



Abu Dhabi Commercial Bank PJSC
BASEL III – PILLAR III

2019

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1. Summary of differences between Pillar III disclosures and risk review in the audited consolidated financial statements

The details included in this report are from a regulatory perspective on certain aspects of credit, market and operational risk. The quantitative disclosures will not be directly comparable with the risk review in the audited consolidated financial statements, as the former are largely based on the Basel III/II approach rules whereas quantitative risk disclosures in the audited consolidated financial statements are based on International Financial Reporting Standards (IFRS). This is most pronounced for the credit risk disclosures, where credit exposure is defined as the maximum loss the Bank has estimated under specified Basel II rules. This differs from similar information in the audited consolidated financial statements such as the off-balance-sheet exposures which are disclosed pre-credit conversion factors (CCFs).

Topic	Risk review in the audited consolidated financial statements	Pillar III disclosures
Basis of requirements	The Bank's annual report is prepared in accordance with the requirements of IFRS and UAE Federal Law No. 2 of 2015.	The Bank's Pillar III disclosures provide detail on risk from a regulatory perspective as required by the Basel II standardised approach requirements, which have been implemented in the UAE through the Central Bank of the UAE guidelines issued in November 2009. The capital supply is determined based on Basel III requirements, which have been implemented in the UAE through the Central Bank of the UAE guidelines issued in February 2017.
Basis of preparation	The quantitative credit risk disclosures in the risk review section are set out based on IFRS. Loans and advances are analysed net of impairment, interest in suspense and off-balance-sheet exposures are considered at maximum exposure levels. Market risk disclosures are presented using VaR methodology and sensitivity analysis for the trading and non-trading books.	Provides details from a regulatory perspective on credit, market and operational risk. The capital calculation and the disclosures are based on the standardised approach as recommended by the Central Bank of UAE. Loans and advances are analysed gross of impairment and off-balance-sheet exposures are disclosed at post-CCF levels. Market risk and operational risk disclosures are based on the capital required.

2. Summary of cross-references between Pillar III disclosures and risk review in the audited consolidated financial statements

Topic	Risk review in the audited consolidated financial statements	Pillar III disclosures
Credit risk management and measurement and risk-grading	<p>An overview of credit, liquidity and market risk management and measurement along with the quantitative disclosures are set out in Notes 42, 44 and 45 to the audited financial statements respectively.</p> <p>Maximum exposure to credit risk and credit risk concentration are provided in Notes 42.1 and 42.4 to the audited consolidated financial statements.</p> <p>Internal credit risk grading analysis provided by business for loans neither past due nor impaired and available-for-sale investments is provided in Note 42.3 to the audited consolidated financial statements.</p> <p>Note 49 to the audited consolidated financial statements provides the overall capital adequacy of the Bank split into Tier 1 and Tier 2 ratios.</p>	<p>A detailed analysis of credit risk exposure and risk-weighted assets (RWAs) calculated according to the standardised approach is set out in sections 11 and 12 of this report.</p> <p>A more detailed analysis of credit risk exposure pre- and post-credit risk mitigants (CRMs) and after applying credit conversion factors (CCFs) to the off-balance-sheet exposure is disclosed in sections 11 and 12 of this report.</p> <p>Section 12 of this report provides an indicative mapping of the Bank's rated and unrated exposure.</p> <p>Minimum regulatory capital requirements for credit, market and operational risk are set out in section 6 of this report.</p>
Credit risk mitigation	<p>An overview of CRM is provided in Note 42.5 to the audited consolidated financial statements.</p>	<p>Provides description of total CRM held by the Bank and those eligible from a regulatory perspective. This report also provides total exposure post and pre-CRM (eligible under Basel II standardised approach). The eligible collaterals for the Bank's standardised portfolio are also disclosed in section 17 of this report.</p>
Concentration of credit risk	<p>Disclosures on concentration of credit risk by geography, economic and industry sector are provided in Note 42.4 to the audited consolidated financial statements.</p>	<p>Disclosures on concentration of credit risk by currency, geography, residual maturity and economic sector calculated based on the Basel II rules are provided in sections 13, 14, 15 and 16 of this report.</p>
Credit risk management and impairment allowance	<p>Provisioning approach and financial assets by stages with expected credit loss are set out in Note 42.3 to the audited consolidated financial statements.</p>	<p>Disclosures of impaired loans, impairment balance and interest in suspense by geography and economic sector are set out in section 18 of this report. Qualitative and quantitative disclosures as required by paragraph 825 of International Convergence of Capital Measurement and Capital Standards issued by the Basel Committee have been disclosed in Note 42 to the audited consolidated financial statements.</p>
Market risk	<p>A description of market risk management and measurement, along with quantitative disclosures on VaR and sensitivity analysis, is set out in Note 45 to the audited consolidated financial statements.</p>	<p>Sections 19 and 20 of this report provide quantitative disclosures of capital requirements for market risk (including equity risk).</p>
Operational risk	<p>Description of operational risk management is set out in Note 46 to the audited consolidated financial statements.</p>	<p>A detailed description of operational risk including information system and regulatory risk faced by the Bank is set out in section 21.</p>
Key management compensation	<p>Disclosures on remuneration to senior management/key management personnel are set out in our annual report-corporate governance section and Note 36 to the audited consolidated financial statements.</p>	

3. Comparison between the audited consolidated balance sheet and credit risk exposure at default as at 31 December 2019 and 31 December 2018

AED'000										
Assets	Assets per Bank's statement of financial position	Effect of regulatory adjustments*	Assets subject to market risk only	Equity in Banking book	Regulatory balance sheet for credit risk (Gross exposure pre-CCF and - CRM)	Individual impairment and IIS adjustments used in capital calculation	Regulatory balance sheet for credit risk (Net exposure pre-CCF and - CRM)	Recognition of off-balance-sheet and PFE on OTC derivatives	Credit risk mitigants (CRMs)**	Credit risk EAD after all adjustments
2019										
Cash and balances with central banks	24,904,966	247	-	-	24,905,213	-	24,905,213	-	-	24,905,213
Deposits and balances due from banks	23,064,974	49,962	-	-	23,114,936	-	23,114,936	-	-	23,114,936
Reverse-repo placements	-	-	-	-	-	-	-	-	-	-
Trading securities	-	-	-	-	-	-	-	-	-	-
Derivative financial instruments	6,789,717	-	(6,789,717)	-	-	-	16,822,065	(8,511,178)	8,310,888	
Investment securities	73,440,113	-	-	(823,238)	72,616,875	-	72,616,875	-	-	72,616,875
Loans and advances, net	250,017,326	10,048,635	-	-	260,065,961	(5,612,567)	254,453,394	59,861,780	(39,234,141)	275,081,034
Investment in associate	407,768	-	-	-	407,768	-	407,768	-	-	407,768
Investment properties	1,693,707	-	-	-	1,693,707	-	1,693,707	-	-	1,693,707
Other assets	16,750,208	(13,024,961)	-	-	3,725,247	-	3,725,247	-	-	3,725,247
Property and equipment, net	2,197,571	-	-	-	2,197,571	-	2,197,571	-	-	2,197,571
Intangible assets	5,332,497	(5,332,497)	-	-	-	-	-	-	-	-
Asset held for sale	535,830	-	-	-	535,830	-	535,830	-	-	535,830
	405,134,677	(8,258,614)	(6,789,717)	(823,238)	389,263,108	(5,612,567)	383,650,541	76,683,845	(47,745,319)	412,589,068

* Effect of regulatory adjustments include adjustments for impairment, acceptances (treated off-balance-sheet), investment in associates and intangible assets.

** Guarantees amounting to AED 8,631,965 thousand are excluded, as they are used to substitute credit risk weights and are not set off against the exposure value.

AED'000										
Assets	Assets per Bank's statement of financial position	Effect of regulatory adjustments*	Assets subject to market risk only	Equity in Banking book	Regulatory balance sheet for credit risk (Gross exposure pre-CCF and CRM)	Individual impairment and IIS adjustments used in capital calculation	Regulatory balance sheet for credit risk (Net exposure pre-CCF and CRM)	Recognition of off-balance-sheet and PFE on OTC derivatives	Credit risk mitigants (CRMs)**	Credit risk EAD after all adjustments
2018										
Cash and balances with central banks	19,589,957	228	-	-	19,590,185	-	19,590,185	-	-	19,590,185
Deposits and balances due from banks	19,627,076	34,327	-	-	19,661,403	-	19,661,403	-	-	19,661,403
Reverse-repo placements	2,203,800	-	-	-	2,203,800	-	2,203,800	-	-	2,203,800
Trading securities	60,134	-	(60,134)	-	-	-	-	-	-	-
Derivative financial instruments	4,447,247	-	(4,447,247)	-	-	-	12,004,219	(6,825,229)	5,178,990	
Investment securities	52,362,234	-	-	(402,079)	51,960,155	-	51,960,155	-	-	51,960,155
Loans and advances, net	166,425,762	8,342,400	-	-	174,768,162	(4,584,454)	170,183,708	34,083,536	(25,592,313)	178,674,931
Investment in associate	205,158	(205,158)	-	-	-	-	-	-	-	-
Investment properties	576,671	-	-	-	576,671	-	576,671	-	-	576,671
Other assets	13,349,694	(10,008,770)	-	-	3,340,924	-	3,340,924	-	-	3,340,924
Property and equipment, net	982,605	-	-	-	982,605	-	982,605	-	-	982,605
Intangible assets										
	279,830,338	(1,836,973)	(4,507,381)	(402,079)	273,083,905	(4,584,454)	268,499,451	46,087,755	(32,417,542)	282,169,664

* Effect of regulatory adjustments include adjustments for impairment, acceptances (treated off-balance-sheet), investment in associates and intangible assets.

** Guarantees amounting to AED 5,029,912 thousand are excluded, as they are used to substitute credit risk weights and are not set off against the exposure value.

EAD – Exposure at default
 CCF – Credit conversion factor
 CRM – Credit risk mitigants
 OTC – Over the counter
 PFE – Potential future exposure

4. Overview of Basel III/II requirements

The Bank complies with the Basel III framework for capital supply and Basel II standardised approach for capital demand which have been implemented in the UAE through the Central Bank of the UAE guidelines issued in February 2017 and November 2009 respectively. Basel requirements are structured around three ‘pillars’ which are outlined below:

Pillar I deals with maintenance of regulatory capital calculated for three major components of risk that a bank faces: credit risk, market risk and operational risk. Other risks are not considered fully quantifiable at this stage;

Pillar II allows banks and supervisors to take a view on whether the bank should hold additional capital to cover the three Pillar I risk types or to cover other risks. A bank’s own internal models and assessments support this process. The second pillar deals with the regulatory response to the first pillar giving regulators much-improved tools over those available to them under Basel II. It also provides a framework for dealing with all the other risks a bank may face such as systemic risk, concentration risk, strategic risk, reputational risk, liquidity risk and legal risk which the accord combines under the title of residual risk. This risk and capital assessment is commonly referred to as the Internal Capital Adequacy Assessment Process (ICAAP);

Pillar III covers external communication of risk and capital information by banks as specified in the Basel rules. The aim of Pillar III is to provide a consistent and comprehensive disclosure framework by requiring institutions to disclose details on the scope of application, capital, risk exposures, risk assessment processes and capital adequacy of the institution. It must be consistent with how the senior management including the board assess and manage the risks of the institution.

This report should be read in conjunction with the risk disclosures in the ADCB 2019 Annual Report and the audited consolidated financial statements.

Basel II also provides for different approaches to calculating capital requirements.

Standardised approach — under this approach, the assets (including off-balance-sheet post-CCF) are classified into asset types to enable better risk sensitivity. The risk weights used to assess capital requirements against credit exposures are consistent across the industry.

Internal-ratings-based approach (IRB) — under this approach, the risk weights are derived from the Bank’s internal models. The IRB approach is further sub-divided into two alternative applications- Foundation and Advanced:

- ▶ **Foundation IRB (FIRB)** — Under this approach, the banks are allowed to develop their own models to estimate the PD (probability of default) for individual clients or groups of clients and use supervisory values for LGD (loss given default) and EAD (exposure at default) estimates. Banks can use this approach only subject to approval from their local regulators.
- ▶ **Advanced IRB (AIRB)** — under this approach, the banks are allowed to develop their own model to quantify required capital for credit risk. PD, LGD and EAD can be determined using the Bank’s internal models. Banks can use this approach only subject to approval from their local regulators.

5. ADCB’s approach to Pillar I

Credit risk — the Bank uses the Basel II standardised approach for calculating its capital requirements for credit risk. This approach allows the use of external ratings from designated credit-rating agencies wherever available in determining the appropriate risk weights. The risk weights are determined by the asset class and the external rating of the counterparty. The net exposure incorporates off-balance-sheet exposures after applying the credit conversion (CCF) and credit risk mitigation (CRM) factors.

Market risk — for the regulatory market risk capital requirements, the Bank uses the standardised approach.

Operational risk — the Bank uses the standardised approach for computing capital requirements for operational risk.

6. Basel III overview

In December 2010 (revised in June 2011), the Basel Committee on Banking Supervision issued Basel III, a global regulatory framework, to enhance international capital standards. Basel III is designed to materially improve the quality of regulatory capital and introduces a new minimum common equity capital requirement. Basel III also raises the minimum capital requirements and introduces capital conservation and countercyclical buffers to induce banking organisations to hold capital in excess of regulatory minimums.

Based on Basel III global regulatory framework, the Central Bank of UAE has issued/proposed the following regulations:

(a) Minimum capital requirement

In February 2017, the Central Bank of the UAE published enhanced regulatory capital rules vide notifications 52 and 60/2017 which implemented Basel III in the UAE.

To achieve broader macro-prudential goal of protecting the banking sector from the periods of excess aggregate credit growth and in addition to the capital conservation buffer (CCB) requirement, banks may be required to implement the countercyclical buffer (CCyB). Banks must meet CCB and CCyB requirement by using CET1 capital. The level of CCyB requirement will vary between 0% - 2.5% of risk weighted assets and will be

6. Basel III overview (continued)

(a) Minimum capital requirement (continued)

communicated by the Central Bank with adequate notice period. Further, to reduce risks related to the failure of domestic systemically relevant institutions, the Central Bank of the UAE has introduced domestic systemically important banks (D-SIB) buffer. ADCB has been listed as a D-SIB and is required to maintain a D-SIB buffer of 0.5% from 2019. To enable banks to meet the new standards, the notification contains transitional arrangements commencing January 1, 2017 through January 1, 2019. Transitional requirements result in a phase-in of a capital conservation and D-SIB buffers over 3 years. As of January 2019, the banks will be required to meet new minimum requirements related to risk-weighted assets as mentioned below:

Transitional arrangement	2017	2018	2019
CET 1			
- base rate	7.00%	7.00%	7.00%
- capital conservation buffer	1.25%	1.88%	2.50%
- DSIB buffer	0.25%	0.38%	0.50%
CET1 including buffer and surcharge	8.50%	9.25%	10.00%
Tier 1 (CET1+Additional Tier 1)	10.00%	10.75%	11.50%
Minimum capital requirement (CAR)	12.00%	12.75%	13.50%

Further, enhanced regulatory capital rules issued in February 2017 are supported by accompanying standards which were published by the Central Bank on 17 January 2018 in its Circular No. 28/2018 titled "Standard re Capital Supply" and are effective from 31 December 2017. The Accompanying Standards elaborate on the supervisory expectations of the Central Bank, as set out in the February 2017 Regulations, with respect to the relevant Basel III capital adequacy requirements and how they will be applied by the Central Bank to banks in the UAE.

(b) Leverage and liquidity ratios

In addition, Basel III introduced a 3% minimum leverage ratio and two required liquidity ratios. The Liquidity Coverage Ratio requires a bank to hold sufficient high quality liquid assets to cover its total net cash outflows over 30 days; the Net Stable Funding Ratio requires the available amount of stable funding to exceed the required amount of stable funding over a one-year period of extended stress.

In May 2015, the Central Bank of the UAE published "Regulations relating to Liquidity at Banks". Starting on 1 January 2015, minimum liquidity coverage will be 60%. This coverage will increase by 10% each year to reach 100% by 1 January 2019. The NSFR requirement introduced in January 2018 is 100%.

The methodology for estimating the liquidity coverage ratio (LCR) and Net Stable Funding Ratio (NSFR) is based on an interpretation of the Basel standards and includes a number of assumptions that are subject to change.

As at 31 December 2019, ADCB's LCR was 127% and NSFR 104% which are well above BCBS standard requirements.

ADCB monitors its position against LCR and NSFR requirements to ensure the Bank's ability to comply with the standards.

(c) Standards for Standalone Capital Adequacy Ratio

In November 2019, the Central Bank of UAE has issued a consultative draft standards on standalone capital adequacy ratio. Currently in the UAE banks are required to meet prudential capital requirements on a consolidated basis. The Central Bank requires banks to apply prudential requirements beneath the consolidated level on a solo basis. Solo basis involves applying prudential standards to individual operating bank legal entities within a group, as if those bank legal entities were separate standalone entities.

A preliminary assessment of standalone capital adequacy has been conducted and the Bank meets the minimum capital requirements.

(d) Revised Standards on Capital Adequacy

On 7 January 2020, the Central Bank issued "Standards re Capital Adequacy in the UAE" ("the Standards") under Notice No. CBUAE/BSN/2020/66 effective from 30 June 2020. The Central Bank has also updated the 'Guidance re Capital Adequacy in the UAE'.

These Standards apply to all banks. Banks must ensure that these Standards are adhered to on a consolidated basis. The group level capital adequacy ratio requirements must measure the capital adequacy of a bank based on its capital strength and risk profile after regulatory consolidation of assets and liabilities of its subsidiaries.

The solo-level capital adequacy ratio requirements, which measure the capital adequacy of an individual bank based on its stand-alone capital strength, will be issued at a later stage.

The Standards primarily consolidates the Capital Supply Standards issued in 2017 and introduces changes in certain risk weights. The Standards also provide clarifications and interpretation on various subjects.

6. Basel III overview (continued)

(d) Revised Standards on Capital Adequacy (continued)

The Standards also provides regulations and guidance on leverage ratio requirements. The central Bank of UAE has decided that the banks in UAE must maintain a minimum of 3% leverage ratio and designated D-SIB banks must maintain 3.5% leverage ratio.

(e) Revised Standards for Pillar – III disclosures

Revised Standards also include enhanced Pillar – III disclosure requirements. Pillar – III disclosure requirements apply at consolidated level for local banks and all branches of foreign banks operating in UAE. These disclosures complements other disclosure requirements issued separately by Central Bank. The objective of the revised disclosures is to improve the comparability and consistency of disclosures across the banks. The disclosure requirements will be effective from second quarter of financial year 2020.

Based on preliminary assessments conducted by the Bank, the current or proposed revisions will not have a material impact on the Bank.

Impact on ADCB

The UAE Central Bank has set a total capital adequacy ratio of 13.50% and Tier 1 ratio of 11.50% (including CCB and D-SIB buffers) for the year 2019. At the end of 2019, ADCB met the minimum requirements with a total capital ratio of 16.89% and Tier 1 ratio of 15.38%, adjusted for proposed dividend the total capital ratio is 16.07% and Tier-1 ratio is 14.57%. Additionally, the composition of the Bank's capital is of high-quality equity base with lesser reliance on Tier 2 capital supply (i.e. hybrid instruments).

ADCB monitors its position against the capital adequacy requirements to ensure the Bank's ability to comply with the regulatory guidelines.

Basis of consolidation

On May 1, 2019, Union National Bank PJSC (or "UNB") merged with Abu Dhabi Commercial Bank PJSC in a stock transaction. The merged entity subsequently completed 100% acquisition of Al Hilal Bank PJSC (or "AHB"). The Bank's Pillar III disclosures are presented on a consolidated basis incorporating all its subsidiaries and excluding commercial entities for the year ended 31 December 2019.

In accordance with paragraph 825 of International Convergence of Capital Measurement and Capital Standards issued by the Basel Committee, general disclosures of credit risk provided in this report have a wide range of information about overall credit exposure and may not be necessarily based on information prepared for regulatory purposes.

7. Verification

The Pillar III disclosures for the year ended 31 December 2019 have been appropriately verified internally, but are not subject to audit by the Bank's external auditor.

8. Ownership

The Government of Abu Dhabi indirectly owns 60.20% of the Bank's issued share capital via the Abu Dhabi Investment Council. ADCB enjoys strong government support as evidenced by historical capital, liquidity and strategic support by its de-facto owners. As at 31 December 2019, seven out of eleven Board members including the Chairman were nominated by the Abu Dhabi Investment Council.

9. Capital adequacy and capital management

The allocation of capital between specific operations and activities is to a large extent driven by optimisation of the return achieved on the capital allocated. The amount of capital allocated to each operation or activity is based primarily upon the regulatory capital but in some cases the regulatory requirements do not reflect fully the varying degree of risk associated with different activities. In such cases, the capital requirements may be flexed to reflect differing risk profiles, subject to the overall level of capital to support a particular operation or activity not falling below the minimum required for regulatory purposes.

	2019			2018			AED '000
	RWA*	Capital charge (pre-dividend)**	Capital charge (Post-dividend)**	RWA*	Capital charge (pre-dividend)**	Capital charge (Post-dividend)**	
Capital requirements							
1 Credit risk							
Standardised approach	291,992,334	39,418,965	39,418,965	188,748,218	24,065,398	24,065,398	
2 Market risk							
Standardised approach	8,170,213	1,102,979	1,102,979	8,396,389	1,070,540	1,070,540	
3 Operational risk							
Standardised approach	24,027,523	3,243,716	3,243,716	15,262,739	1,945,999	1,945,999	
Total capital requirement	324,190,070	43,765,660	43,765,660	212,407,346	27,081,937	27,081,937	
Capital ratios:							
Total for the Bank (Capital Adequacy Ratio)		16.89%	16.07%		17.26%	16.14%	
Common Equity Tier 1 (CET 1)		13.53%	12.72%		13.40%	12.28%	
Tier I		15.38%	14.57%		15.28%	14.16%	
Tier II		1.51%	1.50%		1.98%	1.98%	

* Includes Equity RWA

** Capital charge including buffer requirements (2019 - 13.50% and 2018 - 12.75%)

Qualitative and quantitative disclosures on capital structure as required by paragraph 822 of the International Convergence of Capital Measurement and Capital Standards, issued by the Basel Committee, have been disclosed in Note 49 to the audited consolidated financial statements.

10 Qualitative risk disclosures

For each separate risk area (credit, market, operational and equity risk) banks are required to describe their risk management objectives and policies, which primarily include strategies, processes, organisation framework, reporting and measurement systems. These disclosures are discussed and are set out in the "Risk Management" section of the ADCB 2019 Annual Report and Notes 41–46 of the audited consolidated financial statements. Also, refer to section 2 of this report for cross-referencing information.

11 Gross and net credit risk exposure by asset class — Standardised Approach

Asset class	Gross exposure		EAD post CCF	EAD post CCF & CRM			AED'000
	On-balance sheet	Off-balance sheet (post	Gross exposure (on- & off- balance-sheet post CCF)	Exposure pre-CRM (net of specific provision and IIS)	Credit risk mitigation (CRM)*	Net exposure post-CCF, - CRM and other adjustments	CRWA
							Credit risk-weighted assets
2019							
Claims on sovereigns	87,435,822	1,230,003	88,665,825	88,665,825	6,408,292	88,106,706	12,476,256
Claims on non-commercial public sector enterprises (PSEs)	3,834,032	1,084,704	4,918,736	4,918,736	55	4,918,681	-
Claims on multilateral development banks	611,118	-	611,118	611,118	-	611,118	-
Claims on financial institutions**	52,811,202	19,945,700	72,756,902	72,383,279	17,385,684	56,195,759	35,127,603
Claims on government-related entities (GREs)	43,365,260	1,979,791	45,345,052	45,345,052	2,137,128	43,414,846	37,281,665
Claims on Corporate	60,888,209	47,931,187	108,819,396	108,813,033	22,100,765	87,542,642	87,537,505
Claims included in the regulatory retail portfolio	52,959,639	1,938,500	54,898,139	54,852,625	6,177,434	48,994,616	40,014,438
Claims secured by residential property	9,814,658	99,359	9,914,017	9,913,137	15,504	9,897,632	4,544,630
Claims secured by commercial real estate	58,218,299	2,045,755	60,264,054	60,031,622	1,560,492	58,662,131	58,571,246
Past due loans	12,800,513	428,845	13,229,358	8,275,604	591,929	7,720,582	8,713,335
Other assets	6,524,356	-	6,524,356	6,524,356	-	6,524,356	6,792,228
Total Credit Risk	389,263,108	76,683,845	465,946,953	460,334,386	56,377,283	412,589,068	291,058,906
2018							
Claims on sovereigns	68,061,812	531,134	68,592,946	68,592,946	3,771,132	68,567,835	8,352,501
Claims on non-commercial public sector enterprises (PSEs)	912,013	734,057	1,646,070	1,646,070	-	1,646,172	-
Claims on multilateral development banks	336,394	326	336,720	336,720	-	336,720	-
Claims on financial institutions**	44,233,301	13,544,566	57,777,868	57,283,890	12,497,126	45,245,369	27,981,194
Claims on government-related entities (GREs)	30,023,109	4,331,805	34,354,914	34,354,914	979,229	33,965,765	29,650,377
Claims on Corporate	38,992,506	25,284,627	64,277,133	64,224,861	15,300,248	49,125,718	48,664,545
Claims included in the regulatory retail portfolio	28,655,750	1,583,800	30,239,550	30,166,066	3,614,010	26,552,056	21,052,986
Claims secured by residential property	7,486,002	77,429	7,563,431	7,536,782	1,844	7,534,938	3,136,408
Claims secured by commercial real estate	45,052,849	10	45,052,859	44,921,581	1,283,865	43,671,715	43,654,715
Past due loans	5,481,628	-	5,481,628	1,674,835	-	1,674,835	1,803,595
Other assets	3,848,541	-	3,848,541	3,848,541	-	3,848,541	3,848,541
Total Credit Risk	273,083,905	46,087,755	319,171,660	314,587,206	37,447,454	282,169,664	188,144,862

*Eligible guarantees used to substitute credit risk weights are included in CRM.

**Claims on financial institutions include exposure to all credit institutions, investment firms and finance companies.

12 Gross and net credit risk exposure by externally rated/unrated — Standardised Approach

Asset class	Gross exposure		EAD post CCF	EAD post CCF & CRM			AED'000
	Rated	Unrated	Gross exposure (on- & off- balance-sheet post CCF)	Exposure pre-CRM (net of specific provision and IIS)	Credit risk mitigation (CRM)*	Net exposure post-CCF, - CRM and other adjustments	Credit risk-weighted assets
2019							
Claims on sovereigns **	88,665,825	-	88,665,825	88,665,825	6,408,292	88,106,706	12,476,256
Claims on non-commercial public sector enterprises (PSEs)	4,918,736	-	4,918,736	4,918,736	55	4,918,681	-
Claims on multilateral development banks	611,118	-	611,118	611,118	-	611,118	-
Claims on financial institutions***	55,883,155	16,873,747	72,756,902	72,383,279	17,385,684	56,195,759	35,127,603
Claims on government-related entities (GREs)	14,549,360	30,795,692	45,345,052	45,345,052	2,137,128	43,414,846	37,281,665
Claims on Corporate	20,730,422	88,088,974	108,819,396	108,813,033	22,100,765	87,542,642	87,537,505
Claims included in the regulatory retail portfolio	-	54,898,139	54,898,139	54,852,625	6,177,434	48,994,616	40,014,438
Claims secured by residential property	-	9,914,017	9,914,017	9,913,137	15,504	9,897,632	4,544,630
Claims secured by commercial real estate	-	60,264,054	60,264,054	60,031,622	1,560,492	58,662,131	58,571,246
Past due loans	-	13,229,358	13,229,358	8,275,604	591,929	7,720,582	8,713,335
Other assets	-	6,524,356	6,524,356	6,524,356	-	6,524,356	6,792,228
Total Credit Risk	185,358,616	280,588,337	465,946,953	460,334,386	56,377,283	412,589,068	291,058,906
2018							
Claims on sovereigns **	68,592,946	-	68,592,946	68,592,945	3,771,132	68,567,835	8,352,501
Claims on non-commercial public sector enterprises (PSEs)	1,646,070	-	1,646,070	1,646,070	-	1,646,172	-
Claims on multilateral development banks	336,720	-	336,720	336,720	-	336,720	-
Claims on financial institutions***	44,351,142	13,426,726	57,777,868	57,283,890	12,497,126	45,245,369	27,981,194
Claims on government-related entities (GREs)	14,532,148	19,822,766	34,354,914	34,354,915	979,229	33,965,765	29,650,377
Claims on Corporate	9,817,049	54,460,084	64,277,133	64,224,861	15,300,248	49,125,718	48,664,545
Claims included in the regulatory retail portfolio	-	30,239,550	30,239,550	30,166,066	3,614,010	26,552,056	21,052,986
Claims secured by residential property	-	7,563,431	7,563,431	7,536,782	1,844	7,534,938	3,136,408
Claims secured by commercial real estate	-	45,052,859	45,052,859	44,921,581	1,283,865	43,671,715	43,654,715
Past due loans	-	5,481,628	5,481,628	1,674,835	-	1,674,835	1,803,595
Other assets	-	3,848,541	3,848,541	3,848,541	-	3,848,541	3,848,541
Total Credit Risk	139,276,075	179,895,585	319,171,660	314,587,206	37,447,454	282,169,664	188,144,862

*Eligible guarantees used to substitute credit risk weights are included in CRM.

**UAE sovereign bonds with internal rating that are comparable to external ratings of AA are included in claims on sovereigns

***Claims on financial institutions include exposure to all credit institutions, investment firms and finance companies.

13. Gross credit risk by currency

	AED'000								
	Loans	Investment securities	Other assets	Total funded	Commitments (post-CCF)	OTC derivatives	Other off-balance sheet exposures (post-CCF)	Total non-funded	Total
2019									
AED	207,424,521	-	44,488,087	251,912,609	5,394,026	3,175,416	24,405,727	32,975,169	284,887,778
USD	50,155,909	62,697,928	19,776,806	132,630,643	3,913,481	10,125,909	19,837,885	33,877,275	166,507,918
EUR	1,193,084	6,070,188	264,916	7,528,188	-	360,751	1,436,022	1,796,773	9,324,961
CHF	-	-	10,423	10,423	-	-	15,230	15,230	25,653
GBP	8	-	683,772	683,779	-	156,731	96,898	253,629	937,408
MYR	-	-	-	-	-	3,003,259	-	3,003,259	3,003,259
Other	1,292,439	3,848,759	4,082,497	9,223,695	176,889	-	4,585,621	4,762,510	13,986,205
Less: Acceptances	-	-	(12,726,229)	(12,726,229)	-	-	-	-	(12,726,229)
Total	260,065,961	72,616,875	56,580,272	389,263,108	9,484,396	16,822,066	50,377,383	76,683,845	465,946,953
2018									
AED	145,429,675	-	19,181,055	164,610,730	4,922,662	2,246,742	9,364,207	16,533,611	181,144,341
USD	28,513,778	44,892,995	34,825,343	108,232,116	2,054,948	7,015,732	14,782,682	23,853,362	132,085,478
EUR	244,732	5,404,145	1,430,031	7,078,908	-	445,778	645,197	1,090,975	8,169,883
CHF	-	-	22,891	22,891	-	80,204	12,724	92,928	115,819
GBP	-	-	568,011	568,011	-	37,017	91,724	128,741	696,752
MYR	-	-	-	-	-	-	-	-	-
Other	579,977	1,663,015	859,304	3,102,296	-	2,179,247	2,208,891	4,388,138	7,490,434
Less: Acceptances	-	-	(10,531,047)	(10,531,047)	-	-	-	-	(10,531,047)
Total	174,768,162	51,960,155	46,355,588	273,083,905	6,977,610	12,004,720	27,105,424	46,087,755	319,171,660

14. Gross credit risk by geography

	AED'000								
	Loans	Investment securities	Other assets	Total funded	Commitments (post-CCF)	OTC derivatives	Other off-balance sheet exposures (post-CCF)	Total non-funded	Total
2019									
Domestic (UAE)	246,000,769	33,894,947	44,792,718	324,688,434	8,846,265	6,197,162	40,337,913	55,381,340	380,069,774
Other GCC countries	4,448,168	19,170,346	2,500,639	26,119,153	612,920	189,153	1,443,519	2,245,592	28,364,745
Other Arab countries	1,981,829	2,914,352	2,679,718	7,575,898	-	-	411,306	411,306	7,987,204
Asia	1,865,406	9,210,571	9,176,642	20,252,619	5,391	32,659	4,577,264	4,615,314	24,867,933
Europe	492,784	3,689,693	7,569,752	11,752,229	19,820	10,093,040	2,989,901	13,102,761	24,854,990
USA	130,939	1,067,911	71,269	1,270,120	-	1,579	422,264	423,843	1,693,963
Rest of the world	5,146,066	2,669,055	2,515,763	10,330,884	-	308,473	195,216	503,689	10,834,573
Less: Acceptances	-	-	(12,726,229)	(12,726,229)	-	-	-	-	(12,726,229)
Total	260,065,961	72,616,875	56,580,272	389,263,108	9,484,396	16,822,066	50,377,383	76,683,845	465,946,953
2018									
Domestic (UAE)	165,138,363	23,193,284	39,119,517	227,451,164	6,447,124	4,578,640	19,189,040	30,214,803	257,665,967
Other GCC countries	3,505,739	11,047,497	2,020,565	16,573,801	527,173	206,017	640,461	1,373,651	17,947,452
Other Arab countries	1,113,391	234,475	387,204	1,735,070	-	19,933	49,931	69,864	1,804,934
Asia	2,488,948	9,023,304	5,519,484	17,031,736	1,556	113,198	3,174,760	3,289,515	20,321,251
Europe	410,908	2,963,169	5,792,661	9,166,738	-	6,889,638	1,589,547	8,479,185	17,645,923
USA	88,384	4,373,178	2,483,568	6,945,130	1,757	2,746	2,377,538	2,382,041	9,327,171
Rest of the world	2,022,429	1,125,248	1,563,636	4,711,313	-	194,548	84,148	278,696	4,990,009
Less: Acceptances	-	-	(10,531,047)	(10,531,047)	-	-	-	-	(10,531,047)
Total	174,768,162	51,960,155	46,355,588	273,083,905	6,977,610	12,004,720	27,105,425	46,087,755	319,171,660

15. Gross credit risk by residual maturity

	AED'000								
	Loans	Investment securities	Other assets	Total funded	Commitments (post-CCF)	OTC derivatives	Other off-balance sheet exposures (post-CCF)	Total non-funded	Total
2019									
Less than 3 months	54,005,109	5,788,373	43,817,564	103,611,046	612,059	1,988,917	4,842,042	7,443,018	111,054,064
3 months to less than 6 months	5,191,108	4,270,039	6,944,157	16,405,304	277,773	748,348	4,066,529	5,092,651	21,497,955
6 months to less than 1 year	7,122,147	8,786,912	12,596,835	28,505,894	784,519	1,000,526	12,626,869	14,411,914	42,917,808
1 year to 3 years	45,665,622	23,997,210	1,601,789	71,264,621	6,081,868	4,638,632	17,451,743	28,172,243	99,436,864
Over 3 years	148,081,975	29,774,341	4,346,156	182,202,471	1,728,177	8,445,643	11,390,200	21,564,019	203,766,490
Less: Acceptances	-	-	(12,726,229)	(12,726,229)	-	-	-	-	(12,726,229)
Total	260,065,961	72,616,875	56,580,272	389,263,108	9,484,396	16,822,066	50,377,383	76,683,845	465,946,953
2018									
Less than 3 months	31,867,797	6,246,853	38,090,675	76,205,325	275,314	2,090,569	5,522,276	7,888,159	84,093,484
3 months to less than 6 months	2,576,571	1,915,841	6,060,134	10,552,546	1,478,330	776,529	1,799,621	4,054,480	14,607,026
6 months to less than 1 year	1,914,533	2,129,551	8,947,533	12,991,617	853,934	453,165	8,371,736	9,678,835	22,670,452
1 year to 3 years	28,000,210	20,644,319	2,242,159	50,886,688	3,349,099	2,953,244	10,787,171	17,089,514	67,976,202
Over 3 years	110,409,051	21,023,591	1,546,134	132,978,776	1,020,933	5,731,213	624,621	7,376,767	140,355,543
Less: Acceptances	-	-	(10,531,047)	(10,531,047)	-	-	-	-	(10,531,047)
Total	174,768,162	51,960,155	46,355,588	273,083,905	6,977,610	12,004,720	27,105,425	46,087,755	319,171,660

16. Gross credit risk by economic sector

	AED'000								
	Loans	Investment securities	Other assets	Total funded	Commitments (post-CCF)	OTC derivatives	Other off-balance sheet exposures (post-CCF)	Total non-funded	Total
2019									
Agriculture	255,502	-	-	255,502	-	-	54,770	54,770	310,272
Energy	3,483,432	105,524	-	3,588,956	810,730	298,770	609,007	1,718,507	5,307,463
Trading	10,410,715	321,668	-	10,732,383	645,482	260,075	11,539,658	12,445,215	23,177,598
Real estate	71,574,703	758,722	1,693,707	74,027,132	3,840,356	478,440	14,125,930	18,444,725	92,471,857
Hospitality	11,380,403	-	-	11,380,403	468,684	-	113,326	582,010	11,962,413
Transport	4,691,094	-	-	4,691,094	877,983	462,193	1,388,914	2,729,089	7,420,183
Personal	63,037,843	-	-	63,037,843	489,656	664,524	772,424	1,926,604	64,964,447
Government & public sector entities	51,521,902	57,959,209	24,905,213	134,386,324	976,370	552,448	1,493,555	3,022,373	137,408,697
Financial institutions*	18,402,157	12,579,509	23,114,936	54,096,602	343,857	12,017,064	6,720,719	19,081,640	73,178,242
Manufacturing	7,257,578	405,530	-	7,663,108	638,298	25,495	1,019,195	1,682,987	9,346,095
Services	5,725,433	83,614	-	5,809,047	18,839	1,784,057	1,548,621	3,351,518	9,160,565
Others	9,609,974	403,100	19,592,645	29,605,718	374,141	279,001	10,991,264	11,644,406	41,250,125
Add: Interest in suspense	2,715,225	-	-	2,715,225	-	-	-	-	2,715,225
Less: Acceptances	-	-	(12,726,229)	(12,726,229)	-	-	-	-	(12,726,229)
Total	260,065,961	72,616,875	56,580,272	389,263,108	9,484,396	16,822,066	50,377,383	76,683,845	465,946,953
2018									
Agriculture	206,858	-	-	206,858	-	-	29,404	29,404	236,262
Energy	1,619,507	122,932	-	1,742,439	590,400	21,992	426,953	1,039,345	2,781,784
Trading	5,908,643	181,461	-	6,090,104	576,077	105,796	9,944,641	10,626,514	16,716,618
Real estate	58,821,674	311,358	576,671	59,709,703	2,596,445	201,484	8,420,712	11,667,837	80,068,540
Hospitality	8,691,000	-	-	8,691,000	368,422	-	80,774	-	9,059,196
Transport	2,461,154	41,440	-	2,502,594	440,921	551,752	1,020,838	2,013,511	4,516,105
Personal	36,693,859	-	-	36,693,859	747,592	538,235	342,948	1,628,775	38,322,634
Government & public sector entities	35,349,135	42,441,814	19,590,185	97,381,134	798,872	85,840	253,911	1,138,623	98,519,757
Financial institutions*	14,434,947	8,467,522	21,865,204	44,767,673	438,215	9,715,231	3,694,080	13,847,526	58,615,199
Manufacturing	4,824,914	260,977	-	5,085,891	30,706	339,062	2,132,979	2,502,747	7,588,638
Services	3,426,233	111,588	-	3,537,821	112,168	131,119	694,554	937,841	4,475,662
Others	714,710	21,063	14,854,575	15,590,348	277,792	314,209	63,631	655,632	16,245,980
Add: Interest in suspense	1,615,528	-	-	1,615,528	-	-	-	-	1,615,528
Less: Acceptances	-	-	(10,531,047)	(10,531,047)	-	-	-	-	(10,531,047)
Total	174,768,162	51,960,155	46,355,588	273,083,905	6,977,610	12,004,720	27,105,425	46,087,755	319,171,660

*During the year, loans and advances to banks have been reclassified to "Deposits and balances due from banks" (other assets) to better reflect the underlying nature of the business of the borrowers.

17. Credit risk and risk measurement and mitigation policies

Loans and advances and commitments to customers, investment in bonds and derivatives are the main sources of credit risk for the Bank. The Bank's risk management policies and processes are designed to identify, analyse and measure risk, to set appropriate risk appetite, limits and controls, and to monitor the risks and adherence to limits by means of reliable and timely data review. The Bank assesses the probability of default of each counterparty using internal rating tools tailored for various categories of counterparties. Exposure to credit risk is also managed through regular analysis of the ability of borrowers and potential borrowers to meet interest and capital repayment obligations and by changing these lending limits or taking pre-emptive action through additional collateral/margin calls, structural enhancements etc., where appropriate.

The Credit Risk Management Group has policies and procedures in place setting out the circumstances where acceptable and appropriate collateral is to be secured to mitigate credit risk, including valuation parameters, review frequency and independence of valuation. The acceptable collateral types are set out in the credit policy of the Bank, which is approved by the BRCC. The type, liquidity and realisation costs on collateral held are key determinants of the LGD percentage that is assigned to a credit risk exposure. The Bank primarily has the following categories of collateral:

Loans and advances

(a) Real estate collateral — The Bank accepts real estate collateral (residential, commercial and mixed use) to either back corporate exposures or as income-producing real estate as the repayment source for the facility. Both of these segments are treated separately and governed by separate policies. In all cases, real estate collaterals are subject to regular re-evaluation by Bank-approved valuers and mortgage registration with the appropriate regulatory authorities. In lending new facilities, the Bank has a policy to obtain multiple valuations (based on the facility size) to ensure conservatism in determining Loan to Value (LTV) ratio. As at 31 December 2019, the Bank had total mortgage collateral of AED 154,206 mn (includes assignment over leasehold properties and selected secondary mortgages of AED 5,950 mn) (2018: AED 115,855mn) almost all of it in the UAE and over 50% in Abu Dhabi with the rest across other Emirates.

b) Financial instruments collateral — Only publicly listed company shares are accepted as collateral for corporate and high-net-worth individual facilities. There is a process to evaluate mark to market on a daily basis and this affects the drawing power against these facilities. All share and bond collaterals are pledged either at the market or at the broker level. These would also include a small amount of mutual funds. As at 31 December 2019, the Bank had total share collateral of AED 42,970 mn (2018: AED 29,591mn), predominantly listed on the Abu Dhabi Stock Exchange.

c) Cash collateral — The Bank also takes cash collateral primarily from commercial banking and mid-corporate customers and as

trade margins for trade finance transactions. As at 31 December 2019, the Bank had AED 23,448 mn in cash and near-cash collaterals (2018: AED 13,373 mn).

d) Guarantees from highly rated banks, corporates and government entities — In addition to collaterals, the Bank regularly accepts guarantees from highly rated corporates, banks and government entities and transfers the risk of the exposure to the better-rated entities. Almost all company loans have the corporate guarantee of the parent. Most of our guarantees are executed using the Bank's standard legal documentation to ensure they are unconditional guarantees to qualify as credit risk mitigants. As at 31 December 2019, the guarantee accepted by the Bank amounted to AED 8,632 mn (2018: AED 5,029 mn).

(e) Charge over company's assets, including stock debtors and work in progress — The Bank regularly obtains the company's assets inventory and stock debtors as collateral whilst extending working capital facilities to them.

(f) Charge over assets being financed (e.g. vehicles, equipment) — For asset-backed financing, the asset being financed is usually secured as a collateral. The total value of such collateral was AED 17,905 mn as at 31 December 2019 (2018: AED 14,426 mn).

Treasury products

The Bank has counterparty limits in place to mitigate its credit exposure for Treasury products and in the process enters into master netting arrangements with counterparties with which it undertakes a significant volume of transactions. Counterparty risk is reduced by a master netting arrangement to the extent that if an event of default occurs, all amounts with the counterparty are terminated and settled on a net basis. The Bank mitigates its counterparty credit risk exposure from dealing in global markets products through the use of Credit Support Annexes (CSAs). CSAs require the counterparty (or the Group) to post collateral when mark-to-market positions exceed threshold and minimum transfer amounts. Most of our Treasury counterparties are covered by International Swaps and Derivatives Association (ISDA) and/or CSA. There is a regular mark-to-market process and all valuation methodologies are approved by the Market Risk department. As at 31 December 2019, the Bank held AED 849 mn and posted AED 3,214 mn of collaterals for CSA purposes. In general, the Bank does not use credit derivatives or credit default swaps as a credit risk mitigant.

As per the Basel II standardised approach the following CRMs are considered eligible for capital calculation purposes:

- ▶ Netting — applicable only with legally enforceable netting agreements in place. However, to use this mitigant, the ability to systematically calculate net exposure must be demonstrated.
- ▶ Collateral — either the simple or comprehensive approaches may be applied. ADCB uses the comprehensive approach.
- ▶ Guarantees and credit derivatives — these mitigants can be used provided they are direct, explicit, irrevocable and unconditional.

The Central Bank of the UAE must be satisfied that the Bank has suitable risk management tools in place to adopt the use of such mitigants.

17. Credit risk and risk measurement and mitigation policies (continued)

Eligible credit risk mitigants and RWA relief

	AED'000	
	2019	2018
RWA pre-CRM*	339,984,981	220,020,216
RWA relief:		
On-balance-sheet netting	(3,918,591)	(3,518,594)
Eligible financial collateral (cash and securities)	(37,788,941)	(23,994,330)
Guarantees (credit substitution)	(7,218,542)	(4,362,431)
Net exposures after credit risk mitigation	291,058,906	188,144,861

* Excludes RWA on equity exposure

Eligible credit risk mitigants used in capital calculation

	AED'000	
Type of credit risk mitigants*	2019	2018
Exposure reduction:		
Cash	20,638,778	11,717,258
Other eligible financial collateral (main index shares and bonds)	18,595,362	13,875,055
Netting agreements	8,511,178	6,825,229
Total exposure reduction	47,745,318	32,417,542
Credit substitution:		
Guarantees	8,631,965	5,029,912
Total eligible credit risk mitigants	56,377,282	37,447,454

* To the extent utilised in capital calculation

18. Impairment analysis

Portfolio monitoring and identifying credit risk and impairment

Credit Risk Management monitors the portfolio through system-generated MIS and periodic reviews giving due consideration to industry and general economic trends, market feedback and media reports. Movement of the individual and collective impairment allowance on loans and advances was as follows:

	AED'000	
	2019	2018
Opening balance of impairment allowance	7,308,843	6,090,677
Effect of change in accounting policy for IFRS 9	-	1,510,228
	7,308,843	7,600,905
Charge for the year		-
Additions on business combination	630,827	
IFRS 9 charge for the period (all stages)	2,623,268	1,483,876
a. Individual impairment		-
b. Collective impairment		-
Less: Write-off of impaired loans to income statement	(1,690,107)	(1,538,469)
Less: Recovery of loan loss provisions	(234,525)	(218,089)
Less: Discount unwind/currency translation	-	(19,380)
Closing balance of impairment allowance*	8,638,306	7,308,843

Note: Refer to Audited Financial Statements 2019 for full disclosures on impairment provisions (IFRS 9)

18. Impairment analysis (continued)

Portfolio monitoring and identifying credit risk and impairment

Impaired loans by geography

	Overdue (gross of interest in suspense & individual impairment)			Impairment allowance as at 31 December	Interest in suspense	Total impaired assets (net of interest in suspense & individual impairment)
	90 days and above	Individual	Collective*			
2019*						
Domestic (UAE)	10,658,761	3,468,637	-	2,496,504	4,693,620	
Other GCC countries	255,710	45,602	-	176,231	33,878	
Other Arab countries	132,025	39,104	-	3,067	89,854	
Asia	270,380	99,139	-	34,889	136,353	
Europe	114,146	54,818	-	4,510	54,817	
Rest of the world	197	156	-	24	17	
Total	11,431,219	3,707,456	4,930,849	2,715,225	5,008,538	
2018*						
Domestic (UAE)	6,518,705	2,826,400	-	1,469,127	2,223,178	
Other GCC countries	301,576	96,332	-	146,306	58,938	
Other Arab countries	1	-	-	1	-	
Asia	21,034	13,237	-	77	7,720	
Europe	9	-	-	9	-	
Rest of the world	9	1	-	8	-	
Total	6,841,334	2,935,970	4,372,873	1,615,528	2,289,836	

* Includes impairment allowance for banks, central bank balances, investments, other assets, letter of credit, guarantees and other commitments

18. Impairment analysis (continued)

Impaired loans by economic sector

				AED'000	
	Overdue (gross of interest in suspense & individual impairment)	Impairment allowance as at 31 December		Interest in suspense	Total impaired assets (net of interest in suspense & individual impairment)
	90 days and above	Individual	Collective*		
2019*					
Agriculture	338,551	104,585	-	140,530	93,437
Energy	325	194	-	38	92
Trading	381,408	106,005	-	167,976	107,427
Real estate & hospitality	5,614,694	1,454,261	-	1,179,925	2,980,508
Transport	680,485	467,435	-	102,404	110,646
Personal	2,829,848	963,720	-	737,848	1,128,280
Government & public sector entities	737	11	-	726	-
Financial institutions	627,547	225,746	-	235,435	166,366
Manufacturing	682,649	270,151	-	62,438	350,060
Services	162,351	74,926	-	30,613	56,812
Others	112,625	40,424	-	57,291	14,910
Total	11,431,219	3,707,456	4,930,849	2,715,225	5,008,538
2018*					
Agriculture	316,429	106,126	-	116,951	93,352
Energy	22,381	22,341	-	14	26
Trading	304,728	209,993	-	72,865	21,870
Real estate & hospitality	3,026,293	1,156,497	-	628,246	1,241,550
Transport	311,558	171,212	-	76,814	63,532
Personal	1,837,708	818,015	-	500,173	519,520
Government & public sector entities	-	-	-	-	-
Financial institutions	533,024	171,455	-	169,127	192,442
Manufacturing	439,076	247,856	-	42,160	149,060
Services	46,139	29,862	-	8,186	8,091
Others	3,998	2,611	-	991	395
Total	6,841,334	2,935,970	4,372,873	1,615,528	2,289,836

* Includes impairment allowance for banks, central bank balances, investments, other assets, letter of credit, guarantees and other commitments

19. Market Risk

Capital calculation

Capital is allocated in respect of market risk under the general guide-lines and framework set out under Basel II Section VI, Market Risk, which defines this risk as the risk of losses in on- and off-balance-sheet positions arising from movements in market prices.

The market risks subject to a capital charge are as follows:

- ▶ interest rate risk;
- ▶ foreign exchange risk;
- ▶ equity exposure risk;
- ▶ commodity risk; and
- ▶ options risk.

Capital requirement for market risk under standardised approach

	AED'000	
	2019	2018
Interest rate risk	919,567	743,350
Equity position risk	-	-
Foreign exchange risk	136,567	32,376
Commodity risk	346	78,387
Options risk	46,499	216,426
Total Capital Requirement	1,102,979	1,070,539

	2019		2018	
	Risk-weighted	Capital requirements	Risk-weighted	Capital requirements
Interest rate risk — trading book				
Specific risk	-	-	7,517	958
General risk — maturity-based	6,811,604	919,567	5,822,680	742,392
General risk — duration-based	-	-	-	-
Foreign exchange risk	1,011,607	136,567	253,931	32,376
Equity exposure risk- trading book				
General risk	-	-	-	-
Specific risk	-	-	-	-
Commodity risk- trading book	2,563	346	614,799	78,387
Options risk				
Simplified approach	-	-	-	-
Intermediate approach	344,438	46,499	1,697,462	216,426
Total market risk capital charge	8,170,213	1,102,979	8,396,389	1,070,539

Note : Capital requirements calculated based on minimum CAR ratio for 2019 (including buffers)

20. Equity position in banking book

	2019		2018	
	Publicly traded/quoted	Privately held/unquote	Publicly traded/quoted	Privately held/unquoted
Equities	602,860	220,378	150,236	251,843
Collective investment schemes	-	-	-	-
Any other investments	-	-	-	-
Total equity position	602,860	220,378	150,236	251,843

Realised, unrealised and latent revaluation gains (losses) during the year	AED'000	
	2019	2018
Realised gains (losses) from sales and liquidations	23,853	1,588
Unrealised gains (losses) recognised in the balance sheet but not through profit and loss account	(50,616)	(107,938)
Latent revaluation gains (losses) for investment recorded at cost but not recognised in balance sheet or profit or loss account	-	-
Total	(26,763)	(106,350)

Items in table above included in Tier 1/Tier 2 capital	AED'000	
	2019	2018
Amount included in Tier 1 capital	(50,616)	(106,350)
Amount included in Tier 2 capital	-	-
Total	(50,616)	(106,350)
Capital requirements by Equity Groupings		
Strategic investments	-	-
Fair value through other comprehensive income (FVOCI)	126,013	67,320
Held-for-trading	-	-
Total Capital Requirement	126,013	67,320

Note : Capital requirements calculated based on minimum CAR ratio for 2019 (including buffers)

21 Operational risk

Operational risk is the risk of loss arising from inadequate or failed internal processes, people and systems or from external events. While the Basel definition excludes strategic and reputational risk; the Bank's adopted definition includes legal and regulatory implications as well as the damage to its reputation when assessing impact of operational risk events.

Operational risk is inherent in all dimensions of the Bank, including all banking products, activities, processes and systems, therefore the effective management of operational risk is a fundamental element of the Bank's risk management program.

The Board assumes an overall responsibility for operational risk management. This includes approval of the Operational Risk Management Framework, oversight of senior management to ensure that strategies, policies and processes are implemented effectively at all levels and review and approval of risk appetite for operational risk. In 2019, the Operational Risk Management Framework and some of its fundamental components were enhanced to match the risk profile, nature, size and complexity of the integrated Bank. This enhancement process will continue in 2020.

Ongoing management of operational risk is coordinated by the Group Operational Risk Management (GORM) and reviewed and monitored by a dedicated Operational Risk Working Group (ORWG) and Management Executive Committee (MEC) as applicable for policy purposes.

The Internal Audit function provides independent review of the Bank's operational risk management processes, systems and controls and reports independently to the Board.

Operational risk management follows the three lines of defence philosophy:

- ▶ first line of defence (Business Unit) — owns and manages its risks and controls;
- ▶ second line of defence (Group Operational Risk management, Compliance, Fraud Risk Management, Information & Physical Security Governance etc.) — provides policy, tools and infrastructure to assist business units in managing their risks; and
- ▶ third line of defence (Group Internal Audit) — provides independent assurance on the effectiveness of the risk management process.

21 Operational risk (continued)

Risk identification, monitoring and reporting

The risk identification and assessment process involves risk assessment of new and material process changes which may include new initiatives, new products and system outsourcing arrangements. Risk assessment methodology employs more granular and objective assessment of operational risk exposures for material risks identified through the risk identification processes which enables us to prioritise risks and related actions.

A robust system of controls that is commensurate with the level of operational risks being managed is in place. Since the risk environment is not static, processes are in place for ongoing review of key mitigating controls. This dynamic process helps us to identify gaps early and facilitate timely remedial action for potential risk exposures.

The reporting of issues and events (and therefore greater risk transparency across the organisation) is a critical component of ADCB's operational risk management process. The escalation process was enhanced to ensure that relevant information is received by the decision makers in a timely manner so that appropriate actions are taken.

Monitoring and reporting processes are in place for periodic monitoring of key operational risks. The reports are submitted to the Board (as part of CRO update) and also Group Heads for information and resolution.

Fraud risk

Proactive fraud-risk management is a key success factor in combating the increasing number of frauds perpetrated against financial institutions around the globe. ADCB continued to strengthen its anti-fraud activities by centralizing its fraud management capabilities, increased fraud awareness to the employees and customers, as well as initiating various projects to drive fraud prevention through use of technology and systems. The projects are at various levels of maturity.

Business continuity management

The safety of employees and the ability to recover from a crisis in a timely fashion are of utmost importance to ADCB. To appropriately handle crisis situations, emergency response procedures and business continuity plans (BCPs) were significantly enhanced.

ADCB's ISO22301:2012 certified business continuity framework for the UAE has been designed to ensure that the Bank can continue to achieve its business objectives in the face of an unexpected disruptive event. The plans identify the teams and list critical processes and systems, evacuation procedures and the respective recovery sites where the teams will report to in the event of a disaster. Emergency response procedures contain evacuation guidelines, response measures and roles and responsibilities in dealing with various threats.

The plans are tested periodically and involve mobilising staff from a primary site to a recovery site and enabling them to carry out critical activities.

Risk Measurement

For operational risk measurement and determination of the amount that the Bank needs to hold to absorb potential operational losses, ADCB follows the standardised approach under Basel II. The capital charge including buffer requirements for the year ended 31 December 2019 was AED 3,243,716 thousand (2018: AED 1,945,999 thousand).