturity < 10 years	–	–	–	2,698	–	2,698
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	291	6,500	–	6,791
Of which: is perpetual securities	19,024	6,500	418	179	–	26,120

1 Held by Standard Chartered Holdings Limited

2 Excludes CET1 (except common shares) and is based on accounting carrying values

2.3 Minimum requirement for own funds and eligible liabilities continued

Table 14: Standard Chartered Bank (Hong Kong) Limited – creditor ranking (TLAC2)

	2020						
	Creditor ranking						Total \$million
	1 \$million	2 \$million	2 \$million	3 \$million	3 \$million	4 \$million	
Is the resolution entity the creditor/ investor?	Yes ¹	No	Yes	No	Yes	Yes	
Description of creditor ranking	Common Shares	Securities and preference shares qualifying as AT1	Securities and preference shares qualifying as AT1	Dated subordinated notes qualifying as Tier 2	Dated subordinated notes qualifying as Tier 2	Loss absorbing non- preferred notes	
Total capital and liabilities net of credit risk mitigation ²	8,386	–	2,158	–	1,500	3,139	15,183
Of which: are excluded liabilities	–	–	–	–	–	–	–
Total capital and liabilities less excluded liabilities	8,386	–	2,158	–	1,500	3,139	15,183
Of which: are potentially eligible as TLAC	8,386	–	2,158	–	1,500	3,139	15,183
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–	–	–	1,600	1,600
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–	–	–	1,539	1,539
Of which: with 5 years ≤ residual maturity < 10 years	–	–	–	–	1,250	–	1,250
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–	–	250	–	250
Of which: perpetual securities	8,386	–	2,158	–	–	–	10,544

	2019						
	Creditor ranking						Total \$million
	1 \$million	2 \$million	2 \$million	3 \$million	3 \$million	4 \$million	
Is the resolution entity the creditor/ investor?	Yes	No ³	Yes	No	Yes	Yes	
Description of creditor ranking	Common Shares	Securities and preference shares qualifying as AT1	Securities and preference shares qualifying as AT1	Dated subordinated notes qualifying as Tier 2	Dated subordinated notes qualifying as Tier 2	Loss absorbing non- preferred notes	
Total capital and liabilities net of credit risk mitigation ²	7,851	498	1,153	754	1,499	2,399	14,154
Of which: are excluded liabilities	–	–	–	–	–	–	–
Total capital and liabilities less excluded liabilities	7,851	498	1,153	754	1,499	2,399	14,154
Of which: are potentially eligible as TLAC	7,851	–	1,153	–	1,499	2,399	12,902
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–	–	–	–	–
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–	–	–	2,399	2,399
Of which: with 5 years ≤ residual maturity < 10 years	–	–	–	–	1,249	–	1,249
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–	–	250	–	250
Of which: perpetual securities	7,851	–	1,153	–	–	–	9,004

¹ Includes preference shares held by Standard Chartered Bank which have been redeemed December 2020 via payment out of distributable profits and for which the amount was transferred from retained earnings to share capital in accordance with the requirements of the Hong Kong Companies Ordinance

² Excludes CET1 (except common shares) and is based on accounting carrying values

³ Held by Standard Chartered Bank

2.3 Minimum requirement for own funds and eligible liabilities continued

Table 15: Standard Chartered Bank Korea Limited – creditor ranking (TLAC2)

	2020		
	Creditor ranking		Total \$million
	1 \$million	2 \$million	
Is the resolution entity the creditor/investor?	No ¹	No ²	
Description of creditor ranking	Common shares	Tier 2 securities	
Total capital and liabilities net of credit risk mitigation ³	1,302	552	1,854
Of which: are excluded liabilities	–	–	–
Total capital and liabilities less excluded liabilities	1,302	552	1,854
Of which: are potentially eligible as TLAC	1,302	552	1,854
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–
Of which: with 5 years ≤ residual maturity < 10 years	–	552	552
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–
Of which: perpetual securities	1,302	–	1,302

	2019		
	Creditor ranking		Total \$million
	1 \$million	2 \$million	
Is the resolution entity the creditor/investor?	No ¹	No ²	
Description of creditor ranking	Common shares	Tier 2 securities	
Total capital and liabilities net of credit risk mitigation ³	1,302	519	1,821
Of which: are excluded liabilities	–	–	–
Total capital and liabilities less excluded liabilities	1,302	519	1,821
Of which: are potentially eligible as TLAC	1,302	519	1,821
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–
Of which: with 2 years ≤ residual maturity < 5 years	–	519	519
Of which: with 5 years ≤ residual maturity < 10 years	–	–	–
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–
Of which: perpetual securities	1,302	–	1,302

1 Held by Standard Chartered NEA Limited

2 Held by Standard Chartered Bank

3 Excludes CET1 (except common shares) and is based on accounting carrying values

2.3 Minimum requirement for own funds and eligible liabilities continued

Table 16: Standard Chartered Bank (Singapore) Limited – creditor ranking (TLAC2)

	2020					
	Creditor ranking					Total \$million
	1 \$million	2 \$million	2 \$million	3 \$million	3 \$million	
Is the resolution entity the creditor/investor?	No ¹	Yes	No ²	Yes	No ²	
Description of creditor ranking	Common Shares	AT1 Non- cumulative Preference Shares	AT1 Non- cumulative Preference Shares	Tier 2 Subordinated Notes	Tier 2 Subordinated Notes	
Total capital and liabilities net of credit risk mitigation ³	3,963	1,067	–	540	400	5,970
Of which: are excluded liabilities	–	–	–	–	–	–
Total capital and liabilities less excluded liabilities	3,963	1,067	–	540	400	5,970
Of which: are potentially eligible as TLAC	3,963	1,067	–	540	400	5,970
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–	–	–	–
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–	–	–	–
Of which: with 5 years ≤ residual maturity < 10 years	–	–	–	540	400	940
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–	–	–	–
Of which: perpetual securities	3,963	1,067	–	–	–	5,030

	2019					
	Creditor ranking					Total \$million
	1 \$million	2 \$million	2 \$million	3 \$million	3 \$million	
Is the resolution entity the creditor/investor?	No ¹	Yes	No ²	Yes	No ²	
Description of creditor ranking	Common Shares	AT1 Non- cumulative Preference Shares	AT1 Non- cumulative Preference Shares	Tier 2 Subordinated Notes	Tier 2 Subordinated Notes	
Total capital and liabilities net of credit risk mitigation ³	3,963	1,057	223	540	–	5,783
Of which: are excluded liabilities	–	–	–	–	–	–
Total capital and liabilities less excluded liabilities	3,963	1,057	223	540	–	5,783
Of which: are potentially eligible as TLAC	3,963	1,057	223	540	–	5,783
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–	–	–	–
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–	–	–	–
Of which: with 5 years ≤ residual maturity < 10 years	–	–	–	–	–	–
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–	540	–	540
Of which: perpetual securities	3,963	1,057	223	–	–	5,243

1 1. Held by Standard Chartered Holdings (Singapore) Private Limited

2 Held by Standard Chartered Bank

3 Excludes CET1 (except common shares) and is based on accounting carrying values

2.3 Minimum requirement for own funds and eligible liabilities continued

Table 17: Standard Chartered Bank (China) Limited – creditor ranking (TLAC2)

	2020		
	Creditor ranking		Total \$million
	1 \$million	2 \$million	
Is the resolution entity the creditor/investor?	No ¹	Yes	
Description of creditor ranking	Common Shares	Tier 2 capital	
Total capital and liabilities net of credit risk mitigation ²	1,446	611	2,057
Of which: are excluded liabilities	–	–	–
Total capital and liabilities less excluded liabilities	1,446	611	2,057
Of which: are potentially eligible as TLAC	1,446	611	2,057
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–
Of which: with 5 years ≤ residual maturity < 10 years	–	611	611
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–
Of which: perpetual securities	1,446	–	1,446

	2019		
	Creditor ranking		Total \$million
	1 \$million	2 \$million	
Is the resolution entity the creditor/investor?	No ¹	Yes	
Description of creditor ranking	Common Shares	Tier 2 capital	
Total capital and liabilities net of credit risk mitigation ²	1,446	–	1,446
Of which: are excluded liabilities	–	–	–
Total capital and liabilities less excluded liabilities	1,446	–	1,446
Of which: are potentially eligible as TLAC	1,446	–	1,446
Of which: with 1 year ≤ residual maturity < 2 years	–	–	–
Of which: with 2 years ≤ residual maturity < 5 years	–	–	–
Of which: with 5 years ≤ residual maturity < 10 years	–	–	–
Of which: with residual maturity ≥ 10 years, but excluding perpetual securities	–	–	–
Of which: perpetual securities	1,446	–	1,446

1 Held by Standard Chartered Bank (Hong Kong) Limited

2 Excludes CET1 (except common shares) and is based on accounting carrying values

2.4 Countercyclical capital buffer

The Group's countercyclical capital buffer (CCyB) requirement is determined by applying various country-specific CCyB rates to the Group's qualifying credit exposures in the relevant country (based on the jurisdiction of the obligor) on a weighted average basis.

The Group's current CCyB requirement is 14 basis points, reducing by 21 basis points in the period mainly due to reductions in countercyclical buffer rates in Hong Kong and the UK in response to the COVID-19 pandemic.

Countries are included in the table if the relevant own funds requirements of that country are greater than 1 per cent of the Group's total relevant own funds requirements for CCyB calculation.

Table 18: Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

Breakdown by country	2020												
	General credit exposures		Trading book exposures		Securitisation exposures		Own funds requirements						
	Exposure value for SA \$million	Exposure value for IRB \$million	Sum of long and short positions of trading book exposures for SA \$million	Value of trading book exposures for internal models \$million	Exposure value for SA \$million	Exposure value for IRB \$million	General credit exposures \$million	Trading book exposures \$million	Securitisation exposures \$million	Total \$million	Own funds requirements weights %	CCyB rate as at 31 Dec 2019 %	CCyB rate as at 1 Jan 2020 %
Bangladesh	1,586	3,735	–	–	–	–	277	8	–	285	2.0%	0.0%	0.0%
Belgium	1	272	1	–	–	–	14	–	–	14	0.1%	0.0%	0.0%
Bulgaria	–	–	5	–	–	–	–	–	–	–	0.0%	0.5%	0.5%
China	7,160	21,170	5,133	–	–	3,257	1,335	93	51	1,478	10.5%	0.0%	0.0%
Czech Republic	–	19	–	–	–	–	1	–	–	1	0.0%	0.5%	0.5%
Denmark	2	99	2	–	–	–	2	–	–	2	0.0%	0.0%	0.0%
France	132	4,929	101	–	–	–	85	4	–	88	0.6%	0.0%	0.0%
Germany	33	2,500	14	–	–	–	65	7	–	72	0.5%	0.0%	0.0%
Hong Kong	4,882	75,229	405	–	–	3,257	1,824	8	51	1,884	13.4%	1.0%	1.0%
India	6,397	18,685	541	–	–	3,958	1,466	20	62	1,547	11.0%	0.0%	0.0%
Indonesia	584	2,018	36	–	–	–	210	13	–	223	1.6%	0.0%	0.0%
Ireland	3	9,219	–	–	–	–	113	–	–	113	0.8%	0.0%	0.0%
Korea	1,032	48,943	1,266	–	–	–	1,152	10	–	1,161	8.3%	0.0%	0.0%
Luxembourg	344	5,464	1	–	–	–	77	–	–	77	0.6%	0.3%	0.5%
Malaysia	900	9,498	154	–	–	–	415	13	–	428	3.0%	0.0%	0.0%
Nigeria	613	2,508	1,042	–	–	–	187	84	–	271	1.9%	0.0%	0.0%
Norway	1	175	2	–	–	–	11	–	–	11	0.1%	1.0%	1.0%
Pakistan	601	2,096	187	–	–	–	150	22	–	172	1.2%	0.0%	0.0%
Singapore	7,540	33,292	502	–	–	–	1,125	9	–	1,134	8.1%	0.0%	0.0%
South Africa	165	2,395	175	–	–	–	118	26	–	145	1.0%	0.0%	0.0%
Sweden	–	1,450	2	–	–	–	32	–	–	32	0.2%	0.0%	0.0%
Taiwan	1,026	12,981	84	–	–	–	271	–	–	271	1.9%	0.0%	0.0%
United Arab Emirates	2,467	13,526	63	–	–	–	590	2	–	592	4.2%	0.0%	0.0%
United Kingdom	2,226	38,068	25	–	–	13,275	575	30	221	826	5.9%	0.0%	0.0%
United States	868	41,736	161	–	–	–	625	5	–	629	4.5%	0.0%	0.0%
Other countries	8,384	53,554	2,077	–	–	–	2,414	182	–	2,596	18.5%	0.0%	0.0%

2.4 Countercyclical capital buffer continued

Table 18: Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer
continued

Breakdown by country	2019													
	General credit exposures		Trading book exposures		Securitisation exposures		Own funds requirements						CCyB rate as at 31 Dec 2018 %	CCyB rate as at 1 Jan 2019 %
	Exposure value for SA \$million	Exposure value for IRB \$million	Sum of long and short positions of trading book exposures for SA \$million	Value of trading book exposures for internal models \$million	Exposure value for SA \$million	Exposure value for IRB \$million	General credit exposures \$million	Trading book exposures \$million	Securitisation exposures \$million	Total \$million	Own funds requirements weights %			
Bangladesh	1,498	3,304	72	–	–	–	260	6	–	266	1.9%	0.0%	0.0%	
Cayman Islands	6,616	16,950	2,546	–	–	3,561	1,162	65	40	1,266	9.1%	0.0%	0.0%	
China	–	–	–	–	–	–	–	–	–	–	0.0%	1.5%	1.8%	
Czech Republic	4,833	71,130	235	–	–	3,561	1,908	9	40	1,957	14.0%	2.0%	2.0%	
Hong Kong	–	–	–	–	–	–	–	–	–	–	0.0%	1.8%	1.8%	
Iceland	6,241	20,800	1,089	–	–	4,901	1,330	52	55	1,437	10.3%	0.0%	0.0%	
India	8,491	2,438	151	–	–	–	778	15	–	793	5.7%	0.0%	0.0%	
Indonesia	1,078	42,401	819	–	–	–	1,017	13	–	1,031	7.4%	0.0%	0.0%	
Korea	726	9,319	770	–	–	–	399	22	–	420	3.0%	0.0%	0.0%	
Lithuania	520	3,178	854	–	–	–	157	94	–	252	1.8%	0.0%	0.0%	
Malaysia	1	151	–	–	–	–	8	–	–	8	0.1%	2.5%	2.5%	
Netherlands	583	2,432	115	–	–	–	168	15	–	182	1.3%	0.0%	0.0%	
Nigeria	6,282	31,025	446	–	–	–	1,114	15	–	1,129	8.1%	0.0%	0.0%	
Norway	–	1	–	–	–	–	–	–	–	–	0.0%	1.5%	1.5%	
Pakistan	–	603	2	–	–	–	28	1	–	28	0.2%	2.5%	2.5%	
Singapore	1,013	9,789	339	–	–	–	234	4	–	238	1.7%	0.0%	0.0%	
Slovakia	3,001	14,481	8	–	–	–	616	7	–	623	4.5%	0.0%	0.0%	
Sweden	2,280	26,163	261	–	–	12,507	585	37	181	802	5.7%	1.0%	1.0%	
Taiwan	598	37,588	225	–	–	12	447	15	–	462	3.3%	0.0%	0.0%	
United Arab Emirates	1,699	485	134	–	–	–	149	3	–	152	1.1%	0.0%	0.0%	
United Kingdom	7,802	78,217	2,838	–	–	76	2,648	258	4	2,910	20.9%	0.0%	0.0%	
United States	314	25,177	124	–	–	17	450	9	–	460	3.4%	0.0%	0.0%	
Vietnam	690	1,591	8	–	–	–	130	1	–	130	1.0%	0.0%	0.0%	
Other countries	8,007	64,888	2,469	–	–	71	2,441	155	6	2,602	19.4%	0.0%	0.0%	

Table 19: Amount of institution specific countercyclical capital buffer

	2020 \$million	2019 \$million
Total risk exposure amount (see Table 20: Overview of RWA (OV1))	263,895	264,090
Institution specific countercyclical capital buffer rate	0.00%	0.35%
Institution specific countercyclical capital buffer requirement	–	929

2.5 Capital Requirements

Pillar 1 and Pillar 2A CET1 requirements and the Combined Buffer requirement together represent the Group's Maximum Distributable Amount threshold. The Group will be subject to restrictions on discretionary distributions if the CET1 ratio falls below this threshold. The Group expects to continue to operate with a prudent management buffer above this threshold.

Over time, the Group may also be subject to a PRA buffer. The PRA buffer is intended to ensure the Group remains well capitalised during periods of stress. When setting the Group's PRA buffer, it is understood that the PRA considers results from the Bank of England (BoE) stress test, the biennial exploratory scenario, and bank-specific scenarios undertaken as part of Internal Capital Adequacy Assessment Processes (ICAAPs),

as well as other relevant information. The PRA buffer is additional to the existing CRD buffer requirements and is applied if and to the extent that the PRA considers the existing CRD buffers do not adequately address the Group risk profile. The PRA buffer is not disclosed.

The table below presents the Group's RWA and capital requirements (calculated as 8 per cent of RWA).

Further information on credit RWAs can be found in Table 55 for credit risk exposures under IRB (which include counterparty credit risk); Table 22 for the RWA flow statements for credit risk exposures under IRB (which includes securitisation balances below); Table 66 for exposures under the SA (which include amounts below the threshold for deduction) and section 4.2 for exposures subject to counterparty credit risk.

Table 20: Overview of RWA (OV1)

	31.12.20		30.09.20		31.12.19	
	Risk-weighted assets \$million	Regulatory capital requirement ¹ \$million	Risk-weighted assets \$million	Regulatory capital requirement ¹ \$million	Risk-weighted assets \$million	Regulatory capital requirement ¹ \$million
1 Credit risk (excluding counterparty credit risk)²	189,258	15,141	187,069	14,966	188,759	15,101
4 Of which advanced IRB approach (Table 51)	156,191	12,495	154,651	12,372	147,365	11,789
2 Of which standardised approach (Table 67)	33,067	2,645	32,418	2,593	41,394	3,312
6 Counterparty credit risk³	18,986	1,519	18,752	1,500	15,405	1,232
7 Of which mark to market method	3,731	298	4,369	350	3,075	246
10 Of which internal model method (IMM)	10,335	827	9,721	778	8,032	643
Of which securities financing transactions	2,257	181	2,371	190	2,018	161
11 Of which risk exposure amount for contributions to the default fund of a CCP	228	18	222	18	167	13
12 Of which CVA (Table 86)	2,435	195	2,069	166	2,113	169
13 Settlement risk	1	-	2	-	1	-
14 Securitisation exposures in the banking book	4,803	384	4,537	363	3,992	319
15 Of which internal ratings based approach	1,998	160	1,739	139	2,727	218
16 Of which external ratings based approach	2,805	224	2,798	224	1,265	101
18 Of which standardised approach	-	-	-	-	-	-
19 Market risk (Table 76)	21,593	1,727	22,144	1,772	20,806	1,664
21 Of which internal model approaches	13,608	1,089	13,881	1,110	11,364	909
20 Of which standardised approach	7,985	639	8,263	661	9,442	755
22 Large exposures	-	-	-	-	-	-
23 Operational risk⁴	26,800	2,144	26,800	2,144	27,620	2,210
25 Of which standardised approach	26,800	2,144	26,800	2,144	27,620	2,210
27 Amounts below the thresholds for deduction (subject to 250% risk weight) (Table 67)	7,393	591	7,360	589	7,507	601
28 Floor Adjustment	-	-	-	-	-	-
29 Total	268,834	21,507	266,664	21,333	264,090	21,127

1 The regulatory capital requirement is calculated as 8 per cent of the RWA, and represents the minimum total capital ratio in accordance with CRR Article 92 (1)

2 Credit risk (excluding counterparty credit risk) includes non-credit obligation assets

3 Counterparty credit risk includes assets which are assessed under IRB and SA

4 To calculate operational risk standardised risk-weighted assets, a regulatory defined beta co-efficient is applied to average gross income for the previous three years, across each of the eight business lines prescribed in the CRR

2.5 Capital Requirements continued

RWA increased by \$4.7 billion, or 1.8 per cent from 31 December 2019 to \$268.8 billion. This was due to increases in credit risk (including counterparty credit risk) RWA of \$4.8 billion and market risk RWA of \$0.8 billion. These were partially offset by a decrease in operational risk RWA of \$0.8 billion.

- Credit risk including counterparty credit increased to \$220.4 billion. The increase was driven by:
 - \$14.9 billion increase due to deterioration in asset quality from client downgrades across all regions and several industries following the onset of the COVID-19 pandemic as well as sovereign downgrades in Africa & Middle East
 - \$2.3 billion increase from foreign currency translation
 - \$1.0 billion increase in model, methodology and policy changes, primarily relating to the Revised Securitisation Framework and changes in methodology relating to intangibles with a corresponding deduction to CET1. This is partially offset by a methodology change relating to SME exposures
 - \$7.9 billion decrease due to the sale of the Group's principal joint venture investment, PT Bank Permata Tbk
- \$5.4 billion net decrease driven by asset balance decline in Corporate & Institutional Banking, Commercial Banking and Private Banking, partially offset by increases in the Treasury Markets liquidity portfolio and Retail
- \$0.2 billion increase due to RWA efficiencies relating to an initiative in Transaction Banking
- Operational risk RWA decreased \$0.8 billion mainly due to the sale of our shareholding in the Group's principal joint venture investment, PT Bank Permata Tbk. This represents a 3 per cent year-on-year reduction in operational risk RWA
- Total market risk RWA increased by \$0.8 billion from 31 December 2019 to \$21.6 billion. The increase was in the internal models approach (IMA) RWA due to increased market volatility and increased charges for IMA Risks not in VaR. The increase was partially offset by a decrease in the IMA RWA multiplier as back-testing exceptions rolled out of the 250-day window and reduced positions in both IMA and standardised approach

Table 21 shows the significant drivers of credit risk, market risk and operational risk RWA movements from 1 January 2020.

Table 21: Movement analysis for RWA

	Credit risk IRB \$million	Credit risk SA \$million	Credit risk Total \$million	Counterparty Credit risk \$million	Total Credit & Counterparty Credit risk \$million	Operational \$million	Market \$million	Total \$million
As at 1 January 2020	151,357	48,902	200,259	15,405	215,664	27,620	20,806	264,090
Asset size	(2,727)	(978)	(3,705)	2,038	(1,667)	–	–	(1,667)
Asset quality	10,836	–	10,836	1,344	12,180	–	–	12,180
Model updates	241	–	241	–	241	–	–	241
Methodology and policy	667	–	667	–	667	–	(1,400)	(733)
Acquisitions and disposals	–	(7,859)	(7,859)	–	(7,859)	(1,003)	(159)	(9,021)
Foreign exchange movements	(885)	(445)	(1,330)	(35)	(1,365)	–	–	(1,365)
Other, including non-credit risk movements ¹	(301)	160	(141)	–	(141)	183	2,897	2,939
As at 30 September 2020	159,188	39,780	198,968	18,752	217,720	26,800	22,144	266,664
Asset size	(3,769)	(413)	(4,182)	337	(3,845)	–	–	(3,845)
Asset quality	3,110	–	3,110	(368)	2,742	–	–	2,742
Model updates	(19)	–	(19)	–	(19)	–	–	(19)
Methodology and policy	(229)	382	153	–	153	–	(100)	53
Acquisitions and disposals	–	–	–	–	–	–	–	–
Foreign exchange movements	2,643	712	3,355	265	3,620	–	–	3,620
Other, including non-credit risk movements ¹	70	–	70	–	70	–	(451)	(381)
As at 31 December 2020	160,994	40,461	201,455	18,986	220,441	26,800	21,593	268,834

1 RWA efficiencies are disclosed against 'Other, including non-credit risk movements'

2 See Table 20: Overview of RWA (OV1). To note that 'Securitisation', 'Settlement risk' and 'Amounts below the threshold for deduction (subject to 250% risk-weight)' are included in credit risk

2.5 Capital Requirements continued

Table 22 shows the significant drivers of credit risk, IRB RWA movements (excluding counterparty credit risk and standardised credit risk) from 1 January 2020.

Table 22: RWA flow statements of credit risk exposures under IRB (CR8)

	Risk-weighted assets ¹ \$million	Regulatory capital requirement ¹ \$million
As at 1 January 2020	151,357	12,109
Asset size	(2,727)	(218)
Asset quality	10,836	867
Model updates	241	19
Methodology and policy	667	53
Acquisitions and disposals	–	–
Foreign exchange movements	(885)	(71)
Other	(301)	(24)
1 As at 30 September 2020	159,188	12,735
2 Asset size	(3,769)	(302)
3 Asset quality	3,110	249
4 Model updates	(19)	(2)
5 Methodology and policy	(229)	(18)
6 Acquisitions and disposals	–	–
7 Foreign exchange movements	2,643	211
8 Other	70	6
9 As at 31 December 2020²	160,994	12,879

1 Includes securitisation and non-credit obligation assets, but excludes counterparty credit risk

2 See Table 20: Overview of RWA (OV1). Comprises advanced IRB credit risk \$156,191 million and securitisation of \$4,803 million

IRB credit RWA increased by \$9.6 billion from 31 December 2019 driven by:

- \$13.9 billion increase due to deterioration in asset quality from client downgrades across all regions and several industries following the onset of the COVID-19 pandemic as well as sovereign downgrades in Africa & Middle East
- \$1.8 billion increase from foreign currency translation

- \$0.7 billion increase in model, methodology and policy changes, primarily relating to the Revised Securitisation Framework, partially offset by a methodology change relating to SME exposures
- \$6.5 billion decrease driven by asset balance decline across multiple business areas

Table 23 shows the significant drivers of credit counterparty risk under IMM RWA movements from 1 January 2020.

Table 23: RWA flow statements of CCR exposures under the IMM (CCR7)

	Risk-weighted assets \$million	Regulatory capital requirement \$million
As at 1 January 2020	8,032	643
Asset size	1,078	87
Asset quality	621	49
Model updates	–	–
Methodology and policy	–	–
Acquisitions and disposals	–	–
Foreign exchange movements	(10)	(1)
Other ¹	–	–
1 As at 30 September 2020	9,721	778
2 Asset size	492	39
3 Asset quality	(88)	(7)
4 Model updates	–	–
5 Methodology and policy	–	–
6 Acquisitions and disposals	–	–
7 Foreign exchange movements	210	17
8 Other ¹	–	–
9 As at 31 December 2020	10,335	827

1 RWA efficiencies are disclosed against 'Other'

2.5 Capital Requirements continued

Table 24 shows the RWA flow statements of market risk RWA exposures under the Internal Model Approach (IMA) from 1 January 2019.

Table 24: RWA flow of market risk exposures under an IMA approach (MR2-B)

	VaR \$million	SVaR \$million	IRC \$million	CRM \$million	Other ¹ \$million	Total RWA \$million	Total capital requirement \$million
At 1 January 2020	1,786	6,226	–	–	3,352	11,364	909
Regulatory adjustment	–	–	–	–	–	–	–
RWAs post adjustment at 1 January 2020	1,786	6,226	–	–	3,352	11,364	909
Movement in risk levels	–	–	–	–	–	–	–
Model updates/changes	–	–	–	–	–	–	–
Methodology and policy	(100)	(1,300)	–	–	–	(1,400)	(112)
Acquisitions and disposals	–	–	–	–	–	–	–
Foreign exchange movements	–	–	–	–	–	–	–
Other	2,656	(397)	–	–	1,658	3,917	313
1 At 30 September 2020	4,342	4,529	–	–	5,010	13,881	1,110
1a Regulatory adjustment	–	–	–	–	–	–	–
1b RWAs post adjustment at 30 September 2020	4,342	4,529	–	–	5,010	13,881	1,110
2 Movement in risk levels	–	–	–	–	–	–	–
3 Model updates/changes	–	–	–	–	–	–	–
4 Methodology and policy	–	–	–	–	(100)	(100)	(8)
5 Acquisitions and disposals	–	–	–	–	–	–	–
6 Foreign exchange movements	–	–	–	–	–	–	–
7 Other	(1,284)	309	–	–	802	(173)	(14)
8a At 31 December 2020	3,058	4,838	–	–	5,712	13,608	1,089
8b Regulatory adjustment	–	–	–	–	–	–	–
8 RWAs post adjustment at 31 December 2020²	3,058	4,838	–	–	5,712	13,608	1,089

1 Other IMA capital add-ons for market risks not fully captured in either VaR or SVaR. More details on Risks not in VaR can be found in the 2020 Annual Report and Accounts on page 235

2 Represents only the Group's portfolio covered by the IMA and calculated at the 99 per cent confidence level. Details of the Group's management VaR covering all non-structured market risk exposures, across the trading and non-trading books, calculated at the 97.5 per cent confidence level can be found in the 2020 Annual Report and Accounts on pages 234 to 235 and in tables 74 and 75 on page 84

Market risk RWA under an IMA approach increased by \$2.2 billion from 31 December 2019 reflecting increased market volatility and increased charges for IMA Risks not in VaR, partially offset by a decrease in the IMA RWA multiplier as back-testing exceptions rolled out of the 250-day window and reduced positions in both IMA and standardised approach.

2.6 Leverage ratio

UK banks are currently subject to a minimum leverage ratio of 3.25 per cent. In addition, a supplementary leverage ratio buffer is applicable, set at 35 per cent of the corresponding G-SII capital buffer and the countercyclical capital buffer. Following the FPC's recommendation to the PRA to exclude qualifying claims on central bank exposures from the leverage exposure measure in the UK leverage ratio framework, and the corresponding waiver granted by the PRA, the Group has been reporting the leverage ratio on a UK basis (excluding qualifying claims on central banks exposures) from March 2017.

At 31 December 2020, the Group's current minimum requirement inclusive of leverage buffers was 3.6 per cent:

- (i) The minimum 3.25 per cent
- (ii) A 0.35 per cent G-SII leverage ratio buffer and

- (iii) A 0.05 per cent countercyclical capital leverage ratio buffer, based on FY 2020 countercyclical capital buffer rates

The Group's UK leverage ratio, which excludes qualifying claims on central banks in accordance with a PRA waiver, was 5.2 per cent, which is above the current minimum requirement of 3.6 per cent. The UK leverage ratio was flat in the period following a \$1.3 billion increase in end point Tier 1 mainly due to higher CET1 of \$2.3 billion, the issue of \$1 billion of new 6.0 per cent AT1 securities partly offset by the call of \$2 billion of 6.5 per cent AT1 securities. The exposure measure increased by \$34 billion due to growth in on-balance sheet assets, particularly investment in debt-securities, loan and advances to customers, derivatives and SFT's, part offset by a higher benefit from regulatory consolidation adjustments mainly due to the increased balances with central banks eligible for netting and the Permata disposal.

Table 25: UK and CRR leverage ratio

	2020 \$million	2019 \$million
Tier 1 capital (end point)	43,277	42,006
UK leverage exposure	834,765	801,252
UK leverage ratio	5.2%	5.2%
CRR leverage exposure	895,069	843,395
CRR leverage ratio	4.8%	5.0%
UK leverage exposure quarterly average	837,147	816,244
UK leverage ratio quarterly average	5.2%	5.1%
Countercyclical leverage ratio buffer	0.0%	0.1%
G-SII additional leverage ratio buffer	0.4%	0.4%

CRR leverage ratio

Table 26, 27 and 28 present the leverage ratio based on CRR basis requirements.

Table 26: Summary reconciliation of accounting assets and leverage exposure

	2020 \$million	2019 \$million
1 Total assets as per published financial statements	789,050	720,398
2 Adjustment difference between the accounting scope of consolidation and the regulatory scope of consolidation	245	10,658
4 Adjustments for derivative financial instruments	(21,841)	(10,094)
5 Adjustments for securities financing transactions (SFTs)	4,969	7,005
6 Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	128,167	122,341
7 Other adjustments	(5,521)	(6,913)
8 Total leverage ratio exposure	895,069	843,395

2.6 Leverage ratio continued

Table 27: Leverage ratio common disclosure

		2020 \$million	2019 \$million
	On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	652,952	623,413
2	(Asset amounts deducted in determining Tier 1 capital)	(5,521)	(6,913)
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)	647,431	616,500
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	13,560	10,015
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	42,410	32,961
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	–	–
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(10,323)	(7,491)
8	(Exempted CCP leg of client-cleared trade exposures)	–	–
9	Adjusted effective notional amount of written credit derivatives	64,002	34,695
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(62,718)	(33,045)
11	Total derivative exposures	46,931	37,135
	Securities financing transaction exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	75,490	63,535
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(7,919)	(3,121)
14	Counterparty credit risk exposure for SFT assets	4,969	7,005
16	Total securities financing transaction exposures	72,540	67,419
	Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	425,851	408,135
18	(Adjustments for conversion to credit equivalent amounts)	(297,684)	(285,794)
19	Other off-balance sheet exposures	128,167	122,341
	Capital and total exposures		
20	Tier 1 capital (end point)	43,277	42,006
	Leverage ratio total exposure measure	895,069	843,395
22	Leverage ratio	4.8%	5.0%
	Choice on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	Fully phased in	Fully phased in

Table 28: Leverage ratio: Split-up of on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

		2020 \$million	2019 \$million
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	652,952	623,413
EU-2	Trading book exposures	46,321	41,149
EU-3	Banking book exposures, of which:	606,631	582,263
EU-4	Covered bonds	7,154	6,120
EU-5	Exposures treated as sovereigns	210,935	191,323
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	71	61
EU-7	Institutions	72,246	73,936
EU-8	Secured by mortgages of immovable properties	94,178	87,109
EU-9	Retail exposures	28,337	29,187
EU-10	Corporates	142,161	147,924
EU-11	Exposures in default	7,857	7,158
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	43,692	39,445

3. Credit risk

Our approach to credit risk can be found in the Risk management approach section in the 2020 Annual Report and Accounts on page 254 to 256.

3.1. Internal Ratings Based Approach (IRB) to credit risk

The Group uses the Advanced IRB approach to measure credit risk for the majority of its portfolios. This allows the Group to use its own internal estimates of Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD) to determine an asset risk-weighting. The IRB models cover 81 per cent of the Group's credit RWA (2019: 76 per cent).

PD is the likelihood that an obligor will default on an obligation within the next 12 months. Banks utilising the IRB approach must assign an internal PD to all borrowers. EAD is the expected amount of exposure to a particular facility at the point of default; it is modelled based on historical experience to determine the amount that is expected to be further drawn down from the undrawn portion of a facility. LGD is the percentage of EAD that a lender expects to lose in the event of obligor default. EAD and LGD are measured based on expectation in economic downturn periods, if these are more conservative than the long-run average.

All assets under the IRB approach have internal PD, LGD and EAD models developed to support the credit decision making process as well as RWA and capital estimate. RWA under the IRB approach is determined by regulatory specified formulae dependent on the Group's estimates of PD, LGD, EAD, and residual maturity. The development, use and governance of Corporate and Institutional Banking (CIB), Commercial Banking (CB) and Retail Banking models under the IRB approach are covered in more detail in Section 3.3 Internal Ratings Based models.

3.2. Standardised Approach to credit risk

The Standardised Approach is applied to portfolios that are classified as permanently exempted from the IRB approach, and those portfolios for which an IRB approach has yet to be developed, for instance due to insufficient data availability.

CRR Article 150 allows IRB banks to elect to permanently exclude certain exposures from the IRB approach and use the Standardised Approach. These are known as permanent exemptions.

The permanent exemptions apply to:

- Africa – all retail portfolios
- Private Banking
- Private Equity
- Development organisations
- Jordan
- Purchased receivables
- Hedge funds
- Exposures to, or guaranteed by, central governments and central banks of EEA States, provided they are eligible for a zero per cent risk weighting under the Standardised Approach

The Standardised Approach measures credit risk pursuant to fixed risk-weights and is the least sophisticated of the capital requirement calculation methodologies under Basel III. The risk-weight applied under the Standardised Approach is prescribed within the CRR and is based on the asset class to which the exposure is assigned.

3.3 Internal Ratings Based models

Model Governance

All IRB models are developed by Enterprise Risk Analytics (ERA). Both new and existing models, as well as changes to the existing models, are subject to independent validation by Group Model Validation (GMV) and are reviewed and approved by the Credit Model Assessment Committee (CMAC) and the Model Risk Committee (MRC) based on materiality. ERA and GMV are separate departments within Group Risk. The Model Risk Policy and Governance team (MRPG) was established to provide ongoing assessment and independent oversight of model risk management.

The performance of existing IRB models, including actual against predicted metrics, is monitored regularly by ERA and reported to CMAC on a quarterly basis. MRPG independently reviews model performance monitoring results based on applicable standards. In addition, existing models are subject to annual independent validation by GMV. The Group Model Risk Policy and associated standards set out internal standards for model development, validation and performance monitoring. The Board Risk Committee is updated on the status and performance of IRB models on an annual basis. Rating overrides are tracked and threshold breaches are escalated to the relevant risk management committees, and model issues are tracked at CMAC. An annual self-assessment of IRB models' regulatory compliance is carried out as part of the Senior Management Function attestation.

The Group has a strong monitoring and governance framework in place to identify and mitigate model performance issues. While most models are conservative and over predict PD, LGD and EAD, in cases where the models under predict, a post model adjustment may be taken to ensure adequate capitalisation, in addition to having a remediation plan in place.

Group Internal Audit is responsible for carrying out independent audit reviews of IRB models' development, validation, approval and monitoring.

Probability of Default

PDs are estimated based on one of the three industry standard approaches, namely the good-bad approach where a sufficient number of internal defaults is available, the shadow-bond approach where there are no sufficient internal defaults but there are external ratings for a large number of obligors, or the constrained expert judgement approach where neither internal defaults nor external ratings are available.

3.3 Internal Ratings Based models continued

In CIB and CB, the largest portfolios are rated based on the shadow bond approach (Sovereigns, Large Corporates) or the good-bad approach (Banks, Mid Corporates). Central governments and central banks are rated using the Sovereign model. Non-bank financial institutions are rated using one of six constrained expert judgement models depending on their line of business, with the largest being Funds, Finance & Leasing, and Broker Dealers. Corporate clients are differentiated by their annual sales turnover and rated using one of the corporate models, unless they are commodity buyers and traders (for which a separate model has been developed) or are classified under specialised lending and supply chain finance. Excluding the Sovereign model, the CIB and CB IRB PD models are subject to the 0.03 per cent regulatory PD floor.

Within CIB and CB, each client is assigned a credit grade, regardless whether the client is under standardized or IRB capital estimate method, and exposures to each client or client group are aggregated consistently with the regulatory Large Exposures requirements.

CIB and CB PD models are calibrated following a hybrid through-the-cycle rating philosophy based on historical data that includes a full economic cycle.

Estimates of PD are computed as of 1 January 2020 and are compared with default observations through 31 December 2020.

Our historical default experience for institutions, central governments or central banks is minimal, so the predicted PD reflects a particularly low number of defaults. We experienced no defaults for central governments or central banks during 2020.

The actual default rates for institutions and corporate exposures in 2020 remained below IRB model predictions as at the beginning of 2020, based on the arithmetic average PD by obligors.

PD models for retail clients under each asset class are developed based on a combination of product and geography following the good-bad approach.

The same PD modelling approach is taken across the four key retail client product types: Residential Mortgages, Credit Cards (Qualifying Revolving Retail), Personal Instalment Loans (Other Retail) and Retail SME (Other Retail). The approach is based on using the country and product specific application scores for new to bank clients and behaviour scores for existing clients. The scorecards are built using demographic information, financial information, observed client performance data (for behaviour scores), and where available, credit bureau data. Statistical techniques are used to develop a relationship between this information and the probability of default. The scorecards are used to make credit decisions. In addition, the PD models are segmented by delinquency status. All retail client PD models are built and validated using internal default data and are subject to the 0.03 per cent regulatory floor.

The actual default rates for all asset classes remained below the model predictions, based on the arithmetic average PD by obligors.

Loss Given Default

The CIB and CB LGD model is a component-based model reflecting the Bank's recovery and workout process, which takes into account risk drivers such as portfolio segment, jurisdiction, product, and collateral attached to the exposure. The model is calibrated based on downturn experience, if that is more conservative than the long-run experience. Regulatory floors are applied to unsecured and fully secured facilities (except if secured by cash) if the LGD parameters are based on less than 20 defaults or regulators mandate (Sovereign and Financial Institutions). This is in accordance with the PRA's low-default framework which states that where there are insufficient defaults to estimate a parameter at granular level an LGD floor must be applied.

The calculation of realised versus predicted LGD is affected by the fact that it may take a number of years for the workout process to be completed. As such, an observed recovery value cannot be assigned to the majority of the 2020 defaults, making it meaningless to compare realised versus predicted outcomes in a manner similar to that for PD and EAD.

To address this for corporate and institutions we have adopted an approach based on a four-year rolling period of predicted and realised LGD, which for the current reporting year includes 2017 to 2020 defaults that have completed their workout process as at the end of 2020. This approach compares the four-year rolling predicted LGD, providing the predicted outcome of these resolved defaults one year prior to default, against the realised LGD for the same set of defaults. These two figures are fully comparable, thereby providing a meaningful assessment of the LGD model's performance.

Under this approach, realised LGD values for corporates are lower than the predicted. This is explained by the regulatory guidance to calibrate LGD models to downturn conditions. There were no defaults in the previous four years for central governments and central banks. LGD for institutions reflects one completed workout during the four-year rolling period for which actual loss was significantly below predicted loss.

LGDs for retail portfolios follow two approaches:

- (i) LGDs for unsecured products are based on historical loss experience of defaults during a downturn; these are portfolio-specific LGD estimates segmented by default status (including restructuring)
- (ii) LGDs for secured products are parameter-based estimates mainly driven by how the default is resolved (cure, sale or charge-off). Key LGD parameters are differentiated by segments such as loan-to-value, property type and default status. These parameters are calibrated based on the portfolio's downturn experience

Retail LGD model development considers defaults from a cohort and the actual recoveries up to the end of the workout window which is typically two to three years. For retail asset classes, the observed LGD from the December 2017 cohort (existing defaults and those defaulted in the next 12 months) was calculated based on actual recoveries observed from January 2018 until December 2020. This is compared to the predicted outcome of the same set of defaults.

Under this approach, realised LGD values for all retail asset classes are lower than predicted, primarily due to the regulatory guidance to calibrate LGD models to downturn conditions. This is most evident in the mortgage portfolios, where predicted LGD values include a significant assumed reduction in property values.

3.3 Internal Ratings Based models continued

Exposure at Default

EAD takes into consideration the potential drawdown of a commitment as an obligor moves towards default by estimating the Credit Conversion Factor (CCF) of undrawn commitments.

EAD for corporate and institutional clients is determined by product but on a global basis, while the commercial and retail EAD is dependent on the combination of country and product.

The corporate and institutional EAD model has adopted the momentum approach to estimate the CCF, with the type of facility and the level of utilisation being key drivers of CCF. The model is calibrated based on the Bank's internal downturn experience and floored at 0 percent.

EAD for retail products differs between revolving products and term products. For revolving products, EAD is computed by estimating the CCF of undrawn commitments, with a floor at 0 percent. For term products, EAD is set at the outstanding balance plus any undrawn portion. All the retail client EAD models are built and validated using internal default data.

The comparison of realised versus predicted EAD is summarised in the ratio of EAD of assets that defaulted in 2020 to the outstanding amount at time of default. The ratios for all models are larger than one, indicating that the predicted EAD is higher than the realised outstanding amount at default. This is explained by the regulatory guidance to assign conservatism to the CCF of certain exposure types and to calibrate the models to downturn conditions, as well as by the impact of management action leading to a reduction in actual exposure prior to default.

The estimates provided in the table are before the application of any conservative adjustment.

Table 29: CIC model results

	PD Predicted 1 January 2020 %	PD Observed 31 December 2020 %	LGD Predicted (2017-2020) %	LGD Realised (2017-2020) %	EAD Predicted/ Realised %	Proportion of total IRB portfolio ¹ %
Corporate, Institutions and Commercial						
Central governments or central banks	1.75	–	N/A	N/A	N/A	24.4
Institutions	0.43	0.27	41.13	–	2.53	17.5
Corporates	2.31	1.25	40.37	22.43	1.05	40.7
Corporate SME	4.09	3.02	43.82	14.53	1.23	0.7

¹ Proportion of EAD (before the effect of collateral but after substitution) as a per cent of total IRB EAD

Table 30: Retail model results

	PD Predicted 1 January 2020 %	PD Observed 31 December 2020 %	LGD Predicted (2017-2020) %	LGD Realised (2017-2020) %	EAD Predicted/ Observed %	Proportion of total IRB portfolio ¹ %
Retail						
Qualifying revolving retail	3.79	2.36	78.23	70.40	1.14	2.4
Other retail	3.59	2.20	79.63	51.61	1.12	2.7
Residential mortgages	0.51	0.39	14.95	5.22	1.39	11.4
Retail SME	3.24	2.17	70.75	67.99	1.09	0.3

¹ Proportion of EAD (before the effect of collateral but after substitution) as a per cent of total IRB EAD

3.3 Internal Ratings Based models continued

Table 31: IRB – Backtesting of probability of default (PD) for central governments or central banks (CR9)

2020								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2019	31 December 2020			
		0.18	1.75	300	279	–	–	
0.00 to <0.15	AAA to BBB–			174	155			
0.15 to <0.25	BBB, BBB–			10	12			
0.25 to <0.50	BBB–, BB+, BB			17	10			
0.50 to <0.75	BB+, BB			5	8			
0.75 to <2.50	BB, BB–, B+, B			58	43			
2.50 to <10.00	B, B–, CCC, C			22	38			
10.00 to <100.00	CCC, C			14	13			
100.00 (default)	D			–	–			
2019								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2018	31 December 2019			
		0.19	1.20	310	300	–	–	–
0.00 to <0.15	AAA to BBB–			181	174			
0.15 to <0.25	BBB, BBB–			11	10			
0.25 to <0.50	BBB–, BB+, BB			14	17			
0.50 to <0.75	BB+, BB			5	5			
0.75 to <2.50	BB, BB–, B+, B			68	58			
2.50 to <10.00	B, B–, CCC, C			21	22			
10.00 to <100.00	CCC, C			10	14			
100.00 (default)	D			–	–			

Table 32: IRB – Backtesting of probability of default (PD) for institutions (CR9)

2020								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2019	31 December 2020			
		0.23	0.43	1,962	1,947	15	–	0.08
0.00 to <0.15	AAA to BBB–			996	987			
0.15 to <0.25	BBB, BBB–			133	120			
0.25 to <0.50	BBB–, BB+, BB			223	205			
0.50 to <0.75	BB+, BB			58	67			
0.75 to <2.50	BB, BB–, B+, B			452	386			
2.50 to <10.00	B, B–, CCC, C			62	123			
10.00 to <100.00	CCC, C			37	47			
100.00 (default)	D			1	12			
2019								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2018	31 December 2019			
		0.19	0.43	1,996	1,962	–	–	0.03
0.00 to <0.15	AAA to BBB–			1,005	996			
0.15 to <0.25	BBB, BBB–			137	133			
0.25 to <0.50	BBB–, BB+, BB			216	223			
0.50 to <0.75	BB+, BB			64	58			
0.75 to <2.50	BB, BB–, B+, B			483	452			
2.50 to <10.00	B, B–, CCC, C			52	62			
10.00 to <100.00	CCC, C			37	37			
100.00 (default)	D			2	1			

3.3 Internal Ratings Based models continued

Table 33: IRB – Backtesting of probability of default (PD) for corporates (CR9)

2020								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2019	31 December 2020			
		1.07	2.88	27,679	28,876	394	62	1.45
0.00 to <0.15	AAA to BBB-			6,510	7,557			
0.15 to <0.25	BBB, BBB-			2,886	2,948			
0.25 to <0.50	BBB-, BB+, BB			4,252	4,343			
0.50 to <0.75	BB+, BB			1,433	1,530			
0.75 to <2.50	BB, BB-, B+, B			5,687	5,198			
2.50 to <10.00	B, B-, CCC, C			3,718	4,181			
10.00 to <100.00	CCC, C			2,160	1,625			
100.00 (default)	D			1,033	1,494			
2019								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2018	31 December 2019			
		0.96	2.78	28,194	27,679	349	55	1.55
0.00 to <0.15	AAA to BBB-			6,027	6,510			
0.15 to <0.25	BBB, BBB-			3,068	2,886			
0.25 to <0.50	BBB-, BB+, BB			3,933	4,252			
0.50 to <0.75	BB+, BB			1,579	1,433			
0.75 to <2.50	BB, BB-, B+, B			6,049	5,687			
2.50 to <10.00	B, B-, CCC, C			3,763	3,718			
10.00 to <100.00	CCC, C			2,590	2,160			
100.00 (default)	D			1,185	1,033			

Table 34: IRB – Backtesting of probability of default (PD) for corporates – specialised lending (CR9)

2020								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2019	31 December 2020			
		1.52	1.58	1,019	1,024	6	–	0.81
0.00 to <0.15	AAA to BBB–			167	170			
0.15 to <0.25	BBB, BBB–			111	104			
0.25 to <0.50	BBB–, BB+, BB			233	225			
0.50 to <0.75	BB+, BB			79	60			
0.75 to <2.50	BB, BB–, B+, B			287	295			
2.50 to <10.00	B, B–, CCC, C			54	73			
10.00 to <100.00	CCC, C			40	32			
100.00 (default)	D			48	65			
2019								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2018	31 December 2019			
		0.97	1.32	1,141	1,019	1	–	1.21
0.00 to <0.15	AAA to BBB–			181	167			
0.15 to <0.25	BBB, BBB–			129	111			
0.25 to <0.50	BBB–, BB+, BB			200	233			
0.50 to <0.75	BB+, BB			101	79			
0.75 to <2.50	BB, BB–, B+, B			341	287			
2.50 to <10.00	B, B–, CCC, C			82	54			
10.00 to <100.00	CCC, C			47	40			
100.00 (default)	D			60	48			

3.3 Internal Ratings Based models continued

Table 35: IRB – Backtesting of probability of default (PD) for corporates – SME (CR9)

2020								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2019	31 December 2020			
		3.41	4.09	6,535	5,778	199	55	2.60
0.00 to <0.15	AAA to BBB-			24	29			
0.15 to <0.25	BBB, BBB-			446	366			
0.25 to <0.50	BBB-, BB+, BB			737	713			
0.50 to <0.75	BB+, BB			264	233			
0.75 to <2.50	BB, BB-, B+, B			1,729	1,407			
2.50 to <10.00	B, B-, CCC, C			2,075	1,962			
10.00 to <100.00	CCC, C			1,010	533			
100.00 (default)	D			250	535			
2019								
PD Range %	External Rating equivalent (S&P)	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
				31 December 2018	31 December 2019			
		3.13	4.23	7,631	6,535	210	54	2.75
0.00 to <0.15	AAA to BBB-			44	24			
0.15 to <0.25	BBB, BBB-			582	446			
0.25 to <0.50	BBB-, BB+, BB			766	737			
0.50 to <0.75	BB+, BB			302	264			
0.75 to <2.50	BB, BB-, B+, B			2,015	1,729			
2.50 to <10.00	B, B-, CCC, C			2,329	2,075			
10.00 to <100.00	CCC, C			1,262	1,010			
100.00 (default)	D			331	250			

Table 36: IRB – Backtesting of probability of default (PD) for retail (CR9)

2020							
PD Range %	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
			31 December 2019	31 December 2020			
	0.86	3.48	4,325,359	4,285,089	70,328	3,406	1.54
0.00 to <0.15			1,576,306	1,578,835			
0.15 to <0.25			318,666	304,427			
0.25 to <0.50			246,016	209,212			
0.50 to <0.75			229,303	225,932			
0.75 to <2.50			678,770	673,647			
2.50 to <10.00			889,984	892,276			
10.00 to <100.00			320,708	337,962			
100.00 (default)			65,606	62,798			
2019							
PD Range %	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
			31 December 2018	31 December 2019			
	0.86	3.69	4,174,985	4,325,359	68,243	2,845	1.65
0.00 to <0.15			1,461,766	1,576,306			
0.15 to <0.25			340,065	318,666			
0.25 to <0.50			250,611	246,016			
0.50 to <0.75			197,417	229,303			
0.75 to <2.50			676,627	678,770			
2.50 to <10.00			844,066	889,984			
10.00 to <100.00			331,223	320,708			
100.00 (default)			73,210	65,606			

3.3 Internal Ratings Based models continued

Table 37: IRB – Backtesting of probability of default (PD) for retail – SME (CR9)

2020							
PD Range %	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
			31 December 2019	31 December 2020			
	2.56	3.24	33,302	29,514	771	159	2.53
0.00 to <0.15			2,340	1,031			
0.15 to <0.25			1,961	2,027			
0.25 to <0.50			3,104	3,157			
0.50 to <0.75			1,861	1,968			
0.75 to <2.50			13,165	11,581			
2.50 to <10.00			8,061	7,365			
10.00 to <100.00			2,194	1,345			
100.00 (default)			616	1,040			

2019							
PD Range %	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
			31 December 2018	31 December 2019			
	2.59	3.38	36,202	33,302	961	196	2.93
0.00 to <0.15			2,590	2,340			
0.15 to <0.25			2,038	1,961			
0.25 to <0.50			3,910	3,104			
0.50 to <0.75			2,252	1,861			
0.75 to <2.50			14,402	13,165			
2.50 to <10.00			7,965	8,061			
10.00 to <100.00			2,303	2,194			
100.00 (default)			742	616			

Table 38: IRB – Backtesting of probability of default (PD) for retail – secured by real estate property (CR9)

2020							
PD Range %	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
			31 December 2019	31 December 2020			
	0.26	0.51	358,221	364,495	1,468	74	0.38
0.00 to <0.15			260,395	265,326			
0.15 to <0.25			30,812	31,692			
0.25 to <0.50			27,061	17,032			
0.50 to <0.75			12,944	11,810			
0.75 to <2.50			15,061	22,463			
2.50 to <10.00			5,812	9,636			
10.00 to <100.00			3,046	3,106			
100.00 (default)			3,090	3,430			

2019							
PD Range %	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
			31 December 2018	31 December 2019			
	0.28	0.56	334,610	358,221	1,581	74	0.39
0.00 to <0.15			255,399	260,395			
0.15 to <0.25			24,803	30,812			
0.25 to <0.50			18,446	27,061			
0.50 to <0.75			11,281	12,944			
0.75 to <2.50			14,017	15,061			
2.50 to <10.00			4,796	5,812			
10.00 to <100.00			2,654	3,046			
100.00 (default)			3,214	3,090			

3.3 Internal Ratings Based models continued

Table 39: IRB – Backtesting of probability of default (PD) for retail – qualifying revolving (CR9)

2020							
PD Range %	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
			31 December 2019	31 December 2020			
	1.51	3.79	3,351,699	3,315,484	55,273	2,433	1.53
0.00 to <0.15			1,218,032	1,219,378			
0.15 to <0.25			269,820	255,069			
0.25 to <0.50			157,419	132,124			
0.50 to <0.75			178,916	178,328			
0.75 to <2.50			480,507	464,070			
2.50 to <10.00			731,824	733,932			
10.00 to <100.00			282,470	301,994			
100.00 (default)			32,711	30,589			

2019							
PD Range %	Weighted average PD (prior year) %	Arithmetic average PD by obligors (prior year) %	Number of obligors		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate %
			31 December 2018	31 December 2019			
	1.66	4.07	3,249,935	3,351,699	53,080	1,760	1.62
0.00 to <0.15			1,180,257	1,218,032			
0.15 to <0.25			265,685	269,820			
0.25 to <0.50			149,019	157,419			
0.50 to <0.75			159,663	178,916			
0.75 to <2.50			443,508	480,507			
2.50 to <10.00			699,207	731,824			
10.00 to <100.00			315,547	282,470			
100.00 (default)			37,049	32,711			

3.4 Exposure values

The following tables detail the Group's EAD (including counterparty risk) before the effect of collateral but after the effect of substitution, broken down by exposure class and further split by geography, industry and maturity. For credit risk exposures, EAD is based on the current outstanding exposure and accrued interest and fees, which are recognised in the Group's balance sheet in accordance with IFRS, and a proportion of the undrawn component of the facility. The amount of the undrawn facility included is dependent on the product type and for IRB exposure classes this amount is modelled internally.

Exposure classes are presented in accordance with the CRR rules and are based on counterparty type. This differs from the product-based approach applied in the Annual Report and Accounts.

Geographical analysis is based on the residency of the counterparty. Maturity analysis is based on the residual maturity of the exposure in line with the maturity analysis in the 2020 Annual Report and Accounts on page 215.

EAD increased by \$70.5 billion (Tables 40 to 43) mainly due to:

- IRB corporates EAD increased \$22.5 billion driven by an increase in SFT transaction and derivative trades, primarily in GCNA and Europe and Americas
- IRB central governments and central banks EAD increased \$4.3 billion driven by an increase in inter bank exposures and nostros, offset by decreases in SFT transactions, primarily in ASEAN & South Asia and GCNA
- IRB institutions EAD increased \$2.2 billion driven by an increase in derivative transactions
- IRB retail EAD increased \$10.4 billion driven by an increase in loans and mortgages, primarily in GCNA
- Standardised institutions EAD increased \$23.8 billion driven by an increase in SFT transactions and derivative trades, primarily in Europe and Americas
- Standardised central governments and central banks EAD increased \$7.0 billion driven by an increase in nostro balances, primarily in Europe and Americas

3.4 Exposure values continued

Table 40: Total and average exposure at default (CRB-B)

	2020		2019	
	EAD before the effect of CRM ¹ \$million	Average EAD before the effect of CRM ² \$million	EAD before the effect of CRM ¹ \$million	Average EAD before the effect of CRM ² \$million
IRB Exposure Class				
1 Central governments or central banks	170,077	169,765	165,777	157,419
2 Institutions	121,986	126,113	119,742	133,025
3 Corporates	288,070	277,229	265,496	253,549
4 Of which specialised lending	21,660	20,278	19,821	19,012
5 Of which SME	4,754	5,156	5,342	5,810
6 Retail	114,624	106,832	104,198	100,260
7 Secured by real estate collateral	79,444	73,340	70,856	68,499
8 – SME	326	385	425	409
9 – Non SME	79,118	72,955	70,431	68,090
10 Qualifying revolving retail	16,474	16,166	16,433	15,824
11 Other retail	18,706	17,326	16,909	15,937
12 – SME	2,125	2,053	2,014	1,857
13 – Non SME	16,581	15,273	14,895	14,080
Non-credit obligation assets	1,115	1,108	1,003	1,079
15 Total IRB³	695,872	681,047	656,216	645,332
Standardised Exposure Class				
16 Central governments or central banks	35,200	27,200	28,229	29,007
19 Multilateral development banks	15,922	15,529	15,073	15,922
21 Institutions	48,560	31,747	24,694	32,349
22 Corporates	42,822	43,274	42,854	43,635
23 Of which SME	14,374	14,659	15,801	16,058
24 Retail	12,299	12,604	13,989	12,938
25 Of which SME	3,781	3,560	3,805	3,232
26 Secured on real estate property	8,708	9,111	9,877	9,891
27 Of which SME	3,090	3,310	3,673	3,735
28 Past due items	348	419	517	649
29 Items belonging to regulatory high risk categories	765	955	1,070	1,398
33 Equity	2,208	2,024	1,942	1,420
34 Other items ⁴	13,794	12,402	11,515	11,242
35 Total Standardised	180,626	155,265	149,760	158,451
36 Total	876,498	836,312	805,976	803,783

1 EAD before the effect of collateral but after substitution

2 Averages are calculated using past five quarters

3 Excludes securitisation exposures

4 Other items include cash, fixed assets, prepayments and accrued income

3.4 Exposure values continued

Table 41: Exposure at default by geography (CRB-C)

	2020				
	Greater China & North Asia \$million	ASEAN & South Asia \$million	Africa & Middle East \$million	Europe & Americas \$million	Period End Total \$million
IRB Exposure Class					
1 Central governments or central banks	71,614	34,212	15,260	48,991	170,077
2 Institutions	43,009	23,088	16,132	39,757	121,986
3 Corporates	79,622	47,274	35,429	125,745	288,070
3a Of which specialised lending	5,871	6,502	4,482	4,805	21,660
3b Of which SME	2,889	1,054	708	103	4,754
4 Retail	88,935	25,281	383	25	114,624
4a Secured by real estate collateral	61,592	17,849	3	–	79,444
4b Of which SME	145	178	3	–	326
4c Of which Non SME	61,447	17,671	–	–	79,118
4d Qualifying revolving retail	11,629	4,574	256	15	16,474
4e Other retail	15,714	2,858	124	10	18,706
4f Of which SME	1,110	957	58	–	2,125
4g Of which Non SME	14,604	1,901	66	10	16,581
Non-credit obligation assets	188	290	217	420	1,115
6 Total IRB¹	283,368	130,145	67,421	214,938	695,872
Standardised Exposure Class					
7 Central governments or central banks	269	966	481	33,484	35,200
10 Multilateral development banks	914	1,962	1,343	11,703	15,922
12 Institutions	5,061	752	56	42,691	48,560
13 Corporates	7,317	10,579	3,012	21,914	42,822
13a Of which SME	3,012	4,639	2,068	4,655	14,374
14 Retail	2,770	6,938	2,544	47	12,299
14a Of which SME	774	2,870	137	–	3,781
15 Secured by mortgages on immovable property	2,739	2,608	2,226	1,135	8,708
15a Of which SME	314	1,250	413	1,113	3,090
16 Past due items	23	224	90	11	348
17 Items belonging to regulatory high risk categories	129	233	205	198	765
21 Equity	2,085	79	–	44	2,208
22 Other items ²	5,183	3,762	1,427	3,422	13,794
23 Total Standardised	26,490	28,103	11,384	114,649	180,626
24 Total³	309,858	158,248	78,805	329,587	876,498

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

3 Refer to Table 40 (CRB-B) for EAD before the effect of CRM

3.4 Exposure values continued

Table 41: Exposure at default by geography (CRB-C) continued

		2019				
		Greater China & North Asia \$million	ASEAN & South Asia \$million	Africa & Middle East \$million	Europe & Americas \$million	Period End Total \$million
IRB Exposure Class						
1	Central governments or central banks	68,235	28,687	17,849	51,006	165,777
2	Institutions	45,937	21,095	15,097	37,613	119,742
3	Corporates	67,281	48,954	33,694	115,567	265,496
3a	Of which specialised lending	4,677	6,551	4,250	4,343	19,821
3b	Of which SME	2,922	1,270	677	473	5,342
4	Retail	79,322	24,336	516	24	104,198
4a	Secured by real estate collateral	53,831	17,023	2	–	70,856
4b	Of which SME	131	292	2	–	425
4c	Of which Non SME	53,700	16,731	–	–	70,431
4d	Qualifying revolving retail	11,571	4,549	299	14	16,433
4e	Other retail	13,920	2,764	215	10	16,909
4f	Of which SME	1,027	926	61	–	2,014
4g	Of which Non SME	12,893	1,838	154	10	14,895
Non-credit obligation assets		250	288	172	293	1,003
6	Total IRB ¹	261,025	123,360	67,328	204,503	656,216
Standardised Exposure Class						
7	Central governments or central banks	247	2,998	640	24,344	28,229
10	Multilateral development banks	367	2,046	1,875	10,785	15,073
12	Institutions	1,462	1,570	84	21,578	24,694
13	Corporates	6,646	12,951	3,207	20,050	42,854
13a	Of which SME	3,646	4,988	2,331	4,836	15,801
14	Retail	3,322	7,729	2,897	41	13,989
14a	Of which SME	841	2,783	181	–	3,805
15	Secured on real estate property	2,797	3,415	2,428	1,237	9,877
15a	Of which SME	356	1,671	439	1,207	3,673
16	Past due items	29	403	67	18	517
17	Items belonging to regulatory high risk categories	340	216	226	288	1,070
21	Equity	1,864	33	–	45	1,942
22	Other items ²	3,957	5,031	1,236	1,291	11,515
23	Total Standardised	21,031	36,392	12,660	79,677	149,760
24	Total ³	282,056	159,752	79,988	284,180	805,976

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

3 Refer to Table 40 (CRB-B) for EAD before the effect of CRM

3.4 Exposure values continued

Table 42: Exposure at default by industry (CRB-D)

	2020										
	Loans to Individuals Mortgage \$million	Loans to Individuals Other \$million	SME \$million	Commerce \$million	Manu- facturing \$million	Commer- cial Real Estate \$million	Govern- ment \$million	Financing Insurance & Business Services \$million	Transport & Storage & Communi- cation \$million	Other \$million	Total \$million
IRB Exposure Class											
1 Central governments or central banks	-	-	-	-	-	343	155,754	9,530	57	4,393	170,077
2 Institutions	-	-	-	422	4	-	3,946	116,051	487	1,076	121,986
3 Corporates	-	1	6,094	33,464	53,279	16,244	822	119,129	14,269	44,768	288,070
3a Of which specialised lending	-	-	1,340	8,723	838	4,104	-	620	1,571	4,464	21,660
3b Of which SME	-	-	4,754	-	-	-	-	-	-	-	4,754
4 Retail	79,118	33,055	2,451	-	-	-	-	-	-	-	114,624
4a Secured by real estate collateral	79,118	-	326	-	-	-	-	-	-	-	79,444
4b Of which SME	-	-	326	-	-	-	-	-	-	-	326
4c Of which Non SME	79,118	-	-	-	-	-	-	-	-	-	79,118
4d Qualifying revolving retail	-	16,474	-	-	-	-	-	-	-	-	16,474
4e Other retail	-	16,581	2,125	-	-	-	-	-	-	-	18,706
4f Of which SME	-	-	2,125	-	-	-	-	-	-	-	2,125
4g Of which Non SME	-	16,581	-	-	-	-	-	-	-	-	16,581
Non-credit obligation assets	-	-	-	12	-	-	-	-	942	161	1,115
6 Total IRB¹	79,118	33,056	8,545	33,898	53,283	16,587	160,522	244,710	15,755	50,398	695,872
Standardised Exposure Class											
7 Central governments or central banks	-	-	-	209	-	-	29,550	3,242	1	2,198	35,200
10 Multilateral development banks	-	-	-	-	-	-	181	-	-	15,741	15,922
12 Institutions	-	-	-	-	-	-	-	48,419	-	141	48,560
13 Corporates	-	2	14,374	678	845	325	-	23,853	88	2,657	42,822
13a Of which SME	-	-	14,374	-	-	-	-	-	-	-	14,374
14 Retail	373	8,145	3,781	-	-	-	-	-	-	-	12,299
14a Of which SME	-	-	3,781	-	-	-	-	-	-	-	3,781
15 Secured on real estate property	5,052	-	3,089	30	21	48	-	45	2	421	8,708
15a Of which SME	-	-	3,090	-	-	-	-	-	-	-	3,090
16 Past due items	72	23	183	44	24	-	-	1	-	1	348
17 Items belonging to regulatory high risk categories	3	65	227	16	23	17	-	159	2	253	765
21 Equity	-	-	-	-	-	-	-	-	-	2,208	2,208
22 Other items ²	-	-	-	-	2	2	1,874	245	-	11,671	13,794
23 Total Standardised	5,500	8,235	21,654	977	915	392	31,605	75,964	93	35,291	180,626
24 Total³	84,618	41,291	30,199	34,875	54,198	16,979	192,127	320,674	15,848	85,689	876,498

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

3 Refer to Table 40 (CRB-B) for EAD before the effect of CRM

3.4 Exposure values continued

Table 42: Exposure at default by industry (CRB-D) continued

		2019										
		Loans to Individuals Mortgage \$million	Loans to Individuals Other \$million	SME \$million	Commerce \$million	Manu- facturing \$million	Commer- cial Real Estate \$million	Govern- ment \$million	Financing Insurance & Business Services \$million	Transport & Storage & Communi- cation \$million	Other \$million	Total \$million
IRB Exposure Class												
1	Central governments or central banks	–	–	–	–	–	322	152,510	8,235	8	4,702	165,777
2	Institutions	–	–	–	–	44	4	3,478	113,812	237	2,167	119,742
3	Corporates	–	–	6,501	31,326	54,124	15,050	653	111,319	13,891	32,632	265,496
3a	Of which specialised lending	–	–	1,160	7,847	1,039	3,836	–	669	1,437	3,833	19,821
3b	Of which SME	–	–	5,342	–	–	–	–	–	–	–	5,342
4	Retail	70,431	31,328	2,439	–	–	–	–	–	–	–	104,198
4a	Secured by real estate collateral	70,431	–	425	–	–	–	–	–	–	–	70,856
4b	Of which SME	–	–	425	–	–	–	–	–	–	–	425
4c	Of which Non SME	70,431	–	–	–	–	–	–	–	–	–	70,431
4d	Qualifying revolving retail	–	16,433	–	–	–	–	–	–	–	–	16,433
4e	Other retail	–	14,895	2,014	–	–	–	–	–	–	–	16,909
4f	Of which SME	–	–	2,014	–	–	–	–	–	–	–	2,014
4g	Of which Non SME	–	14,895	–	–	–	–	–	–	–	–	14,895
	Non-credit obligation assets	–	–	12	9	–	–	–	–	841	141	1,003
6	Total IRB¹	70,431	31,328	8,952	31,335	54,168	15,376	156,641	233,366	14,977	39,642	656,216
Standardised Exposure Class												
7	Central governments or central banks	–	–	–	204	–	–	17,526	3,892	5	6,602	28,229
10	Multilateral development banks	–	–	–	–	–	–	217	12	–	14,844	15,073
12	Institutions	–	–	–	–	–	–	–	23,697	–	997	24,694
13	Corporates	18	1	15,801	731	872	287	4	19,769	173	5,198	42,854
13a	Of which SME	–	–	15,801	–	–	–	–	–	–	–	15,801
14	Retail	546	9,638	3,805	–	–	–	–	–	–	–	13,989
14a	Of which SME	–	–	3,805	–	–	–	–	–	–	–	3,805
15	Secured on real estate property	5,182	–	3,673	51	33	30	–	53	2	853	9,877
15a	Of which SME	–	–	3,673	–	–	–	–	–	–	–	3,673
16	Past due items	58	32	206	2	10	–	–	–	–	209	517
17	Items belonging to regulatory high risk categories	2	78	193	29	50	82	–	250	2	384	1,070
21	Equity	–	–	–	–	–	–	–	–	–	1,942	1,942
22	Other Items ²	–	2	–	–	2	2	–	61	–	11,448	11,515
23	Total Standardised	5,806	9,751	23,678	1,017	967	401	17,747	47,734	182	42,477	149,760
24	Total³	76,237	41,079	32,630	32,352	55,135	15,777	174,388	281,100	15,159	82,119	805,976

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

3 Refer to Table 40 (CRB-B) for EAD before the effect of CRM

3.4 Exposure values continued

Maturity analysis

The table below shows the Group's exposure on a residual maturity basis. This is consistent with the maturity analysis in the Annual Report and Accounts on page 215 which is based on accounting balances. Approximately 66 per cent (2019: 64 per cent) of the Group's exposure is short term, having residual maturity of one year or less. The portfolio of central government or central banks, institutions and corporates is predominantly short term with 75 per cent (2019: 73 per cent) of EAD having a residual maturity of one year or less. In Retail, the longer maturity profile of the IRB portfolio is driven by the mortgage book which makes up 69 per cent (2019: 68 per cent) of the portfolio and is traditionally longer term in nature and well secured. Whilst the Other and SME loans in Retail have short contractual maturities, typically they can be renewed and repaid over longer terms in the normal course of business.

Table 43: Exposure at default by maturity (CRB-E)

	2020			
	On demand and one year or less \$million	One to five years \$million	Over five years \$million	Total \$million
IRB Exposure Class				
1 Central governments or central banks	120,393	42,116	7,568	170,077
2 Institutions	95,594	20,938	5,454	121,986
3 Corporates	211,179	60,636	16,255	288,070
3a Of which specialised lending	9,719	7,665	4,276	21,660
3b Of which SME	3,619	777	358	4,754
4 Retail	13,255	22,960	78,409	114,624
4a Secured by real estate collateral	2,444	879	76,121	79,444
4b Of which SME	138	19	169	326
4c Of which Non SME	2,306	860	75,952	79,118
4d Qualifying revolving retail	2,320	13,825	329	16,474
4e Other retail	8,491	8,256	1,959	18,706
4f Of which SME	936	1,002	187	2,125
4g Of which Non SME	7,555	7,254	1,772	16,581
Non-credit obligation assets	215	603	297	1,115
6 Total IRB¹	440,636	147,253	107,983	695,872
Standardised Exposure Class				
7 Central governments or central banks	28,180	4,448	2,572	35,200
10 Multilateral development banks	1,942	10,793	3,187	15,922
12 Institutions	44,003	3,786	771	48,560
13 Corporates	38,842	2,395	1,585	42,822
13a Of which SME	12,898	564	912	14,374
14 Retail	6,123	3,336	2,840	12,299
14a Of which SME	923	1,386	1,472	3,781
15 Secured on real estate property	2,670	528	5,510	8,708
15a Of which SME	1,980	258	852	3,090
16 Past due items	198	63	87	348
17 Items belonging to regulatory high risk categories	620	63	82	765
21 Equity	2,208	–	–	2,208
22 Other items ²	11,812	1,980	2	13,794
23 Total Standardised	136,598	27,392	16,636	180,626
24 Total³	577,234	174,645	124,619	876,498

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

3 Refer to Table 40 (CRB-B) EAD before the effect of CRM

3.4 Exposure values continued

Table 43: Exposure at default by maturity (CRB-E) continued

		2019			
		On demand and one year or less \$million	One to five years \$million	Over five years \$million	Total \$million
IRB Exposure Class					
1	Central governments or central banks	113,372	44,389	8,016	165,777
2	Institutions	97,746	19,843	2,153	119,742
3	Corporates	188,919	61,625	14,952	265,496
3a	Of which specialised lending	9,618	6,007	4,196	19,821
3b	Of which SME	3,981	780	581	5,342
4	Retail	9,390	24,372	70,436	104,198
4a	Secured by real estate collateral	1,448	878	68,530	70,856
4b	Of which SME	129	17	279	425
4c	Of which Non SME	1,319	861	68,251	70,431
4d	Qualifying revolving retail	1,029	15,171	233	16,433
4e	Other retail	6,913	8,323	1,673	16,909
4f	Of which SME	938	875	201	2,014
4g	Of which Non SME	5,975	7,448	1,472	14,895
	Non-credit obligation assets	156	550	297	1,003
6	Total IRB¹	409,583	150,779	95,854	656,216
Standardised Exposure Class					
7	Central governments or central banks	19,582	6,081	2,566	28,229
10	Multilateral development banks	1,794	11,007	2,272	15,073
12	Institutions	20,336	2,393	1,965	24,694
13	Corporates	39,363	2,068	1,423	42,854
13a	Of which SME	14,454	565	782	15,801
14	Retail	6,527	4,402	3,060	13,989
14a	Of which SME	1,244	1,356	1,205	3,805
15	Secured on real estate property	2,880	696	6,301	9,877
15a	Of which SME	2,408	260	1,005	3,673
16	Past due items	404	39	74	517
17	Items belonging to regulatory high risk categories	933	62	75	1,070
21	Equity	–	–	1,942	1,942
22	Other Items ²	11,458	55	2	11,515
23	Total Standardised	103,277	26,803	19,680	149,760
24	Total³	512,860	177,582	115,534	805,976

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

3 Refer to Table 40 (CRB-B) EAD before the effect of CRM

3.4 Exposure values continued

Credit quality of exposures

Tables 44 to 46 break down defaulted and non-defaulted exposures by exposure class, as defined in the CRR, and by industry and geography. Exposure values presented in the tables are before the impact of Credit Conversion Factors (CCF) and funded Credit Risk Mitigation (CRM) but after substitution.

All Standard Chartered accounting provisions are categorised as specific credit risk adjustments according to the EBA RTS on specification of the calculation of specific and general credit risk adjustments (EBA/RTS/2013/04). The column for general credit risk adjustments as included in the prescribed templates of the EBA disclosure guidelines has therefore been removed. Net values equate to EAD after deduction of specific credit risk adjustments.

Values in Tables 47 to 50 are gross carrying values in accordance with IFRS. Tables 47 to 50 depict past-due exposures, broken down by past-due bands and provide further information on non-performing and forborne exposures.

The 2020 Annual Report and Accounts pages 192 to 198 provide additional information on credit quality analysis.

Table 44: Credit quality of exposures by exposure class and instruments (CR1-A)

		2020				
		EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period Net values \$million	Net values \$million
		Defaulted exposures \$million	Non-defaulted exposures \$million			
IRB Exposure Class						
1	Central governments or central banks	42	320,799	67	21	320,774
2	Institutions	10	271,493	18	9	271,485
3	Corporates	7,900	509,298	5,223	91	511,975
4	Of which specialised lending	1,105	35,935	823	250	36,217
5	Of which SME	600	6,336	376	39	6,560
6	Retail	826	134,630	795	343	134,661
7	Secured by real estate collateral	252	79,214	120	82	79,346
8	Of which SME	4	348	2	1	351
9	Of which Non SME	248	78,865	118	81	78,996
10	Qualifying revolving retail	144	33,376	143	9	33,377
11	Other retail	430	22,040	532	252	21,938
12	Of which SME	208	3,828	138	57	3,898
13	Of which Non SME	222	18,212	394	195	18,040
Non-credit obligation assets		340	775	–	–	1,115
15	Total IRB ²	9,118	1,236,995	6,103	465	1,240,010
Standardised Exposure Class						
16	Central governments or central banks	–	82,584	3	1	82,581
19	Multilateral development banks	–	26,604	3	(4)	26,600
21	Institutions	–	50,009	–	(2)	50,009
22	Corporates	530	68,473	412	(358)	68,591
23	Of which SME	371	36,184	257	(22)	36,297
24	Retail	104	21,643	533	349	21,213
25	Of which SME	44	6,506	41	1	6,508
26	Secured on real estate property	132	9,753	75	(5)	9,810
27	Of which SME	6	3,346	9	(3)	3,344
29	Items belonging to regulatory high risk categories	850	336	14	(47)	1,171
33	Equity	–	2,208	–	–	2,208
34	Other Items ³	–	14,931	–	–	14,931
35	Total Standardised	1,616	276,540	1,041	(65)	277,115
Of which past due items		1,616	–	610	(213)	1,005
36	Total ⁴	10,734	1,513,536	7,145	399	1,517,125
37	Of which Loans	7,921	285,129	6,631	287	286,419
38	Of which Debt securities	56	144,125	145	46	144,037
39	Of which Off-balance-sheet exposures	2,128	743,788	369	66	745,547

1 EAD before the effect of credit conversion factor and collateral but after substitution

2 Excludes securitisation exposures

3 Other items include cash, fixed assets, prepayments and accrued income

4 Amount written off during the year is \$1,728 million

3.4 Exposure values continued

Table 44: Credit quality of exposures by exposure class and instruments (CR1-A) continued

		2019				
		EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment	Credit risk adjustment changes in the period	Net values
		Defaulted exposures \$million	Non-defaulted exposures \$million	\$million	Net values \$million	\$million
IRB Exposure Class						
1	Central governments or central banks	–	317,833	45	(4)	317,787
2	Institutions	–	272,875	9	4	272,866
3	Corporates	6,849	470,485	5,132	(954)	472,201
4	Of which specialised lending	724	34,685	573	(14)	34,836
5	Of which SME	610	6,976	337	(133)	7,249
6	Retail	699	122,725	452	27	122,972
7	Secured by real estate collateral	201	70,670	38	(2)	70,833
8	Of which SME	6	439	1	(2)	444
9	Of which Non SME	195	70,231	37	(1)	70,389
10	Qualifying revolving retail	148	32,484	134	13	32,497
11	Other retail	350	19,571	280	16	19,642
12	Of which SME	144	3,104	81	6	3,166
13	Of which Non SME	206	16,467	198	11	16,475
Non-credit obligation assets		66	937	–	–	1,003
15	Total IRB ²	7,614	1,184,854	5,639	(927)	1,186,830
Standardised Exposure Class						
16	Central governments or central banks	–	117,041	2	(4)	117,039
19	Multilateral development banks	–	25,036	7	1	25,029
21	Institutions	–	26,598	3	1	26,595
22	Corporates	910	69,050	770	(171)	69,190
23	Of which SME	414	37,857	280	61	37,991
24	Retail	121	24,209	184	(17)	24,146
25	Of which SME	43	6,697	40	5	6,700
26	Secured on real estate property	116	10,230	80	7	10,266
27	Of which SME	14	3,901	12	(2)	3,904
29	Items belonging to regulatory high risk categories	726	715	61	(32)	1,380
33	Equity	–	1,942	–	–	1,942
34	Other Items ³	–	11,600	–	–	11,600
35	Total Standardised	1,873	286,421	1,107	(216)	287,187
Of which past due items		1,873	–	823	(271)	1,050
36	Total ⁴	9,488	1,471,274	6,745	(1,143)	1,474,017
37	Of which Loans	7,643	302,917	6,344	(733)	304,216
38	Of which Debt securities	66	137,555	99	(431)	137,521
39	Of which Off-balance-sheet exposures	1,570	760,764	302	21	762,032

1 EAD before the effect of credit conversion factor and collateral but after substitution

2 Excludes securitisation exposures

3 Other items include cash, fixed assets, prepayments and accrued income

4 Amount written off during the year is \$1,897 million

3.4 Exposure values continued

Table 45: Credit quality of exposures by industry types (CR1-B)

	2020				
	EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period \$million	Net values \$million
	Defaulted exposures \$million	Non-defaulted exposures \$million			
Loans to individuals mortgage	378	84,648	106	9	84,919
Loans to individuals other	541	66,747	1,114	629	66,175
SME	1,722	58,161	864	87	59,018
Commerce	1,645	77,346	1,264	175	77,727
Manufacturing	2,081	117,167	1,348	(129)	117,900
Commercial real estate	370	22,393	162	24	22,601
Government	42	383,091	66	21	383,067
Financing, insurance and business services	592	542,351	774	84	542,169
Transport, storage and communication	1,196	27,146	409	(174)	27,934
Other	2,168	134,485	1,038	(326)	135,615
Total^{2,3}	10,734	1,513,536	7,145	399	1,517,125

	2019				
	EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period \$million	Net values \$million
	Defaulted exposures \$million	Non-defaulted exposures \$million			
Loans to individuals mortgage	291	76,329	98	10	76,522
Loans to individuals other	561	65,656	485	–	65,732
SME	1,609	60,539	777	170	61,371
Commerce	1,180	70,910	1,089	95	71,001
Manufacturing	2,012	113,206	1,477	264	113,741
Commercial real estate	308	20,697	138	13	20,866
Government	–	406,056	45	(6)	406,011
Financing, insurance and business services	398	509,150	690	(89)	508,858
Transport, storage and communication	750	26,130	583	(485)	26,297
Other	2,379	122,603	1,364	(1,117)	123,618
Total^{2,3}	9,488	1,471,274	6,745	(1,143)	1,474,017

1 EAD before the effect of credit conversion factor and collateral but after substitution

2 Refer to Table 44 (CR1-A) for total net values

3 Accumulated write-off for the year is \$1,728 million (2019: \$1,897 million)

Table 46: Credit quality of exposures by geography (CR1-C)

	2020				
	EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period \$million	Net values \$million
	Defaulted exposures \$million	Non-defaulted exposures \$million			
Greater China & North Asia	923	530,076	702	28	530,297
ASEAN & South Asia	4,770	274,907	3,008	(102)	276,669
Africa & Middle East	3,799	130,575	2,761	451	131,613
Europe & Americas	1,242	577,978	674	22	578,546
Total^{2,3}	10,734	1,513,536	7,145	399	1,517,125

	2019				
	EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period ² \$million	Net values \$million
	Defaulted exposures \$million	Non-defaulted exposures \$million			
Greater China & North Asia	825	493,091	674	(8)	493,241
ASEAN & South Asia	4,382	279,906	3,110	(887)	281,178
Africa & Middle East	3,151	140,408	2,310	(58)	141,249
Europe & Americas	1,130	557,870	652	(190)	558,348
Total^{2,3}	9,488	1,471,274	6,745	(1,143)	1,474,017

1 EAD before the effect of credit conversion factor and collateral but after substitution

2 Refer to Table 44 (CR1-A) for total net values

3 Accumulated write-off for the year is \$1,728 million (2019: \$1,897 million)

3.4 Exposure values continued

Table 47: Credit quality of performing and non-performing exposures by past due days

		2020											
		Gross carrying amount/nominal amount											
		Performing exposures				Non-performing exposures							
						Unlikely to pay that are not past due or are past due							
		Not past due or past due ≤ 30 days \$million	Past due > 30 days ≤ 90 days \$million		Unlikely to pay that are not past due or are past due ≤ 90 days \$million	Past due > 90 days ≤ 180 days \$million	Past due > 180 days ≤ 1 year \$million	Past due > 1 year ≤ 2 years \$million	Past due > 2 years ≤ 5 years \$million	Past due > 5 years ≤ 7 years \$million	Past due > 7 years \$million	Of which defaulted \$million	
1	Loans and advances	460,300	459,587	714	9,244	2,760	1,541	1,265	751	1,472	761	692	9,244
2	Central banks	84,566	84,566	–	–	–	–	–	–	–	–	–	–
3	General governments	5,293	5,290	3	192	165	–	27	–	–	–	–	192
4	Credit institutions	58,748	58,718	30	107	107	–	–	–	–	–	–	107
5	Other financial corporations	69,504	69,502	2	313	112	–	33	–	29	16	124	313
6	Non-financial corporations	110,769	110,485	284	7,093	1,656	940	1,150	648	1,398	743	558	7,093
7	Of which SMEs	2,217	2,215	2	454	315	14	10	10	80	18	6	454
8	Households	131,421	131,026	395	1,539	721	601	54	104	45	3	11	1,539
9	Debt securities	154,541	154,538	3	114	98	–	–	–	–	16	–	114
10	Central banks	26,463	26,463	–	–	–	–	–	–	–	–	–	–
11	General governments	68,172	68,172	–	–	–	–	–	–	–	–	–	–
12	Credit institutions	37,217	37,217	–	–	–	–	–	–	–	–	–	–
13	Other financial corporations	18,337	18,336	2	–	–	–	–	–	–	–	–	–
14	Non-financial corporations	4,351	4,350	1	114	98	–	–	–	–	16	–	114
15	Off-balance-sheet exposures	206,598	–	–	772	–	–	–	–	–	–	–	772
16	Central banks	212	–	–	–	–	–	–	–	–	–	–	–
17	General governments	1,796	–	–	–	–	–	–	–	–	–	–	–
18	Credit institutions	11,647	–	–	12	–	–	–	–	–	–	–	12
19	Other financial corporations	27,805	–	–	61	–	–	–	–	–	–	–	61
20	Non-financial corporations	107,536	–	–	698	–	–	–	–	–	–	–	698
21	Households	57,603	–	–	1	–	–	–	–	–	–	–	1
22	Total	821,440	614,125	716	10,129	2,858	1,541	1,265	751	1,472	778	692	10,129

3.4 Exposure values continued

Table 47: Credit quality of performing and non-performing exposures by past due days continued

		2019											
		Gross carrying amount/nominal amount											
		Performing exposures				Non-performing exposures							
			Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
		\$million	\$million	\$million	\$million	\$million	\$million	\$million	\$million	\$million	\$million	\$million	\$million
1	Loans and advances	447,476	446,565	910	7,762	2,182	955	385	883	2,241	521	594	7,008
2	Central banks	65,844	65,844	–	–	–	–	–	–	–	–	–	–
3	General governments	5,616	5,609	7	–	–	–	–	–	–	–	–	–
4	Credit institutions	69,373	69,348	25	5	5	–	–	–	–	–	–	–
5	Other financial corporations	62,549	62,545	4	257	5	7	31	214	–	–	–	244
6	Non-financial corporations	117,940	117,469	471	6,262	1,741	369	309	534	2,205	520	584	5,822
7	Of which SMEs	4,712	4,696	16	358	222	–	7	127	–	–	1	350
8	Households	126,153	125,750	404	1,237	430	579	44	136	36	1	10	943
9	Debt securities	145,604	145,598	6	75	47	–	–	–	28	–	–	55
10	Central banks	25,250	25,250	–	–	–	–	–	–	–	–	–	–
11	General governments	71,443	71,443	–	–	–	–	–	–	–	–	–	–
12	Credit institutions	30,272	30,272	–	–	–	–	–	–	–	–	–	–
13	Other financial corporations	14,532	14,531	1	–	–	–	–	–	–	–	–	–
14	Non-financial corporations	4,107	4,103	5	75	47	–	–	–	28	–	–	55
15	Off-balance-sheet exposures	188,365	–	–	610	–	–	–	–	–	–	–	539
16	Central banks	688	–	–	–	–	–	–	–	–	–	–	–
17	General governments	1,688	–	–	–	–	–	–	–	–	–	–	–
18	Credit institutions	10,331	–	–	–	–	–	–	–	–	–	–	–
19	Other financial corporations	21,963	–	–	9	–	–	–	–	–	–	–	9
20	Non-financial corporations	101,426	–	–	601	–	–	–	–	–	–	–	530
21	Households	52,269	–	–	–	–	–	–	–	–	–	–	–
22	Total	781,445	592,164	916	8,447	2,229	955	385	883	2,270	521	594	7,602

3.4 Exposure values continued

Table 48: Credit quality of forbore exposures

		2020							
		Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forbore exposures	
		Performing forbore	Non-performing forbore			On performing forbore exposures	On non-performing forbore exposures	Of which collateral and financial guarantees received on non-performing exposures with forbearance measures	
		\$million	\$million	Of which defaulted \$million	Of which impaired \$million	\$million	\$million	\$million	\$million
1	Loans and advances	1,048	2,544	2,222	2,475	(3)	(1,561)	746	361
2	Central banks	-	-	-	-	-	-	-	-
3	General governments	-	-	-	-	-	-	-	-
4	Credit institutions	-	-	-	-	-	-	-	-
5	Other financial corporations	-	80	80	80	-	(65)	2	2
6	Non-financial corporations	709	2,131	2,115	2,126	(3)	(1,329)	657	317
7	Households	339	332	27	268	(1)	(166)	87	42
8	Debt Securities	-	-	-	-	-	-	-	-
9	Loan commitments given	-	-	-	-	-	-	-	-
10	Total	1,048	2,544	2,222	2,475	(3)	(1,561)	746	361

		2019							
		Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forbore exposures	
		Performing forbore	Non-performing forbore			On performing forbore exposures	On non-performing forbore exposures	Of which collateral and financial guarantees received on non-performing exposures with forbearance measures	
		\$million	\$million	Of which defaulted \$million	Of which impaired \$million	\$million	\$million	\$million	\$million
1	Loans and advances	1,008	2,376	1,850	2,294	(17)	(1,630)	729	598
2	Central banks	-	-	-	-	-	-	-	-
3	General governments	-	-	-	-	-	-	-	-
4	Credit institutions	-	-	-	-	-	-	-	-
5	Other financial corporations	1	106	106	106	-	(75)	-	-
6	Non-financial corporations	867	1,940	1,726	1,936	(17)	(1,387)	479	366
7	Households	140	330	18	252	-	(169)	250	232
8	Debt Securities	-	-	-	-	-	-	-	-
9	Loan commitments given	-	-	-	-	-	-	-	-
10	Total	1,008	2,376	1,850	2,294	(17)	(1,630)	729	598

3.4 Exposure values continued

Table 49: Performing and non-performing exposures and related provisions

		2020					
		Gross carrying amount/nominal amount					
		Performing exposures			Non-performing exposures		
		\$million	Of which stage 1 \$million	Of which stage 2 \$million	\$million	Of which stage 2 \$million	Of which stage 3 \$million
1	Loans and advances	460,300	437,166	23,134	9,244	–	9,244
2	Central banks	84,566	84,489	77	–	–	–
3	General governments	5,293	4,187	1,106	192	–	192
4	Credit institutions	58,748	58,455	293	107	–	107
5	Other financial corporations	69,504	68,630	874	313	–	313
6	Non-financial corporations	110,769	92,649	18,119	7,093	–	7,093
7	Of which SMEs	2,217	1,724	493	454	–	454
8	Households	131,421	128,756	2,665	1,539	–	1,539
9	Debt securities	154,541	151,008	3,533	114	–	114
10	Central banks	26,463	24,806	1,656	–	–	–
11	General governments	68,172	66,666	1,506	–	–	–
12	Credit institutions	37,217	37,149	68	–	–	–
13	Other financial corporations	18,337	18,149	188	–	–	–
14	Non-financial corporations	4,351	4,237	114	114	–	114
15	Off-balance-sheet exposures	206,598	193,327	13,271	772	–	772
16	Central banks	212	211	1	–	–	–
17	General governments	1,796	1,482	314	–	–	–
18	Credit institutions	11,647	11,199	448	12	–	12
19	Other financial corporations	27,805	26,506	1,299	61	–	61
20	Non-financial corporations	107,536	98,219	9,317	698	–	698
21	Households	57,603	55,710	1,893	1	–	1
22	Total	821,440	781,501	39,938	10,129	–	10,129

3.4 Exposure values continued

Table 49: Performing and non-performing exposures and related provisions continued

		2020								
		Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions							Collateral and financial guarantees received	
		Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions			Accumulated partial write-off \$million	On performing exposures \$million	On non-performing exposures \$million
		\$million	Of which stage 1 \$million	Of which stage 2 \$million	\$million	Of which stage 2 \$million	Of which stage 3 \$million			
1	Loans and advances	(1,294)	(548)	(746)	(5,341)	–	(5,341)	(3,913)	130,546	1,705
2	Central banks	(4)	(1)	(4)	–	–	–	–	995	–
3	General governments	(5)	(2)	(3)	(6)	–	(6)	(3)	1,704	45
4	Credit institutions	(9)	(8)	(1)	(84)	–	(84)	(27)	681	2
5	Other financial corporations	(10)	(4)	(6)	(209)	–	(209)	(274)	2,537	36
6	Non-financial corporations	(623)	(78)	(545)	(4,413)	–	(4,413)	(3,606)	26,455	1,015
7	Of which SMEs	(20)	(4)	(16)	(435)	–	(435)	–	992	18
8	Households	(642)	(456)	(186)	(628)	–	(628)	(3)	98,174	607
9	Debt securities	(82)	(56)	(26)	(58)	–	(58)	–	482	4
10	Central banks	(18)	(8)	(10)	–	–	–	–	–	–
11	General governments	(36)	(24)	(12)	–	–	–	–	–	–
12	Credit institutions	(3)	(3)	–	–	–	–	–	–	–
13	Other financial corporations	(14)	(10)	(4)	–	–	–	–	–	–
14	Non-financial corporations	(12)	(11)	(1)	(58)	–	(58)	–	482	4
15	Off-balance-sheet exposures	(174)	(61)	(115)	(194)	–	(194)	–	6,360	39
16	Central banks	–	–	–	–	–	–	–	–	–
17	General governments	(1)	–	(1)	–	–	–	–	185	–
18	Credit institutions	(2)	(1)	(1)	–	–	–	–	441	–
19	Other financial corporations	(4)	(3)	(1)	(16)	–	(16)	–	1,005	6
20	Non-financial corporations	(160)	(51)	(111)	(178)	–	(178)	–	4,510	33
21	Households	(7)	(5)	(2)	–	–	–	–	219	–
22	Total	(1,550)	(665)	(888)	(5,593)	–	(5,593)	(3,913)	137,388	1,748

3.4 Exposure values continued

Table 49: Performing and non-performing exposures and related provisions

		2019					
		Gross carrying amount/nominal amount					
		Performing exposures			Non-performing exposures		
		\$million	Of which stage 1 \$million	Of which stage 2 \$million	\$million	Of which stage 2 \$million	Of which stage 3 \$million
1	Loans and advances	447,476	360,276	22,062	7,762	–	7,762
2	Central banks	65,844	63,424	36	–	–	–
3	General governments	5,616	3,660	908	–	–	–
4	Credit institutions	69,373	50,346	615	5	–	5
5	Other financial corporations	62,549	22,765	1,079	257	–	257
6	Non-financial corporations	117,940	97,765	15,841	6,262	–	6,262
7	Of which SMEs	4,712	3,816	896	358	–	358
8	Households	126,153	122,315	3,583	1,237	–	1,237
9	Debt securities	145,604	140,510	4,649	75	–	75
10	Central banks	25,250	23,313	1,936	–	–	–
11	General governments	71,443	69,102	2,031	–	–	–
12	Credit institutions	30,272	29,978	253	–	–	–
13	Other financial corporations	14,532	14,274	224	–	–	–
14	Non-financial corporations	4,107	3,842	206	75	–	75
15	Off-balance-sheet exposures	188,365	175,906	12,460	610	–	610
16	Central banks	688	685	3	–	–	–
17	General governments	1,688	1,313	375	–	–	–
18	Credit institutions	10,331	10,138	193	–	–	–
19	Other financial corporations	21,963	21,036	928	9	–	9
20	Non-financial corporations	101,426	92,764	8,663	601	–	601
21	Households	52,269	49,970	2,298	–	–	–
22	Total	781,445	676,692	39,171	8,447	–	8,447

3.4 Exposure values continued

Table 49: Performing and non-performing exposures and related provisions continued

		2019							Collateral and financial guarantees received	
		Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions								
		Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions			Accumulated partial write-off \$million	On performing exposures \$million	On non-performing exposures \$million
1	Loans and advances	(843)	(453)	(390)	(5,304)	–	(5,304)	(3,236)	124,529	1,394
2	Central banks	(1)	(1)	–	–	–	–	–	1,515	–
3	General governments	(4)	(1)	(4)	–	–	–	(3)	511	–
4	Credit institutions	(4)	(3)	–	–	–	–	(27)	5,448	–
5	Other financial corporations	(26)	(9)	(17)	(177)	–	(177)	(270)	1,800	38
6	Non-financial corporations	(330)	(132)	(198)	(4,565)	–	(4,565)	(2,934)	25,387	819
7	Of which SMEs	(21)	(11)	(10)	(276)	–	(276)	–	1,815	70
8	Households	(479)	(307)	(171)	(563)	–	(563)	(3)	89,868	536
9	Debt securities	(73)	(51)	(22)	(45)	–	(45)	–	51	30
10	Central banks	(25)	(14)	(11)	–	–	–	–	–	–
11	General governments	(21)	(18)	(3)	–	–	–	–	–	–
12	Credit institutions	(4)	(4)	–	–	–	–	–	–	–
13	Other financial corporations	(9)	(7)	(2)	–	–	–	–	30	–
14	Non-financial corporations	(14)	(8)	(6)	(45)	–	(45)	–	21	30
15	Off-balance-sheet exposures	(111)	(58)	(53)	(191)	–	(191)	–	5,120	16
16	Central banks	(1)	(1)	–	–	–	–	–	–	–
17	General governments	(1)	–	–	–	–	–	–	154	–
18	Credit institutions	(1)	(1)	–	–	–	–	–	170	–
19	Other financial corporations	(7)	(5)	(2)	–	–	–	–	791	–
20	Non-financial corporations	(87)	(41)	(46)	(191)	–	(191)	–	3,763	16
21	Households	(14)	(9)	(6)	–	–	–	–	242	–
22 Total		(1,027)	(561)	(466)	(5,540)	–	(5,540)	(3,236)	129,700	1,440

3.4 Exposure values continued

Table 50: Changes in the stock of general and specific credit risk adjustments (CR2-A)

	2020	
	Accumulated specific credit risk adjustment \$million	Accumulated general credit risk adjustment \$million
1 Opening balance	6,591	N/A
2 Increases due to amounts set aside for estimated loan losses during the period	2,825	N/A
3 Decreases due to amounts reversed for estimated loan losses during the period	(256)	N/A
4 Decreases due to amounts taken against accumulated credit risk adjustments	(1,914)	N/A
5 Transfers between credit risk adjustments	–	N/A
6 Impact of exchange rate differences	57	N/A
7 Business combinations, including acquisitions and disposals of subsidiaries	(364)	N/A
8 Other adjustments	198	N/A
9 Closing balance	7,137	N/A
10 Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	(242)	N/A
11 Specific credit risk adjustments directly recorded to the statement of profit or loss	2,569	N/A

	2019	
	Accumulated specific credit risk adjustment \$million	Accumulated general credit risk adjustment \$million
1 Opening balance	7,886	N/A
2 Increases due to amounts set aside for estimated loan losses during the period	2,003	N/A
3 Decreases due to amounts reversed for estimated loan losses during the period	(781)	N/A
4 Decreases due to amounts taken against accumulated credit risk adjustments	(2,201)	N/A
5 Transfers between credit risk adjustments	–	N/A
6 Impact of exchange rate differences	141	N/A
7 Business combinations, including acquisitions and disposals of subsidiaries	–	N/A
8 Other adjustments	(458)	N/A
9 Closing balance	6,591	N/A
10 Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	(248)	N/A
11 Specific credit risk adjustments directly recorded to the statement of profit or loss	1,148	N/A

Table 51: Changes in the stock of defaulted and impaired loans and debt securities (CR2-B)

	2020 Gross carrying value of defaulted exposures \$million	2019 Gross carrying value of defaulted exposures \$million
1 Opening balance	8,446	10,180
2 Loans and debt securities that have defaulted or impaired since the last reporting period	5,135	2,323
3 Returned to non-defaulted status	(153)	(193)
4 Amounts written off	(1,913)	(2,278)
5 Other changes	(1,415)	(1,587)
6 Closing balance	10,100	8,446

3.5 Regulatory expected loss vs. impairment charge

The Risk profile section of the 2020 Annual Report and Accounts provides on page 224 an overview of the key differences between regulatory and IFRS expected credit loss models. The table below compares the regulatory expected loss at 31 December 2019 against expected credit loss in the 2020 Annual Report and Account for the IRB portfolio.

Table 52: Regulatory expected loss

	2020		2019	
	Regulatory expected loss \$million	Net impairment charge \$million	Regulatory expected loss \$million	Net impairment charge \$million
IRB Exposure Class				
Central governments or central banks	203	21	125	(4)
Institutions	65	9	68	4
Corporates	5,252	91	5,243	(954)
Retail, of which	1,162	343	914	27
Secured by real estate collateral	182	82	79	(2)
Qualifying revolving retail	235	9	263	13
Retail SME	176	57	110	6
Other retail	569	195	462	11
Total IRB	6,682	464	6,350	(927)

Expected loss reduced by \$0.3 billion reflecting the changes to the Group's risk profile.

3.6 Risk grade profile

Exposures by internal credit grading

For CIB and CB IRB portfolios, an alphanumeric credit risk-grading system is used. The grading is based on the Group's internal estimate of probability of default over a one-year horizon, with customers or portfolios assessed against a range of quantitative and qualitative factors from credit risk models. The numeric grades run from 1 to 14 and some of the grades are further sub-classified. Numerically lower credit grades are indicative of a lower likelihood of default. Credit grades 1 to 12 are assigned to performing customers and credit grades 13 and 14 are assigned to non-performing or defaulted customers. The Group's credit grades in CIB and CB are not intended to replicate external credit grades, and ratings assigned by external credit assessment institutions (ECAI) are not used in determining internal credit grades. Nonetheless, as the assessment factors used to grade a borrower may be similar, a borrower rated poorly by an ECAI is typically expected to be assigned a weak internal credit grade.

For Retail exposures, application and behaviour credit scores are calibrated to generate a PD used for RWA and capital estimate purposes for IRB portfolios and mapped to the standard alphanumeric credit risk grade system for credit risk management and reporting purposes. Where available, information from credit bureaus is considered, but is not the sole determinant for PDs.

IRB models cover a substantial majority of the Group's exposures and are used extensively in assessing risks at customer and portfolio level, setting strategy and optimising the Group's risk-return decisions. The Group makes use of internal risk estimates of PD, LGD and EAD in the areas of:

- **Credit Approval and Decision** – In CIB and CB, the level of authority required for the sanctioning of credit requests and the decision made is based on a combination of PD, LGD and EAD of the obligor with reference to the nominal exposure. In Retail, credit scores are relied upon as one of the primary drivers for credit decisioning. The recession loss (derived from PD, LGD and EAD) is used for determining level of approval authority required for Credit Approval Documents which outlines peak exposure and credit acceptance criteria for the portfolio
- **Pricing** – In CIB and CB, a pre-deal pricing calculator, which takes into consideration PD, LGD and EAD in the calculation of expected loss and risk-weighted assets, is used for the proposed transactions to ensure appropriate returns. In Retail unsecured lending, a risk-return approach based on PD estimates is used as guidance for pricing strategy
- **Limit Setting** – In CIB and CB, single name concentration limits are determined by PD, LGD and EAD. The limits operate on a sliding scale to ensure that the Group does not have an excessive concentration of low credit quality assets. In Retail unsecured lending, limit assignment/loan amounts are risk-based and segregated by credit score bands

3.6 Risk grade profile continued

Table 53: Exposure weighted average PD% and LGD% by geography

	2020				
	Greater China & North Asia ¹ %	ASEAN & South Asia ¹ %	Africa & Middle East ¹ %	Europe & Americas ¹ %	Total %
Exposure weighted average PD%					
Central governments or central banks	0.03	0.23	2.43	0.01	0.28
Institutions	0.06	0.39	0.57	0.17	0.23
Corporates	1.13	8.44	9.40	1.10	3.31
Of which Specialised lending	3.42	11.05	14.17	1.42	7.78
Of which SME	5.95	20.13	36.96	45.42	14.56
Retail	0.95	3.41	18.39	4.73	1.55
Of which secured by real estate property	0.30	1.83	–	–	0.64
Of which qualifying revolving retail	0.83	5.15	9.00	0.95	2.16
Of which SME	3.11	15.96	–	–	0.63
Total IRB	0.63	3.79	5.74	0.68	1.73
Exposure weighted average LGD%					
Central governments or central banks	43	42	43	45	44
Institutions	36	31	26	29	31
Corporates	37	38	33	24	31
Of which Specialised lending	31	32	29	31	31
Of which SME	17	39	51	38	28
Retail	34	31	82	92	33
Of which secured by real estate property	12	15	39	–	13
Of which qualifying revolving retail	88	72	85	90	83
Of which SME	65	50	57	88	58
Total IRB	37	36	34	30	34
	2019				
	Greater China & North Asia ¹ %	ASEAN & South Asia ¹ %	Africa & Middle East ¹ %	Europe & Americas ¹ %	Total %
Exposure weighted average PD%					
Central governments or central banks	0.02	0.12	1.32	0.01	0.18
Institutions	0.06	0.34	0.54	0.15	0.20
Corporates	1.25	6.91	8.21	0.96	3.04
Of which Specialised lending	2.16	4.93	13.11	1.12	5.77
Of which SME	4.39	18.76	41.44	0.66	12.17
Retail	0.98	2.97	16.76	3.69	1.52
Of which secured by real estate property	0.28	1.46	–	–	0.56
Of which qualifying revolving retail	0.90	5.76	8.86	1.24	2.39
Of which SME	3.96	8.33	–	–	0.55
Total IRB	0.63	3.36	4.71	0.57	1.54
Exposure weighted average LGD%					
Central governments or central banks	41	38	41	45	42
Institutions	36	33	28	25	31
Corporates	39	39	39	24	32
Of which Specialised lending	32	31	30	37	32
Of which SME	18	44	50	60	32
Retail	35	31	83	92	34
Of which secured by real estate property	11	15	–	–	12
Of which qualifying revolving retail	88	72	85	90	83
Of which SME	72	50	50	70	61
Total IRB	38	36	37	29	35

¹ The regional split is based on the residence of the counterparty

3.6 Risk grade profile continued

Table 54 sets out credit and counterparty risk EAD within the IRB portfolios by regulatory exposure classes. EAD has been calculated after taking into account the impact of credit risk mitigation. Where an exposure is guaranteed or covered by credit derivatives, it is shown against the exposure class of the guarantor or derivative issuer. A further split of the major exposure classes by credit grade can be seen in Tables 56 to 64.

IRB credit risk excluding counterparty credit risk EAD increased by \$29.7 billion and RWA increased by \$8.8 billion (Tables 56 to 64):

- Central governments and central banks EAD increased \$10 billion and RWA increased by \$4.0 billion driven by an increase in interbank placings and Nostros
- Institutions EAD increased \$2.3 billion driven by an increase in derivatives
- IRB corporates EAD increased \$6.8 billion and RWA increased by \$3.1 billion driven by an increase in SFT transactions
- IRB Retail EAD increased \$10.4 billion and RWA increased by \$2.0 billion driven by increase in loans and mortgages, primarily in GCNA

Table 54: IRB – Credit risk exposure by exposure class

	2020											
	Original on-balance sheet gross exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
IRB Exposure Class												
Central governments or central banks	158,431	151,528	1	160,811	0.27	0.2	45	1.31	25,807	16	187	67
Institutions	77,634	160,870	8	87,334	0.24	1.6	38	1.04	15,237	17	56	18
Corporates	131,758	291,914	21	191,066	4.89	22.8	41	1.41	89,184	47	5,185	5,208
Of which Specialised lending	19,171	20,443	20	19,821	8.29	1.2	30	1.72	9,916	50	781	812
Of which SME	4,192	3,090	28	4,741	14.57	5.8	27	1.32	2,407	51	384	376
Retail	94,187	41,572	50	114,625	1.55	4,285.1	33		24,847	22	1,162	795
Of which secured by real estate	76,298	3,172	99	79,445	0.64	364.5	13		5,074	6	182	120
– SME	300	52	50	326	4.33	1.7	–		–	–	1	2
– Non SME	75,999	3,121	100	79,118	0.63	362.8	13		5,074	6	181	118
Of which qualifying revolving retail	3,085	30,435	44	16,474	2.16	3,315.5	83		4,233	26	235	143
Of which other retail	14,804	7,964	53	18,706	4.88	605.1	78		15,540	83	745	532
– SME	2,264	2,070	8	2,125	10.63	29.5	58		1,183	56	176	138
– Non SME	12,540	5,894	69	16,581	4.14	575.6	80		14,357	87	569	394
Non-credit obligation assets	1,115	–	–	1,115	–	–	–		1,115	100	–	–
Total IRB⁴	463,125	645,884	15	554,952	2.10	4,310.0	40	1.03	156,191	28	6,590	6,088

1 Weighted averages are based on EAD

2 Number of obligors is based on number of counterparties for central governments or central banks, institutions and corporates and on individual pools of clients for retail

3 Corporates of which specialised lending includes exposures for specialised lending subject to supervisory slotting criteria

4 Refer to Table 20 (OV1) for RWA

3.6 Risk grade profile continued

Table 54: IRB – Credit risk exposure by exposure class continued

	2019											
IRB Exposure Class	Original on-balance sheet gross exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
Central governments or central banks	148,292	152,562	–	150,754	0.18	0.3	45	1.40	21,807	14	116	44
Institutions	76,361	162,607	6	85,009	0.22	1.6	38	0.91	15,638	18	61	9
Corporates	130,092	268,848	21	184,245	4.31	22.1	41	1.47	86,061	47	5,202	5,132
Of which Specialised lending ³	18,478	19,501	16	18,456	6.11	1.1	32	1.71	9,917	54	565	573
Of which SME	4,637	3,090	25	5,124	12.67	6.5	30	1.46	3,312	65	356	337
Retail	85,592	38,073	49	104,198	1.52	4,325.4	34		22,857	22	914	452
Of which secured by real estate	68,844	2,032	99	70,856	0.56	358.2	12		4,264	6	79	38
– SME	403	42	54	425	3.51	2.7	0		–	–	–	1
– Non SME	68,442	1,990	100	70,431	0.55	355.5	12		4,264	6	78	37
Of which qualifying revolving retail	3,539	29,092	44	16,433	2.39	3,351.7	83		4,592	28	263	134
Of which other retail	13,209	6,948	57	16,908	4.71	617.2	78		14,001	83	572	280
– SME	2,082	1,401	12	2,013	8.05	33.3	61		1,299	65	110	81
– Non SME	11,127	5,547	68	14,895	4.25	583.9	80		12,702	85	462	198
Non-credit obligation assets	1,003	–	–	1,003	–				1,003	100		–
Total IRB⁴	441,340	622,089	14	525,209	1.88	4,349.0	40	1.06	147,365	27	6,293	5,638

1 Weighted averages are based on EAD

2 Number of obligors is based on number of counterparties for central governments or central banks, institutions and corporates and on individual pools of clients for retail

3 Corporates of which specialised lending includes exposures for specialised lending subject to supervisory slotting criteria

4 Refer to Table 20 (OV1) for RWA

3.6 Risk grade profile continued

The table below demonstrates Standard Chartered's internal ratings and its approximate relation to external credit ratings.

Tables 56 to 64 and tables 89 to 93 provide further detail on the exposure classes subject to credit and counterparty credit risk, in particular for central governments or central banks, institutions, corporates and retail. These have been split by internal credit grade which relate to the PD ranges presented. These exposure classes represent 79 per cent (2019: 81 per cent) of the Group's total credit risk exposure before collateral.

Table 55: Internal default grade probabilities and mapping to external ratings

SCB internal ratings	PD range (%)	Standard & Poor's external rating equivalent for sovereigns and institutions	Standard & Poor's external rating equivalent for corporates
1A	0.000 – 0.015	AAA/AA+	AAA/AA+
1B	0.016 – 0.025	AA	AA
2A	0.026 – 0.035	AA-	AA-
2B	0.036 – 0.045	A+	AA-/A+
3A	0.046 – 0.060	A	A+
3B	0.061 – 0.083	A-	A/A-
4A	0.084 – 0.110	BBB+	BBB+
4B	0.111 – 0.170	BBB	BBB
5A	0.171 – 0.300	BBB-	BBB-
5B	0.301 – 0.425	BB+	BB+
6A	0.426 – 0.585	BB	BB
6B	0.586 – 0.770	BB/BB-	BB/BB-
7A	0.771 – 1.020	BB-	BB-
7B	1.021 – 1.350	BB-/B+	BB-
8A	1.351 – 1.750	B+	BB-/B+
8B	1.751 – 2.350	B+/B	B+
9A	2.351 – 3.050	B	B+/B
9B	3.051 – 4.000	B/B-	B
10A	4.001 – 5.300	B-	B/B-
10B	5.301 – 7.000	B-/CCC	B-
11A/B/C	7.001 – 15.750	B-/CCC	CCC/C
12A/B/C	15.751 – 99.999	CCC/C	CCC/C
13	100	N/A	N/A
14	100	N/A	N/A
Unrated		N/A	N/A

3.6 Risk grade profile continued

Table 56: IRB credit risk exposure by internal PD grade for central governments or central banks (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	137,587	134,780	1	141,347	0.02	0.1	45	1.30	9,910	7	13	
0.15 to <0.25	7,436	3,669	1	7,475	0.22	–	45	1.69	3,042	41	7	
0.25 to <0.50	659	353	6	679	0.49	–	46	1.37	415	61	2	
0.50 to <0.75	1,551	1,158	–	1,592	0.67	–	45	0.81	986	62	5	
0.75 to <2.50	8,001	8,457	1	7,684	2.20	–	45	1.31	8,224	107	76	
2.50 to <10.00	2,875	2,785	2	1,765	5.59	–	45	1.04	2,558	145	44	
10.00 to <100.00	249	307	–	249	32.99	–	45	1.00	621	250	37	
100.00 (default)	73	21	–	22	100.00	–	26	1.00	50	230	2	
Total	158,431	151,528	1	160,811	0.27	0.2	45	1.31	25,807	16	187	67

PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	130,998	120,796	–	134,248	0.02	0.2	45	1.39	9,605	7	12	
0.15 to <0.25	6,084	2,776	1	6,180	0.22	–	45	2.13	2,788	45	6	
0.25 to <0.50	987	1,525	–	747	0.39	–	45	1.48	402	54	2	
0.50 to <0.75	981	529	–	981	0.67	–	45	1.18	655	67	3	
0.75 to <2.50	8,127	11,695	3	7,923	1.59	0.1	44	1.06	7,111	90	55	
2.50 to <10.00	774	2,354	1	395	5.89	–	45	1.72	615	156	10	
10.00 to <100.00	342	12,887	–	281	24.55	–	41	1.27	631	225	28	
100.00 (default)	–	–	–	–	–	–	–	–	–	–	–	
Total	148,292	152,562	–	150,754	0.18	0.3	45	1.40	21,807	14	116	44

1. Weighted averages are based on EAD

2. Number of obligors is based on the number of counterparties within each PD grade

3.6 Risk grade profile continued

Table 57: IRB credit risk exposure by internal PD grade for institutions (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	62,961	125,102	6	72,701	0.04	0.8	39	1.15	8,476	12	12	
0.15 to <0.25	3,211	8,403	12	4,123	0.22	0.1	37	0.35	1,193	29	3	
0.25 to <0.50	2,994	9,287	9	3,341	0.45	0.2	27	0.51	1,128	34	4	
0.50 to <0.75	1,130	3,749	8	1,055	0.68	0.1	38	0.78	594	56	3	
0.75 to <2.50	6,368	12,028	14	5,194	1.68	0.4	27	0.56	3,184	61	23	
2.50 to <10.00	944	2,133	19	888	5.05	0.1	20	0.31	635	72	10	
10.00 to <100.00	26	158	11	25	26.86	–	19	0.47	25	102	1	
100.00 (default)	–	10	78	8	100.00	–	7	0.35	2	22	1	
Total	77,634	160,870	8	87,334	0.24	1.6	38	1.04	15,237	17	56	18
PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	59,924	124,158	5	69,216	0.04	0.8	39	0.98	7,491	11	11	
0.15 to <0.25	2,699	10,997	10	3,636	0.22	0.1	35	0.63	1,089	30	3	
0.25 to <0.50	4,754	10,192	4	4,373	0.45	0.2	34	0.78	1,902	43	7	
0.50 to <0.75	809	2,111	7	545	0.67	0.1	38	0.40	316	58	1	
0.75 to <2.50	7,495	14,029	13	6,753	1.44	0.4	31	0.44	4,314	64	29	
2.50 to <10.00	494	884	10	430	5.98	0.1	25	0.36	408	95	7	
10.00 to <100.00	186	236	1	56	13.90	–	41	0.42	118	209	3	
100.00 (default)	–	–	–	–	–	–	–	–	–	–	–	
Total	76,361	162,607	6	85,009	0.22	1.6	38	0.91	15,638	18	61	9

1 Weighted averages are based on EAD

2 Number of obligors is based on the number of counterparties within each PD grade

3.6 Risk grade profile continued

Table 58: IRB credit risk exposure by internal PD grade for Corporates (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	41,308	128,526	17	75,019	0.07	3.9	45	1.39	13,501	18	25	
0.15 to <0.25	15,828	33,670	23	23,369	0.22	2.1	40	1.39	8,161	35	21	
0.25 to <0.50	18,401	52,707	24	30,961	0.45	3.6	39	1.42	15,051	49	54	
0.50 to <0.75	7,172	16,665	25	9,919	0.67	1.3	39	1.35	5,892	59	26	
0.75 to <2.50	22,951	40,617	24	27,219	1.50	4.8	33	1.50	18,455	68	134	
2.50 to <10.00	8,679	12,900	18	8,474	5.69	4.2	34	1.44	9,478	112	167	
10.00 to <100.00	5,529	3,831	34	3,949	22.60	1.4	29	1.64	5,984	152	751	
100.00 (default)	6,884	1,636	46	6,997	100.00	1.5	49	1.15	8,503	122	3,961	
Total	126,752	290,552	21	185,907	4.89	22.7	41	1.41	85,026	46	5,138	5,208

PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	42,491	122,887	18	74,360	0.08	3.2	44	1.54	14,879	20	25	
0.15 to <0.25	14,746	35,978	23	22,743	0.22	2.2	41	1.24	7,682	34	21	
0.25 to <0.50	20,195	47,279	23	29,990	0.45	3.4	38	1.61	15,325	51	52	
0.50 to <0.75	7,256	13,913	24	9,285	0.68	1.2	41	1.37	5,939	64	26	
0.75 to <2.50	23,041	37,614	23	27,201	1.52	5.2	34	1.54	19,529	72	141	
2.50 to <10.00	7,982	7,185	23	7,361	5.52	3.7	38	1.20	8,874	121	156	
10.00 to <100.00	4,689	2,355	41	3,124	39.27	2.0	36	1.36	6,178	198	341	
100.00 (default)	5,119	879	35	5,376	100.00	1.0	57	1.03	3,730	69	4,398	
Total	125,520	268,090	21	179,441	4.31	22.0	41	1.47	82,137	47	5,160	5,133

1 Weighted averages are based on EAD

2 Number of obligors is based on the number of counterparties within each PD grade

3.6 Risk grade profile continued

Table 59: IRB credit risk exposure by internal PD grade for corporates – specialised lending (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	1,880	4,023	15	2,562	0.08	0.2	34	2.54	485	19	1	
0.15 to <0.25	3,008	2,691	19	2,830	0.22	0.1	25	1.17	558	20	2	
0.25 to <0.50	2,493	3,354	16	2,603	0.44	0.2	33	1.56	927	36	4	
0.50 to <0.75	836	1,691	19	1,058	0.67	0.1	40	0.88	578	55	3	
0.75 to <2.50	3,479	5,961	27	3,681	1.49	0.5	22	1.85	1,729	47	12	
2.50 to <10.00	970	999	14	581	4.83	0.1	27	2.88	555	96	8	
10.00 to <100.00	359	146	7	323	25.88	–	27	3.48	516	160	21	
100.00 (default)	1,141	217	79	1,022	100.00	0.1	45	0.80	408	40	687	
Total	14,165	19,082	20	14,662	8.29	1.2	30	1.72	5,757	39	736	812
PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	1,984	3,747	16	2,666	0.09	0.2	33	2.14	454	17	1	
0.15 to <0.25	2,999	2,441	11	2,703	0.22	0.1	31	1.07	599	22	2	
0.25 to <0.50	2,947	4,189	18	2,942	0.47	0.2	31	1.84	1,268	43	4	
0.50 to <0.75	497	1,714	28	768	0.67	0.1	29	1.34	345	45	2	
0.75 to <2.50	3,850	5,804	12	3,323	1.53	0.5	31	1.89	2,258	68	16	
2.50 to <10.00	691	589	8	368	6.21	–	35	1.36	435	118	8	
10.00 to <100.00	393	230	60	376	62.06	–	23	2.29	517	137	38	
100.00 (default)	545	30	14	506	100.00	–	54	0.64	117	23	454	
Total	13,906	18,743	16	13,652	6.16	1.2	32	1.68	5,994	44	525	573

1 Weighted averages are based on EAD

2 Number of obligors is based on the number of counterparties within each PD grade

3.6 Risk grade profile continued

Table 60: IRB credit risk exposure by internal PD grade for corporates – SME (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	107	189	16	35	0.12	–	59	0.21	10	28	–	
0.15 to <0.25	290	279	40	418	0.23	0.4	22	5.14	59	14	–	
0.25 to <0.50	406	498	29	544	0.49	0.7	22	1.01	97	18	1	
0.50 to <0.75	139	346	16	189	0.70	0.2	17	0.55	34	18	–	
0.75 to <2.50	1,292	1,030	33	1,531	1.71	1.4	23	1.35	544	36	6	
2.50 to <10.00	1,148	562	28	1,253	6.14	2.0	24	1.47	694	55	19	
10.00 to <100.00	290	107	27	234	19.63	0.5	35	0.45	296	126	17	
100.00 (default)	521	79	21	537	100.00	0.5	57	0.16	673	125	342	
Total	4,192	3,090	28	4,741	14.57	5.8	27	1.32	2,407	51	384	376

PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	189	161	14	218	0.07	–	55	0.72	53	24	–	
0.15 to <0.25	284	426	37	465	0.23	0.4	26	3.88	79	17	–	
0.25 to <0.50	417	452	19	504	0.49	0.7	23	0.92	105	21	1	
0.50 to <0.75	184	194	21	228	0.70	0.3	21	0.79	54	24	–	
0.75 to <2.50	1,563	1,138	21	1,746	1.78	1.7	25	1.65	849	49	8	
2.50 to <10.00	1,183	507	33	1,215	5.72	2.1	30	1.66	956	79	21	
10.00 to <100.00	398	98	30	297	30.78	1.0	30	0.59	472	159	14	
100.00 (default)	418	114	30	452	100.00	0.2	60	0.14	746	165	312	
Total	4,637	3,090	25	5,124	12.67	6.5	30	1.46	3,312	65	356	337

1 Weighted averages are based on EAD

2 Number of obligors is based on the number of counterparties within each PD grade

3.6 Risk grade profile continued

Table 61: IRB credit risk exposure by internal PD grade for retail (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	62,311	22,747	57	75,320	0.07	1,578.8	23		2,586	3	13	
0.15 to <0.25	8,641	4,673	44	10,659	0.23	304.4	30		1,247	12	8	
0.25 to <0.50	5,006	1,985	55	6,053	0.40	209.2	48		1,716	28	11	
0.50 to <0.75	2,601	3,771	46	4,302	0.68	225.9	62		1,504	35	18	
0.75 to <2.50	7,949	4,936	41	9,851	1.71	673.6	65		7,458	76	115	
2.50 to <10.00	5,969	2,643	25	6,561	5.71	892.3	70		7,440	113	262	
10.00 to <100.00	951	748	22	1,111	30.10	338.0	66		1,767	159	351	
100.00 (default)	759	68	14	768	100.00	62.8	55		1,128	147	383	
Total	94,187	41,572	50	114,625	1.55	4,285.1	33		24,847	22	1,162	795

PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	58,617	20,329	56	69,948	0.06	1,576.3	26		2,736	4	12	
0.15 to <0.25	5,492	4,272	44	7,362	0.23	318.7	31		842	11	6	
0.25 to <0.50	5,337	2,081	54	6,425	0.40	246.0	26		1,831	29	12	
0.50 to <0.75	2,627	3,376	49	4,260	0.68	229.3	136		1,500	35	18	
0.75 to <2.50	6,741	4,671	42	8,584	1.72	678.8	54		6,478	75	104	
2.50 to <10.00	5,136	2,591	27	5,791	5.87	890.0	55		6,500	112	241	
10.00 to <100.00	1,029	715	26	1,207	30.21	320.7	49		2,040	169	215	
100.00 (default)	613	39	24	622	100.00	65.6	53		928	149	306	
Total	85,592	38,073	49	104,198	1.52	4,325.4	34		22,857	22	914	452

1 Weighted averages are based on EAD

2 Number of obligors is based on the number of counterparties within each PD grade

3.6 Risk grade profile continued

Table 62: IRB credit risk exposure by internal PD grade for retail – secured by real estate property (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	60,750	2,366	100	63,116	0.07	265.3	11		1,718	3	6	
0.15 to <0.25	7,967	473	98	8,431	0.22	31.7	18		858	10	3	
0.25 to <0.50	2,859	132	98	2,988	0.42	17.0	17		417	14	2	
0.50 to <0.75	1,284	54	100	1,338	0.67	11.8	15		203	15	1	
0.75 to <2.50	2,209	85	89	2,286	1.49	22.5	17		688	30	6	
2.50 to <10.00	758	59	94	813	5.61	9.6	24		659	81	10	
10.00 to <100.00	219	3	93	222	41.51	3.1	19		208	94	95	
100.00 (default)	251	1	94	252	100.00	3.4	33		323	128	58	
Total	76,298	3,172	99	79,445	0.64	364.5	13		5,074	6	182	120

PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	56,972	1,465	100	58,438	0.06	260.4	11		1,922	3	4	
0.15 to <0.25	4,817	299	96	5,106	0.22	30.8	17		450	9	2	
0.25 to <0.50	3,230	108	99	3,335	0.42	27.1	20		541	16	3	
0.50 to <0.75	1,355	39	99	1,394	0.66	12.9	16		223	16	1	
0.75 to <2.50	1,605	63	92	1,663	1.39	15.1	14		418	25	3	
2.50 to <10.00	464	54	98	516	6.49	5.8	14		263	51	5	
10.00 to <100.00	205	3	96	209	38.24	3.0	18		204	98	13	
100.00 (default)	195	1	100	196	100.00	3.1	32		242	123	47	
Total	68,844	2,032	99	70,856	0.56	358.2	12		4,264	6	79	38

1 Weighted averages are based on EAD

2 Number of obligors is based on the number of counterparties within each PD grade

3.6 Risk grade profile continued

Table 63: IRB credit risk exposure by internal PD grade for retail – qualifying revolving (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	885	17,594	48	9,325	0.08	1,219.4	85		392	4	6	
0.15 to <0.25	216	3,366	40	1,564	0.24	255.1	80		171	11	3	
0.25 to <0.50	147	1,045	50	665	0.43	132.1	76		106	16	2	
0.50 to <0.75	263	3,068	48	1,731	0.68	178.3	88		462	27	10	
0.75 to <2.50	561	2,959	36	1,620	1.74	464.1	81		799	49	23	
2.50 to <10.00	671	1,836	24	1,112	6.17	733.9	79		1,268	114	55	
10.00 to <100.00	199	567	20	314	28.78	302.0	80		651	208	72	
100.00 (default)	143	1	–	143	100.00	30.6	66		384	269	64	
Total	3,085	30,435	44	16,474	2.16	3,315.5	83		4,233	26	235	143

PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	1,003	16,299	48	8,876	0.08	1,218.0	85		377	4	6	
0.15 to <0.25	227	3,435	40	1,596	0.25	269.8	79		174	11	3	
0.25 to <0.50	175	1,136	51	760	0.43	157.4	76		121	16	2	
0.50 to <0.75	285	2,885	49	1,690	0.68	178.9	88		449	27	10	
0.75 to <2.50	608	2,912	36	1,663	1.75	480.5	81		816	49	24	
2.50 to <10.00	820	1,911	25	1,303	6.26	731.8	79		1,494	115	65	
10.00 to <100.00	273	514	25	399	27.44	282.5	80		825	207	87	
100.00 (default)	147	1	–	147	100.00	32.7	64		336	229	66	
Total	3,539	29,092	44	16,433	2.39	3,351.7	83		4,592	28	263	134

1 Weighted averages are based on EAD

2 Number of obligors is based on the number of counterparties within each PD grade

3.6 Risk grade profile continued

Table 64: IRB credit risk exposure by internal PD grade for retail – SME (CR6)

PD range %	2020											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	36	32	16	40	0.12	1.0	67		6	14	–	
0.15 to <0.25	167	397	7	179	0.22	2.0	51		31	18	–	
0.25 to <0.50	203	133	25	190	0.45	3.2	55		56	30	–	
0.50 to <0.75	160	301	4	145	0.68	2.0	55		55	38	1	
0.75 to <2.50	860	542	6	767	1.65	11.6	63		470	61	8	
2.50 to <10.00	606	487	6	565	5.62	7.4	55		400	71	17	
10.00 to <100.00	86	114	8	87	32.39	1.3	57		83	96	17	
100.00 (default)	144	64	11	151	100.00	1.0	57		81	54	132	
Total	2,264	2,070	8	2,125	10.63	29.5	58		1,183	56	176	138

PD range %	2019											
	Original on-balance sheet exposure \$million	Off-balance sheet exposure pre CCF \$million	Average CCF %	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ² thousands	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %	Expected loss \$million	Value adjustments and provisions \$million
0.00 to <0.15	71	35	14	73	0.10	2.3	68		9	13	–	
0.15 to <0.25	109	126	22	123	0.26	2.0	58		28	23	–	
0.25 to <0.50	117	103	18	100	0.44	3.1	61		33	33	–	
0.50 to <0.75	92	61	26	85	0.68	1.9	61		35	42	–	
0.75 to <2.50	965	546	9	917	1.77	13.2	64		587	64	10	
2.50 to <10.00	574	371	7	552	5.25	8.1	57		405	73	17	
10.00 to <100.00	87	123	13	92	46.52	2.2	56		137	148	22	
100.00 (default)	66	35	20	73	100.00	0.6	61		63	87	61	
Total	2,082	1,401	12	2,013	8.05	33.3	61		1,299	65	110	81

1 Weighted averages are based on EAD

2 Number of obligors is based on the number of counterparties within each PD grade

3.7 Credit risk mitigation

Potential credit losses from any given account, customer or portfolio are mitigated using a range of tools such as collateral, netting agreements, credit insurance, credit derivatives and guarantees. The reliance that can be placed on these mitigants is carefully assessed in light of issues such as legal certainty and enforceability, market valuation, correlation and credit risk of the guarantor. The presence of credit risk mitigation is not a substitute for the ability to pay, which is the primary consideration for any credit decision, but may influence credit limit sizing, for example eligible financial collateral taken under eligible master netting agreements supported by a legal opinion may be netted against exposures. Where appropriate, credit derivatives are used to reduce credit risks in the portfolio. Due to their potential impact on income volatility, such derivatives are used in a controlled manner with reference to their expected volatility. Collateral is held to mitigate credit risk exposures and risk

mitigation policies determine the eligibility of collateral types. Potential concentration risk from the use of financial collaterals, guarantee and credit derivatives is managed through the credit monitoring process. The Group uses credit limits to record guarantees taken against individual guarantors where a capital benefit is taken. The Group uses netting in the case of financial market's transactions under master netting agreements supported by a legal opinion.

Our approach to credit risk mitigation can be found in the Risk management approach section of the 2020 Annual Report and Accounts on pages 212 to 216.

The table below shows the unfunded credit protection held by the Group, consisting of credit derivatives and guarantees, and funded credit protection, including financial collateral. Exposure class has been defined based on the guarantor of the exposure.

3.7 Credit risk mitigation continued

Table 65: CRM techniques – overview (CR3)

		2020				
		Exposures unsecured \$million	Exposures secured \$million	Exposures secured by collateral \$million	Exposures secured by financial guarantees \$million	Exposures secured by credit derivatives \$million
1	Total loans	150,408	141,991	112,704	29,287	–
2	Total debt securities	141,419	2,756	2,316	439	–
3	Total exposures	291,827	144,747	115,020	29,726	–
4	Of which defaulted	6,169	1,406	1,406	–	–

		2019				
		Exposures unsecured \$million	Exposures secured \$million	Exposures secured by collateral \$million	Exposures secured by financial guarantees \$million	Exposures secured by credit derivatives \$million
1	Total loans	169,075	140,564	114,943	25,620	–
2	Total debt securities	135,150	2,463	1,820	643	–
3	Total exposures	304,225	143,027	116,763	26,263	–
4	Of which defaulted	5,939	1,158	1,158	–	–

Table 66: Effect of guarantees and collateral

	2020		2019	
	Exposures covered by unfunded credit protection \$million	Exposures covered by funded credit protection \$million	Exposures covered by unfunded credit protection \$million	Exposures covered by funded credit protection \$million
IRB Exposure Class				
Central governments or central banks	4,717	5,501	4,072	12,275
Institutions	2,923	29,586	5,742	29,796
Corporates	33,515	101,836	20,209	89,302
Retail ¹	13	78,732	8	69,910
Securitisation positions	–	–	–	1,040
Total IRB	41,168	215,655	30,031	202,323
Standardised Exposure Class				
Central governments or central banks	3,533	255	3,003	46
Multilateral development banks	2,041	–	2,040	–
Institutions	133	31,583	216	13,233
Corporates	1,665	32,388	680	29,320
Retail ¹	3	1,459	3	1,303
Secured on real estate property	–	–	–	–
Exposures in default	–	2	–	3
Items belonging to regulatory high risk categories	–	56	–	28
Other items ²	71	–	61	–
Total Standardised	7,446	65,743	6,003	43,933
Total Exposure	48,614	281,398	36,034	246,256

1 The combined retail IRB exposure class includes both retail mortgages (secured by real estate collateral) and other types of retail exposures. The standardised retail exposure class excludes mortgages which are included in separate class under the heading secured on real estate property

2 Other items include public sector entities

3.7 Credit risk mitigation continued

Table 67 presents the EAD before and after the effect of CRM, including credit substitution and financial collateral, with a further split into on-balance sheet and off-balance sheet exposures. Off-balance sheet exposures are presented before and after the application of standardised CCFs.

Table 67: Standardised approach – credit risk exposure and Credit Risk Mitigation (CRM) effects (CR4)

	Standardised Exposure Class	2020					
		Exposures before CCF and CRM ¹		Exposures post CCF and CRM		RWA and RWA density	
		On-balance sheet \$million	Off-balance sheet \$million	On-balance sheet \$million	Off-balance sheet \$million	RWA \$million	RWA density %
1	Central governments or central banks	31,820	46,653	34,028	585	2,588	7
2	Multilateral development banks	13,017	10,613	14,678	129	–	–
6	Institutions	3,225	1,989	3,246	45	246	7
7	Corporates	19,576	27,089	10,391	836	9,416	84
8	Retail	11,516	10,832	10,250	927	7,732	69
9	Secured on real estate property	8,425	641	8,425	283	3,980	46
10	Exposures in default	210	17	194	8	202	100
11	Items belonging to regulatory high risk categories	579	558	521	193	1,071	150
15	Equity	2,208	–	2,208	–	5,519	250
16	Other items ²	13,248	1,627	13,296	490	9,708	70
17	Total Standardised³	103,822	100,019	97,236	3,495	40,460	40

	Standardised Exposure Class	2019					
		Exposures before CCF and CRM ¹		Exposures post CCF and CRM		RWA and RWA density	
		On-balance sheet \$million	Off-balance sheet \$million	On-balance sheet \$million	Off-balance sheet \$million	RWA \$million	RWA density %
1	Central governments or central banks	25,508	88,328	27,365	621	4,391	16
4	Multilateral development banks	12,233	9,884	13,962	126	–	–
6	Institutions	4,037	2,079	3,648	29	926	25
7	Corporates	24,819	27,624	13,614	977	13,799	95
8	Retail	13,111	11,052	11,978	854	8,973	70
9	Secured on real estate property	9,595	606	9,593	282	4,616	47
10	Exposures in default	532	12	509	6	515	100
11	Items belonging to regulatory high risk categories	963	380	922	123	1,568	150
15	Equity	1,942	–	1,942	–	4,854	250
16	Other items ²	11,241	269	11,302	184	9,259	81
17	Total Standardised	103,981	140,234	94,835	3,202	48,901	50

1 EAD before the effect of collateral and substitution.

2 Other items include public sector entities.

3 Refer to table 20 (OV1): Standardised approach \$33,067 million and amount below threshold for deduction \$7,393 million RWA

3.8 Standardised risk weight profile

External ratings, where available, are used to assign risk weights for standardised approach (SA) exposures. These external ratings must come from EU approved rating agencies, known as External Credit Assessment Institutions (ECAI); which currently include Moody's, Standard & Poor's and Fitch. The Group uses the ECAI ratings from these agencies in its day-to-day business, which are tracked and kept updated. Assessments provided by approved ECAI are mapped to credit quality steps as prescribed by the CRR.

The Group currently does not use assessments provided by export credit agencies for the purpose of evaluating RWA in the standardised approach.

The following tables set out EAD and EAD after CRM associated with each risk weight as prescribed in Part Three, Title II, Chapter 2 of the CRR, including credit and counterparty credit risk regulatory risk weights based on the exposure classes applied to unrated exposures.

Standardised EAD pre CRM and pre CCF decreased \$40.4 billion driven by:

- Central governments and central banks EAD decreased \$35.4 billion driven by decreases in Government bonds, Interbank placements and Nostro balances

3.8 Standardised risk weight profile continued

Table 68: Standardised approach – exposures by asset classes and risk weights (pre CRM pre CCF) (CR5)

		2020													Total	Of which unrated
		Risk Weight														
		0%	2%	4%	20%	35%	50%	75%	100%	150%	250%	Others	Deducted			
Standardised Exposure Class																
1	Central governments or central banks	76,409	-	-	55	-	714	-	537	8	750	-	-	78,473	-	
4	Multilateral development banks	23,630	-	-	-	-	-	-	-	-	-	-	-	23,630	-	
6	Institutions	-	2,420	494	538	-	1,629	-	133	-	-	-	-	5,214	2,896	
7	Corporates	-	-	-	1,510	-	292	-	44,862	-	-	-	-	46,664	44,003	
8	Retail	-	-	-	-	-	-	22,349	-	-	-	-	-	22,349	22,232	
9	Secured on real estate property	-	-	-	-	7,302	-	-	1,764	-	-	-	-	9,066	9,064	
10	Exposures in default	-	-	-	-	-	-	-	226	-	-	-	-	226	218	
11	Items belonging to regulatory high risk categories	-	-	-	-	-	-	-	-	1,137	-	-	-	1,137	1,125	
15	Equity	-	-	-	-	-	-	-	-	-	2,208	-	-	2,208	2,208	
16	Other items ¹	4,690	-	-	132	-	-	-	9,665	-	-	388	-	14,875	14,198	
17	Total Standardised	104,729	2,420	494	2,234	7,302	2,635	22,349	57,187	1,145	2,958	388	-	203,841	95,944	
		2019													Total	Of which unrated
		Risk Weight														
		0%	2%	4%	20%	35%	50%	75%	100%	150%	250%	Others	Deducted			
Standardised Exposure Class																
1	Central governments or central banks	109,384	-	-	24	-	2,494	-	859	13	1,061	-	-	113,835	-	
4	Multilateral development banks	22,117	-	-	-	-	-	-	-	-	-	-	-	22,117	-	
6	Institutions	-	1,305	504	1,341	-	2,490	-	476	-	-	-	-	6,116	3,582	
7	Corporates	-	-	-	1,266	-	265	-	50,912	-	-	-	-	52,443	49,644	
8	Retail	-	-	-	-	-	-	24,163	-	-	-	-	-	24,163	24,097	
9	Secured on real estate property	-	-	-	-	8,133	-	-	2,068	-	-	-	-	10,201	10,199	
10	Exposures in default	-	-	-	-	-	-	-	544	-	-	-	-	544	544	
11	Items belonging to regulatory high risk categories	-	-	-	-	-	-	-	-	1,343	-	-	-	1,343	1,322	
15	Equity	-	-	-	-	-	-	-	-	-	1,942	-	-	1,942	1,942	
16	Other items ¹	1,333	-	-	25	-	-	-	8,195	-	-	1,958	-	11,511	11,510	
17	Total Standardised	132,834	1,305	504	2,656	8,133	5,249	24,163	63,054	1,356	3,003	1,958	-	244,215	102,840	

1 Other items include cash, equity holdings, fixed assets, prepayments and accrued income

3.8 Standardised risk weight profile continued

Table 69: Standardised approach – exposures by asset classes and risk weights (post CRM post CCF) (CR5)

		2020													Total	Of which unrated
		Risk Weight														
		0%	2%	4%	20%	35%	50%	75%	100%	150%	250%	Others	Deducted			
Standardised Exposure Class																
1	Central governments or central banks	32,590	-	-	212	-	790	-	263	8	750	-	-	34,613	-	
4	Multilateral development banks	14,806	-	-	-	-	-	-	-	-	-	-	-	14,806	-	
6	Institutions	-	2,420	494	231	-	27	-	118	-	-	-	-	3,291	2,788	
7	Corporates	-	-	-	1,393	294	152	-	9,388	-	-	-	-	11,227	9,496	
8	Retail	-	-	-	-	-	-	11,176	-	-	-	-	-	11,176	11,176	
9	Secured on real estate property	-	-	-	-	7,125	-	-	1,583	-	-	-	-	8,708	8,708	
10	Exposures in default	-	-	-	-	-	-	-	202	-	-	-	-	202	202	
11	Items belonging to regulatory high risk categories	-	-	-	-	-	-	-	-	714	-	-	-	714	711	
15	Equity	-	-	-	-	-	-	-	-	-	2,208	-	-	2,208	2,208	
16	Other items ¹	3,608	-	-	180	-	-	-	9,610	-	-	388	-	13,786	10,926	
17	Total Standardised	51,004	2,420	494	2,016	7,418	969	11,176	21,164	722	2,957	388	-	100,731	46,215	
		2019													Total	Of which unrated
		Risk Weight														
		0%	2%	4%	20%	35%	50%	75%	100%	150%	250%	Others	Deducted			
Standardised Exposure Class																
1	Central governments or central banks	23,788	-	-	180	-	2,522	-	421	13	1,061	-	-	27,986	-	
4	Multilateral development banks	14,088	-	-	-	-	-	-	-	-	-	-	-	14,088	-	
6	Institutions	-	1,305	504	951	-	456	-	461	-	-	-	-	3,677	2,970	
7	Corporates	-	-	-	699	112	66	-	13,714	-	-	-	-	14,591	13,766	
8	Retail	-	-	-	-	-	-	12,832	-	-	-	-	-	12,832	12,832	
9	Secured on real estate property	-	-	-	-	7,902	-	-	1,973	-	-	-	-	9,875	9,875	
10	Exposures in default	-	-	-	-	-	-	-	515	-	-	-	-	515	515	
11	Items belonging to regulatory high risk categories	-	-	-	-	-	-	-	-	1,045	-	-	-	1,045	1,044	
15	Equity	-	-	-	-	-	-	-	-	-	1,942	-	-	1,942	1,942	
16	Other items ¹	1,333	-	-	86	-	-	-	8,109	-	-	1,958	-	11,486	11,425	
17	Total Standardised	39,209	1,305	504	1,916	8,014	3,044	12,832	25,193	1,058	3,003	1,958	-	98,037	54,369	

¹ Other items include cash, fixed assets, prepayments and accrued income

Standardised EAD post CRM and post CCF increased by \$2.7 billion

- Central governments and central banks EAD increased by \$6.6 billion, driven by an increase in nostro balances
- Other items EAD increased by \$2.3 billion due to increase in bonds to public sector entities in the Europe and Americas region
- Retail EAD decreased by \$1.6 billion due to a decrease in auto loan instalments
- Corporates EAD increased by \$3.3 billion due to Permata
- Secured on real estate property EAD decreased by \$1.1 billion in overdrafts and loans against properties

3.9 Securitisation

Securitisation is defined by the CRR as a transaction or scheme where the credit risk of an exposure or pool of exposures is tranching and where the payments arising from the transaction or scheme are dependent upon the performance of the underlying exposure(s) and where the subordination of tranches determine the distribution of losses during the ongoing life of the transaction or the scheme.

Securitisation can be categorised as either:

- **Traditional securitisation:** A securitisation involving the economic transfer of the exposures being securitised via the transfer of ownership of securitised exposures from the originator institution to a securitisation special purpose entity (SSPE), where the securitised assets are beyond the reach of the originator and its creditors. The purchase of the assets by the SSPE are usually funded via the issuance of securities where the payments obligations does not belong to the originator institution
- **Synthetic transaction:** A securitisation where the originator retains the ownership of the underlying exposure(s) and transfer the associated credit risk of the securitised exposures to third party through the use of credit derivatives or guarantees

The Group has undertaken securitisation of its own originated assets to diversify sources of funding and capital management and may play one or more of the following roles in a securitisation transaction:

Originator – The Group securitised assets (Corporate loans and trade finance facilities) originated in its normal course of business for capital management and diversification of its sources of funding. The Group may be exposed to credit and market risk on the underlying assets, particularly if the structure of the transaction does not transfer these risks to third parties.

Investor – To generate financial returns, the group may purchase securitised issued by third-party SSPE or purchased securities from SSPE which it originates for market making purpose.

Arranger – The Group may act as arranger for securitisation transactions it originates or by its customers, usually financial institution or large corporates.

Underwriter – The Group may underwrite the securities issued by a SSPE originated by the Group or for its customers.

Credit Event Monitor Agent – Monitor the credit quality of the underlying securitised assets on behalf of the SSPE or investors

Account Bank – The Group may hold the bank account of a SSPE originated by the Group on its own books

Program Manager – Report on the performance of the securitised assets of the SSPE to investors

Servicer – Manage and service the asset pool of the securitisation transactions

The Group has \$12.7 billion (2019: \$15.6 billion) of EAD classified as securitisation positions, as shown in Table 73 on page 83. These transactions meet the criteria to qualify as securitisation positions under the PRA's securitisation framework and the particulars of these transactions are discussed below.

Asset Backed Securities

The carrying value of asset backed securities (ABS) of \$9.9 billion (2019: \$8.3 billion), held either as investments or arranged for clients, represents 1 per cent of the Group's total assets (2019: 1 per cent). This portfolio only constitutes third party securitisations, and does not include self-securitisation (retained positions).

The portfolio primarily comprises of two main strategies, firstly, a mix of client-based and market making trades booked in Financial Markets, and portfolios of liquid ABS investments for the Treasury Markets (TM) book.

The credit quality of the ABS portfolio remains strong, with over 98 per cent of the overall portfolio rated Investment Grade, and 91 per cent of the overall portfolio is rated as AAA. The portfolio is diversified across asset classes and geographies. Residential mortgage-backed securities (RMBS) make up 57 per cent of the overall portfolio and have a weighted averaged credit rating of AAA.

Other ABS include Auto ABS, comprising 13 per cent of the overall portfolio, CLOs (11 per cent). The balance of Other ABS mainly includes securities backed by Credit Cards, consumer loans, diversified payment rights, and receivables ABS.

The notional and carrying values of the ABS purchased or retained by the Group are shown in the table below analysed by underlying asset type. ABS are accounted for as financial assets. For further details regarding recognition and impairment, refer to the notes 24 to the financial statements of the 2020 Annual Report and Accounts, page 376. The ABS portfolio is assessed frequently for objective evidence of impairment. In 2020 there were no additional impairments in the portfolio.

Valuation of retained interest is initially and subsequently determined using market price quotations where available or internal pricing models that utilise variables such as yield curves, prepayment speeds, default rates, loss severity, interest rate volatilities and spreads. The assumptions used for valuation are based on observable transactions in similar securities and are verified by external pricing sources, where available.

The ABS portfolio is closely managed by a centralised dedicated team. The team has developed a detailed analysis and reporting framework of the underlying portfolio to allow senior management to make an informed holding decision with regards to specific assets, asset classes or parts of an asset class. These ABS portfolio reports are closely monitored by the Risk function in the Group.

The notional and carrying values of the ABS purchased or retained by the Group are shown below in the table analysed by underlying asset type.

3.9 Securitisation continued

Table 70: Securitisation – ABS purchased or retained

	2020			2019		
	Carrying value of asset backed securities \$million	Notional amount		Carrying value of asset backed securities \$million	Notional amount	
		Traditional securitisation programmes \$million	Synthetic securitisation programmes \$million		Traditional securitisation programmes \$million	Synthetic securitisation programmes \$million
Residential Mortgage Backed Securities (RMBS)	5,706	5,706	–	5,688	5,684	4
Collateralised Debt Obligations (CDOs)	1,087	1,087	–	422	422	–
Commercial Mortgage Backed Securities (CMBS)	88	88	–	145	145	–
Auto Asset Backed Securities	1,243	1,243	–	957	957	–
Credit Cards Asset Backed Securities	290	290	–	171	171	–
Other Asset Backed Securities	1,467	1,467	–	924	924	–
	9,882	9,882	–	8,306	8,303	4
Of which included within:						
Financial assets held at fair value through profit or loss	8,680	8,680	–	4,657	4,657	–
Investment securities – available-for-sale	1,202	1,202	–	3,586	3,582	4
Investment securities – loans and receivables	–	–	–	63	63	–
	9,882	9,882	–	8,306	8,302	4

Capital Structuring & Distribution Group Balance Sheet Securitisation

Synthetic Securitisation- Significant Risk Transfer (SRT) trades

The Group via its Capital Structuring & Distribution Group (CSDG) Balance Sheet Securitisation unit buys synthetic protection for its banking book credit portfolio. Securitisation provides capacity for client-focused growth and improves efficiency of economic and regulatory capital. The Group as the originator performs multiple roles, including protection buyer, calculation agent and credit event monitor agent. The protection buyer executes and maintains securitisation transactions. The calculation agent computes periodic coupon payments and loss payouts. The credit event monitor agent validates and provides notifications of credit events.

Treasury Markets unit performs a different role, acting as deposit taker for funds collected from the credit protection providers. Deposits collected eliminate counterparty risk for transactions where the Group is the protection buyer.

The securitised assets consist of commercial loans and trade finance facilities extended by the Group's branches and subsidiaries to borrowers mainly from the emerging markets in Asia, Africa and Middle East. The securitised assets are subject to changes in general economic conditions, performance of relevant financial markets, political events and developments or trends in a particular industry. Historically, the trading volume of loans in these emerging markets has been small relative to other more developed debt markets due to limited liquidity in the secondary loan market.

The securitised assets are originated by the Group in its ordinary course of business. Given the synthetic nature of securitisations originated by CSDG Balance Sheet Securitisation unit, the securitised assets remain on the Group's balance sheet and continue to be subject to the Group's credit review and monitoring process and risk methodology. Accordingly retained positions are not hedged.

In its role as credit event monitor agent, CSDG Balance Sheet Securitisation unit monitors the credit risk of the underlying securitised assets by leveraging on the Group's client and risk management system.

As of 31 December 2020, \$82.7 million of Trade Finance (2019: \$11.4 million) and \$68.7 million of Commercial Loans (2019: \$33.3 million) totalling \$151.4 million (2019: \$44.7 million) of securitised exposures were classified as impaired and past due.

The Group has seven synthetic securitisation transactions originated and managed by CSDG Balance Sheet Securitisation unit, with an aggregate hedge capacity of \$14.5 billion (2019: \$17.0 billion). CSDG Balance Sheet Securitisation unit as the originator has not acted as sponsor to securitise third-party exposures and does not manage or advise any third-party entity that invests in the securitisation positions. Table 71 provides details of current securitisation programmes originated and managed by the Group.

The Group transfer credit risk of underlying securitised assets (Refer to Table 71) to non-consolidated securitisation special purpose entity (SSPE) via credit derivatives. In these transactions, the underlying assets are not sold into the relevant SSPE. Instead, the credit risk of the underlying assets is transferred to the SSPE synthetically via credit default swaps whereby the SSPEs act as sellers of credit protection and receive premiums paid by the Group in return. The SSPE in turn issue credit-linked notes to third party investors who fund the credit protection in exchange for coupon on the notes purchased. The premium received by the SSPE and interest earned on the funded amount of the purchased notes are passed through to the third-party investors as coupon on the purchased notes. Payment to the third-party investors is made in accordance with the priority of payments stipulated in the transaction documents.

3.9 Securitisation continued

Traditional Securitisation

The Group entered into traditional securitisation transaction to diversify its sources of funding. The Group originated a revolving cashflow traditional trade finance securitisation transaction, which consolidated the SSPE (Prunelli Issuer S.a.r.l.) into the Group's financials as required under IFRS 10 as the Group was deemed to have control over the SSPE. Assets sold to the SSPE continue to remain on the Group's balance sheet as they did not satisfy derecognition criteria under the Group's accounting policy.

As of 31 December 2020, the outstanding securitised exposures were \$1,487 million (2019: \$624 million).

Governance of securitisation activities

Securitisation transactions proposed for funding and capital management must obtain support from the Group Operational Balance Sheet Committee (OBSC), which manages the capital requirements of the Group. For a securitisation transaction that will lead to reduction in regulatory capital, it must be submitted to UK PRA for review one-month post deal close.

Execution of each securitisation transaction must either be approved through a Product Programme (PPG) or an individual Transaction Programme Approval (TPA) where approvals across all functions involved in the transaction are obtained. Specifically, Compliance covers issues like confidentiality of clients' information and insider information, Group Tax provides an opinion on taxation, Group Risk advises on the regulatory treatment and Finance advises on the accounting treatment and facilitates communication with the regulator.

Basel III for securitisation positions

The calculation of risk-weighted exposure amounts for securitisation positions is based on the following two calculation methods advised by the PRA:

- IRB method for third-party senior securitisation positions bought and securitisation positions originated and retained by the Group (including haircuts due to currency and collateral mismatch)
- Standardised Approach for the residual risk-weighted exposure amounts for all other securitisation positions originated by the Group and sold. For instance, risk-weight substitution under the Standardised Approach is adopted in unfunded transactions where cash collateral is with a third party

The Synthetic securitisation transactions originated by the Group in Table 71 meet the Significant risk transfer requirement ("SRT") under the CRR. Where securitisations do not achieve SRT (for instance when they are entered into for funding purpose), their associated exposures will be presented in other sections of the pillar 3 report. Synthetic Securitisation transactions (Table 71) executed prior to 2019 are rated by an external credit assessment institution, namely Moody's. Transactions executed from 2019 are unrated as the bank utilised SEC-IRBA for risk capital calculation under CRR IV.

Accounting

Accounting assessment takes place at the time of transaction closing. The Group consolidate structured entities (including SSPE) when the substance of the relationship indicates control over the SSPE. The Group controls an entity if it has all the three elements of control which are i) power over the entity; ii) the ability to use its power over the entity to affect the returns of the Group and iii) exposure to variable returns from its involvement with the entity. The consolidation treatment is initially assessed at inception and is reassessed if circumstances indicate that there are changes to one or more of the three elements of control.

A securitisation transaction is recognised as a sale or partial sale where derecognition is achieved. The difference between the carrying amount and the consideration received is recorded in the income statement. Securitisation transactions which do not achieve derecognition are treated as financing activity. In a synthetic securitisation transaction, the underlying assets are not sold into the securitisation special purpose entity (SSPE). Instead, the underlying assets' performance is transferred into the SSPE through a synthetic instrument such as a CDS, a credit-linked note or a financial guarantee. Synthetic securitisation are assessed using the same accounting approach summarised above, with the associated credit derivative accounted as a financial guarantee under IFRS 9. As of both 31 December 2020 and 31 December 2019, no securitised assets have been derecognised from the Group's balance sheet.

Financial assets awaiting for securitisation are valued using the Group's accounting policy for financial instrument. There are no assets classify as awaiting securitisation for both 31 December 2020 and 31 December 2019.

Any financial support or contractual arrangements provided to unconsolidated entities for securitised assets would be recognised as a liability on balance sheet if it met the relevant IFRS criteria. The Group has not provided support to any securitisation transactions beyond its contractual obligations.

The Group's approach to accounting for SSPEs can be found in the notes to the financial statements in the 2020 Annual Report and Accounts.

3.9 Securitisation continued

Table 71: Securitisation programmes (as originator)

2020								
	Underlying facilities hedged	Start date	Scheduled maturity	Maximum notional \$million	Retained exposures \$million	Outstanding exposures \$million	Capital requirement before securitisation \$million	Capital requirement after securitisation \$million
Sumeru III	Commercial Loan	Jun-18	Dec-21	2,964	2,700	2,606	155	44
Sealane IV	Trade Finance	Nov-18	May-22	3,475	3,185	3,005	149	49
Khartaphu	Commercial Loan	Dec-18	Jun-22	1,991	1,801	1,713	98	30
Start XI	Commercial Loan	Dec-20	Jun-24	1,500	1,358	1,403	80	22
Gongga	Commercial Loan	Aug-19	Aug-24	2,000	1,810	1,829	107	29
Chakra III	Revolving Credit Facility	Jun-19	Jun-27	1,000	910	890	64	17
Chakra IV	Revolving Credit Facility	Nov-19	Nov-27	1,500	1,365	1,220	79	21
Total				14,430	13,129	12,666	732	212

2019								
	Underlying facilities hedged	Start date	Scheduled maturity	Maximum notional \$million	Retained exposures \$million	Outstanding exposures \$million	Capital requirement before securitisation \$million	Capital requirement after securitisation \$million
Sumeru III	Commercial Loan	Jun-18	Dec-21	2,989	2,704	2,877	181	33
Shangren IV	Trade Finance	Sep-18	Dec-20	3,997	3,677	3,762	170	34
Sealane IV	Trade Finance	Nov-18	May-22	3,498	3,201	3,309	158	32
Khartaphu	Commercial Loan	Dec-18	Jun-22	2,000	1,810	1,868	116	24
Gongga	Commercial Loan	Aug-19	Aug-24	2,000	1,810	1,824	110	28
Chakra III	Revolving Credit Facility	Jun-19	Jun-27	1,000	910	829	56	17
Chakra IV	Revolving Credit Facility	Nov-19	Nov-27	1,500	1,365	1,108	69	21
Total				16,984	15,477	15,577	860	189

Assets securitised under the Significant risk transfer (SRT) program by the Group's in its capacity as originator decreased by \$2.5 billion to \$14.5 billion:

Traditional Securitisation:

- There was one traditional securitisation, referencing \$2 billion trade finance assets executed by the Group during the year. There was no capital relief sought for this transaction

Synthetic Securitisation:

- 1 transaction (Shangren IV), referencing \$4 billion matured in 2020 and was replaced by a new transaction, Start XI (\$1.5 billion)

The following tables show the distribution of the Group's securitisation exposures across risk-weights. The vast majority of the Group's exposure to securitisation programmes is to the lower risk weighted tranches.

The Rating Based Approach (under the previous securitisation regime) is used to calculate risk-weights for all the rated tranches of securitisation transactions that were executed prior to 1st January 2019. Transactions executed from 1st January 2019 uses the SEC-IRBA method to calculate risk-weights for all tranches as required under the new Securitisation Regulation (EU) No 2017/2401 (amendments to Capital Requirement Regulation or CRR).

As there is a '1-year grandfathering provision' in the new Securitisation Regulation (EU) No 2017/2401 (amendments to Capital Requirement Regulation or CRR) that is available to significant risk transfer transactions executed prior to the 1st January 2019 (go-live date), both Table 72 and 73 are organised to reflect the Group securitisation exposures across risk-weights under both frameworks.

3.9 Securitisation continued

Table 72: Securitisation positions by risk-weight category under the previous securitisation framework

2020											
Credit Assessments Moody's	Risk weight %	Originated									
		Senior		Non Senior		Non Granular Pools		ABS		Total	
		Exposure \$million	Capital requirement \$million	Exposure \$million	Capital requirement \$million	Exposure \$million	Capital requirement \$million	Exposure \$million	Capital requirement \$million	Exposure \$million	Capital requirement \$million
Aaa	7% to 20%	–	–	–	–	–	–	–	–	–	–
Aa	8% to 25%	–	–	–	–	–	–	–	–	–	–
A1	10% to 35%	–	–	–	–	–	–	–	–	–	–
A2	12% to 35%	–	–	–	–	–	–	–	–	–	–
A3	20% to 35%	–	–	–	–	–	–	–	–	–	–
Baa1	35% to 50%	–	–	–	–	–	–	–	–	–	–
Baa2	60% to 75%	–	–	–	–	–	–	–	–	–	–
Baa3	100%	–	–	–	–	–	–	–	–	–	–
Ba1	250%	–	–	–	–	–	–	–	–	–	–
Ba2	425%	–	–	–	–	–	–	–	–	–	–
Ba3	650%	–	–	–	–	–	–	–	–	–	–
Supervisory Formula		–	–	–	–	–	–	–	–	–	–
Deductions		–	–	–	–	–	–	–	–	–	–
Total¹		–	–	–	–	–	–	–	–	–	–

2019											
Credit Assessments Moody's	Risk weight %	Originated									
		Senior		Non Senior		Non Granular Pools		ABS		Total	
		Exposure \$million	Capital requirement \$million	Exposure \$million	Capital requirement \$million	Exposure \$million	Capital requirement \$million	Exposure \$million	Capital requirement \$million	Exposure \$million	Capital requirement \$million
Aaa	7% to 20%	9,933	60	–	–	–	–	2,596	195	12,529	255
Aa	8% to 25%	–	–	600	8	–	–	114	10	714	18
A1	10% to 35%	–	–	393	6	–	–	24	2	417	8
A2	12% to 35%	–	–	–	–	–	–	195	24	195	24
A3	20% to 35%	–	–	270	8	–	–	–	–	270	8
Baa1	35% to 50%	–	–	150	6	–	–	–	–	150	6
Baa2	60% to 75%	–	–	–	–	–	–	8	5	8	5
Baa3	100%	–	–	–	–	–	–	–	–	–	–
Ba1	250%	–	–	–	–	–	–	193	483	193	483
Ba2	425%	–	–	–	–	–	–	4	18	4	18
Ba3	650%	–	–	–	–	–	–	–	–	–	–
Supervisory Formula		–	–	1,092	35	–	–	–	1	1,092	36
Deductions		–	–	47	–	–	–	–	–	47	–
Total¹		9,933	60	2,552	63	–	–	3,134	738	15,619	861

1 See Table 20: Overview of RWA (OV1)

3.9 Securitisation continued

Table 73: Securitisation positions by risk weight category under new EU securitisation framework

Hierarchy Approaches	2020									
	Originated						ABS		Total	
	Senior		Non Senior		Non Granular Pools		Exposure \$million	Capital require- ment \$million	Exposure \$million	Capital require- ment \$million
	Exposure \$million	Capital require- ment \$million	Exposure \$million	Capital require- ment \$million	Exposure \$million	Capital require- ment \$million				
15% to 20%	13,110	157	–	–	–	–	8,853	131	21,963	288
>20% to <45%	–	–	–	–	–	–	552	11	552	11
45% to <70%	–	–	–	–	–	–	314	13	314	13
70% to <100%	–	–	–	–	–	–	16	1	16	1
100% to <200%	–	–	–	–	–	–	143	15	143	15
200% to <300%	–	–	–	–	–	–	4	–	4	–
300% to <500%	–	–	–	–	–	–	–	–	–	–
500% to <750%	–	–	–	–	–	–	–	–	–	–
750% to <1250%	–	–	–	–	–	–	2	1	2	1
955% to 975%	–	–	615	24	–	–	–	–	615	24
975% to 985%	–	–	597	27	–	–	–	–	597	27
1065% to 1085%	–	–	90	4	–	–	–	–	90	4
1250%	–	–	18	–	–	–	–	–	18	–
Total¹	13,110	157	1,320	55	–	–	9,884	172	24,314	384

Hierarchy Approaches	2019									
	Originated						ABS		Total	
	Senior		Non Senior		Non Granular Pools		Exposure \$million	Capital require- ment \$million	Exposure \$million	Capital require- ment \$million
	Exposure \$million	Capital require- ment \$million	Exposure \$million	Capital require- ment \$million	Exposure \$million	Capital require- ment \$million				
15% to 20%	4,075	51	–	–	–	–	4,793	850	8,868	902
>20% to <45%	–	–	–	–	–	–	283	85	283	85
45% to <70%	–	–	–	–	–	–	–	–	–	–
70% to <100%	–	–	–	–	–	–	62	53	62	53
100% to <200%	–	–	–	–	–	–	16	24	16	24
200% to <300%	–	–	–	–	–	–	1	2	1	2
300% to <500%	–	–	–	–	–	–	7	22	7	22
500% to <750%	–	–	–	–	–	–	–	–	–	–
750% to <1250%	–	–	–	–	–	–	2	12	2	12
955% to 975%	–	–	135	15	–	–	–	–	135	15
975% to 985%	–	–	190	–	–	–	–	–	190	–
1065% to 1085%	–	–	90	–	–	–	–	–	90	–
1250%	–	–	10	–	–	–	8	94	18	94
Total¹	4,075	51	425	15	–	–	5,171	1,144	9,671	1,210

¹ See Table 20: Overview of RWA (OV1)

4. Traded risk

Our approach to Traded risk can be found in the Enterprise Risk Management approach section in the 2020 Annual Report and Accounts on pages 257 to 258.

4.1 Market risk

The primary categories of market risk for the Group are:

The primary categories of market risk for the Group are:

- Interest rate risk: arising from changes in yield curves, credit spreads and implied volatilities on interest rate options
- Foreign exchange rate risk: arising from changes in exchange rates and implied volatilities on foreign exchange options
- Commodity risk: arising from changes in commodity prices and implied volatilities on commodity options; covering energy, precious metals, base metals and agriculture as well as commodity baskets
- Equity Risk: arising from changes in the prices of equities, equity indices, equity baskets and implied volatilities on related options

Trading book

The Trading book contains positions held with trading intent or hedges for such positions. The Traded Risk Framework sets out the Group's standard systematic approach to risk managing market risk. The Trading Book Policy Statement identifies the policies and procedures determining the positions included in the Trading book and their risk management and valuation. All trading book desks are subject to market risk limits. Traded Risk Management, an independent risk control function, monitors the limits and reports daily to senior management.

Non-trading book

Interest rate risk from non-trading book portfolios is transferred to local Treasury Markets desks under the supervision of local Asset and Liability Committees. Treasury Markets deals in the market in approved financial instruments

in order to manage the net interest rate risk, subject to approved Value at Risk (VaR) and risk limits.

Valuation framework

Valuation of financial assets and liabilities held at fair value is subject to an independent review by Valuation Control within the Finance function. For those financial assets and liabilities whose fair value is determined by reference to externally quoted prices or market observable pricing inputs or to a valuation model, an assessment is made by Valuation Control against external market data and consensus services. Valuation Control also ensures adherence to the valuation adjustment policies to incorporate bid/ask spreads, model risk and other reserves, and, where appropriate, to mark all positions in accordance with prevailing accounting and regulatory guidelines.

The Valuation and Benchmarks Committee (VBC), a sub-committee of the Corporate, Commercial and Institutional Banking Risk Committee, provides oversight and governance of all financial markets valuation adjustments and price testing policies and reviews the results of the valuation control process on a monthly basis. In addition, the VBC also provides governance over the Group's benchmark rates review process.

Our approach to market risk can be found in the Risk management approach section in the 2020 Annual Report and Accounts on pages 257 to 258.

Value at Risk

The Group uses VaR for different purposes.

Management VaR is one of the tools used by management to monitor the total market risk within the trading and non trading books.

Regulatory VaR is used to estimate the potential loss, from market movements, across trading book positions for which the Bank has received permission to apply the internal model approach (IMA). Regulatory VaR, including Stressed VaR and Risk Not in VaR (RNIV) measures, is used to calculate market risk RWAs for positions falling under the IMA permission.

Regulatory VaR vs Management VaR

Variable	Regulatory VaR	Management VaR
Confidence level	99%	97.5%
Historical Observation	260 business days unweighted	260 business days unweighted
Liquidity Horizon	1 day Scaled to 10-day VaR by multiplying by the square root of 10. A more conservative multiplier is applied if statistical hypothesis testing shows that the square root of 10 multiplier is not sufficiently appropriate.	1 day
Updating Frequency	1 day	1 day
Revaluation	Full revaluation except for some FX, bonds and simple cash flow products using linear approximation	Full revaluation except for some FX, bonds and simple cash flow products using linear approximation
Returns	Mostly relative except for interest rates	Mostly relative except for interest rates
Scope	As approved by the PRA, under Internal Model Approval (IMA)	All non-structural market risk exposures across the trading and non-trading books.

4.1 Market risk continued

The PRA has granted the Group permission to apply IMA for the following entities:

Standard Chartered Bank	Solo and consolidated
Standard Chartered Bank (Singapore) Ltd	Consolidated
Standard Chartered Bank (Hong Kong) Ltd	Consolidated
Standard Chartered Bank (China) Ltd	Consolidated
Standard Chartered Bank Korea Ltd	Consolidated
Standard Chartered Bank Malaysia Berhad	Consolidated
Standard Chartered Bank (Taiwan) Ltd	Consolidated
Standard Chartered Bank (Thai) PCL	Consolidated
Standard Chartered Bank (Vietnam) Ltd	Consolidated
Standard Chartered Bank AG	Consolidated

Backtesting

Backtesting is performed to ensure that the VaR model is fit for purpose. It measures the ability of the model to correctly reflect the potential level of losses under normal trading conditions, for a certain confidence level.

A backtesting breach is recorded when the net trading P&L loss in one day is greater than the estimated VaR for the same day. Prudential regulation specifies that a model with fewer than five backtesting exceptions in a 12-month period is deemed to be in the 'green zone'. At the end of 2020 the Group is in the 'green zone' with three backtesting exceptions in 2020. For details see the further Pillar 3 disclosure on regulatory backtesting below.

Stressed VaR

Stressed VaR applies the same model as for regulatory VaR but using a one-year historical observation period from a stressed period relevant to the trading book portfolio. In 2020, the stressed period applied was the 260 business days ending 30 June 2009 reflecting the Global Financial Crisis.

Stress testing

Stress testing supplements the use of VaR as the primary measure of risk. Group-wide stress testing is performed to measure the potential loss on a portfolio of financial positions due to low probability market events or risk to the Group posed by a breakdown of risk model assumptions.

Stress testing therefore supplements the use of VaR. The roles and responsibilities of the various functions are set out in the Traded Risk Stress Testing standard.

Market risk changes

The average level of total trading and non-trading VaR in 2020 was \$108.0 million, 258 per cent higher than in 2019 (\$30.2 million). The actual level of total trading and non-trading VaR as at the end of 2020 was \$137.6 million, 300 per cent higher than in 2019 (\$34.4 million). The increase in total average VaR was driven by the extreme market volatility in interest rates and credit spreads following the outbreak of COVID-19 and the collapse in oil prices, with the largest increase observed in the non-trading book from high-quality marketable securities held in the Treasury Markets liquid assets buffer. The credit bonds that are included in the buffer are almost exclusively of investment grade. The historical scenarios driving the total VaR are all from March 2020, hence VaR is expected to remain elevated until at least March 2021.

For the trading book, the average level of VaR in 2020 was \$17.0 million, 55 per cent higher than in 2019 (\$11.0 million). Trading activities have remained relatively unchanged and client-driven.

4.1 Market risk continued

Table 74: Daily value at risk (VaR at 97.5%, one day)

	2020				2019			
	Average \$million	High ¹ \$million	Low ¹ \$million	Actual ² \$million	Average \$million	High ¹ \$million	Low ¹ \$million	Actual ² \$million
Trading and Non-trading								
Interest rate risk ³	93.9	121.6	29.0	115.7	28.9	35.2	24.1	34.2
Foreign exchange risk	6.4	15.1	3.0	15.1	4.3	8.5	2.3	5.1
Commodity risk	2.5	5.5	0.7	4.9	1.3	2.2	0.8	1.4
Equity risk	2.6	5.4	1.5	1.5	3.5	4.6	2.5	2.5
Total⁴	108.0	158.0	28.8	137.6	30.2	37.1	24.1	34.4
Trading⁵								
Interest rate risk ³	10.6	15.4	6.5	9.9	8.0	11.8	6.3	7.0
Foreign exchange risk	6.4	15.1	3.0	15.1	4.3	8.5	2.3	5.1
Commodity risk	2.5	5.5	0.7	4.9	1.3	2.2	0.8	1.4
Equity risk	–	–	–	–	–	0.1	–	–
Total⁴	17.0	26.3	8.3	24.6	11.0	14.0	8.8	10.0
Non-trading								
Interest rate risk ³	83.0	110.2	27.3	103.5	26.2	33.3	21.2	33.3
Equity risk ⁶	2.6	5.4	1.4	1.5	3.5	4.6	2.5	2.5
Total⁴	83.0	110.2	27.3	103.5	26.7	33.4	20.6	32.0

1 Highest and lowest VaR for each risk factor are independent and usually occur on different days

2 Actual one day VaR at year end date

3 Interest rate risk VaR includes credit spread risk arising from securities accounted as fair value through profit or loss ('FVPL') or as fair value through other comprehensive income ('FVOCI')

4 The total VaR shown in the tables above is not a sum of the component risks due to offsets between them

5 Trading book for market risk is defined in accordance with the EU Capital Requirements Regulation (CRD/CRR) Part 3 Title I Chapter 3 which restricts the positions permitted in the trading book

6 Non-trading equity risk VaR includes only listed equities

The following table sets out how trading and non-trading VaR is distributed across the Group's products.

Table 75: Daily value at risk (VaR at 97.5%, one day) by products

	2022				2019			
	Average \$million	High ¹ \$million	Low ¹ \$million	Actual ² \$million	Average \$million	High ¹ \$million	Low ¹ \$million	Actual ² \$million
Trading and Non-trading	108.0	158.0	28.8	137.6	30.2	37.1	24.1	34.4
Trading⁴								
Rates	7.6	11.1	4.5	8.5	5.4	7.6	4.0	5.1
Global Foreign Exchange	6.4	15.1	3.0	15.1	4.3	8.5	2.3	5.1
Credit Trading & Capital Markets	7.8	14.6	3.3	8.4	4.2	7.9	1.9	4.6
Commodities	2.5	5.5	0.7	4.9	1.3	2.2	0.8	1.4
Equities	–	–	–	–	–	0.1	–	–
XVA	9.0	13.7	2.7	11.2	4.0	6.8	1.8	2.8
Total³	17.0	26.3	8.3	24.6	11.0	14.0	8.8	10.0
Non-trading								
Treasury Markets	83.0	110.2	27.3	103.5	26.2	33.3	21.2	33.3
Listed private equity	2.6	5.4	1.4	1.5	3.5	4.6	2.5	2.5
Total³	84.8	113.7	27.7	104.7	26.7	33.4	20.6	32.0

1 Highest and lowest VaR for each risk factor are independent and usually occur on different days

2 Actual one day VaR at year end date

3 The total VaR shown in the tables above is not a sum of the component risks due to offsets between them

4 Trading book for market risk is defined in accordance with the EU Capital Requirements Regulation (CRD/CRR) Part 3 Title I Chapter 3 which restricts the positions permitted in the trading book

4.1 Market risk continued

Market risk regulatory capital requirements

The CRR specifies minimum capital requirements against market risk in the trading book. Interest rate risk in the non-trading book is covered separately under the Pillar 2 framework.

The PRA has granted the Group permission to use the internal model approach (IMA) covering the majority of interest rate, foreign exchange, precious metals, base metals, energy and agriculture market risk in the trading book. Positions outside the IMA scope are assessed according to standard PRA rules.

The minimum regulatory market risk capital requirements for the trading book are presented below for the Group.

Table 76: Market risk regulatory capital requirements

	2020		2019	
	Risk Weighted Assets \$million	Regulatory capital requirement \$million	Risk Weighted Assets \$million	Regulatory capital requirement \$million
Market risk capital requirements for trading book				
Interest rate ¹	7,425	594	8,751	700
Equity	5	–	9	1
Options	7	1	17	1
Commodity ²	35	3	20	2
Foreign exchange ²	513	41	645	52
Internal Models Approach ³	13,608	1,089	11,364	909
Total	21,593	1,728	20,806	1,664

1 Securitisation positions contributed \$13.2 million to the interest rate position risk requirement (PRR) and \$165 million to interest rate RWA as at 31 December 2020 (securitised positions contributed \$27.5million to the interest rate PRR and \$344 million to interest rate RWA as at 31 December 2019)

2 Commodity and foreign exchange cover non-trading book as well as trading book

3 Where the risks are not within the approved scope of the internal models approach, they are captured in the relevant category above based on the Standardised Approach

Table 77: Market risk under standardised approach (MR1)

	2020		2019	
	Risk Weighted Assets \$million	Regulatory capital requirement \$million	Risk Weighted Assets \$million	Regulatory capital requirement \$million
Outright products				
1 Interest rate risk	7,425	594	8,751	700
2 Equity risk	5	–	9	1
3 Foreign exchange risk	513	41	645	52
4 Commodity risk	35	3	20	2
Options	7	1	17	1
5 Simplified approach				
6 Delta-plus method	2	–	3	–
7 Scenario approach	5	1	14	1
8 Securitisation (specific risk) ¹	165	13	344	28
9 Total	7,985	639	9,442	755

1 Securitisation (specific risk) is included in the interest rate risk RWA number

4.1 Market risk continued

Internal Models Approach

The table below shows the average, high and low VaR and Stressed VaR for the period January 2020 to December 2020 and the actual position on 31 December 2020. The results reflect only the Group portfolio covered by the internal model approach and are calculated at a 99 per cent confidence level.

Table 78: IMA values for trading portfolios (MR3)

	2020 \$million	2019 \$million
VaR (10 day 99%)³		
1 Maximum value ¹	147	91
2 Average value	84	38
3 Minimum value ¹	34	25
4 Period end ²	76	38
Stressed VaR (10 day 99%)³		
5 Maximum value ¹	225	231
6 Average value	122	146
7 Minimum value ¹	86	96
8 Period end ²	134	159
Incremental Risk Charge (99.99%)³		
9 Maximum value ¹	–	–
10 Average value	–	–
11 Minimum value ¹	–	–
12 Period end ²	–	–
Comprehensive Risk capital charge (99.9%)³		
13 Maximum value ¹	–	–
14 Average value	–	–
15 Minimum value ¹	–	–
16 Period end ²	–	–

1 Highest and lowest VaR for each risk factor are independent and usually occur on different days

2 Actual one day VaR as at period end date

3 Represents only the Group's portfolio covered by the IMA and calculated at the 99 per cent confidence level. Details of the Group's management VaR covering all non-structured market risk exposures, across the trading and non-trading books, calculated at the 97.5 per cent confidence level can be found in the 2020 Annual Report and Accounts on pages 234 to 235 and in tables 78 and 79 on page 86

Table 79: Market risk under internal models approach (MR2-A)

	2020		2019	
	Risk Weighted Assets \$million	Regulatory capital requirement \$million	Risk Weighted Assets \$million	Regulatory capital requirement \$million
1 VaR (higher of values a and b)	3,059	245	1,786	143
(a) Previous day's VaR	1,085	87	561	45
(b) Average of the daily VaR	3,059	245	1,786	143
2 SVaR (higher of values a and b)	4,837	387	6,226	498
(a) Latest SVaR	1,878	150	2,320	186
(b) Average of the SVaR	4,837	387	6,226	498
5 Other¹	5,712	457	3,352	268
6 Total^{2,3}	13,608	1,089	11,364	909

1 Other IMA capital add-ons for market risks not fully captured in either VaR or SVaR. More details on Risks not in VaR can be found in the 2020 Annual Reports and Accounts on page 235

2 There are zero IRC and CRM as the Group has not applied model permission for specific interest rate risk comprehensive risk measure

3 Represents only the Group's portfolio covered by the IMA and calculated at the 99 per cent confidence level. Details of the Group's management VaR covering all non-structured market risk exposures, across the trading and non-trading books, calculated at the 97.5 per cent confidence level can be found in the 2020 Annual Report and Accounts on pages 234 to 235 and in tables 78 and 79 on page 86

4.1 Market risk continued

Backtesting

In 2020, there were three regulatory backtesting negative exceptions at Group level (in 2019, there were five regulatory backtesting negative exceptions at Group level). These exceptions occurred on:

- 10 March: When markets rallied following the announcement of measures to stimulate the US economy
- 13 March: When markets rallied as the Federal Reserve provided details of US Treasury purchases, and cut interest rates
- 24 March: When markets rallied as US Congress finalised a \$2 trillion package to stimulate the economy, also impacting gold prices

In total, there have been three Group exceptions in the previous 250 business days which is within the 'amber zone' applied internationally to internal models by bank supervisors (Basel Committee on Banking Supervision, Supervisory framework for the use of backtesting in conjunction with the internal models approach to market risk capital requirements, January 1996).

The graphs below illustrate the performance of the VaR model used in the Group capital calculations. They compare the 99 percentile loss confidence level given by the VaR model with the Hypothetical and Actual P&L of each day given the real market movements. Actual backtesting P&L excludes from trading P&L: brokerage expense, fees & commissions, non-market-related accounting valuation adjustments and accounting debit valuation adjustments. Hypothetical backtesting P&L further excludes P&L from new deals and market operations.

Table 80: 2020 Backtesting chart for Internal Model Approach regulatory trading book at Group level with hypothetical profit and loss (P&L) versus VaR (99 per cent, one day) (MR4)

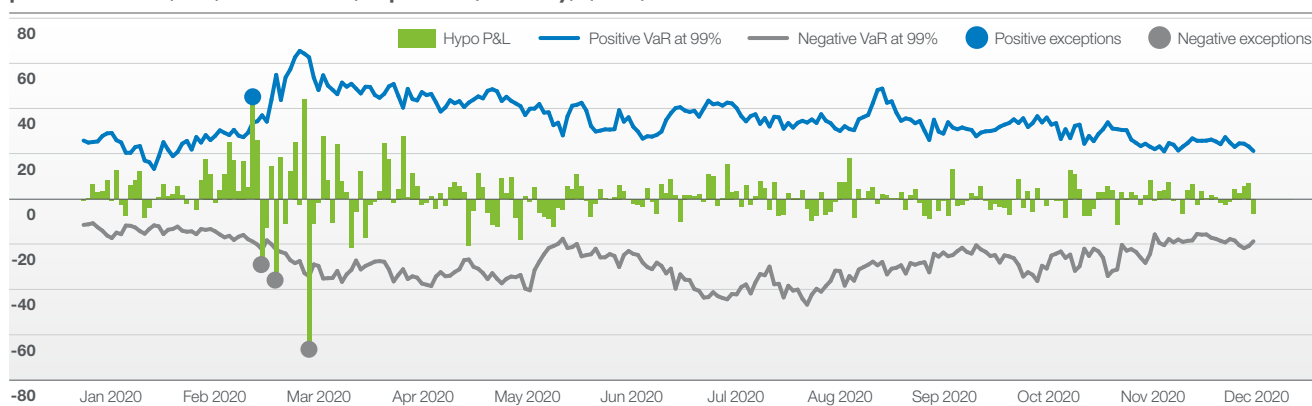
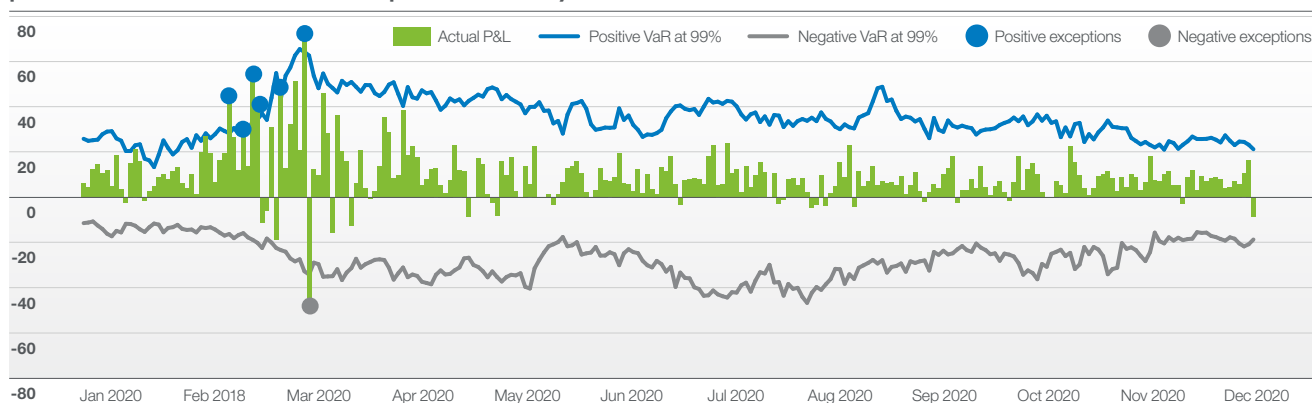


Table 81: 2020 Backtesting chart for Internal Model Approach regulatory trading book at Group level with actual profit and loss (P&L) versus VaR (99 per cent, one day) (MR4)



4.2 Counterparty credit risk

Counterparty credit risk (CCR) is the risk that a counterparty in a foreign exchange, interest rate, commodity, equity or credit derivative or repo contract defaults prior to the maturity date of the contract, and that the Group at the time has a claim on the counterparty. CCR arises predominantly in the trading book, but also arises in the non-trading book when hedging with external counterparties is required.

CCR is managed within the overall traded risk appetite for corporate and financial institutions. CCR limits are set for individual counterparties, including central clearing counterparties, and for specific portfolios. Individual limits are calibrated to the credit grade and business model of the counterparties, and are set on Potential Future Exposure (PFE). Portfolio limits are set to contain concentration risk across multiple dimensions and are set on PFE or other equivalent measures.

The Group reduces its credit exposures to counterparties by entering into contractual netting agreements which result in a single amount owed by or to the counterparty. The amount is calculated by netting the Mark-To-Market (MTM) owed by the counterparty to the Group and the MTM owed by the Group to the counterparty on the transactions covered by the netting agreement. In line with the International Accounting Standard (IAS) 32 principles, the Group's balance sheet will present assets and liabilities on a net basis provided there is a legally enforceable right to set off assets and liabilities, and the Group intends to settle on a net basis or realise the asset and liability simultaneously.

Wrong-way risk

Wrong-way risk occurs when an exposure increase is coupled with a decrease in the credit quality of the obligor. Specifically, as the MTM on a derivative or repo contract increases in favour of the Group, the driver of this MTM change also reduces the ability of the counterparty to meet its payment, margin call or collateral posting requirements. Wrong-way risk mostly arises from FX transactions and financing transactions. The Group employs various policies and procedures to ensure that wrong-way risk exposures are recognised upfront, monitored, and where required, contained by limits on country, tenor, collateral type and counterparty.

Stress testing

Stress testing is an integral part of CCR management, complementing PFE or other portfolio limits. Single and multi-factor scenarios are regularly applied to the CCR portfolio to identify and quantify exposures that could become a concern for the Group. The stressed exposures are monitored monthly at regional and global counterparty credit risk exposure forums. The relevance and severity of the stress scenarios are periodically reviewed with cross functional stakeholders.

Exposure value calculation

Exposure calculation used for risk management is based on PFE. The PFE is mostly calculated from simulation models, and from PFE add-ons for the non-simulated products.

From a capital standpoint, the Group has been granted permission by the regulator to use the Internal Model Method (IMM) to calculate the exposure for "vanilla" Interest Rate and Foreign Exchange over the counter derivatives. Under the IMM approach, EAD is calculated by multiplying the effective expected positive exposure by a factor stipulated by the regulator called alpha. The IMM model is subject to model validation including regular model performance monitoring. The exposure for derivatives not in scope of the IMM

permission are measured using the sum of current replacement cost and potential future credit exposure, and the benefit of master netting agreements is applied using the Net-Gross Ratio.

Exposure for repurchase transactions and securities lending or borrowing transactions is calculated using the Financial Collateral Comprehensive Method. Supervisory volatility adjustments are applied to both collateral and exposure legs and the benefit of master netting agreements is taken into consideration.

The Group has credit policies and procedures setting out the criteria for collateral to be recognised as a credit risk mitigant, including requirements concerning legal certainty, priority, concentration, correlation, liquidity and valuation parameters such as frequency of review and independence. The Group seeks to negotiate Credit Support Annexes (CSA) with counterparties when collateral is deemed a necessary or desirable mitigant to the exposure. The credit terms of a CSA are specific to each legal document and determined by the credit risk approval unit responsible for the counterparty. The nature of the collateral is specified in the legal document and is typically cash or highly liquid securities.

The MTM of all trades captured under CSAs is calculated daily. Additional collateral will be called from the counterparty if total uncollateralised MTM exposure exceeds the threshold and minimum transfer amount specified in the CSA. Additional collateral may be required from the counterparty to provide an extra buffer to the daily variation margin process.

In line with market convention, the Group negotiates CSA terms for certain counterparties where the thresholds related to each party are dependent on their ECAI long-term rating. Such clauses are typically mutual in nature. As a result, a downgrade in the Group's rating would result in some counterparties seeking additional collateral calls to cover negative MTM portfolios where thresholds are lowered. The amount of collateral that the Group would be required to provide given a one-notch credit rating downgrade is approximately \$311 million (2019: \$180 million).

The Group also has policies and procedures in place setting out the criteria for guarantees to be recognised as a credit risk mitigant. Where guarantees meet regulatory criteria, the Group treats the exposure as guarantor risk from counterparty credit risk capital standpoint.

Credit valuation adjustments

CVA measures potential MTM loss associated with the deterioration in the creditworthiness of the counterparty. The Group applies standardised approach to calculate CVA capital charge on over-the-counter derivative contracts. Details on CVA are provided in note 13 of the 2020 Annual Report and Accounts on page 341.

Table 82 shows the credit exposure on derivative transactions after taking into account the benefits from legally enforceable netting agreements and collateral held, including transactions cleared through recognised trading exchanges.

Table 83 specifies the methods used by the Group to calculate counterparty credit risk regulatory requirements, followed by Table 84 which demonstrates the risk-weighted exposure amounts to central counterparties by derivative types.

Table 85 indicates the notional amounts of credit derivative transactions segregated between protection bought and sold within each product type.

Table 86 describes the exposure value subject to credit valuation adjustment charge and related RWA.

4.2 Counterparty credit risk continued

Table 82: Impact of netting and collateral held on exposure values (CCR5-A)

	2020				
	EAD before netting benefit \$million	Netting benefits \$million	Netted current credit exposure \$million	Collateral held \$million	Net credit exposure \$million
1 Derivative contracts	127,435	(83,608)	43,827	(2,090)	41,737
2 Repo style transactions	166,366	–	166,366	(155,350)	11,016
4 Total	293,801	(83,608)	210,193	(157,440)	52,753

	2019				
	EAD before netting benefit \$million	Netting benefits \$million	Netted current credit exposure \$million	Collateral held \$million	Net credit exposure \$million
1 Derivative contracts	78,182	(45,301)	32,881	(1,100)	31,781
2 Repo style transactions	139,202	–	139,202	(128,857)	10,345
4 Total	217,384	(45,301)	172,083	(129,957)	42,126

Table 83: Analysis of CCR exposures by approach (CCR1)

	2020						
	Notional \$million	Replacement cost/current market value \$million	Potential future exposure \$million	EEPE \$million	Multiplier \$million	EAD post CRM \$million	RWA \$million
1 Mark to market		19,124	29,932			6,987	3,618
2 Original exposure	N/A					N/A	N/A
3 Standardised approach				N/A	N/A	N/A	N/A
4 IMM (for derivatives and SFTs)				15,234	1.6	24,374	10,201
5 Of which securities financing transactions				N/A	N/A	N/A	N/A
6 Of which derivatives and long settlement transactions				15,234	1.6	24,374	10,201
8 Financial collateral simple method (for SFTs)						N/A	N/A
9 Financial collateral comprehensive method (for SFTs)						112,256	2,216
10 VaR for SFTs						N/A	N/A
11 Total							16,035

	2019						
	Notional \$million	Replacement cost/current market value \$million	Potential future exposure \$million	EEPE \$million	Multiplier \$million	EAD post CRM ¹ \$million	RWA \$million
1 Mark to market		12,196	22,672			5,676	3,000
2 Original exposure	N/A					N/A	N/A
3 Standardised approach				N/A	N/A	N/A	N/A
4 IMM (for derivatives and SFTs)				12,249	1.6	19,599	7,960
5 Of which securities financing transactions				N/A	N/A	N/A	N/A
6 Of which derivatives and long settlement transactions				12,249	1.6	19,599	7,960
8 Financial collateral simple method (for SFTs)						N/A	N/A
9 Financial collateral comprehensive method (for SFTs)						107,973	2,002
10 VaR for SFTs						N/A	N/A
11 Total							12,961

1 EAD post CRM has been represented for 2018 to exclude IRB CRM

4.2 Counterparty credit risk continued

Table 84: Exposures to central counterparties (CCPs) (CCR8)

	2020		2019	
	EAD post CRM \$million	RWA \$million	EAD post CRM \$million	RWA \$million
Exposures to QCCPs				
Trade exposure	13,739	287	7,889	163
Of which OTC derivatives	8,741	187	5,010	106
Of which exchange-traded derivatives	2,949	59	2,074	41
Of which SFTs	2,049	41	805	16
Collateral posted	2,915	68	1,810	46
Prefunded default fund contributions	494	228	332	167
Total	17,148	583	10,031	376

Table 85: Credit derivatives exposures (CCR6)

	2020			2019		
	Bought \$million	Sold \$million	Total \$million	Bought \$million	Sold \$million	Total \$million
Notionals						
Credit default swaps	67,563	62,741	130,304	42,728	34,897	77,625
Total return swaps	8,384	858	9,242	1,523	664	2,187
Credit options	–	–	–	–	–	–
Other Credit derivatives	891	–	891	1,160	–	1,160
Total notionals	76,838	63,599	140,437	45,411	35,561	80,972
Fair values	–	–	–			
Positive fair value (asset)	179	1,523	1,702	415	817	1,232
Negative fair value (liability)	2,902	88	2,990	2,389	522	2,911

Table 86: Credit valuation adjustment (CVA) capital charge (CCR2)

	2020		2019	
	Exposure Value \$million	RWA \$million	Exposure Value \$million	RWA \$million
1 Total portfolios subject to the Advanced Method	–	–	–	–
2 (i) VaR component (including the 3x multiplier)	–	–	–	–
3 (ii) Stressed VaR component (including the 3x multiplier)	–	–	–	–
4 All portfolios subject to the Standardised Method	18,860	2,435	15,619	2,113
5 Total subject to the CVA capital charge	18,860	2,435	15,619	2,113

4.2 Counterparty credit risk continued

Table 87 depicts EAD after the effect of collateral associated with each risk weight prescribed in Part Three, Title II, Chapter 2 of the CRR for counterparty credit risk.

Table 87: Standardised approach – CCR exposures by regulatory portfolio and risk (CCR3)

		2020													
		Risk Weight													
		0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	Others	Total	Of which unrated
Standardised Exposure Class															
1	Central governments or central banks	333	-	-	-	-	-	-	-	-	-	-	-	333	-
4	Multilateral development banks	1,116	-	-	-	-	-	-	-	-	-	-	-	1,116	-
6	Institutions	-	13,858	-	-	8	-	1	-	-	1	-	-	13,868	-
7	Corporates	-	-	-	-	831	-	5	-	-	271	-	-	1,107	356
8	Retail	-	-	-	-	-	-	-	-	2	-	-	-	2	2
10a	Secured on real estate property	-	-	-	-	-	-	-	-	-	1	-	-	1	1
10b	Exposures in default	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10c	Items belonging to regulatory high risk categories	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10d	Other items	7	-	-	-	-	-	-	-	-	-	-	-	7	-
11	Total Standardised	1,456	13,858	-	-	838	-	6	-	2	273	-	-	16,434	359
		2019													
		Risk Weight													
		0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	Others	Total	Of which unrated
Standardised Exposure Class															
1	Central governments or central banks	196	-	-	-	-	-	2	-	-	-	-	-	197	-
4	Multilateral development banks	985	-	-	-	-	-	-	-	-	-	-	-	985	-
6	Institutions	-	7,858	-	-	5	-	9	-	-	-	-	-	7,872	-
7	Corporates	-	-	-	-	773	-	3	-	-	268	-	-	1,045	339
8	Retail	-	-	-	-	-	-	-	-	1	-	-	-	1	1
10a	Secured on real estate property	-	-	-	-	-	2	-	-	-	1	-	-	3	1
10b	Exposures in default	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10c	Items belonging to regulatory high risk categories	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10d	Other items	-	-	-	-	-	-	-	-	-	28	-	-	28	28
11	Total Standardised	1,181	7,858	-	-	779	2	13	-	1	298	-	-	10,131	370

Institutions exposures increased by \$6 billion mainly due to an increase in FX forwards in the GCNA region and SBL trading across multiple regions.

4.2 Counterparty credit risk continued

The following tables provide further detail on the exposure classes subject to counterparty credit risk, in particular for central governments or central banks, institutions, corporates. These have been split by internal credit grade which relate to the PD ranges presented.

- Central government and central bank exposures decreased by \$5.8 billion due to decreases in repo transactions and SBL trades across multiple regions
- Corporates exposures increased by \$15.8 billion and RWA by \$2 billion driven by an increase in repo's, reverse repos, standby letters of credit and derivatives.

Table 88: IRB – CCR exposures by exposure class

	2020						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
IRB exposure class							
Central governments or central banks	9,266	0.43	109	22	0.54	1,337	14
Institutions	34,652	0.20	1,331	14	0.63	3,298	10
Corporates	97,004	0.28	12,393	12	0.41	10,965	11
Of which specialised lending	1,839	3.28	454	36	2.64	1,146	62
Of which SME	13	10.23	289	49	1.87	12	90
Total IRB	140,922	0.27	13,833	13	0.47	15,600	11
2019							
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
IRB exposure class							
Central governments or central banks	15,023	0.17	120	10	0.22	831	6
Institutions	34,733	0.13	1,373	13	0.55	2,874	8
Corporates	81,252	0.24	12,035	13	0.44	8,803	11
Of which specialised lending	1,365	1.64	488	37	2.65	787	58
Of which SME	218	0.46	303	66	2.04	150	69
Total IRB	131,008	0.20	13,528	13	0.44	12,508	10

1 Weighted averages are based on EAD

2 Number of obligors is based on number of counterparties

4.2 Counterparty credit risk continued

Table 89: IRB – CCR exposures by PD scale for central governments or central banks (CCR4)

PD range %	2020						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	7,280	0.05	56	16	0.40	239	3
0.15 to < 0.25	859	0.22	6	45	0.04	207	24
0.25 to < 0.50	55	0.49	5	45	0.64	28	51
0.50 to < 0.75	1	0.67	5	45	1.00	1	64
0.75 to < 2.50	779	2.50	15	45	2.04	465	60
2.50 to < 10.00	291	4.56	16	45	1.44	397	136
10.00 to < 100.00	–	33.00	6	45	1.00	–	250
100.00 (default)	–	–	–	–	–	–	–
Total	9,266	0.43	109	22	0.54	1,337	14

PD range %	2019						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	13,585	0.04	60	7	0.21	180	1
0.15 to < 0.25	521	0.22	6	45	0.15	132	25
0.25 to < 0.50	76	0.39	8	45	0.20	29	39
0.50 to < 0.75	–	–	2	–	–	–	–
0.75 to < 2.50	820	2.26	26	42	0.41	459	56
2.50 to < 10.00	21	3.51	11	45	3.75	29	142
10.00 to < 100.00	–	13.77	7	45	5.00	–	255
100.00 (default)	–	–	–	–	–	–	–
Total	15,023	0.17	120	10	0.22	831	6

1 Weighted averages are based on EAD

2 Number of obligors is based on number of counterparties within each PD grade

4.2 Counterparty credit risk continued

Table 90: IRB – CCR exposures by PD scale for institutions (CCR4)

PD range %	2020						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	26,049	0.05	668	16	0.68	1,807	7
0.15 to < 0.25	2,344	0.22	98	13	0.62	341	15
0.25 to < 0.50	2,868	0.47	151	10	0.35	417	15
0.50 to < 0.75	1,707	0.67	52	7	0.19	185	11
0.75 to < 2.50	1,568	1.38	283	10	0.66	418	27
2.50 to < 10.00	116	4.26	51	35	0.46	130	112
10.00 to < 100.00	–	–	23	–	–	–	–
100.00 (default)	–	100.00	5	45	1.16	–	188
Total	34,652	0.20	1,331	14	0.63	3,298	10

PD range %	2019						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	29,503	0.05	676	14	0.55	1,681	6
0.15 to < 0.25	2,502	0.22	109	10	0.59	267	11
0.25 to < 0.50	1,271	0.46	169	12	0.42	232	18
0.50 to < 0.75	142	0.67	45	15	0.67	40	28
0.75 to < 2.50	1,311	1.27	326	17	0.76	647	49
2.50 to < 10.00	5	7.19	32	43	1.40	8	161
10.00 to < 100.00	–	13.77	16	45	1.00	–	237
100.00 (default)	–	–	–	–	–	–	–
Total	34,733	0.13	1,373	13	0.55	2,874	8

1 Weighted averages are based on EAD

2 Number of obligors is based on number of counterparties within each PD grade

4.2 Counterparty credit risk continued

Table 91: IRB – CCR exposures by PD scale for corporates (CCR4)

PD range %	2020						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	67,764	0.06	4,860	9	0.27	2,613	4
0.15 to < 0.25	4,490	0.22	1,738	28	1.32	1,325	30
0.25 to < 0.50	16,286	0.45	2,067	11	0.49	2,410	15
0.50 to < 0.75	4,673	0.67	702	10	0.43	774	17
0.75 to < 2.50	3,266	1.30	1,776	46	1.45	3,057	94
2.50 to < 10.00	280	5.17	623	44	1.36	408	146
10.00 to < 100.00	81	19.70	273	52	2.33	224	276
100.00 (default)	45	100.00	295	36	1.59	56	123
Total	96,884	0.28	12,334	12	0.41	10,867	11

PD range %	2019						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	57,627	0.05	4,583	10	0.32	2,569	4
0.15 to < 0.25	3,490	0.22	1,634	36	1.52	1,271	36
0.25 to < 0.50	13,213	0.44	2,069	12	0.52	2,031	15
0.50 to < 0.75	2,253	0.67	662	19	0.75	628	28
0.75 to < 2.50	4,386	1.09	1,978	21	0.60	1,806	41
2.50 to < 10.00	129	4.83	495	45	1.79	196	153
10.00 to < 100.00	88	26.81	293	56	1.78	239	271
100.00 (default)	2	100.00	261	63	2.41	12	482
Total	81,189	0.24	11,975	13	0.43	8,752	11

1 Weighted averages are based on EAD

2 Number of obligors is based on number of counterparties within each PD grade

4.2 Counterparty credit risk continued

Table 92: IRB – CCR exposures by PD scale for corporates – specialised lending (CCR4)

PD range %	2020						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	169	0.12	33	32	2.64	39	23
0.15 to < 0.25	320	0.22	47	29	3.46	110	34
0.25 to < 0.50	455	0.44	90	47	2.15	273	60
0.50 to < 0.75	102	0.67	35	48	1.49	74	73
0.75 to < 2.50	575	1.51	133	32	2.99	417	73
2.50 to < 10.00	24	5.11	18	48	2.63	37	153
10.00 to < 100.00	35	20.06	10	34	2.15	60	172
100.00 (default)	39	100.00	29	34	1.45	38	99
Total	1,719	3.45	395	37	2.68	1,048	61

PD range %	2019						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	199	0.12	48	30	2.90	45	22
0.15 to < 0.25	272	0.22	37	35	3.33	102	38
0.25 to < 0.50	430	0.48	102	41	2.24	235	55
0.50 to < 0.75	78	0.67	44	50	1.67	59	76
0.75 to < 2.50	288	1.69	139	39	2.78	252	88
2.50 to < 10.00	15	5.67	24	28	3.77	14	92
10.00 to < 100.00	20	62.02	10	31	2.08	29	140
100.00 (default)	–	100.00	24	36	1.00	–	8
Total	1,302	1.68	428	38	2.67	736	57

1 Weighted averages are based on EAD

2 Number of obligors is based on number of counterparties within each PD grade

4.2 Counterparty credit risk continued

Table 93: IRB – CCR exposures by PD scale for corporates – SME (CCR4)

PD range %	2020						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	–	–	5	–	–	–	–
0.15 to < 0.25	1	0.24	35	81	1.11	–	49
0.25 to < 0.50	–	0.49	47	45	1.04	–	36
0.50 to < 0.75	–	0.67	14	66	1.00	–	69
0.75 to < 2.50	8	1.45	74	43	1.89	5	66
2.50 to < 10.00	3	3.61	51	72	1.20	5	149
10.00 to < 100.00	–	13.77	11	1	1.00	–	4
100.00 (default)	1	100.00	52	9	4.32	1	109
Total	13	10.23	289	49	1.87	12	90

PD range %	2019						
	EAD post CRM and post CCF \$million	Average PD ¹ %	Number of obligors ²	Average LGD ¹ %	Average maturity ¹ years	RWA \$million	RWA density ¹ %
0.00 to < 0.15	–	0.09	2	67	1.00	–	17
0.15 to < 0.25	194	0.22	51	64	2.03	102	53
0.25 to < 0.50	1	0.41	34	63	1.14	1	50
0.50 to < 0.75	1	0.67	13	69	2.05	–	97
0.75 to < 2.50	19	2.01	99	86	2.30	42	219
2.50 to < 10.00	3	4.90	47	60	1.69	5	152
10.00 to < 100.00	–	16.54	12	77	1.00	–	319
100.00 (default)	–	100.00	45	70	1.00	–	343
Total	218	0.46	303	66	2.04	150	69

1 Weighted averages are based on EAD

2 Number of obligors is based on number of counterparties within each PD grade

5. Interest rate risk in the banking book

Overview

The Group defines Interest Rate Risk in the Banking Book ('IRRBB') as the potential for loss of future earnings or economic value following adverse movements in interest rates, which arises from a mismatch in the re-pricing profile of assets, liabilities, and off-balance sheet items in the banking book. This risk is incorporated in the Capital and Liquidity Risk Type Framework, as a risk sub-type of Capital and Liquidity Risk.

The Board delegates the management of IRRBB to the Group Asset & Liability Committee (GALCO), which in turn mandates the Country ALCOs and the Group's Operational Balance Sheet Committee (OBSC) to monitor IRRBB as per the risk type framework.

IRRBB is managed at a country level by the Country ALCO, chaired by the Country CEO, and is independently monitored by Treasury.

Measurement of IRRBB

The Group uses two key metrics for measuring IRRBB: Net Interest Income ('NII') Sensitivity, an income measure which quantifies the potential change in projected net interest income over a one-year horizon from defined movements in interest rates; and Economic Value ('EV') Sensitivity, a value measure which estimates the potential change in the present value of the Group's Banking Book assets and liabilities from defined movements in interest rates. These measures differ in their coverage of the drivers of interest rate risk and the time horizon for these to materialise but used together they can provide a complementary and rounded view of the Group's risk profile. Both NII and EV Sensitivities are monitored monthly against defined Risk Appetite limits, which are set at the Group level and, where appropriate, at a country level in compliance with local regulatory requirements.

Methodology

NII and EV Sensitivities are calculated under various interest rate scenarios, including parallel and non-parallel shifts and a range of internally designed scenarios that assess vulnerabilities in the Group's business model and key behavioural assumptions under interest rate shocks and stresses. Risk Appetite limits are monitored with respect to specific interest rate scenarios designed to reflect severe but plausible changes in global interest rates.

IRRBB models and methodologies are defined for the Group by the Treasury function, independently validated and approved by the Risk function. Country modelling assumptions are derived locally using the Group's methodologies, and are reviewed by Country ALCO.

Management of IRRBB

The Group uses Funds Transfer Pricing (FTP) to transfer re-pricing risk from the business to Treasury, including that arising from structural positions such as the investment of equity and non-maturity deposit balances. For non-maturity deposits, the assumed duration is dependent on the portion that can be considered stable and the degree to which these balances are considered price sensitive. The re-pricing risk transferred to Treasury is managed on an integrated basis with a securities portfolio maintained for liquidity and investment management purposes. Any basis risk that is not transferred and cannot be hedged by Treasury is reported and overseen at local ALCOs.

Re-pricing risk arising within Treasury is managed using a combination of on-balance sheet and derivative hedges; derivative hedges are subject to Fair Value and Cash Flow Hedge accounting treatment where available. Treasury's interest rate risk positions and limits are independently monitored by the Risk function.

More details on NII sensitivity can be found in the 2020 Annual Reports and Accounts on page 246.

6 Liquidity risk

Liquidity & Funding risk management

For information on the Group's Liquidity & Funding risk management practices and risk profile we refer to the Principal Risks and Risk Profile sections of the 2020 Annual Report and Accounts on pages 259 and 260 respectively.

Liquidity Coverage Ratio (LCR) disclosure

The Liquidity Coverage Ratio (LCR) is a regulatory stress ratio measuring the proportion of High-Quality Liquid Assets (HQLA) against net outflows over 30 calendar days. An essential component of the Basel III reforms, the LCR was introduced in October 2015 with the goal of promoting the short-term resilience of a firm's liquidity risk profile.

The Group monitors and reports its LCR under European Commission Delegated Regulation 2015/61 (LCR Delegated Act rules) and is also subject to local prudential LCR requirements across our footprint, where applicable. The Prudential Regulation Authority (PRA), as the Group's competent authority, accelerated LCR implementation by setting an initial industry-wide minimum threshold of 80 per cent on 1 October 2015 before increasing to 90 per cent on 1 January 2017 ahead of full implementation (100 per cent) from 1 January 2018.

The LCR is a Pillar 1 regulatory requirement calculated by applying standardised haircuts, outflow and inflow factors to HQLA, liabilities and assets respectively. Risks not captured, or not fully captured, under the standardised Pillar 1 ratio (e.g. Intra-day risk or other risks specific to each firm) are known as Pillar 2 risks and are captured under a separate Pillar 2 regulatory framework. These Pillar 2 requirements are set in the form of fixed or variable add-ons to LCR Pillar 1 requirements. Therefore, it should be noted that the HQLA reported in the table below is held to meet Pillar 1 and Pillar 2 risks along with internal Board approved risk appetite.

HQLA

HQLA eligible securities, as defined under LCR Delegated Act rules, fall into three categories: Level 1, Level 2A, and Level 2B liquid assets. Level 1 liquid assets, which are of the highest quality and deemed the most liquid (e.g. central bank reserves or securities issued by the U.S. Treasury Department), are subject to no or little discount (or haircuts) to their market value and may be largely used without limit in the liquidity buffer, except for Level 1 covered bonds.

Level 2A and 2B securities are recognised as being relatively stable and reliable sources of liquidity, but not to the same extent as Level 1 assets. LCR rules therefore set a 40 per cent composition cap on the combined amount of Level 2A and Level 2B that firms may hold in their total eligible liquidity buffer. Level 2B liquid assets, which are considered less liquid and more volatile than Level 2A liquid assets, are subject to large and varying haircuts and may not exceed 15 per cent of the total eligible HQLA.

To be recognised as HQLA eligible, securities must also meet various operational and general requirements designed to ensure that such assets have robust liquidity characteristics and can be freely converted into cash within a short timeframe, without significant loss in value.

Outflows

Expected outflows are generally calculated as a percentage outflow of on-balance sheet items (e.g. funding received) and off-balance sheet commitments (e.g. credit and liquidity lines) made by firms. This outflow varies typically by counterparty. For example, the outflow expected on retail deposits is lower than the outflow expected on deposits provided by corporates or financial institutions.

Inflows

Expected inflows are also generally calculated as a percentage inflow on-balance sheet items and include inflows (e.g. from retail or corporate loans) that will be repaid within 30 days. To ensure a minimum level of liquid asset holdings, and to prevent firms from relying solely on anticipated inflows to meet their liquidity coverage ratio, the prescribed amount of inflows that can offset outflows is capped at 75 per cent of total expected outflows.

Calculated pursuant to LCR Delegated Act rules, the following table sets forth simple averages of month-end Group LCR observations over the 12-months preceding each quarter. For a period end Group LCR disclosure, refer to page 238 of the 2020 Annual Report and Accounts.

Table 94: Liquidity Coverage Ratio (LCR) (LIQ1)

		2020							
		Total unweighted value (average)				Total weighted value (average)			
		31.03.20 \$million	30.06.20 \$million	30.09.20 \$million	31.12.20 \$million	31.03.20 \$million	30.06.20 \$million	30.09.20 \$million	31.12.20 \$million
	Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
	High-Quality Liquid Assets								
1	Total High-Quality Liquid Assets (HQLA)					150,302	152,828	155,965	162,019
	Cash outflows								
2	Retail deposits and deposits from small business customers, of which:	133,427	134,441	136,820	139,058	13,107	13,177	13,339	13,380
3	Stable deposits	32,845	34,410	35,900	37,837	1,642	1,720	1,795	1,892
4	Less stable deposits	100,582	100,031	100,920	101,221	11,465	11,456	11,544	11,488
5	Unsecured wholesale funding, of which:	227,870	236,409	241,878	254,205	110,114	111,887	112,650	119,412
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	88,314	96,321	102,181	106,821	21,910	23,888	25,323	26,479
7	Non-operational deposits (all counterparties)	134,324	135,372	134,667	142,191	82,972	83,283	82,297	87,740
8	Unsecured debt	5,233	4,716	5,030	5,194	5,233	4,716	5,030	5,194
9	Secured wholesale funding					6,097	5,448	4,657	3,845
10	Additional requirements	85,927	85,325	84,984	86,733	28,024	30,706	31,986	32,211
11	Outflows related to derivative exposures and other collateral requirements	14,009	17,155	18,607	18,772	14,009	17,146	18,588	18,743
12	Outflows related to loss of funding on debt products	61	60	58	54	61	60	58	54
13	Credit and liquidity facilities	71,857	68,110	66,319	67,907	13,954	13,500	13,340	13,414
14	Other contractual funding obligations	11,123	11,370	12,026	12,100	10,978	11,127	11,695	11,712
15	Other contingent funding obligations	205,118	211,831	215,193	214,626	3,559	3,902	4,105	4,133
16	Total cash outflows					171,880	176,246	178,433	184,694
	Cash inflows								
17	Secured lending (e.g. reverse repos)	43,506	43,518	43,997	47,689	8,112	8,017	8,085	8,123
18	Inflows from fully performing exposures	52,506	53,249	54,080	57,050	37,531	38,343	39,201	42,123
19	Other cash inflows	29,041	32,401	33,056	32,885	18,791	22,189	23,053	23,070
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)					-	-	-	-
EU-19b	(Excess inflows from a related specialised credit institutions)					-	-	-	-
20	Total cash inflows	122,542	125,279	125,059	129,629	64,434	68,549	70,338	73,316
EU-20a	Fully exempt inflows	-	-	-	-	-	-	-	-
EU-20b	Inflows subject to 90% cap	-	-	-	-	-	-	-	-
EU-20c	Inflows subject to 75% cap	122,542	125,279	125,059	129,629	64,434	68,549	70,338	73,316
	Total adjusted value								
21	Liquidity buffer					150,302	152,828	155,965	162,019
22	Total net cash outflows					107,446	107,697	108,095	111,378
23	Liquidity coverage ratio (%)					140%	142%	144%	146%

Table 94: Liquidity Coverage Ratio (LCR) (LIQ1) continued

		2019							
		Total unweighted value (average)				Total weighted value (average)			
		31.03.19 \$million	30.06.19 \$million	30.09.19 \$million	31.12.19 \$million	31.03.19 \$million	30.06.19 \$million	30.09.19 \$million	31.12.19 \$million
	Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
	High-Quality Liquid Assets								
1	Total High-Quality Liquid Assets (HQLA)					149,411	149,915	150,927	151,901
	Cash outflows								
2	Retail deposits and deposits from small business customers, of which:	131,637	132,035	132,208	132,831	12,882	12,852	12,810	12,938
3	Stable deposits	31,800	32,433	33,118	33,106	1,590	1,622	1,656	1,655
4	Less stable deposits	99,837	99,602	99,090	99,725	11,292	11,231	11,154	11,283
5	Unsecured wholesale funding, of which:	217,142	217,632	220,955	223,644	110,609	109,935	110,449	109,947
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	66,035	68,852	74,119	81,428	16,357	17,070	18,394	20,205
7	Non-operational deposits (all counterparties)	145,147	142,941	140,752	136,798	88,291	87,026	85,971	84,324
8	Unsecured debt	5,961	5,839	6,084	5,417	5,961	5,839	6,084	5,417
9	Secured wholesale funding					3,007	3,721	4,465	6,463
10	Additional requirements	87,776	88,512	89,048	88,017	27,295	27,075	26,606	26,780
11	Outflows related to derivative exposures and other collateral requirements	14,652	14,034	13,068	12,718	14,646	14,031	13,068	12,718
12	Outflows related to loss of funding on debt products	22	21	6	10	22	21	6	10
13	Credit and liquidity facilities	73,102	74,456	75,974	75,289	12,627	13,022	13,532	14,051
14	Other contractual funding obligations	8,550	8,899	9,497	10,295	8,550	8,899	9,497	10,246
15	Other contingent funding obligations	191,198	189,385	191,534	197,403	2,111	2,284	2,600	3,100
16	Total cash outflows					164,453	164,766	166,426	169,473
	Cash inflows								
17	Secured lending (e.g. reverse repos)	37,063	39,913	42,623	41,644	8,672	8,842	8,810	8,358
18	Inflows from fully performing exposures	54,976	53,174	51,632	50,777	42,326	40,313	38,294	36,571
19	Other cash inflows	27,642	27,202	26,968	27,281	17,708	17,296	16,803	16,906
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)					–	–	–	–
EU-19b	(Excess inflows from a related specialised credit institutions)					–	–	–	–
20	Total cash inflows	119,681	120,289	121,223	118,907	68,706	66,450	63,908	61,842
	EU-20a Fully exempt inflows	–	–	–	–	–	–	–	–
	EU-20b Inflows subject to 90% cap	–	–	–	–	–	–	–	–
	EU-20c Inflows subject to 75% cap	119,681	120,289	121,223	118,907	68,706	66,450	63,908	61,842
	Total adjusted value								
21	Liquidity buffer					149,411	149,915	150,927	151,901
22	Total net cash outflows					95,748	98,316	102,518	107,632
23	Liquidity coverage ratio (%)					156%	153%	148%	141%

The ratios reported in the above table are simple averages of month-end Group LCR ratios over the twelve months preceding each quarter. Therefore, these ratios may not be equal to the implied LCR calculated when using the average component amounts reported under 'Liquidity buffer' and 'Total net cash outflows' in the above table.

Main drivers and changes in LCR

The Group continued to maintain a strong average LCR position over the reporting period with a prudent surplus to both Board approved risk appetite and regulatory requirements.

The Group's average LCR was 146 per cent in the fourth quarter (first quarter: 140 per cent) with higher average HQLA holdings and higher cash outflows, reflecting the overall growth in the Group's balance sheet.

HQLA composition

Figures reported in this section are simple averages of the 12 data points over the reporting period Jan 2020 to Dec 2020.

Our average weighted HQLA over the reporting period was approximately \$162 billion. Of this amount, 93 per cent consisted of Level 1 assets in the form of unencumbered central bank reserves (average 40 per cent) and high quality level 1 securities 53 per cent). Level 1 securities were mainly composed of central bank and government assets as well as securities issued by multilateral development banks and international organisations. In addition, 6 per cent of average

weighted HQLA over the period consisted of Level 2A assets (mainly third country central/regional governments and public sector entities). The remaining average weighted HQLA was made up of Asset-backed securities recognised as Level 2B under LCR rules.

The Group's combined Level 2A and Level 2B securities (7 per cent) was well below the 40 per cent composition cap for such assets as required under LCR Delegated Act rules with Level 2B securities (1 per cent) falling below the required 15 per cent of total HQLA limit.

HQLA presented herein excludes excess liquidity held at certain subsidiaries that is not transferable within the Group.

Our liquidity management function in Treasury actively manages the size and composition of our eligible HQLA to ensure it is well diversified and reflects the Group's Board approved risk appetite and supporting risk measures, regulatory and internal stress testing requirements, the currency denomination of outflows, amongst other relevant considerations.

For a regional view of our HQLA liquidity pool, refer to page 240 of the 2020 Annual Report and Accounts.

Table 95: Total eligible high-quality liquid assets (HQLA)

	Average unweighted	Average weighted
Level 1 reserves	40%	40%
Level 1 liquid securities	52%	53%
Level 2A liquid assets	8%	6%
Level 2B liquid assets	1%	1%

For a regional view of our HQLA liquidity pool, refer to page 240 of the 2020 Annual Report and Accounts.

Concentration of funding and liquidity sources

The Group's funding strategy is largely driven by its policy to maintain adequate liquidity at all times, in all geographic locations and in all currencies, and hence to be in a position to meet all obligations as they fall due.

With a sufficiently flexible funding strategy we are able to reduce liquidity risk by diversifying our liquidity resources. Our high degree of geographic diversification constitutes a material risk offset because of our ability to raise a variety of funding across a number of markets in which we operate.

The Group has established internal measures to closely monitor and highlight any build up in counterparty and tenor concentrations to ensure it can meet liquidity needs under different stress scenarios and different time horizons.

Our funding profile over the reporting period was well diversified across different sources by product, business and tenor. Consistent with the Group's funding strategy, customer assets were largely funded out of customer deposits, which are considered a stable source of funding. Customer deposits are primarily sourced from Current Account Saving Account balances along with time deposits and these are further diversified across different customer segments, currencies, tenors and markets.

For further details on the Group's funding profile, refer to pages 237 to 245 of the 2020 Annual Report and Accounts.

Derivative exposures and potential collateral calls

In the normal course of business, the Group deals in the Over-the-counter (OTC) and exchange traded derivative markets with both collateralised and uncollateralised derivative counterparties. Trades are taken primarily to facilitate client activity or for hedging our own risk exposures; as such, derivatives are not generally held for position-taking.

The LCR Delegated Act requires HQLA to be held against net contractual and contingent outflows relating to derivative transactions. These include:

- Net Contractual outflows over a 30-day calendar period – if subject to either legally enforceable master netting agreements and/or covered by collateral agreements (e.g. CSA), these cash flows can be netted at a counterparty level
- The impact of an adverse market scenario on the collateral requirements of the Group's derivatives portfolio
- Incremental collateral required to be posted in the event of a deterioration in the Group's own credit quality (e.g. a three-notch downgrade in the firm's long-term external credit rating)
- The counterparties' contractual right to substitute higher quality collateral with lower quality collateral
- The devaluation of existing collateral posted to counterparties
- Callable/due excess collateral that a firm may be contractually required to return to a counterparty

In addition to regulatory requirements, the Group employs various measures to actively reduce the risk of potential collateral calls on our derivative positions.

On average over the reporting period, weighted 'Outflows related to derivative exposures and other collateral requirements' made up only 8 per cent of the Group's total weighted outflows.

Currency mismatch in the LCR

The Group LCR is calculated and reported on a consolidated basis and in its reporting currency, US dollars. Although not required to meet minimum LCR requirements in other currencies, we report other significant currency LCRs to the PRA as part of the monthly LCR submission as well as to senior stakeholders in the form of internal monthly MI.

To minimise currency mismatch risk, the Group seeks to fund assets in the same currency, however, due to our global footprint, cross currency funding is utilised to appropriately manage currency gaps when it makes economic sense to do so.

To the extent mismatches arise, these are managed via the Group's currency convertibility framework. The framework identifies currencies that are expected to have limited convertibility during a stress, and sets thresholds on the amount of currency surplus that can be used to meet outflows in other currencies. HQLA amounts reported in Table 96 above therefore exclude surplus liquidity across the Group considered non-convertible in stress.

The implementation of liquidity metrics (such as ADR) at country level ensures that a large portion of assets is funded out of liabilities raised in the same currency. We also monitor closely, against set limits, the amount of foreign currency that can be swapped to local currency, and vice versa, in addition to currency mismatches by different tenor buckets.

6.1 Encumbered and unencumbered assets

The following disclosures of encumbered and unencumbered assets are based on the requirements in Part Eight of the CRR and the EBA RTS (EBA/RTS/2017/03).

Standard Chartered's primary funding source is its customer deposit base. The Group's advances-to-deposits ratio was 61.1 per cent at 31 December 2020, a decrease of 3.1 per cent compared to the prior year. Given this structural unsecured funding position we have little requirement to fund ourselves in secured markets, and therefore our overall low level of encumbrance reflects this position. However, we do provide collateralised financing services to clients and these result in off-balance sheet encumbrance. The Group monitors the mix of secured and unsecured funding sources within the Group's funding plan and seeks to efficiently utilise available collateral to raise secured funding and meet other collateral requirements.

Table 96: Encumbered and unencumbered assets

		2020							
		Carrying amount of encumbered assets \$million	of which notionally eligible EHQLA and HQLA \$million	Fair value of encumbered assets \$million	of which notionally eligible EHQLA and HQLA \$million	Carrying amount of unencumbered assets \$million	of which notionally eligible EHQLA and HQLA \$million	Fair value of unencumbered assets \$million	of which notionally eligible EHQLA and HQLA \$million
010	Assets of the Reporting Institution	30,984	6,828			735,527	152,433		
030	Equity instruments	–	–	–	–	3,057	–	3,057	–
040	Debt securities	11,630	6,828	11,630	6,828	156,603	109,720	156,603	109,720
050	of which: covered bonds	4	4	4	4	6,376	6,076	6,376	6,076
060	of which: asset-backed securities	524	107	524	107	9,342	3,243	9,342	3,243
070	of which: issued by general governments	9,588	6,051	9,588	6,051	96,479	75,158	96,479	75,158
080	of which: issued by financial corporations	823	310	823	310	38,440	21,069	38,440	21,069
090	of which: issued by non-financial corporations	670	71	670	71	13,879	7,151	13,879	7,103
120	Other Assets ¹	20,040	–			577,122	42,399		
121	of which: HK Govt securities of Indebtedness	7,169	–			–	–		
122	of which: Cash collateral for derivatives	10,297	–			–	–		
123	of which: Loans and Advances to customers	1,207	–			328,113	260		
124	of which: Derivative assets	–	–			59,413	–		

Table 96: Encumbered and unencumbered assets continued

		2019							
		Carrying amount of encumbered assets \$million	of which notionally eligible EHQLA and HQLA \$million	Fair value of encumbered assets \$million	of which notionally eligible EHQLA and HQLA \$million	Carrying amount of unencumbered assets \$million	of which notionally eligible EHQLA and HQLA \$million	Fair value of unencumbered assets \$million	of which notionally eligible EHQLA and HQLA \$million
010	Assets of the Reporting Institution	28,023	7,986			696,310	128,373		
030	Equity instruments	–	–	–	–	1,814	–	1,814	–
040	Debt securities	10,876	7,986	10,876	7,986	149,444	100,920	149,444	100,920
050	of which: covered bonds	6	–	6	–	5,477	5,164	5,477	5,164
060	of which: asset-backed securities	143	140	143	140	8,120	2,531	8,120	2,531
070	of which: issued by general governments	8,342	6,373	8,342	6,373	85,785	67,750	85,785	67,750
080	of which: issued by financial corporations	1,431	970	1,431	970	37,888	20,013	37,888	20,013
090	of which: issued by non-financial corporations	443	125	445	125	12,799	5,315	12,799	5,315
120	Other Assets ¹	17,692	–			543,405	25,635		
121	of which: HK Govt securities of Indebtedness	6,517	–			–	–		
122	of which: Cash collateral for derivatives	9,099	–			–	–		
123	of which: Loans and Advances to customers	1,319	–			320,354	344		
124	of which: Derivative assets	–	–			49,093	–		

1 All remaining regulatory balance sheet assets

Table 97: Encumbered assets/collateral received and associated liabilities

		2020		2019	
		Matching liabilities contingent liabilities or securities lent \$million	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered \$million	Matching liabilities contingent liabilities or securities lent \$million	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered \$million
010	Carrying amount of selected financial liabilities	64,801	66,167	63,753	64,556
011	of which: Derivatives	8,945	10,297	8,548	9,079
012	of which: Repurchase agreements	56,866	56,972	55,522	55,213
013	of which: Debt securities issued	–	–	188	781

Table 98: Collateral received

		2020			
		Fair Value of encumbered collateral received or own debt securities issued \$million	of which notionally eligible EHQLA and HQLA \$million	Fair Value of collateral received or own debt securities issued available for encumbrance \$million	of which notionally eligible EHQLA and HQLA \$million
130	Collateral received by the reporting institution	73,749	57,678	23,828	14,779
140	Loans on Demand	–	–	–	–
150	Equity Instruments	–	–	–	–
160	Debt securities	73,749	57,678	23,828	14,779
170	of which: covered bonds	–	–	–	–
180	of which: Asset backed securities	1,001	640	492	216
190	of which: issued by General Governments	56,580	52,155	18,217	13,412
200	of which: issued by Financial Corporations	9,518	878	1,765	395
210	of which: issued by Non Financial Corporations	6,951	2,727	3,504	898
220	Loans and Advances other than Loans on demand	–	–	–	–
230	Other collateral received	–	–	–	–

		2019			
		Fair Value of encumbered collateral received or own debt securities issued \$million	of which notionally eligible EHQLA and HQLA \$million	Fair Value of collateral received or own debt securities issued available for encumbrance \$million	of which notionally eligible EHQLA and HQLA \$million
130	Collateral received by the reporting institution	66,605	39,227	37,611	26,459
140	Loans on Demand	–	–	–	–
150	Equity Instruments	–	–	–	–
160	Debt securities	66,605	39,227	37,611	26,459
170	of which: covered bonds	–	–	–	–
180	of which: Asset backed securities	–	–	289	–
190	of which: issued by General Governments	48,191	36,548	26,337	24,368
200	of which: issued by Financial Corporations	13,233	460	3,747	417
210	of which: issued by Non Financial Corporations	5,629	1,277	7,160	2,541
220	Loans and Advances other than Loans on demand	–	–	–	–
230	Other collateral received	–	–	–	–

The median value of the Group's encumbered and unencumbered assets, as at 31 December 2020, differs from the Group's disclosures in the 2020 Annual Report and Accounts. The difference is due to the basis of calculation with the EBA Guidelines requiring disclosure of median values of 2020 monthly data. The table above compares the different values.

Table 99: Median values versus annual disclosure comparative

	Group Median Value		Group ARA value	
	2020 \$billion	2019 \$billion	2020 \$billion	2019 \$billion
Encumbered Assets	31	28	34	26
Unencumbered Assets	736	696	755	695

The Group's median asset encumbrance for 2020 was \$31 billion, which primarily related to cash collateral pledged against derivatives, Hong Kong government certificates of indebtedness which are both included within other assets, and other securities. Encumbered assets represent on-balance sheet assets pledged or subject to any form of arrangement to secure, collateralise or credit enhance any transaction from which it cannot be freely withdrawn. Debt securities are predominantly related to repurchase agreements. Furthermore, the unencumbered assets that cannot be encumbered also remain at low level and include goodwill, property and plant, unsettled trades, non-group acceptance and tax assets. Derivatives and Reverse Repos are not generally deemed available for encumbrance.

The Group provides collateralised security financing services to its clients, which is also used to manage the Group's own short-term cash and collateral needs. For securities accepted as collateral, mandates are credit rating driven with appropriate notional limits per rating, asset and individual bond concentration. The majority of collateral the Group uses in repo/reverse repo and stock lending/stock borrowing transactions is investment grade government issued. Information on over-collateralisation can be found in the Credit risk mitigation section of the 2020 Annual Report and Accounts on pages 213 to 214.

7. Forward-looking statements

This document may contain 'forward-looking statements' that are based on current expectations or beliefs, as well as assumptions about future events. These forward-looking statements can be identified by the fact that they do not relate only to historical or current facts. Forward-looking statements often use words such as 'may', 'could', 'will', 'expect', 'intend', 'estimate', 'anticipate', 'believe', 'plan', 'seek', 'continue' or other words of similar meaning. By their very nature, such statements are subject to known and unknown risks and uncertainties and can be affected by other factors that could cause actual results, and the Group's plans and objectives, to differ materially from those expressed or implied in the forward-looking statements. Recipients should not place reliance on, and are cautioned about relying on, any forward-looking statements.

There are several factors which could cause actual results to differ materially from those expressed or implied in forward-looking statements. The factors that could cause actual results to differ materially from those described in the forward-looking statements include (but are not limited to) changes in global, political, economic, business, competitive, market and regulatory forces or conditions, future exchange and interest rates, changes in tax rates, future business combinations or dispositions and other factors specific to the Group. Any forward-looking statement contained in this document is based on past or current trends and/or activities of the Group and should not be taken as a representation that such trends or activities will continue in the future. No statement in this document is intended to be a profit forecast or to imply that the earnings of the Group for the current year or future years will necessarily match or exceed the historical or published earnings of the Group. Each forward-looking statement speaks only as of the date of the particular statement.

Except as required by any applicable laws or regulations, the Group expressly disclaims any obligation to revise or update any forward looking statement contained within this document, regardless of whether those statements are affected as a result of new information, future events or otherwise.

Nothing in this document shall constitute, in any jurisdiction, an offer or solicitation to sell or purchase any securities or other financial instruments, nor shall it constitute a recommendation or advice in respect of any securities or other financial instruments or any other matter.

Annex 1

Standard Chartered Significant Subsidiaries

Capital resources of significant subsidiaries

For local capital adequacy purposes, a range of approaches are applied in accordance with the regulatory requirements in force in each jurisdiction. Wherever possible, the approaches adopted at the Group level are applied locally.

CRR Article 13 requires the application of disclosure requirements of significant subsidiaries of EU parent institutions and those subsidiaries which are of material significance to their local market.

The capital resources of the Group's significant subsidiaries under CRR Article 13 are presented below. These subsidiaries are Standard Chartered Bank, a UK incorporated banking entity including overseas branches, and subsidiaries, Standard

Chartered Bank (Hong Kong) Limited and Standard Chartered Bank Korea Limited.

The capital resources of these subsidiaries are calculated in accordance with the regulatory requirements applicable in the countries in which they are incorporated, and therefore cannot be aggregated, but are presented to align with the Group format.

Standard Chartered Bank (Singapore) Limited and Standard Chartered Bank Uganda Limited qualify as the Group's subsidiaries which are Domestically Important Institutions (D-SIIs). Standard Chartered Bank Uganda Limited follows Basel I rules, see Table 100 for their information presented to align with Group format.

The table below provides a summary view of the significant subsidiaries. The significant subsidiary data is subject to change due to local timing and local regulatory requirements.

Table 100: Capital resources of significant subsidiaries

	2020					2019				
	Standard Chartered Bank ¹ \$million	Standard Chartered Bank (HK) Ltd \$million	Standard Chartered Bank Korea Ltd \$million	Standard Chartered Bank (Singapore) Ltd \$million	Standard Chartered Bank Uganda Ltd \$million	Standard Chartered Bank ¹ \$million	Standard Chartered Bank (HK) Ltd \$million	Standard Chartered Bank Korea Ltd \$million	Standard Chartered Bank (Singapore) Ltd ² \$million	Standard Chartered Bank Uganda Ltd \$million
Local Regulator	PRA	HKMA	FSS	MAS	BOU	PRA	HKMA	FSS	MAS	BOU
Common Equity Tier 1 capital before regulatory adjustments	27,667	10,918	4,315	4,415	156	27,989	14,402	3,937	4,353	128
Regulatory adjustments	(3,850)	(4,892)	(159)	(392)	(4)	(5,064)	(6,921)	(247)	(313)	(4)
Common Equity Tier 1 capital	23,817	6,026	4,156	4,024	151	22,925	7,482	3,690	4,040	124
Additional Tier 1 (AT1) capital: instruments	4,551	1,581	–	1,080	–	6,606	1,651	–	1,284	–
Tier 1 capital (T1 = CET1 + AT1)	28,368	7,607	4,156	5,104	151	29,531	9,133	3,690	5,324	124
Tier 2 capital	12,263	1,131	564	1,181	4	10,336	1,907	527	764	4
Total capital (TC = T1 + T2)	40,631	8,738	4,721	6,285	155	39,867	11,040	4,217	6,088	127
Total risk-weighted assets	187,901	47,588	30,520	30,615	722	185,615	60,693	24,971	31,304	727
Capital Ratios										
Common Equity Tier 1	12.7%	12.7%	13.6%	13.1%	21.0%	12.4%	12.3%	14.8%	12.9%	17.1%
Tier 1 Capital	15.1%	16.0%	13.6%	16.7%	21.0%	15.9%	15.0%	14.8%	17.0%	17.1%
Total Capital	21.6%	18.4%	15.5%	20.5%	21.5%	21.5%	18.2%	16.9%	19.4%	17.5%

1 Standard Chartered Bank disclosed in the table above aligns with the capital section of the 2020 Standard Chartered Bank Accounts

2 2019 Capital resources have been re-presented to align with local regulatory returns, which included late adjustments; for Standard Chartered Bank Korea Ltd, Standard Chartered Bank (Singapore) Ltd and Standard Chartered Bank Uganda Ltd

Capital management – Standard Chartered Bank

The Risk management approach section of the 2020 Annual Report and Accounts sets out our approach to capital management (pages 259 to 260). Tables 101 to 109 summarise the consolidated capital position of Standard Chartered Bank, as well as a summary of exposures and credit quality.

Further disclosures of the legal entity Standard Chartered Bank may be found in the 2020 Standard Chartered Bank Accounts.

Table 101: Capital resources

	2020 Transitional position \$million	2020 End point adjustment \$million	2020 End point position \$million	2019 Transitional position \$million
Standard Chartered Bank				
Common Equity Tier 1 (CET1) capital: instruments and reserves				
Capital instruments and the related share premium accounts	19,324	–	19,324	19,320
Of which: Share premium accounts	296	–	296	296
Retained earnings ¹	11,593	–	11,593	15,723
Accumulated other comprehensive income (and other reserves)	(3,512)	–	(3,512)	(3,813)
Non-controlling interests (amount allowed in consolidated CET1)	160	–	160	697
Independently reviewed interim and year-end profits/(loss) ²	(32)	–	(32)	(3,705)
Foreseeable dividends net of scrip	(162)	–	(162)	(233)
Common Equity Tier 1 capital before regulatory adjustments	27,667	–	27,667	27,989
Common Equity Tier 1 capital: regulatory adjustments				
Additional value adjustments	(354)	–	(354)	(409)
Intangible assets	(2,943)	–	(2,943)	(3,794)
Deferred tax assets that rely on future profitability	(133)	–	(133)	(83)
Fair value reserves related to gains or losses on cash flow hedges	(5)	–	(5)	11
Negative amounts resulting from the calculation of expected loss	(377)	–	(377)	(686)
Gains or losses on liabilities at fair value resulting from changes in own credit	28	–	28	(24)
Defined-benefit pension fund assets	(13)	–	(13)	(12)
Fair value gains and losses from own credit risk related to derivative liabilities	(32)	–	(32)	(28)
Exposure amounts which could qualify for risk weighting	(21)	–	(21)	(39)
Of which: securitisation positions	(13)	–	(13)	(33)
Of which: free deliveries	(8)	–	(8)	(6)
Total regulatory adjustments to Common Equity Tier 1	(3,850)	–	(3,850)	(5,064)
Common Equity Tier 1 capital	23,817	–	23,817	22,925
Additional Tier 1 (AT1) capital: instruments				
Capital Instruments and the related share premium accounts	4,571	(996)	3,575	6,626
Additional Tier 1 (AT1) capital before regulatory adjustments	4,571	(996)	3,575	6,626
AT1 regulatory adjustments				
Direct and indirect holdings by an institution of own AT1 instruments and subordinated loans	(20)	–	(20)	(20)
Total regulatory adjustments to AT1	(20)	–	(20)	(20)
Additional Tier 1 capital	4,551	(996)	3,555	6,606
Tier 1 capital (T1 = CET1 + AT1)	28,368	(996)	27,372	29,531
Tier 2 (T2) capital: instruments and provisions				
Capital instruments and the related share premium accounts	11,538	1,500	13,038	10,078
Qualifying items and the related share premium accounts subject to phase out from T2	525	(20)	505	115
Qualifying own funds instruments included in T2 issued by subsidiaries and held by third parties	230	–	230	173
Tier 2 capital before regulatory adjustments	12,293	1,480	13,773	10,366
Tier 2 capital: regulatory adjustments				
Direct and indirect holdings by an institution of own Tier 2 instruments and subordinated loans	(30)	–	(30)	(30)
Total regulatory adjustments to Tier 2 capital	(30)	–	(30)	(30)
Tier 2 capital	12,263	1,480	13,743	10,336
Total capital (TC = T1 + T2)	40,631	484	41,115	39,867

Table 102: Capital ratios and risk-weighted assets

	2020 Transitional position \$million	2020 End point adjustment \$million	2020 End point position \$million	2019 Transitional position \$million
Amounts below the thresholds for deduction (before risk weighting)				
Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	694	–	694	984
Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	124	–	124	78
Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	484	–	484	766
Risk-weighted assets				
Credit risk	150,690	–	150,690	150,529
Credit valuation adjustment	–	–	–	–
Operational risk	17,522	–	17,522	18,194
Market risk	19,689	–	19,689	16,892
Total Risk Weighted Assets³	187,901	–	187,901	185,615
Capital ratios and buffers				
CET1 capital	12.7%	–	12.7%	12.4%
Tier 1 capital	15.1%	–	15.1%	15.9%
Total capital	21.6%	–	21.6%	21.5%
Capital buffers				
Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirement, plus systemic risk buffer, plus systemically important institution buffer expressed as a percentage of risk exposure amount.	N/A	N/A	N/A	N/A
Of which: capital conservation buffer requirement	N/A	N/A	N/A	N/A
Of which: countercyclical buffer requirement	N/A	N/A	N/A	N/A
Of which systemic risk buffer requirement	N/A	N/A	N/A	N/A
Of which: Global systemically important institution (G-SII) or Other Systemically important institution (O-SII) buffer.	N/A	N/A	N/A	N/A
Common Equity Tier 1 available to meet buffers (as percentage of risk exposure amount)	N/A	N/A	N/A	N/A

1 Retained earnings under CRD include the effect of regulatory consolidation adjustments

2 Independently reviewed interim and year-end profits/(loss) for CRD are in accordance with the regulatory consolidation

3 The risk-weighted assets are not covered by the scope of the Audit

Table 103: Exposure at default by geography (CRB-C)

		2020				Period End Total \$million
		Greater China & North Asia \$million	ASEAN & South Asia \$million	Africa & Middle East \$million	Europe & Americas \$million	
IRB Exposure Class						
1	Central governments or central banks	8,612	34,099	14,724	45,454	102,890
2	Institutions	27,908	17,768	14,048	34,920	94,644
3	Corporates	16,383	45,543	35,060	119,624	216,610
3a	Of which specialised lending	483	5,853	4,254	4,137	14,727
3b	Of which SME	–	1,054	640	59	1,754
4	Retail	1	25,250	382	7	25,640
4a	Secured by real estate collateral	–	17,849	3	–	17,852
4b	Of which SME	–	178	3	–	181
4c	Of which Non SME	–	17,671	–	–	17,671
4d	Qualifying revolving retail	–	4,548	256	–	4,804
4e	Other retail	1	2,853	124	7	2,985
4f	Of which SME	–	957	58	–	1,015
4g	Of which Non SME	–	1,896	66	7	1,970
	Non-credit obligation assets	–	–	–	–	–
6	Total IRB¹	52,904	122,660	64,215	200,006	439,784
Standardised Exposure Class						
7	Central governments or central banks	15	966	481	33,014	34,476
10	Multilateral development banks	593	1,376	1,343	8,421	11,732
12	Institutions	91	752	56	42,740	43,638
13	Corporates	3,842	10,450	2,860	19,463	36,616
13a	Of which SME	271	4,510	1,937	2,217	8,935
14	Retail	58	6,728	2,507	29	9,322
14a	Of which SME	–	2,871	136	–	3,007
15	Secured by mortgages on immovable property	165	2,798	2,263	1,130	6,356
15a	Of which SME	55	1,247	413	1,099	2,814
16	Past due items	–	224	90	11	325
17	Items belonging to regulatory high risk categories	591	192	169	68	1,019
21	Equity	–	79	–	44	124
22	Other items ²	46	3,762	1,401	1,287	6,496
23	Total Standardised	5,402	27,327	11,169	106,206	150,103
24	Total	58,306	149,987	75,384	306,212	589,887

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

Table 103: Exposure at default by geography (CRB-C) continued

		2019				
		Greater China & North Asia \$million	ASEAN & South Asia \$million	Africa & Middle East \$million	Europe & Americas \$million	Period End Total \$million
IRB Exposure Class						
1	Central governments or central banks	15,202	28,673	16,681	47,275	107,831
2	Institutions	40,656	17,124	14,406	34,467	106,652
3	Corporates	13,791	46,725	32,353	109,170	202,040
3a	Of which specialised lending	583	5,351	4,005	3,884	13,824
3b	Of which SME	18	1,588	788	568	2,962
4	Retail	1	24,307	516	8	24,831
4a	Secured by real estate collateral	–	17,023	2	–	17,026
4b	Of which SME	–	292	2	–	295
4c	Of which Non SME	–	16,731	–	–	16,731
4d	Qualifying revolving retail	–	4,523	298	–	4,821
4e	Other retail	1	2,760	215	8	2,984
4f	Of which SME	–	927	61	–	988
4g	Of which Non SME	–	1,834	154	8	1,996
	Non-credit obligation assets	–	–	–	–	–
6	Total IRB ¹	69,650	116,828	63,956	190,920	441,354
Standardised Exposure Class						
7	Central governments or central banks	–	2,140	372	22,528	25,040
10	Multilateral development banks	312	1,835	1,875	8,380	12,402
12	Institutions	88	1,677	81	8,875	10,721
13	Corporates	292	8,610	1,763	1,981	12,646
13a	Of which SME	94	2,877	991	1,022	4,984
14	Retail	28	6,852	2,826	22	9,728
14a	Of which SME	–	2,682	153	–	2,836
15	Secured on real estate property	165	3,809	2,461	1,258	7,693
15a	Of which SME	53	1,667	439	1,226	3,386
16	Past due items	–	362	66	3	431
17	Items belonging to regulatory high risk categories	841	245	180	164	1,429
21	Equity	–	–	–	–	–
22	Other items ²	44	5,030	1,236	1,143	7,454
23	Total Standardised	1,769	30,560	10,861	44,355	87,545
24	Total	71,419	147,389	74,816	235,275	528,899

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

Table 104: Exposure at default by industry (CRB-D)

	IRB Exposure Class	2020										
		Loans to Individuals Mortgage \$million	Loans to Individuals Other \$million	SME \$million	Commerce \$million	Manu- facturing \$million	Commer- cial Real Estate \$million	Govern- ment \$million	Financing Insurance & Business Services \$million	Transport & Storage & Communi- cation \$million	Other \$million	Total \$million
1	Central governments or central banks	-	-	-	-	-	-	97,092	1,378	57	4,363	102,890
2	Institutions	-	-	-	-	4	-	2,049	91,336	20	1,235	94,644
3	Corporates	-	1	2,592	20,904	35,603	8,284	671	103,289	9,332	35,933	216,610
3a	Of which specialised lending	-	-	838	6,382	622	2,200	-	29	684	3,970	14,727
3b	Of which SME	-	-	1,754	-	-	-	-	-	-	-	1,754
4	Retail	17,671	6,774	1,195	-	-	-	-	-	-	-	25,640
4a	Secured by real estate collateral	17,671	-	181	-	-	-	-	-	-	-	17,852
4b	Of which SME	-	-	181	-	-	-	-	-	-	-	181
4c	Of which Non SME	17,671	-	-	-	-	-	-	-	-	-	17,671
4d	Qualifying revolving retail	-	4,804	-	-	-	-	-	-	-	-	4,804
4e	Other retail	-	1,970	1,015	-	-	-	-	-	-	-	2,985
4f	Of which SME	-	-	1,015	-	-	-	-	-	-	-	1,015
4g	Of which Non SME	-	1,970	-	-	-	-	-	-	-	-	1,970
	Non-credit obligation assets	-	-	-	-	-	-	-	-	-	-	-
6	Total IRB¹	17,671	6,774	3,788	20,904	35,608	8,284	99,813	196,003	9,409	41,530	439,784
	Standardised Exposure Class											
7	Central governments or central banks	-	-	-	209	-	-	30,094	2,967	1	1,204	34,476
10	Multilateral development banks	-	-	-	-	-	-	155	-	-	11,577	11,732
12	Institutions	-	-	-	-	-	-	-	43,439	-	199	43,638
13	Corporates	-	1	8,935	562	768	289	-	23,771	85	2,204	36,616
13a	Of which SME	-	-	8,935	-	-	-	-	-	-	-	8,935
14	Retail	-	6,315	3,007	-	-	-	-	-	-	-	9,322
14a	Of which SME	-	-	3,007	-	-	-	-	-	-	-	3,007
15	Secured on real estate property	3,027	-	2,814	23	20	34	-	16	2	420	6,356
15a	Of which SME	-	-	2,814	-	-	-	-	-	-	-	2,814
16	Past due items	67	14	181	44	17	-	-	1	-	1	325
17	Items belonging to regulatory high risk categories	3	52	193	16	11	-	-	692	2	50	1,019
21	Equity	-	-	-	-	-	-	-	-	-	124	124
22	Other items ²	-	-	-	-	2	-	-	-	-	6,494	6,496
23	Total Standardised	3,097	6,382	15,130	854	819	324	30,249	70,885	90	22,273	150,103
24	Total	20,768	13,156	18,918	21,758	36,427	8,608	130,062	266,888	9,499	63,803	589,887

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

Table 104: Exposure at default by industry (CRB-D) continued

		2019										
		Loans to Individuals Mortgage \$million	Loans to Individuals Other \$million	SME \$million	Commerce \$million	Manu- facturing \$million	Commer- cial Real Estate \$million	Govern- ment \$million	Financing Insurance & Business Services \$million	Transport & Storage & Communi- cation \$million	Other \$million	Total \$million
IRB Exposure Class												
1	Central governments or central banks	–	–	–	110	–	–	101,159	1,808	8	4,746	107,831
2	Institutions	–	–	–	–	44	–	1,773	103,340	3	1,492	106,652
3	Corporates	–	–	2,962	19,639	38,253	8,319	581	97,369	8,757	26,159	202,040
3a	Of which specialised lending	–	–	–	5,883	876	2,661	–	334	669	3,400	13,824
3b	Of which SME	–	–	2,962	–	–	–	–	–	–	–	2,962
4	Retail	16,731	6,817	1,283	–	–	–	–	–	–	–	24,831
4a	Secured by real estate collateral	16,731	–	295	–	–	–	–	–	–	–	17,026
4b	Of which SME	–	–	295	–	–	–	–	–	–	–	295
4c	Of which Non SME	16,731	–	–	–	–	–	–	–	–	–	16,731
4d	Qualifying revolving retail	–	4,821	–	–	–	–	–	–	–	–	4,821
4e	Other retail	–	1,996	988	–	–	–	–	–	–	–	2,984
4f	Of which SME	–	–	988	–	–	–	–	–	–	–	988
4g	Of which Non SME	–	1,996	–	–	–	–	–	–	–	–	1,996
Non-credit obligation assets		–	–	–	–	–	–	–	–	–	–	–
6	Total IRB¹	16,731	6,817	4,244	19,749	38,298	8,319	103,513	202,517	8,768	32,397	441,354
Standardised Exposure Class												
7	Central governments or central banks	–	–	–	204	–	–	16,688	3,342	5	4,801	25,040
10	Multilateral development banks	–	–	–	–	–	–	214	12	–	12,175	12,402
12	Institutions	–	–	–	–	–	–	–	9,404	–	1,317	10,721
13	Corporates	–	–	4,984	451	746	217	3	1,680	164	4,401	12,646
13a	Of which SME	–	–	4,984	–	–	–	–	–	–	–	4,984
14	Retail	–	6,893	2,836	–	–	–	–	–	–	–	9,728
14a	Of which SME	–	–	2,836	–	–	–	–	–	–	–	2,836
15	Secured on real estate property	3,337	–	3,386	40	33	13	–	25	2	857	7,693
15a	Of which SME	–	–	3,386	–	–	–	–	–	–	–	3,386
16	Past due items	51	21	159	1	3	–	–	–	–	195	431
17	Items belonging to regulatory high risk categories	2	64	204	27	21	–	–	884	2	225	1,429
21	Equity	–	–	–	–	–	–	–	–	–	–	–
22	Other Items ²	–	–	–	–	2	–	–	61	–	7,391	7,454
23	Total Standardised	3,390	6,978	11,569	723	805	230	16,905	15,409	172	31,363	87,545
24	Total	20,121	13,795	15,813	20,472	39,103	8,549	120,418	217,926	8,940	63,761	528,899

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

Table 105: Exposure at default by maturity (CRB-E)

	2020			
	On demand and one year or less \$million	One to five years \$million	Over five years \$million	Total \$million
IRB Exposure Class				
1 Central governments or central banks	74,607	21,902	6,381	102,890
2 Institutions	74,449	14,432	5,763	94,644
3 Corporates	161,370	42,445	12,795	216,610
3a Of which specialised lending	6,791	4,237	3,698	14,727
3b Of which SME	1,111	439	205	1,754
4 Retail	2,356	6,252	17,033	25,640
4a Secured by real estate collateral	1,144	279	16,428	17,852
4b Of which SME	13	8	159	181
4c Of which Non SME	1,131	272	16,269	17,671
4d Qualifying revolving retail	425	4,341	38	4,804
4e Other retail	786	1,631	567	2,985
4f Of which SME	664	175	176	1,015
4g Of which Non SME	123	1,456	391	1,970
Non-credit obligation assets	–	–	–	–
6 Total IRB¹	312,782	85,031	41,971	439,784
Standardised Exposure Class				
7 Central governments or central banks	27,442	4,745	2,288	34,476
10 Multilateral development banks	1,113	7,704	2,915	11,732
12 Institutions	39,430	3,463	745	43,638
13 Corporates	33,248	1,957	1,411	36,616
13a Of which SME	7,650	487	799	8,935
14 Retail	4,968	2,001	2,353	9,322
14a Of which SME	724	880	1,402	3,007
15 Secured on real estate property	2,493	496	3,368	6,356
15a Of which SME	1,807	253	755	2,814
16 Past due items	189	59	77	325
17 Items belonging to regulatory high risk categories	892	50	77	1,019
21 Equity	124	–	–	124
22 Other items ²	6,496	–	–	6,496
23 Total Standardised	116,393	20,475	13,235	150,103
24 Total	429,175	105,506	55,206	589,887

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

Table 105: Exposure at default by maturity (CRB-E) continued

		2019			
		On demand and one year or less \$million	One to five years \$million	Over five years \$million	Total \$million
IRB Exposure Class					
1	Central governments or central banks	71,198	29,691	6,942	107,831
2	Institutions	89,660	14,405	2,587	106,652
3	Corporates	147,236	43,620	11,184	202,040
3a	Of which specialised lending	6,922	3,805	3,096	13,824
3b	Of which SME	1,556	702	703	2,962
4	Retail	1,954	6,296	16,581	24,831
4a	Secured by real estate collateral	777	304	15,944	17,026
4b	Of which SME	16	11	268	295
4c	Of which Non SME	762	294	15,676	16,731
4d	Qualifying revolving retail	396	4,344	81	4,821
4e	Other retail	781	1,647	556	2,984
4f	Of which SME	628	169	191	988
4g	Of which Non SME	152	1,479	365	1,996
Non-credit obligation assets		–	–	–	–
6	Total IRB ¹	310,048	94,011	37,295	441,354
Standardised Exposure Class					
7	Central governments or central banks	17,868	4,805	2,367	25,040
10	Multilateral development banks	1,642	8,798	1,962	12,402
12	Institutions	7,071	1,784	1,866	10,721
13	Corporates	9,889	1,616	1,141	12,646
13a	Of which SME	4,017	386	581	4,984
14	Retail	4,644	2,733	2,351	9,728
14a	Of which SME	959	767	1,110	2,836
15	Secured on real estate property	2,728	708	4,257	7,693
15a	Of which SME	2,244	255	887	3,386
16	Past due items	356	21	55	431
17	Items belonging to regulatory high risk categories	1,287	65	77	1,429
21	Equity	–	–	–	–
22	Other Items ²	7,454	–	–	7,454
23	Total Standardised	52,938	20,531	14,076	87,545
24	Total	362,986	114,542	51,371	528,899

1 Excludes securitisation exposures

2 Other items include cash, fixed assets, prepayments and accrued income

Table 106: Credit quality of exposures by exposure class and instruments (CR1-A)

		2020				
		EAD before the effect of CCF & CRM ¹			Credit risk adjustment changes in the period \$million	Net values \$million
		Defaulted exposures \$million	Non-defaulted exposures \$million	Specific credit risk adjustment \$million		
IRB Exposure Class						
1	Central governments or central banks	42	199,867	65	22	199,845
2	Institutions	10	216,714	17	11	216,707
3	Corporates	7,240	367,283	4,907	428	369,616
4	Of which specialised lending	1,036	23,538	763	225	23,812
5	Of which SME	494	2,258	338	12	2,415
6	Retail	525	33,763	560	334	33,728
7	Secured by real estate collateral	158	17,698	121	88	17,735
8	Of which SME	4	181	2	1	184
9	Of which Non SME	154	17,517	120	88	17,551
10	Qualifying revolving retail	124	11,867	99	16	11,892
11	Other retail	243	4,197	340	230	4,101
12	Of which SME	179	1,756	123	56	1,812
13	Of which Non SME	64	2,441	216	174	2,289
	Non-credit obligation assets	-	-	-	-	-
15	Total IRB ²	7,818	817,627	5,548	794	819,896
Standardised Exposure Class						
16	Central governments or central banks	-	84,380	3	1	84,377
19	Multilateral development banks	-	25,778	1	(6)	25,777
21	Institutions	-	45,020	-	(3)	45,020
22	Corporates	514	51,915	403	266	52,026
23	Of which SME	366	20,603	253	234	20,715
24	Retail	79	13,968	451	370	13,597
25	Of which SME	39	5,350	35	29	5,353
26	Secured on real estate property	117	6,633	63	34	6,686
27	Of which SME	6	2,997	8	4	2,995
29	Items belonging to regulatory high risk categories	707	718	12	(624)	1,413
33	Equity	-	124	-	(60)	124
34	Other Items ³	-	6,501	-	-	6,501
35	Total Standardised	1,417	235,037	933	(22)	235,521
	Of which past due items	1,417	-	539	88	-
36	Total	9,235	1,052,664	6,481	772	1,055,417
37	Of which Loans	7,086	138,453	6,630	1,329	138,909
38	Of which Debt securities	56	79,889	145	90	79,801
39	Of which Off-balance-sheet exposures	2,002	538,110	369	107	539,743

1 EAD before the effect of credit conversion factor and collateral but after substitution

2 Excludes securitisation exposures

3 Other items include cash, fixed assets, prepayments and accrued income

Table 106: Credit quality of exposures by exposure class and instruments (CR1-A) continued

		2019				
		EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period \$million	Net values \$million
		Defaulted exposures \$million	Non-defaulted exposures \$million			
IRB Exposure Class						
1	Central governments or central banks	–	203,179	43	(6)	203,136
2	Institutions	–	225,325	6	–	225,320
3	Corporates	6,427	361,705	4,479	(1,607)	363,653
4	Of which specialised lending	700	24,939	538	(49)	25,101
5	Of which SME	568	3,844	326	(143)	4,086
6	Retail	425	32,614	226	(199)	32,813
7	Secured by real estate collateral	122	16,904	33	(7)	16,993
8	Of which SME	6	289	1	(2)	295
9	Of which Non SME	116	16,615	32	(6)	16,698
10	Qualifying revolving retail	131	11,567	83	(38)	11,614
11	Other retail	172	4,143	110	(154)	4,206
12	Of which SME	120	1,729	67	(8)	1,781
13	Of which Non SME	52	2,414	42	(145)	2,424
	Non-credit obligation assets	–	–	–	–	–
15	Total IRB ²	6,852	822,823	4,754	(1,812)	824,922
Standardised Exposure Class						
16	Central governments or central banks	–	113,859	2	(4)	113,858
19	Multilateral development banks	–	22,365	7	1	22,358
21	Institutions	–	12,725	3	1	12,723
22	Corporates	–	28,433	137	(803)	28,296
23	Of which SME	–	16,882	19	(199)	16,862
24	Retail	–	14,959	81	(120)	14,878
25	Of which SME	–	5,443	6	(29)	5,437
26	Secured on real estate property	–	7,981	29	(45)	7,952
27	Of which SME	–	3,572	4	(10)	3,568
29	Items belonging to regulatory high risk categories	558	1,156	60	(33)	1,653
33	Equity	596	477	636	636	437
34	Other Items ³	–	7,464	–	–	7,464
35	Total Standardised	1,154	209,420	955	(368)	209,619
	Of which past due items	1,154	–	451	(643)	702
36	Total	8,006	1,032,243	5,708	(2,180)	1,034,541
37	Of which Loans	6,348	223,720	5,301	(1,776)	224,767
38	Of which Debt securities	66	84,232	55	(475)	84,242
39	Of which Off-balance-sheet exposures	1,537	570,433	262	(19)	571,708

1 EAD before the effect of credit conversion factor and collateral but after substitution

2 Excludes securitisation exposures

3 Other items include cash, fixed assets, prepayments and accrued income

Table 107: Credit quality of exposures by industry types (CR1-B)

	2020				
	EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period \$million	Net values \$million
	Defaulted exposures \$million	Non-defaulted exposures \$million			
Loans to individuals mortgage	267	20,581	174	89	20,674
Loans to individuals other	331	22,932	737	498	22,526
SME	1,538	34,211	796	85	34,954
Commerce	1,488	48,851	1,172	150	49,167
Manufacturing	1,922	80,196	1,268	(72)	80,850
Commercial real estate	329	10,849	136	19	11,042
Government	42	271,731	65	21	271,709
Financing, insurance and business services	538	440,980	759	477	440,759
Transport, storage and communication	722	14,892	391	(191)	15,223
Other	2,055	107,440	983	(304)	108,512
Total²	9,235	1,052,664	6,481	772	1,055,417

	2019				
	EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period \$million	Net values \$million
	Defaulted exposures \$million	Non-defaulted exposures \$million			
Loans to individuals mortgage	198	19,999	85	(2)	20,112
Loans to individuals other	351	23,501	239	(246)	23,614
SME	1,294	31,942	711	104	32,525
Commerce	1,087	46,070	1,022	28	46,135
Manufacturing	1,799	78,988	1,340	128	79,446
Commercial real estate	270	11,228	117	(8)	11,380
Government	-	299,194	44	(7)	299,150
Financing, insurance and business services	426	409,056	282	(497)	409,200
Transport, storage and communication	738	13,934	582	(486)	14,089
Other	1,844	98,333	1,287	(1,193)	98,889
Total²	8,006	1,032,243	5,708	(2,180)	1,034,541

1 EAD before the effect of credit conversion factor and collateral but after substitution

2 Refer to Table 106 (CR1-A) for total net values

Table 108: Credit quality of exposures by geography (CR1-C)

	2020				
	EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period \$million	Net values \$million
	Defaulted exposures \$million	Non-defaulted exposures \$million			
Greater China & North Asia	44	105,810	121	15	105,733
ASEAN & South Asia	4,501	268,089	3,001	241	269,590
Africa & Middle East	3,742	126,108	2,724	481	127,126
Europe & Americas	947	552,657	636	36	552,967
Total²	9,235	1,052,664	6,481	772	1,055,417

	2019				
	EAD before the effect of CCF & CRM ¹		Specific credit risk adjustment \$million	Credit risk adjustment changes in the period \$million	Net values \$million
	Defaulted exposures \$million	Non-defaulted exposures \$million			
Greater China & North Asia	44	117,212	106	(576)	117,150
ASEAN & South Asia	3,773	269,119	2,760	(1,237)	270,133
Africa & Middle East	3,086	133,502	2,243	(125)	134,346
Europe & Americas	1,102	512,410	600	(242)	512,912
Total²	8,006	1,032,243	5,708	(2,180)	1,034,541

1 EAD before the effect of credit conversion factor and collateral but after substitution

2 Refer to Table 106 (CR1-A) for total net values

Table 109: Effect of guarantees and collateral

	2020		2019	
	Exposures covered by unfunded credit protection \$million	Exposures covered by funded credit protection \$million	Exposures covered by unfunded credit protection \$million	Exposures covered by funded credit protection \$million
IRB Exposure Class				
Central governments or central banks	1,810	3,047	1,826	10,305
Institutions	1,584	34,676	14,806	76,394
Corporates	25,567	87,282	3,066	35,661
Retail ¹	2	17,840	1	17,023
Securitisation positions	–	–	–	–
Total IRB	28,963	142,845	19,699	139,383
Standardised Exposure Class				
Central governments or central banks	3,391	255	3,523	17,866
Multilateral development banks	1,652	–	1,678	–
Institutions	706	31,583	541	13,233
Corporates	991	27,996	80	24,211
Retail ¹	3	881	3	606
Secured on real estate property	–	–	–	1
Exposures in default	–	2	–	2
Items belonging to regulatory high risk categories	–	37	–	25
Other items ²	–	–	–	–
Total Standardised	6,743	60,754	5,825	55,944
Total Exposure	35,706	203,599	25,524	195,327

1 The combined retail IRB exposure class includes both retail mortgages (secured by real estate collateral) and other types of retail exposures. The standardised retail exposure class excludes mortgages which are included in separate class under the heading secured on real estate property

2 Other items include public sector entities

Table 110: Overview of RWA – Significant Subsidiaries

	2020							
	Standard Chartered Bank		Standard Chartered Bank (HK) Ltd ¹		Standard Chartered Bank Korea Ltd		Standard Chartered Bank (Singapore) Ltd	
	Risk weighted assets \$million	Regulatory capital requirement \$million	Risk weighted assets \$million	Regulatory capital requirement \$million	Risk weighted assets \$million	Regulatory capital requirement \$million	Risk weighted assets \$million	Regulatory capital requirement \$million
Local Regulator	PRA		HKMA		FSS		MAS	
Credit risk (excluding counterparty credit risk)²	128,445	10,276	34,847	2,943	22,318	1,786	25,176	2,517
Of which advanced IRB approach	104,302	8,344	32,344	2,743	16,623	1,330	15,865	1,586
Of which standardised approach	24,142	1,931	2,503	200	5,695	456	9,311	931
Counterparty credit risk³	16,797	1,344	1,939	162	3,071	246	1,119	112
Of which mark to market method	3,265	261	1,153	98	1,934	155	787	79
Of which internal model method (IMM)	8,193	655	–	–	–	–	–	–
Of which securities financing transactions	2,233	179	195	17	–	–	93	9
Of which risk exposure amount for contributions to the default fund of a CCP	228	18	–	–	2	–	–	–
Of which CVA	2,878	230	591	47	1,135	91	239	24
Settlement risk	1	–	35	3	–	–	–	–
Securitisation exposures in the banking book	3,536	283	467	37	–	–	86	9
Of which IRB ratings based approach	2,002	160	467	37	–	–	–	–
Of which IRB supervisory formula approach	1,534	123	–	–	–	–	–	–
Of which standardised approach	–	–	–	–	–	–	86	9
Market risk	19,689	1,575	2,725	218	2,805	224	722	72
Of which internal model approaches	13,180	1,054	–	–	2,654	212	–	–
Of which standardised approach	6,509	521	2,725	218	151	12	722	72
Large exposures	–	–	–	–	–	–	–	–
Operational risk	17,522	1,402	4,775	382	2,088	167	3,514	351
Of which standardised approach	17,522	1,402	4,775	382	2,088	167	3,514	351
Amounts below the thresholds for deduction (subject to 250% risk weight)	1,911	153	784	63	238	19	–	–
Floor Adjustment	–	–	–	–	–	–	–	–
Total	187,901	15,032	45,537	3,805	30,520	2,442	30,617	3,061

1 Standard Chartered Bank (Hong Kong) Ltd follows local disclosure rules for the OV1 table above, the net impact is \$2,050 million. Total RWA: \$47,587 million (\$45,537 million + \$2,050 million)

2 Credit risk (including counterparty credit risk) includes Non-credit obligation assets

3 Counterparty credit risk includes assets which are assessed under both IRB and Standardised approaches

Table 110: Overview of RWA – Significant Subsidiaries continued

	2019							
	Standard Chartered Bank		Standard Chartered Bank (HK) Ltd ¹		Standard Chartered Bank Korea Ltd		Standard Chartered Bank (Singapore) Ltd	
	Risk weighted assets \$million	Regulatory capital requirement \$million	Risk weighted assets \$million	Regulatory capital requirement \$million	Risk weighted assets \$million	Regulatory capital requirement \$million	Risk weighted assets \$million	Regulatory capital requirement \$million
Local Regulator	PRA		HKMA		FSS		MAS	
Credit risk (excluding counterparty credit risk)²	132,256	10,580	44,365	3,745	18,112	1,449	25,972	2,597
Of which advanced IRB approach	98,992	7,919	40,799	3,460	13,782	1,103	16,443	1,644
Of which standardised approach	33,264	2,661	3,567	285	4,330	346	9,529	953
Counterparty credit risk³	13,364	1,069	2,036	169	2,759	221	958	97
Of which mark to market method	3,362	269	1,046	88	1,809	145	717	72
Of which internal model method (IMM)	6,232	499	–	–	–	–	–	–
Of which securities financing transactions	1,998	160	212	18	–	–	16	2
Of which risk exposure amount for contributions to the default fund of a CCP	167	13	–	–	34	3	–	–
Of which CVA	1,605	128	779	62	916	73	225	23
Settlement risk	1	–	–	–	–	–	–	–
Securitisation exposures in the banking book	2,633	211	357	29	–	–	119	12
Of which IRB ratings based approach	1,900	152	357	29	–	–	–	–
Of which IRB supervisory formula approach	733	59	–	–	–	–	–	–
Of which standardised approach	–	–	–	–	–	–	119	12
Market risk	16,892	1,351	4,109	329	1,975	158	841	84
Of which internal model approaches	7,280	582	–	–	1,667	133	–	–
Of which standardised approach	9,612	769	4,109	329	308	25	841	84
Large exposures	–	–	–	–	–	–	–	–
Operational risk	18,194	1,456	6,271	502	1,864	149	3,413	341
Of which standardised approach	18,194	1,456	6,271	502	1,864	149	3,413	341
Amounts below the thresholds for deduction (subject to 250% risk weight)	2,275	182	1,048	84	265	21	–	–
Floor Adjustment	–	–	–	–	–	–	–	–
Total	185,615	14,849	58,188	4,856	24,975	1,998	31,303	3,131

1 Standard Chartered Bank (Hong Kong) Ltd follows local disclosure rules for the OV1 table above, the net impact is \$2,505 million. Total RWA: \$60,693 million (\$58,188 million + \$2,505 million)

2 Credit risk (including counterparty credit risk) includes Non-credit obligation assets

3 Counterparty credit risk includes assets which are assessed under both IRB and Standardised

Table 111. Leverage ratio common disclosure – Significant Subsidiaries

	2020				2019			
	Standard Chartered Bank \$million	Standard Chartered Bank (HK) Ltd \$million	Standard Chartered Bank Korea Ltd \$million	Standard Chartered Bank (Singapore) Ltd \$million	Standard Chartered Bank \$million	Standard Chartered Bank (HK) Ltd \$million	Standard Chartered Bank Korea Ltd \$million	Standard Chartered Bank (Singapore) Ltd \$million
Capital and total exposures								
Tier 1 capital	27,372	7,607	4,156	5,104	28,038	9,133	3,690	5,324
Total leverage ratio exposures	587,570	142,217	81,133	97,772	582,597	176,456	69,507	96,877
Leverage ratio	4.7%	5.3%	5.1%	5.2%	4.8%	5.2%	5.3%	5.5%

1 Standard Chartered Bank disclosed in the table above aligns with the capital section of the Standard Chartered Bank Accounts

Table 112: Market risk regulatory capital requirements for significant subsidiaries

	2020				2019			
	Standard Chartered Bank \$million	Standard Chartered Bank (HK) Ltd \$million	Standard Chartered Bank Korea Ltd \$million	Standard Chartered Bank (Singapore) Ltd \$million	Standard Chartered Bank \$million	Standard Chartered Bank (HK) Ltd \$million	Standard Chartered Bank Korea Ltd \$million	Standard Chartered Bank (Singapore) Ltd \$million
Market Risk regulatory capital Requirements for Trading Book								
Local Regulators	PRA	HKMA	FSS	MAS	PRA	HKMA	FSS	MAS
Interest rate	463	181	12	45	568	283	25	47
Options	1	–	–	3	3	–	–	3
Commodity	3	–	–	–	2	–	–	–
Foreign exchange	15	37	–	9	10	44	–	18
Internal Models Approach	824	–	212	–	769	–	133	–
Total	1,306	218	224	57	1,352	327	158	68
Market Risk – RWA	16,330	2,725	2,805	722	16,892	4,088	1,975	841

1 Standard Chartered Bank disclosed in the table above aligns with the capital section of the Standard Chartered Bank Accounts

Annex 2

COVID-19 Disclosures

On 2 June 2020 the EBA issued Guidelines on reporting and disclosure of exposures subject to measures applied in response to the COVID-19 crisis (EBA/GL/2020/07). These Guidelines followed the implementation of a broad range of measures, such as legislative moratoria on loan repayments and public guarantees in Member States. These additional reporting and disclosure requirements are expected to be

time-limited as they are introduced strictly in the context of the COVID-19 pandemic.

The tables below provide a summary view of the credit quality, volume and maturity of loans and advances subject to moratoria as well as an overview of the stock of newly originated loans and advances subject to public guarantee schemes introduced in response to COVID-19 crisis.

Table 113: Information on loans and advances subject to legislative and non-legislative moratoria

		2020						
		Gross carrying amount						
		Performing exposures				Non-performing		
				Of which: exposures with forbearance measures \$million	Of which: Instruments with significant increase in credit risk since initial recognition but not credit- impaired (Stage 2) \$million		Of which: exposures with forbearance measures \$million	Of which: Unlikely to pay that are not past-due or past-due ≤ 90 days \$million
		\$million	\$million	\$million	\$million	\$million	\$million	\$million
1	Loans and advances subject to moratorium	3,569	3,170	54	554	399	113	354
2	of which: Households	1,996	1,931	2	133	64	41	34
3	of which: Collateralised by residential immovable property	1,748	1,730	1	122	18	1	8
4	of which: Non-financial corporations	1,339	1,009	51	421	330	67	315
5	of which: Small and Medium-sized Enterprises	257	233	5	36	24	1	18
6	of which: Collateralised by commercial immovable property	246	235	10	50	10	3	6
		2020						
		Accumulated impairment, accumulated negative changes in fair value due to credit risk						
		Performing exposures				Non-performing		
				Of which: exposures with forbearance measures \$million	Of which: Instruments with significant increase in credit risk since initial recognition but not credit- impaired (Stage 2) \$million		Of which: exposures with forbearance measures \$million	Of which: Unlikely to pay that are not past-due or past-due ≤ 90 days \$million
		\$million	\$million	\$million	\$million	\$million	\$million	Inflows to non-performing exposures \$million
1	Loans and advances subject to moratorium	(221)	(73)	(1)	(28)	(148)	(43)	246
2	of which: Households	(67)	(35)	–	(12)	(32)	(10)	–
3	of which: Collateralised by residential immovable property	(9)	(2)	–	–	(8)	(1)	–
4	of which: Non-financial corporations	(137)	(38)	(1)	(16)	(100)	(90)	246
5	of which: Small and Medium-sized Enterprises	(47)	(33)	–	(12)	(14)	(5)	6
6	of which: Collateralised by commercial immovable property	(1)	(1)	–	–	–	–	2

Table 114: Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria

		2020								
		Gross carrying amount								
		Number of obligors \$million	\$million	Of which: legislative moratoria \$million	Of which: expired \$million	Residual maturity of moratoria				
						<= 3 months \$million	> 3 months <= 6 months \$million	> 6 months <= 9 months \$million	> 9 months <= 12 months \$million	> 1 year \$million
1	Loans and advances for which moratorium was offered	341	17,654							
2	Loans and advances subject to moratorium (granted)	288	15,287	4,888	11,719	1,980	964	265	238	123
3	of which: Households		5,992	3,109	3,993	1,477	353	52	66	52
4	of which: Collateralised by residential immovable property		5,087	2,477	3,329	1,297	344	50	54	13
5	of which: Non-financial corporations		8,951	1,779	7,631	481	408	207	169	54
6	of which: Small and Medium-sized Enterprises		1,202	351	991	127	77	1	6	–
7	of which: Collateralised by commercial immovable property		1,995	1,400	1,705	163	63	7	55	1

Table 115: Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis

	2020			
	Gross carrying amount		Maximum amount of the guarantee that can be considered	Gross carrying amount
			Public guarantees received	Inflows to non-performing exposures
	\$million	of which: forborne \$million	\$million	\$million
1 Newly originated loans and advances subject to public guarantee schemes	90	-	78	1
2 of which: Households	29			-
3 of which: Collateralised by residential immovable property	-			-
4 of which: Non-financial corporations	62	-	50	-
5 of which: Small and Medium-sized Enterprises	62			-
6 of which: Collateralised by commercial immovable property	-			-

Acronyms

ABS	Asset Backed Securities
AIRB	Advanced Internal Rating Based approach
ALCO	Asset and Liability Committee
ALM	Asset and Liability Management
AT1	Additional Tier 1
BCBS	Basel Committee on Banking Supervision
BOU	Bank of Uganda
BRC	Board Risk Committee
CCF	Credit Conversion Factor
CCP	Central Counterparty
CCR	Counterparty Credit Risk
CCyB	Countercyclical capital buffer
CDOs	Collateralised Debt Obligations
CDS	Credit Default Swap
CET1	Common Equity Tier 1
CMBS	Commercial Mortgage Backed Securities
CQS	Credit Quality Step
CPM	Credit & Portfolio Management
CRD	Capital Requirements Directive
CRM	Credit Risk Mitigation
CRO	Chief Risk Officer
CRR	Capital Requirements Regulation
CSA	Credit Support Annex
CSDG	Capital Structuring & Distribution Group
CVA	Credit Valuation Adjustment
D-SIB	Domestic Systemically Important Bank
DVA	Debit Valuation Adjustment
EAD	Exposure at default
EBA	European Banking Authority
ECAI	External Credit Assessment Institutions
EL	Expected loss
FCA	Financial Conduct Authority
FIRB	Foundation Internal Ratings Based approach
FPC	Financial Policy Committee
FSB	Financial Stability Board
FSS	Financial Supervisory Service (South Korea)
FVA	Funding valuation adjustments
GCRO	Group Chief Risk Officer
G-SIB	Global Systemically Important Bank
G-SII	Global Systemically Important Institutions
HKMA	Hong Kong Monetary Authority
IAS	International Accounting Standard
ICAAP	Internal Capital Adequacy Assessment Process
ILAAP	Internal Liquidity Adequacy Assessment Process
IFRS	International Financial Reporting Standards
IMA	Internal Model Approach
IMM	Internal model Method

IRB	Internal Ratings Based
IRC	Incremental Risk Charge
IRR	Interest Rate Risk
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
MAC	Model Assessment Committee
MAS	Monetary Authority of Singapore
MDB	Multilateral Development Banks
MR	Market Risk
MREL	Minimum requirements for own funds and eligible liabilities
MTM	Mark-To-Market
NII	Net Interest Income
NSFR	Net Stable Funding Ratio
O-SII	Other Systemically Important Institution
OBSC	Operational Balance Sheet Committee
OTC	Over the counter
PD	Probability of Default
PFE	Potential Future Exposure
PIT	Point in Time
PM	Portfolio Management
PRA	Prudential Regulation Authority
PV01	Present Value 01
PVA	Prudent Valuation Adjustment
QCCP	Qualifying Central Counterparty
QRRE	Qualifying Revolving Retail Exposure
RMB	Renminbi
RMBS	Residential Mortgage Backed Securities
RNIV	Risk not in VaR
RTS	Regulatory Technical Standards
RWAs	Risk-Weighted Assets
SA	Standardised Approach
SFT	Securities Financing Transactions
SIF	Significant Influence Function
SME	Small and Medium – sized Enterprise
SPE	Special Purpose Entity
SVAR	Stressed VaR
T1	Tier 1 capital
T2	Tier 2 capital
TC	Total capital
TLAC	Total loss-absorbing capacity
TM	Treasury Markets
TRS	Total Return Swap
TTC	Through the cycle
VaR	Value at Risk
VBC	Valuation and Benchmarks Committee
XVA	Credit and Funding Valuation Adjustment

Glossary

Additional Tier 1 (AT1) capital	Additional Tier 1 capital consists of instruments issued by the bank and related share premium other than Common Equity Tier 1 that meet the Capital Requirement Regulation (CRR) criteria for inclusion in Tier 1 capital.
Advanced Internal Rating Based (AIRB) approach	The AIRB approach under the Basel framework is used to calculate credit risk capital based on the Group's own estimates of prudential parameters.
Africa & Middle East (AME)	Africa & Middle East (AME) includes Bahrain, Egypt, Iraq, Jordan, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia and the United Arab Emirates (UAE).
Arrears	A debt or other financial obligation is considered to be in a state of arrears when payments are overdue. Loans and advances are considered to be delinquent when consecutive payments are missed. Also known as 'delinquency'.
Available-for-Sale	Non-derivative financial assets that are designated as available-for-sale or are not classified as loans and receivables; held to maturity investments, or financial assets at fair value through profit or loss.
ASEAN	Association of South East Asian Nations (ASEAN) which includes the Group's operation in Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam.
ASEAN & South Asia (ASA)	ASEAN & South Asia (ASA) includes Australia, Bangladesh, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Singapore, Sri Lanka, Thailand and Vietnam.
Asset Backed Securities (ABS)	Securities that represent an interest in an underlying pool of referenced assets. The referenced pool can comprise any assets which attract a set of associated cash flows but are commonly pools of residential or commercial mortgages and in the case of Collateralised Debt Obligations (CDOs), the reference pool may be ABS.
Attributable profit to ordinary shareholders	Profit for the year after non-controlling interests and the declaration of dividends on preference shares classified as equity.
Backtesting	A statistical technique used to monitor and assess the accuracy of a model, and how that model would have performed had it been applied in the past.
Basel II	The capital adequacy framework issued by the Basel Committee on Banking Supervision (BCBS) in June 2006 in the form of the 'International Convergence of Capital Measurement and Capital Standards'.
Basel III	In December 2010, the BCBS issued the Basel III rules text, which were updated in June 2011, and represents the details of strengthened global regulatory standards on bank capital adequacy and liquidity. The new requirements have been fully implemented. In December 2017, the BCBS published a document setting out the finalisation of the Basel III framework. The new requirements issued in December 2017 will be implemented by 2023.
Basis point (bps)	One hundredth of a per cent (0.01 per cent); 100 basis points is 1 per cent. Used in quoting movements e.g. in interest rates or yields on securities.
Capital conservation buffer	A capital buffer prescribed by regulators under Basel III and designed to ensure banks build up capital buffers outside periods of stress which can be drawn down as losses are incurred. Should a bank's CET1 capital fall within the capital conservation buffer range, capital distributions will be constrained by the regulators.
Capital Requirements Directive (CRD)	A capital adequacy legislative package adopted by EU member states. CRD IV comprises the recast Capital Requirements Directive and the Capital Requirements Regulation (CRR). The package implements the Basel III framework together with transitional arrangements for some of its requirements. CRD came into force on 1 January 2014. CRR II and CRD V amending the existing package came into force in June 2019 with most changes starting to apply from 28 June 2021.
Central Counterparty (CCP)	A CCP is a clearing house that acts as an intermediary between counterparties for certain products that are traded in one or more financial markets.
Common Equity Tier 1 (CET1) capital	Common Equity Tier 1 capital consists of the common shares issued by the bank and related share premium, retained earnings, accumulated other comprehensive income and other disclosed reserves, eligible non-controlling interests and regulatory adjustments required in the calculation of Common Equity Tier 1.
Common Equity Tier 1 ratio	Common Equity Tier 1 capital as a percentage of risk-weighted assets.
Countercyclical capital buffer (CCyB)	The countercyclical capital buffer is part of a set of macroprudential instruments, designed to help counter pro-cyclicality in the financial system. CCyB as defined in the Basel III standard provides for an additional capital requirement of up to 2.5 per cent of risk-weighted assets in a given jurisdiction. The Bank of England's Financial Policy Committee has the power to set CCyB rate for the United Kingdom. Each bank must calculate its 'institution-specific' CCyB rate, defined as the weighted average of the CCyB rates in effect across the jurisdictions in which it has credit exposures. The institution-specific CCyB rate is then applied to a bank's total risk weighted assets.
Counterparty credit risk (CCR)	The risk that a counterparty defaults before satisfying its obligations under a derivative, a securities financing transaction (SFT) or a similar contract.
Credit Conversion Factor (CCF)	Either prescribed by CRR or modelled by the bank, an estimate of the amount the Group expects a customer to have drawn further on a facility limit at the point of default.

Credit Default Swap (CDS)	A derivative contract where a buyer pays a fee to a seller in return for receiving a payment in the event of a credit event (for example bankruptcy, payment default on a reference asset or assets, or downgrades by an rating agency) on an underlying obligation.
Credit quality step (CQS)	Credit Quality Steps (CQS) are used to derive the risk-weight to be applied to exposures treated under the Standardised approach to credit risk.
Credit risk	Credit risk is the potential for loss due to the failure of a counterparty to meet its obligations to pay the Group in accordance with agreed terms.
Credit risk mitigation (CRM)	Credit risk mitigation is a process to mitigate potential credit losses from any given account, customer or portfolio by using a range of tools such as collateral, netting agreements, credit insurance, credit derivatives and guarantees.
Credit support annex (CSA)	A legal document that regulates the exchange of collateral between the parties of OTC derivative transactions.
Credit Valuation Adjustment (CVA)	In the context of prudential requirements, additional regulatory capital charge that covers the risk of mark-to-market losses associated with changes in the credit worthiness of counterparties to derivative transactions.
Debit Valuation Adjustment (DVA)	In the context of prudential requirements, adjustment required to Tier 1 capital to derecognise any unrealised fair value gains and losses associated with fair valued liabilities that are attributable to the market's perception of the Group's credit worthiness.
Domestic systemically important banks (D-SIB)	Domestic systemically important banks are deemed systemically relevant for the domestic financial system in which they operate. The FSB and the BCBS have developed a framework for identifying and dealing with D-SIBs. The D-SIB framework has been implemented in the EU via CRD which refers to D-SIBs as Other Systemically Important Institutions ('O-SIIs').
Equity price risk	The financial risk involved in holding equity in a particular investment. Arises from changes in the prices of equities, equity indices, equity baskets and implied volatilities on related options.
Expected Loss (EL)	The Group measure of anticipated loss for exposures captured under an internal ratings based credit risk approach for capital adequacy calculations. It is measured as the Group-modelled view of anticipated loss based on Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD), with a one-year time horizon.
Exposure	Credit exposures represent the amount lent to a customer, together with any undrawn commitment.
Exposure at default (EAD)	The estimation of the extent to which the Group may be exposed to a customer or counterparty in the event of, and at the time of, that counterparty's default. At default, the customer may not have drawn the loan fully or may already have repaid some of the principal, so that exposure is typically less than the approved loan limit.
External Credit Assessment Institutions (ECAI)	For the Standardised Approach to credit risk for sovereigns, corporates and institutions, external ratings are used to assign risk-weights. These external ratings must come from credit rating agencies that are registered or certified in accordance with the credit rating agencies (CRA) regulation or from a central bank issuing credit ratings which is exempt from the application this regulation.
Fair value	The value of an asset or liability when it is transacted on an arm's length basis between knowledgeable and willing parties.
Financial Policy Committee (FPC)	The Financial Policy Committee is an independent committee at the Bank of England that has the primary objective of identifying, monitoring and taking action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system. The FPC's secondary objective is to support the economic policy of the Government.
Foreseeable dividends net of scrip	Includes both ordinary and preference share dividends reasonably expected to be paid out of any future residual interim or year-end profits. In the case of ordinary dividends, the amount of foreseeable dividends deducted from the interim or year-end profits is equal to the amount of interim or year-end profits multiplied by the dividend payout ratio. In the case of preference share dividends, the amount of foreseeable dividends is equal to the amount accrued during the relevant reporting period payable at a future date.
Foundation Internal Ratings Based (FIRB) Approach	A method of calculating credit risk capital requirements using internal PD models but with supervisory estimates of LGD and conversion factors for the calculation of EAD.
Free delivery	When a bank takes receipt of a debt or equity security, a commodity or foreign exchange without making immediate payment, or where a bank delivers a debt or equity security, a commodity or foreign exchange without receiving immediate payment.
Funding valuation adjustments (FVA)	FVA reflects an adjustment to fair value in respect of derivative contracts associated with the funding costs that the market participant would incorporate when determining an exit price.
Greater China	Greater China includes the Group's operation in the People's Republic of China, the Hong Kong Special Administrative Region of the People's Republic of China and Taiwan.
Greater China & North Asia (GCNA)	Greater China & North Asia (GCNA) includes China, Hong Kong, Japan, Korea, Macau and Taiwan.
Global Systemically Important Bank (G-SIB)	Global financial institutions whose size, complexity and systemic interconnectedness mean that their distress or failure would cause significant disruption to the wider financial system and economic activity. The Financial Stability Board (FSB) and the Basel Committee on Banking Supervision (BCBS) have established a methodology to identify G-SIBs based on 12 principal indicators. The list of G-SIBs is re-assessed through annual re-scoring of banks and a triennial review of the methodology. The G-SIB framework established by the FSB and the BCBS is implemented in the EU via CRD and G-SIBs are referred to as Global Systemically Important Institutions ('G-SIIs').

G-SIB buffer	A CET1 capital buffer which results from designation as a G-SIB. The G-SIB buffer is between 1 per cent and 3.5 per cent, dependent on the allocation to one of five buckets based on the annual scoring. In the EU, the G-SIB buffer is implemented via CRD as Global Systemically Important Institutions ('G-SII') buffer requirement.
Haircut	A haircut, or volatility adjustment, ensures the value of exposures and collateral are adjusted to account for the volatility caused by foreign exchange or maturity mismatches, when the currency and maturity of an exposure differ materially to the currency and maturity of the associated collateral.
Held-to-maturity	Held-to-maturity assets are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Group's management has the intention and ability to hold to maturity.
Impaired loans	Loans where individually identified impairment provisions have been raised. Also includes loans which are collateralised or where indebtedness has already been written down to the expected realisable value. The impaired loan category may include loans, which, while impaired, are still performing.
Individually assessed loan impairment provisions (IIP)	Impairment is measured for assets that are individually significant to the Group. Typically assets within the Corporate & Institutional Banking segment of the Group are assessed individually.
Individual capital guidance	Guidance given by the PRA to the Group about the amount and quality of capital resources to maintain.
Individual impairment charge	The amount of individually assessed loan impairment provisions that are charged to the income statement in the reporting period.
Individual liquidity guidance	Guidance given by the PRA to the Group about the amount, quality and funding profile of liquidity resources to maintain.
Institution	A credit institution or an investment firm as defined under the Capital Requirement Regulation (CRR).
Internal Capital Adequacy Assessment Process (ICAAP)	A requirement on institutions under Pillar 2 of the Basel framework to undertake a comprehensive assessment of their risks and to determine the appropriate amounts of capital to be held against these risks.
Internal Liquidity Adequacy Assessment Process (ILAAP)	A requirement on institutions under Pillar 2 of the Basel framework to undertake a comprehensive assessment of their risks and to determine the appropriate amounts of liquidity to be held against these risks.
Internal Model Approach (IMA)	The approach used to calculate market risk capital and RWA with an internal market risk model approved by the PRA under the terms of CRD /CRR.
Internal Model Method (IMM)	One of three approaches defined in the Basel Framework to determine exposure values for counterparty credit risk.
Interest Rate Risk (IRR)	Interest rate risk arises due to the investment into rate-sensitive assets, as well as from mismatches between debt issuance and placements.
Internal ratings- based approach ('IRB')	Risk-weighting methodology in accordance with the Basel Capital Accord where capital requirements are based on a firm's own estimates of prudential parameters.
Items belonging to regulatory high-risk categories	In relation to the Standardised Approach to credit risk, items which attract a risk-weight of 150 per cent. This includes exposures arising from venture capital business and certain positions in collective investment schemes.
Leverage ratio	A ratio introduced under Basel III/CRD that compares Tier 1 capital to total exposures, including certain exposures held off-balance sheet as adjusted by stipulated credit conversion factors. Intended to be a simple, non-risk based backstop measure.
Liquidity Coverage Ratio (LCR)	The ratio of the stock of high quality liquid assets to expected net cash outflows over the following 30 days. High quality liquid assets should be unencumbered, liquid in markets during a time of stress and, ideally, be central bank eligible.
Loans and advances	This represents lending made under bilateral agreements with customers entered into in the normal course of business and is based on the legal form of the instrument.
Loss Given Default (LGD)	The percentage of an exposure that a lender expects to lose in the event of obligor default.
Mark-to-market approach	One of the approaches available to banks to calculate the exposure value associated with derivative transactions. The approach calculates the current replacement cost of derivative contracts, by determining the market value of the contract and considering any potential future exposure.
Market risk	The potential for loss of earnings or economic value due to adverse changes in financial market rates or prices.
Maturity	The time from the reporting date to the contractual maturity date of an exposure, capped at five years. Maturity is considered as part of the calculation of risk-weights for the Group's exposures treated under the IRB approach to credit risk.
Minimum capital requirement	Minimum capital required to be held for credit, market and operational risk.
Model validation	The process of assessing how well a model performs using a predefined set of criteria including the discriminatory power of the model, the appropriateness of the inputs, and expert opinion.
MREL or minimum requirement for own fund and eligible liabilities	A requirement under the Bank Recovery and Resolution Directive for EU resolution authorities to set a minimum requirement for own funds and eligible liabilities for banks, implementing the FSB's Total Loss-Absorbing Capacity (TLAC) standard. MREL is intended to ensure there is sufficient equity and specific types of liabilities to facilitate an orderly resolution that minimises any impact on financial stability and ensures the continuity of critical functions and avoids exposing taxpayers to loss.
Multilateral Development Banks (MDB)	An institution created by a group of countries to provide financing for the purpose of development. Under the Standardised approach to credit risk, eligible multilateral development banks attract a zero per cent risk-weight.

Net stable funding ratio (NSFR)	The ratio of available stable funding to required stable funding over a one year time horizon, assuming a stressed scenario. It is a longer-term liquidity measure designed to restrain the amount of wholesale borrowing and encourage stable funding over a one year time horizon.
North East (NE) Asia	North East (NE) Asia includes the Group's operation in the Republic of Korea and Japan.
Operational risk	The potential for loss arising from the failure of people, process, or technology, or the impact of external events.
Over-the-Counter (OTC) traded products/OTC derivatives	A bilateral transaction that is not exchange traded and is valued using valuation models.
Pillar 1	The first Pillar of the three pillars of Basel framework which provides the approach to the calculation of the minimum capital requirements for credit, market and operational risk. Minimum capital requirements are 8 per cent of the Group's risk-weighted assets.
Pillar 2	The second pillar of the three pillars of Basel framework which requires banks to undertake a comprehensive assessment of their risks and to determine the appropriate amounts of capital to be held against these risks where other suitable mitigants are not available.
Pillar 3	The third pillar of the three pillars of Basel framework which aims to provide a consistent and comprehensive disclosure framework that enhances comparability between banks and further promotes improvements in risk practices.
Point in time (PIT)	Considers the economic conditions at the point in the economic cycle at which default occurs when estimating the probability of default.
Portfolio Impairment Provision (PIP)	The amount of loan impairment provisions assessed on the collective portfolio that are charged to the income statement in the reporting period.
Potential Future Exposure (PFE)	An estimate of the potential increase in exposure that may arise on a derivative contract prior to default, used to derive the exposure amount.
Probability of Default (PD)	PD is an internal estimate for each borrower grade of the likelihood that an obligor will default on an obligation within 12 months.
Present Value 01 (PV01)	This represents the change in present value of an asset or liability for a 1 basis point change in the nominal yield curve.
Prudential Regulatory Authority (PRA)	The Prudential Regulation Authority is the statutory body responsible for the prudential supervision of banks, building societies, credit unions, insurers and a small number of significant investment firms in the UK. The PRA is a part of the Bank of England.
Prudent Valuation Adjustment (PVA)	An adjustment to CET1 capital, to reflect the difference between the accounting fair value and the regulatory prudent value of positions, where the application of prudence results in a lower absolute carrying value than recognised in the financial statements.
Qualifying Central Counterparty (QCCP)	Central counterparty that is either authorised (when established in the EU) or recognised (when established in a third-country) in accordance with the rules laid down in the European Market Infrastructure Regulation (EMIR).
Qualifying Revolving Retail Exposure (QRRE)	Retail IRB exposures that are revolving, unsecured, and, to the extent they are not drawn, immediately and unconditionally cancellable, such as credit cards.
Regulatory capital	Sum of Tier 1 and Tier 2 capital after regulatory adjustments.
Repurchase agreement (repo)/reverse repurchase agreement (reverse repo)	A short term funding agreement which allows a borrower to sell a financial asset, such as ABS or Government bonds as collateral for cash. As part of the agreement the borrower agrees to repurchase the security at some later date, usually less than 30 days, repaying the proceeds of the loan. For the party on the other end of the transaction (buying the security and agreeing to sell in the future) it is a reverse repurchase agreement or reverse repo.
Residential Mortgage-Backed Securities (RMBS)	Securities that represent interests in a group of residential mortgages. Investors in these securities have the right to cash received from future mortgage payments (interest and/or principal).
Residual maturity	The remaining maturity of a facility from the reporting date until either the contractual maturity of the facility or the effective maturity date.
Retail Internal Ratings Based (Retail IRB) Approach	In accordance with the PRA handbook and CRR, the approach to calculating credit risk capital requirements for eligible retail exposures.
Risk Appetite	Risk Appetite is defined by the Group and approved by the Board. It is the maximum amount and type of risk the Group is willing to assume in pursuit of its strategy.
Risk Capacity	The maximum level of risk the Group can assume, given its current capabilities and resources, before breaching constraints determined by capital and liquidity requirements and internal operational capability (including but not limited to technical infrastructure, risk management capabilities, expertise), or otherwise failing to meet the expectations of regulators and law enforcement agencies.
Risk-weighted assets (RWA)	A measure of a bank's assets adjusted for their associated risks, expressed as a percentage of an exposure value in accordance with the applicable Standardised or IRB approach provisions.
RWA density	The risk-weighted asset as a percentage of exposure at default (EAD).
Scrip dividends	Dividends paid to existing shareholders in securities instead of cash payment.
Securities Financing Transactions (SFT)	Securities Financing Transactions are secured (i.e. collateralised) transactions that involve the temporary exchange of cash against securities, or securities against other securities, e.g. stock lending or stock borrowing or the lending or borrowing of other financial instruments, a repurchase or reverse repurchase transaction, or a buy-sell back or sell-buy back transaction.

Securitisation	Securitisation is a process by which credit exposures are aggregated into a pool, which is used to back new securities. Under traditional securitisation transactions, assets are sold to a special purpose entity (SPE) who then issues new securities to investors at different level of seniority (credit tranching). This allows the credit quality of the assets to be separated from the credit rating of the originating institution and transfers risk to external investors in a way that meets their risk appetite. Under synthetic securitisation transactions, the transfer of risk is achieved by the use of credit derivatives or guarantees, and the exposures being securitized remain exposures of the originating institution.
Securitisation position(s)	The positions assumed by the Group following the purchase of securities issued by Asset-Backed Securitisation programmes or those retained following the origination of a securitisation programme.
Specialised lending	Specialised lending exposures are defined as an exposure to an entity which was created specifically to finance and/or operate physical assets, where the contractual arrangements given the lender a substantial degree of control over the assets and the income that they generate and the primary source of repayment of the obligation is the income generated by the assets being financed, rather than the independent capacity of a broader commercial enterprise.
Special Purpose Entities (SPEs)	SPEs are entities that are created to accomplish a narrow and well defined objective. There are often specific restrictions or limits around their ongoing activities. Transactions with SPEs take a number of forms, including: the provision of financing to fund asset purchases, or commitments to provide financing for future purchases; derivative transactions to provide investors in the SPE with a specified exposure; the provision of liquidity or backstop facilities which may be drawn upon if the SPE experiences future funding difficulties; and direct investment in the notes or equity issued by SPEs.
Standardised Approach (SA)	In relation to credit risk, a method for calculating credit risk capital requirements using External Credit Assessment Institutions (ECAI) ratings and supervisory risk-weights. In relation to operational risk, a method of calculating the operational risk capital requirement by the application of a supervisory defined percentage charge to the gross income of eight specified business lines.
Stressed Value at Risk (SVAR)	A regulatory market risk measure based on potential market movements for a continuous one-year period of stress for a trading portfolio.
Through the cycle (TTC)	Reduces the volatility in the estimation of the probability of default by considering the average conditions over the economic cycle at the point of default, versus the point in time (PIT) approach, which considers economic conditions at the point of the economic cycle at which default occurs.
Tier 1 capital	Tier 1 capital comprises Common Equity Tier 1 capital plus Additional Tier 1 securities and related share premium accounts.
Tier 1 capital ratio	Tier 1 capital as a percentage of risk-weighted assets.
Tier 2 capital	Tier 2 capital comprises qualifying subordinated liabilities and related share premium accounts.
Total Loss Absorbing Capacity (TLAC)	An international standard for TLAC issued by the FSB, which requires G-SIBs to have sufficient loss-absorbing and recapitalisation capacity available in resolution, to minimise impacts on financial stability, maintain the continuity of critical functions and avoid exposing public funds to loss.
Total Return Swap (TRS)	A derivative transaction that swaps the total return on a financial instrument, including cash flows and capital gains or losses, for an interest rate return.
Trading book	The trading book consists of all positions in CRD financial instrument and commodities which are fair valued through the profit and loss account for accounting purposes, which are held either with trading intent or in order to hedge other elements of the trading book and which are either free of any restrictive covenants on their tradability or ability to be hedged.
Value at Risk (VAR)	A quantitative measure of market risk estimating the potential loss that will not be exceeded in a set time period at a set statistical confidence level.
Write downs	After an advance has been identified as impaired and is subject to an impairment allowance, the stage may be reached whereby it is concluded that there is no realistic prospect of further recovery. Write downs will occur when and to the extent that, the whole or part of a debt is considered irrecoverable.
Wrong way risk	Wrong way risk occurs when an exposure increase is coupled with a decrease in the credit quality of the obligor.

Prudential disclosure reference

CRR article ref.	Requirement summary		Disclosure
Scope of disclosure requirement			
431	(1)	Mandate for institutions to publicly disclose information laid down in Article 432.	The Group publishes Pillar 3 disclosures
	(2)	Institutions to disclose operational risk information in accordance with the applicable approaches.	The Group applies the standardised approach, RWAs and capital requirements for operational risk are shown in Table 20: (OV1) on page 26 and in the 2020 Annual Reports and Accounts on page 28.
	(3)	Institutions must have formal policy in place to comply with the prudential disclosure requirements.	The Group has a dedicated policy governing prudential disclosure requirements in place.
	(4)	Explanation of ratings decisions to SMEs and corporates when asked.	The Group provides ratings decisions to SMEs and corporates upon request.
Non-material, proprietary or confidential information			
432	(1)	Information may be omitted from disclosure if not regarded material.	Items omitted from disclosure are listed in section 1.3. Regulatory disclosure – Framework on page 3.
	(2)	Information may be omitted from disclosure if regarded proprietary or confidential.	See Article 432(1) above
	(3)	Disclosure must contain a list of omitted information with reasons clearly stated.	See Article 432(1) above
	(4)	All material, non-confidential and non-proprietary information must be disclosed.	All material, non-confidential and non-proprietary information is disclosed by the Group in its 2020 Pillar 3 and 2020 Annual Report and Accounts.
Frequency of disclosure			
433		Disclosures in accordance with the rules laid down must be made at least annually in conjunction with the financial statements. Institutions should consider the need to publish information with increased frequency on own funds, risk exposures and items prone to rapid change.	Section 1.3 Regulatory disclosure – Framework sub-section on Frequency on page 3.
		EBA mandate to publish guidelines on the application of more frequent disclosures.	EBA/GL/2014/14 published on 23 December 2014 EBA/GL/2016/11 published on 14 December 2016
Means of disclosure			
434	(1)	Institutions may determine the appropriate medium, location and means of verification to comply with the disclosure requirements.	Section 1.3 Regulatory disclosure – Framework, sub-section on Verification on page 3. The 2020 Pillar 3 document is made publicly available on the Group website with the 2020 Annual Report and Accounts and other public disclosures.
	(2)	Equivalent disclosures made by institutions under accounting, listings or other requirements may be deemed compliant with Pillar 3.	The Group discharges parts of the prudential disclosure requirements in the 2020 Annual Reports and Accounts, in Main Features and GSIB disclosures, with cross references to exact locations provided in its Pillar 3 document.
Risk management objectives and policies			
435 (1)	(1)(a)	Description of risk management objectives and policies for each risk category, including strategies and process to manage those risks.	Section 1.4 Risk management on pages 4 to 5. Risk management approach section in the 2020 Annual Report and Accounts on pages 248 to 276.
	(1)(b)	The structure and organisation of the risk management functions.	See Article 435 (1)(a) above
	(1)(c)	The scope and nature of risk reporting and measurement systems.	See Article 435 (1)(a) above
	(1)(d)	Policies for hedging and mitigating risk, strategies for monitoring the effectiveness of these risk mitigants.	See Article 435 (1)(a) above
	(1)(e)	Declaration approved by management body on the adequacy of risk management arrangements.	See Article 435 (1)(a) above
	(1)(f)	Risk statement approved by the management body including key ratios and figures to demonstrate a comprehensive view of the institution.	Key ratios and figures are highlighted in section 1.2 on pages 1 to 3 and in the 2020 Annual Report and Accounts on pages 182 to 184.
	(2)(a)	The disclosure must contain information on the number of directorship held.	2020 Annual Reports and Accounts, Board of Directors, on page 83 to 86.
	(2)(b)	The recruitment policy for the members of management body.	2020 Annual Reports and Accounts, Board of Directors, on pages 83 to 86 and Governance and Nomination Committee on pages 125 to 129.

CRR article ref.	Requirement summary	Disclosure
(2)(c)	Policy on diversity for members of the management body.	2020 Annual Reports and Accounts, Governance and Nomination Committee, on pages 126 to 128. Further information published on the Group website sc.com/boarddiversitypolicy
(2)(d)	Whether the institution has a separate risk committee and the number of times they meet.	2020 Annual Reports and Accounts, Corporate Governance, on pages 115 to 120.
(2)(e)	Description of information flow on risk to the management body.	2020 Annual Reports and Accounts, Risk management, on pages 115 to 120.
Scope of application		
436	(a) Disclosure to contain the name of the institution.	Name of the Group and the Group logo are displayed on the cover page of the disclosures.
	(b)(i) Clarify the differences between the basis of consolidation for accounting and prudential purposes with short explanation of entities and whether they are fully consolidated,	Table 3: Regulatory Consolidation on page 6. Table 4: Outline of the differences in the scope of consolidation (L13) on page 6.
	(b)(ii) proportionally consolidated,	See Article 436(b)(i) above
	(b)(iii) deducted from own funds,	See Article 436(b)(i) above
	(b)(iv) Neither consolidated nor deducted.	See Article 436(b)(i) above
	(c) Explain any current or foreseen impediments to transfer of own funds to between parent and subsidiaries.	Note 32 of the 2020 Annual Report and Accounts on page 399.
	(d) The amount of capital deficiency in subsidiaries not included in the consolidation.	Entities not included in the scope of prudential consolidation are appropriately capitalised.
	(e) Making use of articles on derogations from a) prudential requirements or b) liquidity requirements for individual subsidiaries/entities.	The Group makes use of the individual consolidation method according to a waiver provided by the PRA
Own funds		
437	(1)(a) Reconciliation of CET1, AT1, T2, filters and deductions to financial accounts.	Table 8. Reconciliation between financial total equity and regulatory CET1 before regulatory adjustments on page 12
	(1)(b) Main features of the CET1, AT1 and T2 instruments issued by the institution.	Section 2.2. Capital resources on page 12
	(1)(c) Full terms and conditions of CET1, AT1 and T2 capital instruments.	See Article 437(1)(b) above
	(1)(d)(i) The nature and amounts of each prudential filter.	Table 9 Composition of regulatory capital (CC1) on page 13
	(1)(d)(ii) The nature and amounts of each deduction made.	Table 9 Composition of regulatory capital (CC1) on page 13
	(1)(d)(iii) The nature and amounts of non-deducted items.	Table 9 Composition of regulatory capital (CC1) on page 13
	(1)(e) Description of restrictions applied to the calculation of own funds.	There were no restrictions applied to the calculation of own funds
	(1)(f) Description of own funds calculation based on alternative methods.	The Group follows own funds calculation set out in the CRR, in the format set out by the below implementing regulation.
	(2) EBA mandate to develop common disclosure templates.	Implementing Regulation (EU) No 1423/2013
Capital requirements		
438	(a) Summary of approach to assessing capital adequacy.	Section 2.1 Capital management on page 12. Capital planning on page 259 of the 2020 Annual Reports and Accounts
	(b) On demand, the results of capital adequacy assessment.	There was no specific demand for the Group from the PRA. Following industry practice the Group's Pillar 2A results are disclosed in section 2.2 Capital resources on page 12.
	(c) 8% risk weight to be assigned to exposures under the standardised approach for each asset class.	Table 20: Overview of RWA (OV1) on page 26 Table 22: RWA flow statements of credit risk exposures under IRB (CR8) on page 28
	(d)(i) 8% risk weight to be assigned to exposures under the IRB approach for each asset class, including all categories of retail and equity exposures.	Table 20: Overview of RWA (OV1) on page 26 Table 22: RWA flow statements of credit risk exposures under IRB (CR8) on page 28
	(d)(ii) 8% risk weight to be assigned to exposures under the IRB approach for exchange traded, private equity and other exposures.	Table 20: Overview of RWA (OV1) on page 26
	(d)(iii) 8% risk weight to be assigned to exposures under the IRB approach for exposures subject to supervisory transition.	The Group has no exposures subject to supervisory transition
	(d)(iv) 8% risk weight to be assigned to exposures under the IRB approach for exposures subject to grandfathering provisions.	The Group has no exposure subject to grandfathering provisions
	(e) Disclosure of own funds requirements.	Section 2.5 Capital requirements on pages 26 to 30
	(f) Disclosure of own funds requirements calculated for operational risk by approaches used.	Table 20: Overview of RWA (OV1) on page 26

CRR article ref.	Requirement summary	Disclosure
Exposure to counterparty credit risk		
439	(a) Methodology used to assign internal capital and credit limits for counterparty credit risk.	Section 4.2. Counterparty credit risk on page 88
	(b) Discussion of policies for securing collateral and establishing credit reserves.	Section 4.2. Counterparty credit risk on page 88
	(c) Discussion of policies on wrong-way risk exposures.	Section 4.2. Counterparty credit risk on page 88
	(d) The amount of collateral that would need to be provided in the event of downgrade.	Section 4.2. Counterparty credit risk on page 88
	(e) FV of contracts, netting benefits, netted current credit exposure, collateral held and net derivatives credit exposure.	Table 82: Impact of netting and collateral held on exposure values (CCR5-A) on page 89
	(f) Exposure values under the mark to market, original exposure, standardised or internal model methods as applicable.	Table 83: Analysis of CCR exposures by approach (CCR1) on page 89
	(g) The notional value of credit derivative hedges and CRM by types of exposure.	Table 85: Credit derivatives exposures (CCR6) on page 90
	(h) The notional amount of credit derivatives by own portfolio and intermediation activities, by products and by bought and sold.	Table 85: Credit derivatives exposures (CCR6) on page 90
	(i) Estimate of alfa.	Table 83: Analysis of CCR exposures by approach (CCR1) on page 89
Capital buffers		
440	(1)(a) Amount of credit exposures used in the calculation of countercyclical capital buffer by geography.	Table 18: Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer on page 24
	(1)(b) The amount of institution specific countercyclical capital buffer.	Table 19: Amount of institution specific countercyclical capital buffer on page 25
	(2) EBA mandate to develop implementing technical standards specifying disclosure requirements.	Commission Delegated Regulation (EU) 2015/1555 published on 28 May 2015
Indicators of global systemic importance		
441	(1) Institutions identified as G-SIIs to disclose the values of indicators on an annual basis.	Discussed in Section 1.3. Regulatory disclosure framework on page 3
	(2) EBA mandate to draft ITS for reporting.	Commission Implementing Regulation (EU) 2016/818
Credit risk adjustments		
442	(a) Accounting definition of past due and impaired.	Glossary sections of Pillar 3 and the Annual Report and Accounts on pages 126 to 130 and 446 to 452 respectively Credit risk section of the 2020 Annual Report and Accounts on pages 182 to 184
	(b) Approaches and methods used for determining specific and general credit risk adjustments.	Section 3.4. Exposure values on page 39 Note 8 of the 2020 Annual Report and Account on pages 316 to 320
	(c) Exposure and average exposure after accounting offsets and pre credit risk mitigations by asset classes.	Table 40: Total and average exposure at default (CRB-B) on page 40
	(d) Exposure by significant geographies and material exposures classes.	Table 41: Exposure at default by geography (CRB-C) on page 41
	(e) Exposures by industry and by exposure classes.	Table 42: Exposure at default by industry (CRB-D) on page 43
	(f) Exposures by residual maturity and by exposure class.	Table 43: Exposure at default by maturity (CRB-E) on page 45
	(g)(i) By industry or counterparty type the amount of impaired and past due exposures.	Table 44: Credit quality of exposures by exposure class and instrument (CR1-A) on page 47 Table 45: Credit quality of exposures by industry (CR1-B) on page 49
	(g)(ii) By industry or counterparty type the amount of specific and general credit risk adjustments.	See Article 442(g)(i) above
	(g)(iii) By industry or counterparty type the amount of specific and general credit risk charges for the period.	See Article 442(g)(i) above
	(h) Impaired and past due exposures by geography.	Table 46: Credit quality of exposures by geography (CR1-C) on page 49 Table 47: Credit quality of performing and non-performing exposures by past due days on page 50

CRR article ref.	Requirement summary	Disclosure
(i)(i)	Reconciliation of changes in specific and general credit risk adjustments for impaired exposures by type of credit risk adjustments.	Table 48: Credit quality of forborne exposures on page 52 Table 49: Performing and non-performing exposures and related provisions on page 53 Table 50: Changes in the stock of general and specific credit risk adjustments (CR2-A) on page 57 Table 51: Changes in the stock of defaulted and impaired loans and debt securities (CR2-B) on page 57
(i)(ii)	Opening balances for reconciliation of changes in specific and general credit risk adjustments.	See Article 442(i)(i) above
(i)(iii)	Credit risk adjustments during the period.	See Article 442(i)(i) above
(i)(iv)	The amount reserved for probable losses during the period and any other adjustments.	See Article 442(i)(i) above
(i)(v)	Closing balance of the reconciliation for changes in specific and general credit risk adjustments.	See Article 442(i)(i) above
Unencumbered assets		
443	EBA mandate to issue guidelines for disclosure of unencumbered assets.	EBA/GL/2014/03 issued in December 2014
Use of ECAIs		
444	(a) The names of ECAIs used for the calculation of RWA under the standardised approach.	Section 3.8. standardised risk weight profile on page 73
	(b) The exposure classes for which the ECAIs are used for the standardised approach.	Section 3.8. standardised risk weight profile on page 73
	(c) Description of the process used to transfer issuer and issue credit assessment onto banking book exposures.	Section 3.8. standardised risk weight profile on page 73
	(d) The relation between ECAIs and regulatory credit quality steps used within the standardised approach.	Section 3.8. standardised risk weight profile on page 73
	(e) The exposure values before and after credit risk mitigation for each credit quality step under the standardised approach.	Table 68: Standardised approach – exposures by asset classes and risk weights (pre CRM pre CCF) (CR5) on page 74 Table 69: Standardised approach – exposures by asset classes and risk weights (post CRM post CCF) (CR5) on page 75 Table 87: Standardised approach – CCR exposures by regulatory portfolio and risk (CCR3) on page 91
Exposure to market risk		
445	The amount of market risk requirements calculated for the purposes of own funds requirements for position, FX, commodities risks and for specific interest rate risk of securitisation positions.	Table 20: (OV1) provides RWA and capital requirements for each risk category defined on page 26 Table 76: Market risk regulatory capital requirements on page 85
Operational risk		
446	Description of approaches used for the calculation of own funds requirements.	The Group applies STD approach for measuring capital requirements, described in section 1.4. Risk management under Operational Risk on page 4
Exposures in equities not included in the trading book		
447	(a) Differentiation of exposures based on their objects, and an overview of accounting and valuation methodologies used.	Disclosure is excluded on the bases of materiality
	(b) The balance sheet and fair value of equities in the banking book and comparison of market price for exchange traded equities.	Disclosure is excluded on the bases of materiality
	(c) Description and value of exchange traded exposures.	Disclosure is excluded on the bases of materiality
	(d) The cumulative realised gains and losses on the sales and liquidations in the period.	Disclosure is excluded on the bases of materiality
	(e) Total unrealised gains and losses include in CET1 capital.	Disclosure is excluded on the bases of materiality
Exposure to interest rate risk on positions not included in the trading book		
448	(a) Description of the nature interest rate risk, key assumptions and frequency of measurement.	Section 5 on Interest rate risk in the banking book on pages 98
	(b) Measure of upward and downward rate shocks by currency.	2020 Annual Reports and Accounts on page 246
Exposure to securitisation position		
449	(a) Description of the institution's objectives in relation to securitisation activity	Section 3.9 Securitisation on page 76
	(b) The nature of other risks including liquidity risk inherent in securitised assets	Section 3.9 Securitisation on page 76
	(c) Description of underlying exposures	Section 3.9 Securitisation on page 76

CRR article ref.	Requirement summary	Disclosure
(d)	The roles played by the institution in the securitisation process	Section 3.9 Securitisation on page 76
(e)	The extent of the institution's involvement in the roles referred in (d)	Section 3.9 Securitisation on page 76
(f)	The monitoring of credit and market risk from securitisation exposures	Section 3.9 Securitisation on page 76
(g)	The use of hedging and unfunded protection to mitigate the risks of retained securitisation exposures	Section 3.9 Securitisation on page 76
(h)	The approaches to calculating securitisation risk-weighted assets	Section 3.9 Securitisation on page 76
(i)	The types of SSPE that the institution, as sponsor, uses to securitise third-party exposures	Section 3.9 Securitisation on page 79 including Table 71 that lists securitization programs where the Group acts as originator
(j)(i)	A summary of the institution's accounting policies for securitisation activities, including whether the transactions are treated as sales financing	Section 3.9 Securitisation on pages 77 to 78
(j)(ii)	Gains on sales	Not applicable. The Group originates synthetic transactions where the underlying assets remain on the Group's balance sheet, therefore the issue of gain on sales does not arise.
(j)(iii)	Securitisation valuation methodologies	Section 3.9 Securitisation on pages 77 to 78
(j)(iv)	Accounting treatment of synthetic securitisations	Section 3.9 Securitisation on pages 77 to 78
(j)(v)	Valuation and regulatory classification of assets awaiting securitisation	The securitised assets are originated by the Group in its ordinary course of business. Assets awaiting securitisation are not specifically identified for reporting purposes and are not subject to a specific accounting and prudential policies.
(j)(vi)	Recognition of liabilities for arrangements that could require the institution to provide financial support for securitised assets	Section 3.9 Securitisation on pages 77 to 78
(k)	The use of ECAIs for securitisations exposures	Section 3.9 Securitisation on pages 77 to 78
(l)	Where applicable, a description of the Internal Assessment Approach	Not applicable. The Group does not originate or sponsor asset-backed commercial paper programs (ABCP)
(m)	An explanation of significant changes to the quantitative disclosures in points (n) to (q) since the last reporting period	Explanations of key movements are provided throughout
(n)(i)	Separately for the trading and the non-trading book and by exposure type: The total amount of outstanding exposures securitised by the institution	Table 73. Securitisation positions by risk-weight under new EU securitisation framework on page 81
(n)(ii)	Retained securitisation exposures	Table 73. Securitisation positions by risk-weight under new EU securitisation framework on page 81
(n)(iii)	Assets awaiting securitisation	See Article 449(j)(v)
(n)(iv)	For securitised facilities subject to the early amortisation treatment, drawn exposures attributed to the originator's and investors' interests respectively, the aggregate capital requirements incurred by the institution against the originator's interest and the capital requirements incurred by the institution against the investor's shares of drawn balances and undrawn lines	Table 71. Securitisation programmes (as originator) on page 79
(n)(v)	Securitisation positions that are deducted from own funds or risk-weighted at 1250%	Table 73. Securitisation positions by risk-weight under new EU securitisation framework on page 81
(n)(vi)	The securitisation activity of the current period, including the amount of exposures securitised and recognised gain or loss on sale	Table 70. Securitisation: ABS purchased or retained on page 77 Table 73. Securitisation positions by risk-weight under new EU securitisation framework on page 81
(o)(i)	Securitisation positions retained or purchased and the associated capital requirements	Table 73. Securitisation positions by risk-weight under new EU securitisation framework on page 81
(o)(ii)	Re-securitisation exposures retained or purchased	Not applicable, the Group does not invest in re-securitisation exposures
(p)	For the non-trading book and regarding exposures securitised by the institution, impaired/past due assets securitised and the losses recognised by the institution during the current period	Section 3.9 Securitisation sub section Capital Structuring & Distribution Group Securitisation on page 77
(q)	For the trading book, outstanding exposures securitised by the institution and subject to a capital requirement for market risk	There are no trading book exposures originated by the Group
(r)	Whether the institution provided implicit support (Article 248(1)) and the impact on own funds	The Group does not provide implicit support within the terms of Article 248(1)

CRR article ref.	Requirement summary	Disclosure
Remuneration policy		
450	(1)(a) Information on the decision-making process used for determining remuneration policy and the number of meetings held during the year by the main body overseeing remuneration.	2020 Annual Reports and Accounts on pages 133 to 136 and 139 to 142
	(1)(b) Explanation of links between pay and performance.	2020 Annual Reports and Accounts on pages 133 to 136
	(1)(c) Key design characteristics of the remuneration system.	2020 Annual Reports and Accounts on pages 133 to 136
	(1)(d) The ratios between fixed and variable remuneration.	2020 Annual Reports and Accounts on page 163
	(1)(e) Information on the performance criteria for entitlement to shares, options and variable remuneration entitlements.	2020 Annual Reports and Accounts on pages 131 to 132, 137 to 138 and 140 to 150
	(1)(f) Description of main parameters and rationale for variable components and other non-cash benefits.	2020 Annual Reports and Accounts on pages 137 to 138 and 140 to 150
	(1)(g) Quantitative information on remuneration by business areas.	2020 Annual Reports and Accounts on page 165
	(1)(h)(i) Amounts of fixed and variable compensation for senior management and staff of significant influence and the number of beneficiaries for the year.	2020 Annual Reports and Accounts on pages 163 to 165
	(1)(h)(ii) The amount of variable compensation broken down by remuneration types.	See Article 450 (1)(h)(i) above
	(1)(h)(iii) Amounts of outstanding deferred remuneration.	See Article 450 (1)(h)(i) above
	(1)(h)(iv) The amounts of deferred remuneration during the year.	See Article 450 (1)(h)(i) above
	(1)(h)(v) Amount of sign-on and severance payment made during the year and the number of beneficiaries.	See Article 450 (1)(h)(i) above
	(1)(h)(vi) The amount of severance payments awarded during the year and the number of beneficiaries.	See Article 450 (1)(h)(i) above
	(1)(i) The number of individuals receiving remuneration over EUR1 million in a financial year by pay bands.	2020 Annual Reports and Accounts on page 165
	(1)(j) On request from the regulator the total remuneration of the management body.	Upon demand, not disclosed publicly
	(2) Quantitative information to be made available at the level of members of the management body for institutions that are significant in size.	2020 Annual Reports and Accounts on pages 153 to 165
Leverage		
451	(1)(a) Calculation of leverage ratio and application of transitional arrangements.	Table 25: UK and CRR Leverage Ratio on page 30 Table 27: Leverage ratio common disclosure on page 31
	(1)(b) Breakdown and reconciliation of total exposure measure to published financial statements.	Table 26: Summary of reconciliation of accounting assets and leverage exposure on page 30 Table 28: Leverage ratio: Split-up of on-balance sheet exposures on page 31
	(1)(c) The amount of de-recognised fiduciary items.	The Group has no fiduciary items
	(1)(d) Description of the processes used to manage excessive leverage.	Section 2.6 Leverage Ratio on page 30
	(1)(e) Description of factors impacting leverage ratio during the period.	Section 2.6 Leverage ratio on page 30
	(2) EBA mandate to issue ITS on common disclosure	Implementing Standard (EU)_ 2016/200 in 2016
Use of the IRB Approach to credit risk		
452	(a) Details of permission for the use of IRB approach received from authority	Section 3.3 Internal Ratings Based models on page 33
	(b)(i) Explanation and view of the structure of internal ratings and relation to external ratings	Table 55: Internal default grade probabilities and mapping to external ratings on page 62
	(b)(ii) Explanation of the use of internal estimates other than those used for capital requirements calculation under the IRB approach	Section 3.6. Risk grade profile on pages 32 to 34
	(b)(iii) The process of managing and recognising credit risk mitigation	Section 3.7. Credit risk mitigation on page 71
	(b)(iv) The control mechanisms for rating systems	Section 3.3. Internal Ratings Based models on pages 32 to 34
	(c)(i) Description for internal ratings process for central governments and central banks	Section 3.3. Internal Ratings Based models on page 33
	(c)(ii) Description for internal ratings process for institutions	See Article 452(c)(i)

CRR article ref.	Requirement summary	Disclosure
(c)(iii)	Description for internal ratings process for corporates, including SMEs, specialised lending and purchased corporate receivables	See Article 452(c)(i)
(c)(iv)	Description for internal ratings process for retail, including SMEs, exposures secured by immovable property and qualifying revolving exposures	See Article 452(c)(i)
(c)(v)	Description for internal ratings process for equities	The standardised approach is used for equities
(d)	The exposure values for each of the exposure classes defined under IRB approach	Table 54: IRB – Credit risk exposures by exposure class on page 60
(e)(i)	For central governments and central banks, institutions, corporates and equity by obligor grades the total exposure amounts,	Table 56: IRB credit exposure by internal PD grade for Central governments or central banks (CR6) on page 63 Table 57: IRB credit exposure by internal PD grade for Institutions (CR6) on page 64 Table 58: IRB credit exposure by internal PD grade for Corporates (CR6) on page 65 Table 59: IRB credit exposure by internal PD grade for Corporates Specialised Lending (CR6) on page 66 Table 60: IRB credit risk exposure by internal PD grade for Corporates SME (CR6) on page 67
(e)(ii)	The exposure weighted average risk weight	See Article 452 (e)(i)
(e)(iii)	For institutions using own estimates of CCF, the RWA, the amount of undrawn commitments, and exposure-weighted average exposure values	See Article 452(e)(i)
(f)	For retail exposures either the disclosure of 452(e) or analysis of exposures against EL grades	Table 61: IRB credit exposure by internal PD grade for Retail (CR6) on page 68 Table 62: IRB credit exposure by internal PD grade for Retail – SME (CR6) on page 69 Table 63: IRB credit exposure by internal PD grade for Retail – Secured by real estate collateral (CR6) on page 70 Table 64: IRB credit exposure by internal PD grade for Retail – Qualifying revolving (CR6) on page 71
(g)	The actual specific credit risk adjustments compared to past experience by asset classes	Table 52: Regulatory expected loss on page 58
(h)	Description of factors that impacted on loss experience	Section 3.5. Regulatory expected loss vs. impairment charge on page 58
(i)	Analysis of estimates against actual outcomes for losses by asset classes over a period sufficient enough to assess the performance of the IRB models	Table 29: CIB model results on page 34 Table 30: Retail model results on page 34
(j)(i)	The exposure-weighted average LGD and PD in percentage for each exposure class by geography	Table 53: Exposure weighted average PD% and LGD% by geography on page 59
(j)(ii)	For institutions that do not use own estimates of LGD, the weighted-average PD in percentage for each exposure class by geography	Table 53: Exposure weighted average PD% and LGD% by geography on page 59
Use of credit risk mitigation techniques		
453	(a) Description of policies and processes for the use of on-and off-balance sheet netting.	Section 3.7. Credit risk mitigation on page 72
	(b) Description of policies and processes for collateral valuation and management.	See 453(a) above
	(c) Description of the main types of collaterals taken by institutions.	See 453(a) above
	(d) Description of the main type of guarantor credit derivative counterparty and their credit worthiness.	See 453(a) above
	(e) Information on the market or credit risk concentrations within credit risk mitigation.	See 453(a) above
	(f) Total exposure value by eligible financial and other eligible collateral for each asset class under the Standardised or IRB approaches, but not providing own estimates of LGD or conversation factors.	Table 66: Effect of guarantees and collateral on page 72
	(g) Total exposure value covered by guarantees or credit derivatives by all asset classes under the Standardised or IRB approaches.	See 453(f) above
Use of the Advanced Measurement Approaches to operational risk		
454	Description of risk transfer mechanisms for mitigating operational risk measured under the advanced measurement approach.	The Group does not hold a permission to use the advanced measurement approach for operational risk

CRR article ref.	Requirement summary	Disclosure
Use of Internal Market Risk Models		
455	(a)(i) Explanation of characteristics of the models used by sub-portfolio.	Section 4.1, under the headings Value at Risk on page 82 The Group does not have CRM, IMA and IRC approvals. The related disclosure requirements are not applicable
	(a)(ii) Description of the methodologies used and the risks measured through the use of internal models	The Group does not have IMA approval for incremental default and migration risk for correlation trading
	(a)(iii) Description of stress testing applied by sub-portfolio	Section 4.1 under the heading Stressed VaR on page 83
	(a)(iv) Description of the approaches used for backtesting and valuating the accuracy of internal models	Section 4.1 under the heading Backtesting on pages 83
	(b) The scope of permission received	Section 4.1 under the heading Regulatory Value as Risk on page 82
	(c) Description of methodologies adopted for and the extent of compliance with the definitions of trading book and requirements of prudent valuation in CRR Article 104 and 105	Section 4.1 under the heading Trading book and Valuation framework on page 82
	(d)(i) The highest, lowest and the mean of daily VaR over the reporting period at period end	Table 78 (MR3) in row VaR (10 day 99%) on page 86
	(d)(ii) The highest, lowest and the mean of the stressed VaR over the reporting period at period end	Table 78 (MR3) in row Stressed VaR (10 day 99%) on page 86
	(d)(iii) The highest, lowest and the mean of the risk numbers of correlation trading over the reporting period at period end	Table 78 (MR3) in row incremental risk capital charge (99.9%) on page 86 The Group does not have IMA approval for incremental default and migration risk for correlation trading, therefore, the rows of incremental risk capital charge and comprehensive risk capital charge are reported as zero
	(e) Elements of own funds requirements when using internal models	Table 79 (MR2-A) on page 84 provides the required breakdown
	(f) The weighted average liquidity horizon covered by internal models for incremental default, migration and correlation risks	The Group has no model permissions for specific rate and comprehensive risk measure
	(g) Comparison of the daily end of day VaR to the value by the end of next business day	Backtesting overshooting are shown in tables 80 and 81 (MR4) on page 87

Summary of differences

Summary of differences between Pillar 3 Disclosures and the Risk and capital review section of the Annual Report and Accounts

The Group's Pillar 3 Disclosures for 31 December 2020 provide details from a regulatory perspective on certain aspects of credit risk, market risk and operational risk. The quantitative disclosures in the Pillar 3 Disclosures will not, however, be directly comparable to those in the Risk and capital review

section of the Annual Report and Accounts as they are largely based on internally modelled risk metrics such as PD, LGD and EAD under Basel framework, whereas the quantitative disclosures in the Risk review are based on IFRS. EAD differs from the IFRS exposure primarily due to the inclusion of undrawn credit lines and off-balance sheet commitments. In addition, a number of the credit risk disclosures within the Pillar 3 Disclosures are only provided for the internal ratings based portfolio.

Topic	Annual Report and Accounts	Pillar 3 Disclosures
Basis of requirements	<ul style="list-style-type: none"> The Group's Annual Report and Accounts are prepared in accordance with the requirements of IFRS as endorsed by the EU, the UK Companies Act 2006, and the UK, Hong Kong and India Listing rules 	<ul style="list-style-type: none"> The Group's Pillar 3 Disclosures, provides details on risk from a regulatory perspective to fulfil Basel III / CRD rule requirements which have been implemented in UK by the Prudential Regulatory Authority (PRA) via EU legislation, Capital Requirements Regulation (CRR), Part Eight
Basis of preparation	<ul style="list-style-type: none"> The quantitative credit risk disclosures in the Risk review are based on IFRS. Loans and advances are analysed between the four client segments of Corporate & Institutional, Commercial, Private and Retail Banking (split by industry classification codes) Market risk disclosures are presented using VaR methodology for the trading and non- trading books 	<ul style="list-style-type: none"> Provides details from a regulatory perspective on certain aspects of credit risk, market risk and operational risk. For credit risk this is largely based on internally modelled risk metrics such as PD, LGD and EAD under Basel rules Loans and advances are analysed between those that are internal ratings basis (IRB) and standardised, split by standard CRR categories Market risk and operational risk disclosures are based on the capital required
Coverage	<ul style="list-style-type: none"> All external assets which have an exposure to credit risk Market risk exposure is the trading and non-trading books Liquidity risk analysis of contractual maturities, liquid assets and encumbered assets 	<ul style="list-style-type: none"> The credit risk disclosures are provided for approved portfolios as per the IRB approach and remaining portfolios are assessed as per Standardised rules as prescribed in the CRR The PRA has granted the Group permission to use the internal model approach (IMA) covering the majority of market risk in the trading book. Positions outside the IMA scope are assessed according to standard CRR rules The Standardised Approach consistent with the CRR requirements is used to assess its regulatory operational risk capital requirement
Credit rating and measurement	<ul style="list-style-type: none"> Overview of credit risk management credit grading and the use of IRB models is on page 192 Maximum exposure to credit risk set out on page 189 Internal credit grading analysis provided by business segment for both performing and non-performing loans and advances on page 193 External credit grading analysis for unimpaired debt securities and treasury bills is set out on page 190 	<ul style="list-style-type: none"> Details of IRB and Standardised approach to credit risk is set out on pages 32 to 33 For the IRB portfolio, page 62 provides an indicative mapping of the Group's credit grades in relation to Standard & Poor's credit ratings. Minimum regulatory capital requirements for credit risk on page 26 Credit grade analysis provided for the IRB portfolio only. EAD within the IRB portfolio after CRM, Undrawn commitments, exposure weighted average LGD and weighted average risk-weight internal credit grade on pages 63 to 64 and 93 to 97 Credit quality step analysis for Standardised portfolio is provided on pages 73 to 75

Topic	Annual Report and Accounts	Pillar 3 Disclosures
Credit risk mitigation	<ul style="list-style-type: none"> • CRM approach is set out on page 212 • Overview of collateral held and other credit risk mitigants provided on page 212. Quantitative overview of other risk mitigants including: • Securitisations, where the Group transfers the rights to collect principal and interest on client loan assets to third parties • Master netting agreements, CSAs and cash collateral for derivatives 	<ul style="list-style-type: none"> • Provides details on CRM from a regulatory perspective by providing EAD after CRM by IRB exposure class. Explanation is given on what constitutes eligible collateral including explanations of funded and unfunded protection. The main type of collateral for the Group's Standardised portfolio is also disclosed. Please refer to page 72 • Extensive disclosures on securitisation including notional and carrying amounts, details of securitisation programmes where the Group is an originator, the accounting and governance of securitisation activities and retained exposures and carrying value by risk weight band and by geography. Please refer to pages 76 to 83 • EAD for items subject to CCR risk pre and post credit mitigation is disclosed. The products that are covered under CCR include 'repo style' transactions and derivative transactions. Please refer to pages 88 to 97
Loan portfolio	<ul style="list-style-type: none"> • Group overview of the loan portfolio provided by business and by region is on pages 215 and 218. Maturity analysis provided on page 217 	<ul style="list-style-type: none"> • EAD by region, split between IRB and Standardised portfolios page 41 and by industry types on page 43 • Maturity of EAD, split by IRB and Standardised on page 45
Problem credit management and provisioning	<ul style="list-style-type: none"> • Provisioning approach set out on page 180 and definition of non-performing loans on page 450 • Disclosure of loans neither past due nor impaired, loans past due but not impaired, individually impaired loans and portfolio impairment charge by region can be found on page 183 • Disclosures on non-performing loans can be found on page 206 to 211 	<ul style="list-style-type: none"> • Disclosures around the expected loss model used for regulatory purposes and a tabular disclosure showing the regulatory expected loss against the net individual impairment charge. Please refer to page 58
Market risk	<ul style="list-style-type: none"> • Details of the VaR methodology, and VAR (trading and non trading) is disclosed by risk type on pages 234 to 235 • Details on Group Treasury's market risk, including a table showing a parallel shift in the yield curves, on page 246 	<ul style="list-style-type: none"> • Provides details of the internal model approvals, such as the CAD2 granted by the PRA and the extension of the CAD2 scope to include coal market risk. • Market risk capital requirements for the trading book disclosed by risk type on page 85



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