UNITED OVERSEAS BANK (MALAYSIA) BHD
(Company No. 271809 K)
AND ITS SUBSIDIARY COMPANIES
(Incorporated in Malaysia)

PILLAR 3 DISCLOSURE
31 DECEMBER 2019

Domiciled in Malaysia
Registered Office:
Level 11, Menara UOB
Jalan Raja Laut,
50350 Kuala Lumpur

UOB 大华银行

United Overseas Bank (Malaysia) Bhd. (271809-K)
HEAD OFFICE
Menara UOB, Jalan Raja Laut
50350 Kuala Lumpur, Malaysia
Tel (603) 2692 7722 Fax (603) 2691 0281
www.uob.com.my

Attestation by Chief Executive Officer pursuant to BASEL II – Pillar 3 Disclosures for the financial year ended 31 December 2019

I hereby confirm that the Pillar 3 disclosures for the financial year ended 31 December 2019 have been prepared in accordance with Bank Negara Malaysia's Risk Weighted Capital Adequacy Framework (Basel II) - Disclosure Requirements (Pillar 3) and Capital Adequacy Framework for Islamic Banks (CAFIB) - Disclosure Requirements (Pillar 3). The Pillar 3 disclosures are consistent with the manner that the risks are assessed and managed, and are not misleading in any particular way.

Wong Kim Choong
Chief Executive Officer

Date: 10 February 2020

銀大
行華

1. INTRODUCTION

Pillar 3 Disclosure

This Pillar 3 Disclosure document is prepared in accordance with the requirements under Bank Negara Malaysia Risk Weighted Capital Adequacy Framework (Basel II) - Disclosure Requirements (Pillar 3) and Capital Adequacy Framework for Islamic Banks (CAFIB) - Disclosure Requirements (Pillar 3). The disclosures are to facilitate the understanding of United Overseas Bank (Malaysia) Bhd (UOBM)'s risk profile and assessment of the Bank's capital adequacy. This is to be read in conjunction with the Bank's financial statements.

Effective July 2016, UOBM started to offer Islamic financial services under its Islamic Banking Window.

Scope of Application

In accordance with the accounting standards for financial reporting, all subsidiaries of the Bank are fully consolidated from the date the Bank obtains control until the date such control ceases. The Bank's investment in an associate is accounted for using the equity method from the date the Bank obtains significant influence over the associate until the date such significant influence ceases. For the purpose of computing capital adequacy requirements at the Bank level, investment in subsidiaries and investment in an associate are deducted from regulatory capital in compliance with Bank Negara Malaysia's Capital Adequacy Framework (Capital Components).

The transfer of funds or regulatory capital within the UOBM Group is generally subject to regulatory approval.

2. CAPITAL ADEQUACY

Our approach to capital management is to ensure that the UOBM Group maintains strong capital levels to support our businesses and growth, meet regulatory capital requirements at all times and maintain a good credit rating.

We achieve these objectives through the UOBM Group's Internal Capital Adequacy Assessment Process (ICAAP) whereby we actively monitor and manage the Group's capital position over a medium-term horizon, involving the following:

- setting capital targets for the Bank. As part of this, we take into account future regulatory changes and stakeholder expectations;
- forecasting capital demand for material risks based on the Bank's risk appetite. This is evaluated across all business segments and includes the UOBM Group's capital position before and after mitigation actions under adverse but plausible stressed conditions; and
- determining the availability and composition of different capital components.

Two committees oversee our capital planning and assessment process. The Risk Management Committee assists the Board with the management of risks arising from the business of the UOBM Group while the Risk and Capital Committee manages the UOBM Group's ICAAP, overall risk profile and capital requirements. The UOBM Group's capital position, capital management plan, contingency capital plan, as well as any capital management actions, are submitted to the senior management team and/or to the Board for approval.

2. CAPITAL ADEQUACY (Cont'd.)

The aggregate breakdown of Risk-Weighted Assets (RWA) by exposures in each category of the Bank for the financial year ended 31 December 2019 was as follows:

Item	Exposure class 2019	Exposures pre Credit Risk Mitigation (CRM)	Exposures post Credit Risk Mitigation (CRM)	RWA	Minimum capital requirement at 8%
		RM'000	RM'000	RM'000	RM'000
1.0	**Credit risk**				
1.1	**Exempted exposures under the Standardised Approach (SA)**				
	On-balance sheet exposures				
	Sovereigns/Central Banks	13,070,835	13,070,835	-	-
	Public Sector Entities	25,709	25,709	-	-
	Insurance Cos, Securities Firms and Fund Managers	172	172	172	14
	Corporates	331,674	329,427	329,028	26,322
	Other Assets	910,065	910,065	631,665	50,533
	Equity Exposure	131,809	131,809	131,809	10,545
	Defaulted exposures	3,184	3,184	3,486	279
	Total on-balance sheet exposures	14,473,448	14,471,202	1,096,161	87,693
	Off-balance sheet exposures				
	OTC derivatives	81,756	81,756	92,504	7,400
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	105,764	104,760	49,149	3,932
	Total off-balance sheet exposures	187,520	186,516	141,653	11,332
	Total on and off-balance sheet exposures (SA)	**14,660,968**	**14,657,717**	**1,237,814**	**99,025**
1.2	**Exposures under the Foundation IRB approach (FIRB)**				
	On-balance sheet exposures				
	Banks, Development Financial Institutions and MDBs	12,669,954	9,090,009	1,120,300	89,624
	Insurance Cos, Securities Firms and Fund Managers	82,072	50,556	14,669	1,174
	Corporates	33,570,499	29,801,343	30,455,041	2,436,403
	Equity (simple risk weight)	2,075	2,075	6,226	498
	Defaulted exposures	816,872	786,326	-	-
	Total on-balance sheet exposures	47,141,471	39,730,310	31,596,236	2,527,699
	Off-balance sheet exposures				
	OTC derivatives	1,530,158	1,527,706	739,461	59,157
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	8,017,459	6,970,951	6,894,161	551,533
	Defaulted exposures	11,882	11,413	-	-
	Total off-balance sheet exposures	9,559,499	8,510,069	7,633,622	610,690
	Total on and off-balance sheet exposures (FIRB)	**56,700,970**	**48,240,380**	**39,229,858**	**3,138,389**

2. CAPITAL ADEQUACY (Cont'd.)

Item	Exposure class 2019	Exposures pre CRM	Exposures post CRM	RWA	Min. capital requirement at 8%
		RM'000	RM'000	RM'000	RM'000
1.3	**Exposures under the Advance IRB approach (AIRB)**				
	On-balance sheet exposures				
	Corporates	-	-	-	-
	Residential mortgages	34,676,718	34,676,718	3,785,056	302,804
	Qualifying revolving retail	2,841,248	2,841,248	1,237,859	99,029
	Other retail	15,843,438	15,843,307	2,892,586	231,407
	Defaulted exposures	794,160	794,160	713,153	57,052
	Total on-balance sheet exposures	54,155,565	54,155,433	8,628,654	690,292
	Off-balance sheet exposures				
	OTC derivatives	390	390	118	9
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	9,796,241	9,796,090	1,357,946	108,636
	Defaulted exposures	145	145	0	0
	Total off-balance sheet exposures	**9,796,775**	**9,796,624**	**1,358,065**	**108,645**
	Total on and off-balance sheet exposures (AIRB)	**63,952,340**	**63,952,057**	**9,986,719**	**798,938**
	Total exposures under IRB approach	**120,653,310**	**112,192,437**	**49,216,577**	**3,937,326**
	Total (exempted exposures and exposures under the IRB approach) after scaling factor			**53,407,386**	**4,272,591**
2.0	**Large exposures risk requirement**	-	-	-	-
3.0	**Market risk**	**Long position**	**Short position**		
	Interest rate risk	46,650,258	31,936,667	1,539,174	123,134
	Foreign currency risk	285,838	584,747	312,290	24,983
	Commodity risk	290,120	301,901	138,735	11,099
	Options risk	-	-	21,693	1,735
4.0	**Operational risk (basic indicator approach)**			5,590,647	447,252
5.0	**Total RWA and capital requirements**			61,009,925	4,880,794

2. CAPITAL ADEQUACY (Cont'd.)

The aggregate breakdown of RWA by exposures in each category of the Bank for the financial year ended 31 December 2018 was as follows:

Item	Exposure class 2018	Exposures pre CRM	Exposures post CRM	RWA	Min. capital requirement at 8%
		RM'000	RM'000	RM'000	RM'000
1.0	**Credit risk**				
1.1	**Exempted exposures under the Standardised Approach (SA)**				
	On-balance sheet exposures				
	Sovereigns/ Central Banks	13,036,857	13,036,857	-	-
	Insurance Cos, Securities Firms and Fund Managers	210	210	210	17
	Corporates	344,909	342,573	342,193	27,375
	Other Assets	1,016,986	1,016,986	768,446	61,476
	Equity Exposure	112,489	112,489	112,489	8,999
	Defaulted Exposures	2,452	2,452	3,677	294
	Total on-balance sheet exposures	14,513,903	14,511,567	1,227,015	98,161
	Off-balance sheet exposures				
	OTC derivatives	123,704	123,696	49,465	3,957
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	45,764	44,685	43,891	3,512
	Total off-balance sheet exposures	169,468	168,381	93,356	7,469
	Total on and off-balance sheet exposures (SA)	**14,683,371**	**14,679,948**	**1,320,371**	**105,630**
1.2	**Exposures under the Foundation IRB approach (FIRB)**				
	On-balance sheet exposures				
	Banks, Development Financial Institutions and MDBs	12,935,681	9,562,226	1,445,910	115,673
	Insurance Cos, Securities Firms and Fund Managers	40,641	17,116	4,971	398
	Corporates	31,347,682	27,525,146	27,365,003	2,189,200
	Equity (simple risk weight)	1,956	1,956	5,868	469
	Defaulted exposures	756,574	720,036	22	2
	Total on-balance sheet exposures	45,082,534	37,826,480	28,821,774	2,305,742
	Off-balance sheet exposures				
	OTC derivatives	1,403,256	1,401,297	700,020	56,002
	Off-Balance sheet exposures other than OTC derivatives or credit derivatives	9,637,776	8,508,963	9,044,874	723,590
	Defaulted exposures	29,977	29,535	-	-
	Total off-balance sheet exposures	11,071,009	9,939,795	9,744,894	779,592
	Total on and off-balance sheet exposures (FIRB)	56,153,543	47,766,275	38,566,668	3,085,334

2. CAPITAL ADEQUACY (Cont'd.)

Item	Exposure class 2018	Exposures pre CRM	Exposures post CRM	RWA	Min. capital requirement at 8%
		RM'000	RM'000	RM'000	RM'000
1.3	**Exposures under the Advance IRB approach (AIRB)**				
	On-balance sheet exposures				
	Corporates	44,000	44,000	19,770	1,582
	Residential mortgages	33,471,450	33,471,450	3,510,475	280,838
	Qualifying revolving retail	2,704,561	2,704,561	1,078,006	86,240
	Other retail	15,809,085	15,809,085	2,788,202	223,056
	Defaulted exposures	729,115	729,115	798,512	63,881
	Total on-balance sheet exposures	52,758,211	52,758,211	8,194,965	655,597
	Off-balance sheet exposures				
	OTC derivatives	995	995	767	61
	Off-Balance sheet exposures other than OTC derivatives or credit derivatives	9,612,261	9,612,261	1,203,721	96,298
	Defaulted exposures	328	328	176	14
	Total off-balance sheet exposures	**9,613,584**	**9,613,584**	**1,204,664**	**96,373**
	Total on and off-balance sheet exposures (AIRB)	**62,371,795**	**62,371,795**	**9,399,629**	**751,970**
	Total exposures under IRB approach	**118,525,338**	**110,138,070**	**47,966,297**	**3,837,304**
	Total (exempted exposures and exposures under the IRB approach) after scaling factor			**52,164,645**	**4,173,172**
2.0	**Large exposures risk requirement**	-	-	-	-
3.0	**Market risk**	**Long position**	**Short position**		
	Interest rate risk	79,258,784	76,936,333	1,350,963	108,077
	Foreign currency risk	257,994	679,604	456,482	36,519
	Commodity risk	218,874	218,671	84,599	6,768
	Options risk	-	-	83,504	6,680
4.0	**Operational risk (basic indicator approach)**			5,448,326	435,866
5.0	**Total RWA and capital requirements**			59,588,519	4,767,081

2. CAPITAL ADEQUACY (Cont'd.)

The aggregate breakdown of RWA by exposures in each category of the Islamic Banking Window for the financial year ended 31 December 2019 was as follows:

Item	Exposure class 2019	Exposures pre CRM	Exposures post CRM	RWA	RWA absorbed by PSIA	Total RWA after effects of PSIA	Min. capital requirement at 8%
		RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
1.0	**Credit risk**						
1.1	**Exempted exposures under SA**						
	On-balance sheet exposures						
	Sovereigns/central banks	1,755,374	1,755,374	-	-	-	-
	Other assets	6,491	6,491	6,491	-	6,491	519
	Total on-balance sheet exposures	1,761,865	1,761,865	6,491	-	6,491	519
	Off-balance sheet exposures						
	OTC derivatives	2,277	2,277	1,049	-	1,049	84
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	-	-	-	-	-	-
	Total off-balance sheet exposures	**2,277**	**2,277**	**1,049**	**-**	**1,049**	**84**
	Total on and off-balance sheet exposures (SA)	**1,764,142**	**1,764,142**	**7,540**	**-**	**7,540**	**603**
1.2	**Exposures under the FIRB approach**						
	On-balance sheet exposures						
	Banks, Development Financial Institutions and MDBs	50,529	50,529	5,339	-	5,339	427
	Corporates	1,446,443	1,394,480	1,674,863	481,869	1,192,994	95,440
	Total on-balance sheet exposures	1,496,972	1,445,008	1,680,202	481,869	1,198,333	95,867
	Off-balance sheet exposures						
	OTC Derivatives	-	-	-	-	-	-
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	139,756	135,203	169,760	-	169,760	13,581
	Total off-balance sheet exposures	**139,756**	**135,203**	**169,760**	**-**	**169,760**	**13,581**
	Total on and off-balance sheet exposures (FIRB)	**1,636,728**	**1,580,211**	**1,849,962**	**481,869**	**1,368,093**	**109,447**

2. CAPITAL ADEQUACY (Cont'd.)

Item	Exposure class 2019	Exposures pre CRM	Exposures post CRM	RWA	RWA absorbed by PSIA	Total RWA after effects of PSIA	Min. capital requirement at 8%
		RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
1.3	**Exposures under the AIRB approach**						
	On-balance sheet exposures						
	Corporate	-	-	-	-	-	-
	Residential mortgages	2,079,890	2,079,890	343,309	-	343,309	27,465
	Other retail	835,470	835,470	222,587	-	222,587	17,807
	Defaulted exposures	38,366	38,366	9,656	-	9,656	773
	Total on-balance sheet exposures	**2,953,726**	**2,953,726**	**575,552**	**-**	**575,552**	**46,044**
	Off-balance sheet exposures						
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	539,462	539,462	80,410	-	80,410	6,433
	Total off-balance sheet exposures	**539,462**	**539,462**	**80,410**	**-**	**80,410**	**6,433**
	Total on and off-balance sheet exposures (AIRB)	**3,493,189**	**3,493,189**	**655,962**	**-**	**655,962**	**52,477**
	Total exposures under IRB approach	**5,129,916**	**5,073,400**	**2,505,924**	**481,869**	**2,024,055**	**161,924**
	Total (exempted exposures and exposures under the IRB approach) after scaling factor			**2,663,820**	**510,781**	**2,153,039**	**172,243**
2.0	**Large exposures risk requirement**	-	-	-	-	-	-
3.0	**Market risk**	**Long position**	**Short position**				
	Benchmark Rate Risk	219,345	138,988	2,349		2,349	188
	Foreign Currency Risk	17	12	17		17	1
	Commodity Risk	-	-	-	-	-	-
	Options Risk	-	-	-	-	-	-
4.0	**Operational risk (basic indicator approach)**			66,532	-	66,532	5,323
5.0	**Total RWA and capital requirements**			2,732,718	510,781	2,221,936	177,755

2. CAPITAL ADEQUACY (Cont'd.)

The aggregate breakdown of RWA by exposures in each category of the Islamic Banking Window for the financial year ended 31 December 2018 was as follows:

Item	Exposure class 2018	Exposures pre CRM	Exposures post CRM	RWA	RWA absorbed by PSIA	Total RWA after effects of PSIA	Min. capital requirement at 8%
		RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
1.0	**Credit risk**						
1.1	**Exempted exposures under SA**						
	On-balance sheet exposures						
	Sovereigns/central banks	2,808,929	2,808,929	-	-	-	-
	Other assets	19,488	19,488	19,488	-	19,488	1,559
	Total on-balance sheet exposures	2,828,417	2,828,417	19,488	-	19,488	1,559
	Off-balance sheet exposures						
	OTC derivatives	1,552	1,552	311	-	311	25
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	-	-	-	-	-	-
	Total off-balance sheet exposures	**1,552**	**1,552**	**311**	**-**	**311**	**25**
	Total on and off-balance sheet exposures (SA)	**2,829,969**	**2,829,969**	**19,799**	**-**	**19,799**	**1,584**
1.2	**Exposures under the FIRB approach**						
	On-balance sheet exposures						
	Banks, DFIs and MDBs	8,117	8,117	780	-	780	62
	Corporates	880,506	865,207	824,540	31,404	793,136	63,451
	Total on-balance sheet exposures	888,623	873,324	825,320	31,404	793,916	63,513
	Off-balance sheet exposures						
	OTC Derivatives	193	193	111	-	111	9
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	51,176	46,615	50,880	-	50,880	4,070
	Total off-balance sheet exposures	**51,369**	**46,808**	**50,991**	**-**	**50,991**	**4,079**
	Total on and off-balance sheet exposures (FIRB)	**939,992**	**920,132**	**876,311**	**31,404**	**844,907**	**67,592**

2. CAPITAL ADEQUACY (Cont'd.)

Item	Exposure class 2018	Exposures pre CRM	Exposures post CRM	RWA	RWA absorbed by PSIA	Total RWA after effects of PSIA	Min. capital requirement at 8%
		RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
1.3	**Exposures under the AIRB approach**						
	On-balance sheet exposures						
	Corporate	-	918	555	-	555	44
	Residential mortgages	1,334,476	1,333,558	211,845	-	211,845	16,948
	Other retail	510,755	510,755	128,892	-	128,892	10,311
	Defaulted exposures	12,697	12,697	8,827	-	8,827	706
	Total on-balance sheet exposures	**1,857,928**	**1,857,928**	**350,119**	**-**	**350,119**	**28,009**
	Off-balance sheet exposures						
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	559,176	559,176	84,142	-	84,142	6,731
	Total off-balance sheet exposures	559,176	559,176	84,142	-	84,142	6,731
	Total on and off-balance sheet exposures (AIRB)	2,417,104	2,417,104	434,261	-	434,261	34,740
	Total exposures under IRB approach	3,357,096	3,337,236	1,310,572	31,404	1,279,168	102,332
	Total (exempted exposures and exposures under the IRB approach) after scaling factor			1,409,005	33,288	1,375,717	110,057
2.0	**Large exposures risk**	-	-	-	-	-	-
3.0	**Market risk**	**Long position**	**Short position**				
	Benchmark Rate Risk	106,827	113,433	159	-	159	13
	Foreign Currency Risk	-	-	-	-	-	-
	Commodity Risk	-	-	-	-	-	-
	Options Risk	-	-	-	-	-	-
4.0	**Operational risk (basic indicator approach)**			43,348	-	43,348	3,468
5.0	**Total RWA and capital requirements**			1,452,513	33,288	1,419,224	113,538

3. CAPITAL STRUCTURE

The Bank, on 8 May 2015, issued RM1 billion subordinated bonds at 4.65% p.a. maturing on 8 May 2025. In addition, on 25 July 2018, the Bank issued another RM600 million subordinated bonds at 4.80% p.a maturing on 25 July 2028. Both subordinated bonds are for working capital, general funding and corporate funding purposes.

For the main features of the subordinated bonds, please refer to Note 21 in the financial statements.

The capital adequacy ratios of the Group and the Bank are computed in accordance with BNM's Capital Adequacy Framework (Capital Components) issued on 2 February 2018 and Basel II – Risk-Weighted Assets issued on 2 February 2018.

The capital structure of the Group and the Bank was as follows:

	Group		Bank	
	31-Dec-19 RM'000	31-Dec-18 RM'000	31-Dec-19 RM'000	31-Dec-18 RM'000
Common Equity Tier 1 (CET1)/ Tier 1 Capital				
Paid-up share capital	792,555	792,555	792,555	792,555
Retained profits	9,763,631	9,035,171	9,830,387	9,111,054
Other reserves	353,866	282,731	162,834	85,810
Regulatory adjustments applied in the calculation of CET1 Capital	(374,785)	(349,705)	(438,805)	(365,064)
Total CET1/Tier 1 Capital	10,535,267	9,760,752	10,346,971	9,624,355
Tier 2 Capital				
Tier 2 Capital instruments	1,600,000	1,600,000	1,600,000	1,600,000
Loan/financing loss provision				
- Surplus eligible provisions over expected losses	309,252	304,310	309,953	305,066
- General provisions	25,764	26,553	15,472	16,505
Regulatory adjustments applied in the calculation of Tier 2 Capital	85,508	85,437	-	-
Total Tier 2 Capital	2,020,524	2,016,300	1,925,425	1,921,571
Total Capital	12,555,791	11,777,052	12,272,396	11,545,926

The capital adequacy ratios of the Group and the Bank were as follows:

	Group		Bank	
	31-Dec-19	31-Dec-18	31-Dec-19	31-Dec-18
CET1/Tier 1 Capital Ratio	17.073%	16.200%	16.959%	16.151%
Total Capital Ratio	20.347%	19.547%	20.115%	19.376%
CET1/Tier 1 Capital Ratio (net of proposed dividends)	16.089%	15.379%	15.964%	15.321%
Total Capital Ratio (net of proposed dividends)	19.363%	18.725%	19.120%	18.546%

3. CAPITAL STRUCTURE (Cont'd.)

The capital adequacy ratios of Islamic Banking Window are computed in accordance with BNM Capital Adequacy Framework for Islamic Banking (Capital Components) and Basel II – Risk-Weighted Assets Framework for Islamic Banking.

The capital structure of the Islamic Banking Window was as follows:

	31-Dec-19 RM'000	31-Dec-18 RM'000
Common Equity Tier 1 (CET1)/ Tier 1 Capital		
Capital fund	450,000	450,000
Retained profits/ (accumulated losses)	6,602	(4,478)
Other reserves	1,170	(6)
Regulatory adjustments applied in the calculation of CET1 Capital	(5,698)	(4,156)
Total CET1/Tier 1 Capital	452,074	441,360
Tier 2 Capital		
Financing loss provision		
- Surplus eligible provisions over expected losses	12,873	8,136
- General provisions	94	247
Total Tier 2 Capital	12,967	8,383
Total Capital	465,041	449,743

The capital adequacy ratios of the Islamic Banking Window were as follows:

	31-Dec-19	31-Dec-18
Before the effects of PSIA		
CET1/Tier 1 Capital Ratio	16.543%	30.386%
Total Capital Ratio	17.018%	30.977%
After the effects of PSIA		
CET1/Tier 1 Capital Ratio	20.346%	31.099%
Total Capital Ratio	20.930%	31.689%

In accordance with BNM's Guidelines on the Recognition and Measurement of Profit Sharing Investment Account ("PSIA") as Risk Absorbent, the credit and market risks of the assets funded by Restricted Specific Investment Account ("RSIA") which qualify as risk absorbent are excluded from the total capital ratio calculation. As at 31 December 2019, credit risks related to RSIA assets excluded from the total capital ratio calculation amounted to RM510,781,000 (2018: RM33,283,000).

4. RISK MANAGEMENT

Risk Management Overview

Managing risk is an integral part of our business strategy. Our risk management approach focuses on ensuring continued financial soundness and safeguarding the interests of our stakeholders, while remaining nimble to seize value-creating business opportunities in a fast changing environment. The Bank is committed to upholding high standards of corporate governance, sound risk management principles and business practices to achieve sustainable, long-term growth. The Bank continually strives towards best risk management practices to support our strategic objectives.

Our risk management strategy is targeted at ensuring proper risk governance so as to facilitate ongoing effective discovery, management and mitigation of risks arising from external factors and our business activities and to set aside adequate capital efficiently to address these risks. Risks are managed within levels established by the senior management committees and approved by the Board and its committees. The Bank has put in place a framework of policies, methodologies, tools and processes to identify, measure, monitor and manage material risks faced by the Bank.

The Bank’s risk governance frameworks, policies and appetite provide the overarching principles and guidance for the Bank’s risk management activities. Risk reports are regularly submitted to Management and the Board to keep them apprised of the Bank's risk profile.

Risk Management Governance and Framework

The Bank’s responsibility for risk management starts with the Board overseeing a governance structure that is designed to ensure that the Bank’s business activities are:

- conducted in a safe and sound manner and in line with the highest standards of professionalism;
- consistent with the Bank’s overall business strategy and risk appetite; and
- subjected to adequate risk management and internal controls.

In this regard, the Board is primarily assisted by the Risk Management Committee (RMC).

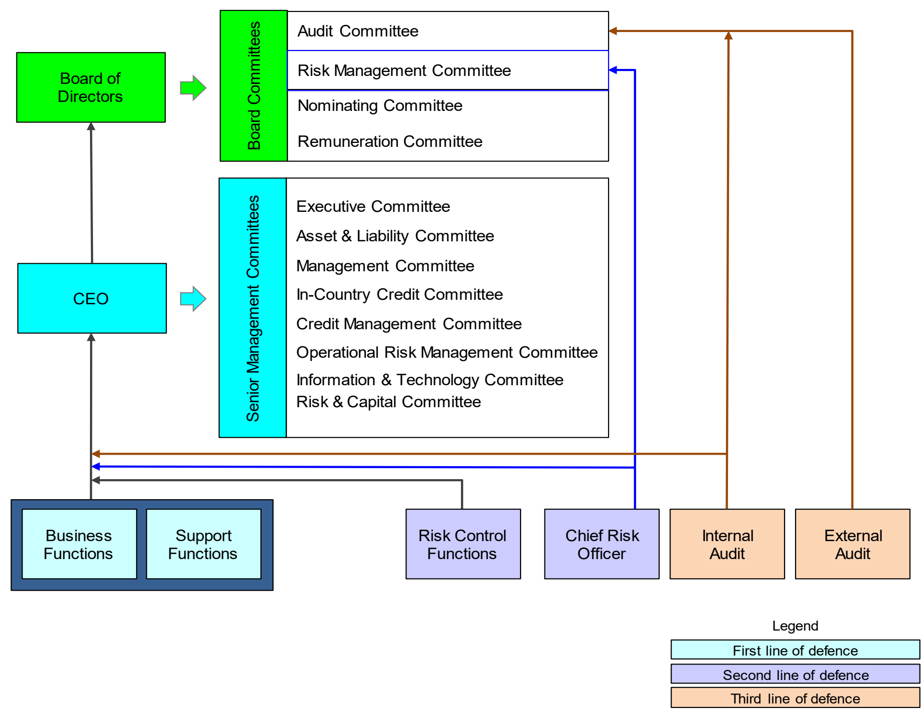
The Chief Executive Officer has established senior management committees to assist in making business decisions with due consideration to risks and returns. The main senior management committees involved in this are the Executive Committee (EXCO), Management Committee (MC), Asset and Liability Committee (ALCO), In-Country Credit Committee (ICCC), Credit Management Committee (CMC), Information & Technology Committee (ITC), Operational Risk Management Committee (ORMC) and Risk and Capital Committee (RCC). These committees also assist the RMC in specific risk areas.

The RMC reviews the overall risk appetite and level of risk capital to be maintained for the Bank. Senior management and the senior management committees are authorised to delegate risk appetite limits by location, business lines, and/or broad product lines.

Risk management is also the responsibility of every employee in the Bank. Risk awareness and accountability are embedded in our culture through an established framework that ensures appropriate oversight and accountability for the effective management of risk throughout the Bank and across risk types. This is executed through an organisation control structure that provides three “Lines of Defence” as follows:

4. RISK MANAGEMENT (Cont'd.)

Risk Governance Structure



First Line of Defense - The Risk Owner

The business and support functions have the primary responsibility for implementing and executing effective controls for the management of risks arising from their business activities. This include establishing adequate managerial and supervisory controls to ensure compliance with risk policies, appetite and limits as well as to highlight control breakdowns, inadequacy of processes and unexpected events.

Second Line of Defense - Risk Oversight

The risk and control oversight functions (Risk Management and Compliance) and the Chief Risk Officer (CRO) provide the Second Line of Defense.

The risk and control oversight functions support the Bank's strategy of balancing growth with stability by establishing risk frameworks, policies, appetite and limits within which the business functions must operate. The risk and control oversight functions are also responsible for the independent review and monitoring of the Bank's risk profile and reporting of any significant vulnerabilities and risk issues to the respective management committees.

The independence of risk and control oversight functions from business functions ensures the necessary checks and balances are in place.

4. RISK MANAGEMENT (Cont'd.)

Third Line of Defense - Independent Audit

The Bank's internal and external auditors conduct risk-based audits covering all aspects of the First and Second Lines of Defence to provide independent assurance to the CEO, Audit Committee and the Board, on the effectiveness of the risk management and control structure, policies, frameworks, systems and processes.

The Bank, adopts and adapts the parent bank's governance structure, frameworks and policies accordingly to comply with local regulatory requirements. This ensures the approach across the regional UOB franchise is consistent and sufficiently flexible to suit local operating environments.

Risk Appetite

The Bank has established a risk appetite framework to define the amount of risk that the Bank is able and willing to take in pursuit of its business objectives. The objective of establishing a risk appetite framework is not to limit risk-taking but to ensure that the Bank’s risk profile remains within well-defined and tolerable boundaries. The framework was formulated based on the following key criteria:

- relevance to respective stakeholders, with appropriate levels of granularity;
- practical, consistent and easy to understand metrics for communication and implementation;
- alignment to key elements of the Bank's business strategy; and
- analytically substantiated and measurable metrics.

The risk appetite defines suitable thresholds and limits across key areas including but not limited to credit risk, country risk, market risk, liquidity risk, operational risk, technology risk and reputation risk. Our risk-taking approach is focused on businesses which we understand and are well equipped to manage the risk involved. Through this approach, we aim to minimise earnings volatility and concentration risk and ensure that our high credit rating, strong capital and funding base remain intact. This allows us to be a steadfast partner of our customers through changing economic conditions and cycles.

The Bank's risk appetite framework and risk appetite are reviewed and approved annually by the Board. Senior management monitors and reports the risk profiles and compliance with the risk appetite to the Board.

4. RISK MANAGEMENT (Cont'd.)

Basel Framework

The Bank has adopted the Basel Framework and observes the Bank Negara Malaysia (BNM) Risk Weighted Capital Adequacy Framework (Basel II) for banks incorporated in Malaysia. The Bank continues to adopt a prudent and proactive approach in navigating the evolving regulatory landscape, with emphasis on sound risk management principles in delivering sustainable returns.

The Bank has adopted the Foundation Internal Ratings-Based (FIRB) Approach for its non-retail exposures and the Advanced Internal Ratings-Based (AIRB) Approach for its retail exposures. For market risk, the Bank has adopted the Standardised Approach (SA). For operational risk, the Bank has adopted the Basic Indicator Approach (BIA).

The Bank has adopted the Internal Capital Adequacy Assessment Process (ICAAP) to assess on an ongoing basis the amount of capital necessary to support its activities. The ICAAP is reviewed periodically to ensure that the Bank remains well-capitalised after considering all material risks. Stress tests are conducted to determine capital adequacy under stressed conditions.

5. CREDIT RISK

Credit risk is the risk of loss arising from any failure by a borrower or counterparty to meet its financial obligations when such obligations fall due. Credit risk is the single largest risk that the Bank faces in its core business as a commercial bank, arising primarily from loans/ financing and other lending-related commitments to retail, corporate and institutional borrowers. Treasury and capital market operations, and investments also expose the Bank to counterparty and issuer credit risks.

Integral to the management of credit risk is a framework that clearly defines policies and processes relating to the measurement and management of credit risk. The framework helps to foster a robust culture of identification, measurement and management of credit risk within the Bank. The Bank adopts an holistic approach towards assessing credit risk and ensures that managing credit risk is part of an integrated approach to enterprise risk management.

The Bank's portfolio is also being reviewed and stress-tested regularly, and the Bank continuously monitors the operating environment to identify emerging risks and to formulate mitigating actions.

Credit Risk Governance and Organisation

The CMC supports the CEO and RMC in managing the Bank's overall credit risk exposures. This committee serve as the executive forum for discussions on all credit-related issues including the credit risk management framework, policies, processes, infrastructure, methodologies and systems. The CMC also reviews and assess the Bank's credit portfolios and credit risk profiles.

The Credit Risk Management under Risk Management develops bank-wide credit policies and guidelines, and focuses on facilitating business development within a prudent, consistent and efficient credit risk management framework. It is responsible for the reporting, analysis and management of all elements of credit risk to CMC, RMC and Board.

Credit Risk Policies and Processes

The Bank has established credit policies and processes to manage credit risk in the following key areas:

Credit approval process

To maintain the independence and integrity of the credit approval process, the credit origination and approval functions are clearly segregated. Credit approval authority is delegated to officers based on their experience, seniority and track record. Larger credits above certain limit are submitted to the ICCC for approval. All credit approval officers are guided by credit policies and credit acceptance guidelines that are periodically reviewed to ensure their continued relevance to the Bank's business strategy and business environment. Credit approval is based on a risk-adjusted scale according to a borrower's credit rating.

5. CREDIT RISK (Cont'd.)

Credit concentration risk

Credit concentration risk may arise from a single large exposure or from multiple exposures that are closely correlated. This is managed by setting exposure limits on borrowers, obligor groups, portfolios, industries and countries, generally expressed as a percentage of the Bank's eligible capital base.

Credit risk exposures are managed through a robust credit underwriting, structuring and monitoring process. The Bank also manages its country risk exposures within an established framework that involves setting limits for each country. Such limits are based on the country's risk rating, economic potential measured by its gross domestic product and the Bank's business strategy. Regular assessments of emerging risks and in-depth reviews of industry trends are performed to provide a forward-looking view on developments that could impact the Bank's portfolio.

Credit stress test

Credit stress testing is a core component of the Bank's credit portfolio management process. Various regulatory and internal stress tests are conducted periodically. The main purpose of credit stress testing is to provide a forward-looking assessment of the Bank's credit portfolio under adverse economic scenarios. Under stress scenarios such as a severe recession, significant losses from the credit portfolio may occur. Stress tests are used to assess if the Bank's capital can withstand such losses and their impact on profitability and balance sheet quality. Stress tests also help us to identify the vulnerability of various business units and would enable us to formulate appropriate mitigating actions.

The Bank's stress test scenarios consider potential and plausible macroeconomic and geopolitical events in varying degrees of likelihood and severity. These are developed through consultation with relevant business units and approved by senior management.

Credit Monitoring and Remedial Management

The Bank regularly monitors credit exposures, portfolio performance and emerging risks that may impact its credit risk profile. The Board and senior management are updated on credit trends through internal risk reports, so that mitigating actions can be taken if necessary.

Delinquency monitoring

The Bank monitors closely the delinquency of borrowing accounts as it is a key indicator of credit quality. An account is considered as delinquent when payment is not received on due date. Any delinquent accounts, including a revolving credit facility (such as an overdraft) with limit excesses, is closely monitored and managed through a disciplined process by officers from business units and risk management function. Where appropriate, such accounts are also subject to more frequent credit reviews.

5. CREDIT RISK (Cont'd.)

Classification and loan/ financing loss impairment

The Bank classifies its credit portfolios according to the borrower's ability to repay the credit facility from their normal source of income.

All borrowing accounts are categorised into 'Pass', 'Special Mention' or 'Non-Performing' categories. Non-Performing accounts are further categorised as 'Substandard', 'Doubtful' or 'Loss' in accordance with the Bank's Policy. Any account which is delinquent (or in excess for a revolving credit facility such as an overdraft) for more than 90 days will be categorised automatically as "Non-Performing". In addition, any account that exhibits weaknesses which is likely to jeopardise repayment on existing terms may be categorised as 'Non-Performing'.

Upgrading and declassification of a Non-Performing account to 'Pass' or 'Special Mention' status must be supported by a credit assessment of the repayment capability, cash flows and financial position of the borrower. The Bank must also be satisfied that once the account is declassified, the account is unlikely to be classified again in the near future.

A rescheduled or restructured account shall be categorised as Non-Performing when the account exhibits signs of increase in credit risk. The rescheduled or restructured account is to be placed on the appropriate classified grade based on the Bank's assessment of the financial condition of the borrower and the ability of the borrower to repay under the rescheduled or restructured terms. A rescheduled or restructured account must comply fully with the rescheduled or restructured terms before it can be declassified.

The Bank provides for impairment based on local regulatory requirements including Bank Negara Malaysia (BNM) guidelines and MFRS9 for local reporting purposes. Where necessary, additional impairment is provided for to comply with the Bank's impairment policy.

Special Asset Management

Special Asset Management (SAM) independently manages the restructuring, workout and recovery of the Bank's Non-Performing portfolios. The primary objectives are (i) to nurse the Non-Performing accounts back to financial health whenever possible for transfer back to the respective business units for management and (ii) to maximise recovery of the Non-Performing accounts that the Bank intends to exit.

Write-Off Policy

A classified account that is not secured by any realisable collateral will be written-off either when the prospect of a recovery is considered poor or when all feasible avenues of recovery have been exhausted.

5. CREDIT RISK (Cont'd.)

(i) The credit exposures by sector of the Bank for the financial year ended 31 December 2019 were as follows:

Bank	Sovereigns/ central banks RM'000	Public sector entities RM'000	Banks, DFIs and MDBs RM'000	Ins cos, securities firms and fund managers RM'000	Corporates (including specialised lending and SMEs) RM'000	Retail RM'000	Residential mortgages RM'000	Equity exposures RM'000	Other assets RM'000	Grand total RM'000
Agriculture, hunting,										-
forestry and fishing	-	-	-	-	1,551,728	30,227	-	-	-	1,581,955
Mining and quarrying	-	-	1,187,979	-	89,406	9,834	-	-	-	1,287,219
Manufacturing	-	-	90,507	-	7,109,674	1,338,571	-	-	-	8,538,752
water	-	-	-	-	260,059	9,569	-	-	-	269,628
Construction	-	-	-	-	11,262,892	564,514	-	-	-	11,827,406
Wholesale, retail trade,										-
restaurant and hotels	-	-	13,769	-	12,910,318	4,275,950	-	-	-	17,200,037
Transport, storage and	-	-	-	-	2,339,637	180,357	-	-	-	2,519,994
communication										-
Finance, insurance and										-
business services	9,027	34,508	12,547,175	194,655	3,518,235	879,544	-	-	-	17,183,144
Real estate	-	-	-	-	3,938,822	665,125	-	-	-	4,603,947
Community, social and										-
personal services	-	-	-	-	72,432	127,320	-	-	-	199,752
Households	-	-	-	-	5,710	18,121,016	37,750,313	-	-	55,877,039
Others	13,078,564	25,709	-	-	25,391	-	-	133,884	961,857	14,225,405
	13,087,591	60,217	13,839,430	194,655	43,084,304	26,202,027	37,750,313	133,884	961,857	135,314,278

5. CREDIT RISK (Cont'd.)

The credit exposures by sector of the Bank for the financial year ended 31 December 2018 were as follows:

Bank	Sovereigns/ central banks RM'000	Public sector entities RM'000	Banks, DFIs and MDBs RM'000	Ins cos, securities firms and fund managers RM'000	Corporates (including specialised lending and SMEs) RM'000	Retail RM'000	Residential mortgages RM'000	Equity exposures RM'000	Other assets RM'000	Grand total RM'000
Agriculture, hunting, forestry and fishing	-	-	-	-	1,641,612	37,102	-	-	-	1,678,714
Mining and quarrying	-	-	758,580	-	135,415	6,776	-	-	-	900,771
Manufacturing	-	-	63,164	-	6,779,592	1,372,982	-	-	-	8,215,738
Electricity, gas and water	-	-	-	-	302,560	10,016	-	-	-	312,576
Construction	-	-	-	-	11,940,897	506,712	-	-	-	12,447,609
Wholesale, retail trade, restaurant and hotels	-	-	8,276	-	11,631,697	4,101,071	-	-	-	15,741,044
Transport, storage and communication	-	-	-	-	2,403,748	179,587	-	-	-	2,583,335
Finance, insurance and business services	7,380	58,654	13,358,418	130,244	3,026,406	724,482	-	-	-	17,305,584
Real estate	-	-	-	-	4,264,349	668,207	-	-	-	4,932,556
Community, social and personal services	-	-	-	-	93,696	110,702	-	-	-	204,398
Households	-	-	-	-	5,935	17,942,676	36,633,985	-	-	54,582,596
Others	13,063,612	-	-	-	96,484	471	-	114,445	1,028,776	14,303,788
	13,070,992	58,654	14,188,438	130,244	42,322,391	25,660,784	36,633,985	114,445	1,028,776	133,208,709

5. CREDIT RISK (Cont'd.)

(ii) The credit exposures by sector of the Islamic Banking Window for the financial year ended 31 December 2019 were as follows:

Islamic Banking Window	Sovereigns/ central banks RM'000	Public sector entities RM'000	Banks, DFIs and MDBs RM'000	Ins cos, securities firms and fund managers RM'000	Corporates (including specialised lending and SMEs) RM'000	Retail RM'000	Residential mortgages RM'000	Equity exposures RM'000	Other assets RM'000	Grand total RM'000
Agriculture, hunting, forestry & fishing	-	-	-	-	373,371	456	-	-	-	373,827
Manufacturing	-	-	-	-	270,872	115,655	-	-	-	386,527
Electricity, gas and water	-	-	-	-	60,891	-	-	-	-	60,891
Construction	-	-	-	-	256,999	60,129	-	-	-	317,128
Wholesale, retail trade, restaurant and hotels	-	-	-	-	379,884	293,162	-	-	-	673,046
Transport, storage and communication	-	-	-	-	66,914	26,285	-	-	-	93,199
Finance, insurance and business services	1,752	1,535	50,529	742	36,075	110,549	-	-	-	201,182
Real estate	-	-	-	-	141,194	71,665	-	-	-	212,859
Community, social and personal services	-	-	-	-	-	22,595	-	-	-	22,595
Households	-	-	-	-	-	305,142	2,487,550	-	-	2,792,692
Others	1,753,622	-	-	-	-	-	-	-	6,491	1,760,113
	1,755,374	1,535	50,529	742	1,586,200	1,005,638	2,487,550	-	6,491	6,894,059

5. CREDIT RISK (Cont'd.)

The credit exposures by sector of the Islamic Banking Window for the financial year ended 31 December 2018 were as follows:

Islamic Banking Window	Sovereigns/ central banks RM'000	Public sector entities RM'000	Banks, DFIs and MDBs RM'000	Ins cos, securities firms and fund managers RM'000	Corporates (including specialised lending and SMEs) RM'000	Retail RM'000	Residential mortgages RM'000	Equity exposures RM'000	Other assets RM'000	Grand total RM'000
Agriculture, hunting, forestry & fishing	-	-	-	-	125,046	479	-	-	-	125,525
Manufacturing	-	-	-	-	150,585	63,769	-	-	-	214,354
Electricity, gas and water	-	-	-	-	63,304	-	-	-	-	63,304
Construction	-	-	-	-	189,106	34,403	-	-	-	223,509
Wholesale, retail trade, restaurant and hotels	-	-	-	-	230,487	182,957	-	-	-	413,444
Transport, storage and communication	-	-	-	-	7,171	26,064	-	-	-	33,235
Finance, insurance and business services	7,380	1,552	8,117	-	58,164	53,072	-	-	-	128,285
Real estate	-	-	-	-	108,012	33,508	-	-	-	141,520
Community, social and personal services	-	-	-	-	-	5,594	-	-	-	5,594
Households	-	-	-	-	-	323,180	1,694,078	-	-	2,017,258
Others	2,801,549	-	-	-	-	-	-	-	19,488	2,821,037
	2,808,929	1,552	8,117	-	931,875	723,026	1,694,078	-	19,488	6,187,065

5. CREDIT RISK (Cont'd.)

(iii) The credit exposures by remaining contractual maturities of the Bank for the financial year ended 31 December 2019 were as follows:

Bank	Sovereigns/ central banks RM'000	Public sector entities RM'000	Banks, DFIs and MDBs RM'000	Ins cos, securities firms and fund managers RM'000	Corporates (including specialised lending and SMEs) RM'000	Retail RM'000	Residential mortgages RM'000	Equity exposures RM'000	Other assets RM'000	Grand total RM'000
< 3 months	444,636	16,390	11,188,743	105,431	12,261,862	936,274	15,059	-	-	24,968,395
3 - 6 months	1,771,241	18,118	1,202,201	19,339	2,779,879	231,348	10,057	-	-	6,032,183
6 - 12 months	3,171,114	-	787,040	22,731	5,450,399	9,954,189	1,606,690	133,884	961,857	22,087,904
1 - 3 years	4,450,934	15,434	295,304	25,260	9,460,794	528,509	111,549	-	-	14,887,784
3 - 5 years	3,051,613	10,275	328,584	21,894	7,637,930	761,891	282,353	-	-	12,094,540
> 5 years	198,053	-	37,558	-	5,493,440	13,789,816	35,724,605	-	-	55,243,472
	13,087,591	60,217	13,839,430	194,655	43,084,304	26,202,027	37,750,313	133,884	961,857	135,314,278

The credit exposures by remaining contractual maturities of the Bank for the financial year ended 31 December 2018 were as follows:

Bank	Sovereigns/ central banks RM'000	Public sector entities RM'000	Banks, DFIs and MDBs RM'000	Ins cos, securities firms and fund managers RM'000	Corporates (including specialised lending and SMEs) RM'000	Retail RM'000	Residential mortgages RM'000	Equity exposures RM'000	Other assets RM'000	Grand total RM'000
< 3 months	3,290,858	30,472	12,038,829	63,778	11,560,508	810,168	15,887	-	125,263	27,935,763
3 - 6 months	56,531	11,396	853,765	9,957	2,642,987	197,071	9,895	-	-	3,781,602
6 - 12 months	476,927	16,786	160,053	23,409	2,770,679	7,341,955	1,606,411	-	-	12,396,220
1 - 3 years	4,026,435	-	729,488	31,821	12,368,152	2,591,426	116,353	114,445	903,513	20,881,633
3 - 5 years	2,668,818	-	388,509	1,279	7,426,579	556,756	258,361	-	-	11,300,302
> 5 years	2,551,423	-	17,794	-	5,553,486	14,163,408	34,627,078	-	-	56,913,189
	13,070,992	58,654	14,188,438	130,244	42,322,391	25,660,784	36,633,985	114,445	1,028,776	133,208,709

5. CREDIT RISK (Cont'd.)

(iv) The credit exposures by remaining contractual maturities of the Islamic Banking Window for the financial year ended 31 December 2019 were as follows:

Islamic Bankin Window	Sovereigns/ central banks RM'000	Public sector entities RM'000	Banks, DFIs and MDBs RM'000	Ins cos, securities firms and fund managers RM'000	Corporates (including specialised lending and SMEs) RM'000	Retail RM'000	Residential mortgages RM'000	Equity exposures RM'000	Other assets RM'000	Grand total RM'000
< 3 months	298,485	1,535	32,751	619	357,222	1,062	-	-	-	691,674
3 - 6 months	886,482	-	-	123	32,571	686	-	-	-	919,862
6 - 12 months	529,604	-	17,778	-	63,645	2,135	-	-	6,491	619,653
1 - 3 years	40,803	-	-	-	125,954	83	-	-	-	166,840
3 - 5 years	-	-	-	-	80,923	3,999	1,133	-	-	86,055
> 5 years	-	-	-	-	925,885	997,673	2,486,417	-	-	4,409,975
	1,755,374	1,535	50,529	742	1,586,200	1,005,638	2,487,550	-	6,491	6,894,059

The credit exposures by remaining contractual maturities of the Islamic Banking Window for the financial year ended 31 December 2018 were as follows:

Islamic Bankin Window	Sovereigns/ central banks RM'000	Public sector entities RM'000	Banks, DFIs and MDBs RM'000	Ins cos, securities firms and fund managers RM'000	Corporates (including specialised lending and SMEs) RM'000	Retail RM'000	Residential mortgages RM'000	Equity exposures RM'000	Other assets RM'000	Grand total RM'000
< 3 months	2,712,854	1,552	-	-	299,285	100	-	-	-	3,013,791
3 - 6 months	30,195	-	-	-	10,215	-	-	-	-	40,410
6 - 12 months	-	-	-	-	25,025	-	-	-	-	25,025
1 - 3 years	65,880	-	8,117	-	107,269	326	-	-	19,488	201,080
3 - 5 years	-	-	-	-	130,259	2,013	88	-	-	132,360
> 5 years	-	-	-	-	359,822	720,587	1,693,990	-	-	2,774,399
	2,808,929	1,552	8,117	-	931,875	723,026	1,694,078	-	19,488	6,187,065

5. CREDIT RISK (Cont'd.)

(v) Past due and credit-impaired loans, advances and financing analysed by economic sectors:

The Bank	2019 Past due but not impaired RM'000	2019 Impaired loans RM'000	2018 Past due but not impaired RM'000	2018 Impaired loans RM'000
Agriculture, hunting, forestry and fishing	3,751	1,109	32,870	661
Mining and quarrying	10,886	978	1,666	-
Manufacturing	175,063	177,841	207,265	136,935
Electricity, gas and water	1,740		8,767	-
Construction	195,085	201,291	233,725	204,187
Wholesale, retail trade, restaurant and hotels	311,676	176,440	454,208	173,862
Transport, storage and communication	16,654	101,214	42,932	70,630
Finance, insurance and business services	33,765	19,803	41,815	23,531
Real estate	162,141	203,346	225,964	209,088
Community, social and personal services	6,367	213	1,273	541
Households:				
- purchase of residential properties	1,284,066	497,044	1,203,651	444,979
- purchase of non residential properties	365,325	82,771	431,627	79,010
- others	203,231	98,760	205,309	89,728
	2,769,750	1,560,810	3,091,072	1,433,152

5. CREDIT RISK (Cont'd.)

Past due and credit-impaired financing, advances and others analysed by economic sectors for Islamic Banking Window:

	2019		2018	
Islamic Banking Window	**Past due but not impaired RM'000**	**Credit-impaired financing, advances and others RM'000**	**Past due but not impaired RM'000**	**Credit-impaired financing, advances and others RM'000**
Manufacturing	2,089	642	8,559	-
Construction	7,177	654	1,910	-
Wholesale, retail trade, restaurant and hotels	29,829	5,028	6,431	2,119
Transport, storage and communication	3,381	-	-	-
Finance, insurance and business services	-	-	1,579	-
Households:				
- purchase of residential properties	95,914	31,563	39,081	10,585
- purchase of non residential properties	6,299	499	2,215	
- others	935	100	364	
	145,624	38,486	60,139	12,704

5. CREDIT RISK (Cont'd.)

(vi) Allowances for Expected Credit Loss (ECL) 1,2 and 3 analysed by economic sector:

The Bank	2019 ECL 3 RM'000	2019 ECL 1 and ECL 2 RM'000	2018 ECL 3 RM'000	2018 ECL 1 and ECL 2 RM'000
Agriculture, hunting, forestry and fishing	-	67,013	-	19,279
Mining and quarrying	-	12,509	-	8,241
Manufacturing	75,948	117,584	41,214	111,604
Electricity, gas and water	-	3,644	-	7,980
Construction	29,130	110,688	32,140	112,241
Wholesale, retail trade, restaurant and hotels	33,347	197,484	32,727	191,239
Transport, storage and communication	47,121	32,644	40,349	21,747
Finance, insurance and business services	5,884	80,239	9,859	59,755
Real estate	3,223	62,550	3,062	66,332
Community, social and personal services	-	3,101	-	3,346
Households:				
- purchase of residential properties	63,799	382,205	31,841	382,733
- purchase of non residential properties	8,424	101,492	6,244	108,238
- others	19,256	66,800	15,238	68,102
	286,132	1,237,953	212,674	1,160,837

5. CREDIT RISK (Cont'd.)

Allowances for Expected Credit Loss (ECL) 1,2 and 3 analysed by economic sector for Islamic Banking Window:

	2019		2018	
Islamic Banking Window	**ECL 3 RM'000**	**ECL 1 and ECL 2 RM'000**	**ECL 3 RM'000**	**ECL 1 and ECL 2 RM'000**
Agriculture, hunting, forestry and fishing	-	20,138	-	57
Mining and quarrying	-	-	-	-
Manufacturing	643	5,386	-	5,094
Electricity, gas and water	-	30	-	1,233
Construction	-	2,329	-	1,957
Wholesale, retail trade, restaurant and hotels	1,058	4,006	348	12,560
Transport, storage and communication	-	600	-	1,780
Finance, insurance and business services	-	829	-	2,307
Real estate	-	1,341	-	3,740
Community, social and personal services	-	123	-	298
Households:				
- purchase of residential properties	5,414	3,021	1,285	116
- purchase of non residential properties	-	187	-	9
- others	-	103	-	4
	7,115	38,093	1,633	29,155

5. CREDIT RISK (Cont'd.)

(vii) Allowances for Expected Credit Loss 3 (ECL 3) analysed by economic sector:

The Bank	2019 Allowances for ECL 3 made during the year RM'000	2019 Write-offs during the year RM'000	2018 Allowances for ECL 3 made during the year RM'000	2018 Write-offs during the year RM'000
Agriculture, hunting, forestry and fishing	-	-	-	-
Mining and quarrying	-	-	-	-
Manufacturing	54,651	9,149	20,382	16,343
Electricity, gas and water	-	-	-	-
Construction	7,710	1,837	16,304	1,187
Wholesale, retail trade, restaurant and hotels	32,927	17,519	45,128	19,080
Transport, storage and communication	13,113	587	11,526	633
Finance, insurance and business services	8,235	2,832	10,019	100,475
Real estate	3,079	-	4,900	238
Community, social and personal services	280	280	168	160
Households:				
- purchase of residential properties	135,905	51,139	63,174	20,813
- purchase of non residential properties	11,841	2,189	7,967	2,426
- others	78,549	59,797	70,592	54,690
	346,290	145,329	250,160	216,045

5. CREDIT RISK (Cont'd.)

Allowances for ECL 3 analysed by economic sector for Islamic Banking Window:

Islamic Banking Window	2019 Allowances for ECL 3 made during the year RM'000	2019 Write-offs during the year RM'000	2018 Allowances for ECL 3 made during the year RM'000	2018 Write-offs during the year RM'000
Wholesale, retail trade, restaurant and hotels	1,973	-	394	-
Households:				
- purchase of residential properties	7,878	-	1,776	-
- purchase of non residential properties	-	-	-	-
			-	-
- others	16	-	9	-
	9,867	-	2,179	-

Impaired loans and impairment provision by geographical area

Past due loans, impaired loans and impairment provision were from customers residing in Malaysia.

5. CREDIT RISK (Cont'd.)

(viii) Credit exposure analysed by geography:

Bank **As at 31 December 2019**	**In Malaysia** **RM'000**	**Outside Malaysia** **RM'000**	**Total** **RM'000**
Cash and short-term funds	290,857	1,039,408	1,330,265
Deposits and placements with financial institutions	499,864	-	499,864
Securities purchased under resale agreements	3,568,380	-	3,568,380
Financial assets at fair value through profit or loss (FVTPL)	4,206,956	-	4,206,956
Debt instruments at fair value through other comprehensive income (FVOCI)	20,026,345	-	20,026,345
Debt instruments at amortised cost	803,460	-	803,460
Other assets	307,797	20,141	327,938
Loans, advances and financing	77,822,834	7,007,909	84,830,743
Derivative financial assets	331,685	103,341	435,026
Statutory deposits with BNM	1,722,676	-	1,722,676
Financial assets not subject to credit risk	1,084,896	60,833	1,145,729
	110,665,750	8,231,632	118,897,382
Commitments and contingencies	92,380,617	10,453,514	102,834,131

As at 31 December 2018	**In Malaysia** **RM'000**	**Outside Malaysia** **RM'000**	**Total** **RM'000**
Cash and short-term funds	3,567,087	357,845	3,924,932
Deposits and placements with financial institutions	799,783	-	799,783
Securities purchased under resale agreements	4,603,059	-	4,603,059
Financial assets at fair value through profit or loss (FVTPL)	1,811,633	-	1,811,633
Debt instruments at fair value through other comprehensive income (FVOCI)	15,852,301	-	15,852,301
Debt instruments at amortised cost	228,315	-	228,315
Other assets	616,890	35,209	652,099
Loans, advances and financing	74,997,835	7,036,840	82,034,675
Derivative financial assets	311,462	65,034	376,496
Statutory deposits with BNM	2,016,869	-	2,016,869
Financial assets not subject to credit risk	682,552	-	682,552
	105,487,786	7,494,928	112,982,714
Commitments and contingencies	91,053,870	10,534,500	101,588,370

5. CREDIT RISK (Cont'd.)

Credit Exposures under Basel II

Under Basel II, credit risk for the various asset classes may be computed using a combination of:

i. Standardised Approach (SA);
ii. Foundation Internal Ratings-Based (FIRB) Approach; and
iii. Advanced Internal Ratings-Based (AIRB) Approach.

The table below summarises the approaches adopted by the Bank for credit risk computation.

The Bank has adopted the FIRB Approach for its non-retail exposures and the AIRB Approach for its retail exposures.

	Standardised* RM'million	FIRB RM'million	AIRB RM'million
Total Credit Exposures	14,658	48,240	63,952

*Amount under Standardised Approach refers to credit exposures where IRB Approach is not applicable.

The Bank had on 7 January 2010 received approval from BNM to migrate directly to the Internal Ratings Based Approach for credit risk beginning January 2010 as per the Risk Weighted Capital Adequacy Framework.

For exposures subject to the SA, approved External Credit Assessment Institutions (ECAI) ratings and prescribed risk weights based on asset class are used in the computation of regulatory capital.

The ECAI used by the Bank are Rating Agency Malaysia, Fitch Ratings, Moody's Investors Service, Malaysian Rating Corporation Berhad and Standard & Poor's. ECAI ratings are mapped to a common credit quality grade prescribed by BNM.

5. CREDIT RISK (Cont'd.)

The aggregate breakdown of credit risk standardised exposures by risk weights of the Bank for the financial year ended 31 December 2019 were as follows:

	Bank								
Risk weights	**Sovereigns/ central banks**	**Public sector entities**	**Banks, DFIs and MDBs**	**Ins cos, securities firms and fund managers**	**Corporates**	**Other assets**	**Equity**	**Total exposures after netting and CRM**	**Total RWA**
	RM'000	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
0%	13,081,450	25,709	-	-	2,062	278,378	-	13,387,599	-
10%	-	-	-	-	-	-	-	-	-
20%	6,141	34,508	-	-	110	-	-	40,759	8,152
35%	-	-	-	-	-	-	-	-	-
50%	-	-	-	-	39	-	-	39	19
75%	-	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-	-
100%	-	-	-	41,515	371,875	683,479	131,809	1,228,678	1,228,678
110%	-	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-	-
150%	-	-	-	-	643	-	-	643	965
270%	-	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-	-
1250.0%	-	-	-	-	-	-	-	-	-
Total	**13,087,591**	**60,217**	**-**	**41,515**	**374,729**	**961,857**	**131,809**	**14,657,717**	**1,237,814**

5. CREDIT RISK (Cont'd.)

The aggregate breakdown of credit risk standardised exposures by risk weights of the Bank for the financial year ended 31 December 2018 were as follows:

Risk weights	Bank								
	Sovereigns/ central banks	Public sector entities	Banks, DFIs and MDBs	Ins cos, securities firms and fund managers	Corporates	Other assets	Equity	Total exposures after netting and CRM	Total RWA
	RM'000	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
0%	13,036,857	-	-	-	1,174	248,540	-	13,286,571	-
10%	-	-	-	-	-	-	-	-	-
20%	34,135	58,654	-	-	-	-	-	92,789	18,558
35%	-	-	-	-	-	-	-	-	-
50%	-	-	-	-	1	-	-	1	1
75%	-	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-	-
100%	-	-	-	31,089	374,322	780,236	112,489	1,298,136	1,298,136
110%	-	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-	-
150%	-	-	-	-	2,451	-	-	2,451	3,676
270%	-	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-	-
1250.0%	-	-	-	-	-	-	-	-	-
Total	**13,070,992**	**58,654**	**-**	**31,089**	**377,948**	**1,028,776**	**112,489**	**14,679,948**	**1,320,371**

5. CREDIT RISK (Cont'd.)

Credit Exposures under Basel II (cont'd.)

The table below summarises the approaches adopted by the Bank for credit risk computation.

The Bank has adopted the FIRB Approach for its non-retail exposures and the AIRB Approach for its retail exposures under its Islamic Banking Window:

	Standardised* RM'million	FIRB RM'million	AIRB RM'million
Total Credit Exposures	1,764	1,580	3,493

*Amount under Standardized Approach refers to credit exposures where IRB Approach is not applicable.

5. CREDIT RISK (Cont'd.)

The aggregate breakdown of credit risk standardised exposures by risk weights of the Islamic Banking Window for the financial year ended 31 December 2019 were as follows:

	Islamic Banking Window							
Risk weights	**Sovereigns/ central banks**	**Public sector entities**	**Banks, DFIs and MDBs**	**Ins cos, securities firms and fund managers**	**Corporates**	**Other assets**	**Total exposures after netting and CRM**	**Total RWA**
	RM'000	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
0%	1,755,374	-	-	-	-	-	1,755,374	-
10%	-	-	-	-	-	-	-	-
20%	-	1,535	-	-	-	-	1,535	307
35%	-	-	-	-	-	-	-	-
50%	-	-	-	-	-	-	-	-
75%	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-
100%	-	-	-	742	-	6,491	7,233	7,233
110%	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-
150%	-	-	-	-	-	-	-	-
270%	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-
1250.0%	-	-	-	-	-	-	-	-
Total	**1,755,374**	**1,535**	**-**	**742**	**-**	**6,491**	**1,764,142**	**7,540**

5. CREDIT RISK (Cont'd.)

The aggregate breakdown of credit risk standardised exposures by risk weights of the Islamic Banking Window for the financial year ended 31 December 2018 were as follows:

	Islamic Banking Window							
Risk weights	**Sovereigns/ central banks**	**Public sector entities**	**Banks, DFIs and MDBs**	**Ins cos, securities firms and fund managers**	**Corporates**	**Other assets**	**Total exposures after netting and CRM**	**Total RWA**
	RM'000	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
0%	2,808,929	-	-	-	-	-	2,808,929	-
10%	-	-	-	-	-	-	-	-
20%	-	1,552	-	-	-	-	1,552	311
35%	-	-	-	-	-	-	-	-
50%	-	-	-	-	-	-	-	-
75%	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-
100%	-	-	-	-	-	19,488	19,488	19,488
110%	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-
150%	-	-	-	-	-	-	-	-
270%	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-
1250.0%	-	-	-	-	-	-	-	-
Total	**2,808,929**	**1,552**	**-**	**-**	**-**	**19,488**	**2,829,969**	**19,799**

5. CREDIT RISK (Cont'd.)

Rated Exposures according to ratings by ECAIs of the Bank as at 31 December 2019 were as follows:

RM'000

Exposure class	**Ratings of Corporates by Approved ECAIs**					
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	RAM	AAA to AA3	A to A3	BBB1 to BB3	B to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
On and off-balance sheet exposures						
Credit exposures (using corporate risk weights)						
Public sector entities (applicable for entities risk weighted based on their external ratings as corporates)		-	-	-	-	60,217
Insurance cos, securities firms and fund managers		-	-	-	-	41,515
Corporates		-	-	-	-	374,729
Total		**-**	**-**	**-**	**-**	**476,461**

RM'000

Exposure class	**Ratings of Banking Institutions by Approved ECAIs**						
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	RAM	AAA to AA3	A1 to A3	BBB1 to BBB3	BB1 to B3	C1 to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	C+ to D	Unrated
On and off-balance sheet exposures							
Banks, DFIs and MDBs		-	-	-	-	-	-
Total		**-**	**-**	**-**	**-**	**-**	**-**

5. CREDIT RISK (Cont'd.)

RM'000

Exposure class	Ratings of Sovereigns and Central Banks by Approved ECAIs						
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	RAM	AAA to AA3	A1 to A3	BBB1 to BBB3	BB1 to B3	C1 to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	C+ to D	Unrated
On and off-balance sheet exposures							
Sovereigns/ central banks		-	12,900,833	-	-	-	186,758
Total		**-**	**12,900,833**	**-**	**-**	**-**	**186,758**

Rated Exposures according to ratings by ECAIs of the Bank for the financial year ended 31 December 2018 were as follows:

RM'000

Exposure class	Ratings of Corporates by Approved ECAIs					
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	RAM	AAA to AA3	A to A3	BBB1 to BB3	B to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
On and off-balance sheet exposures						
Credit exposures (using corporate risk weights)						
Public sector entities (applicable for entities risk weighted based on their external ratings as corporates)		-	-	-	-	58,654
Insurance cos, securities firms and fund managers		-	-	-	-	31,089
Corporates		-	-	-	-	377,948
Total		**-**	**-**	**-**	**-**	**467,691**

5. CREDIT RISK (Cont'd.)

RM'000

Exposure class	Ratings of Banking Institutions by Approved ECAIs						
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	RAM	AAA to AA3	A1 to A3	BBB1 to BBB3	BB1 to B3	C1 to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	C+ to D	Unrated
On and off-balance sheet exposures							
Banks, DFIs and MDBs		-	-	-	-	-	-
Total		**-**	**-**	**-**	**-**	**-**	**-**

RM'000

Exposure class	Ratings of Sovereigns and Central Banks by Approved ECAIs						
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	RAM	AAA to AA3	A1 to A3	BBB1 to BBB3	BB1 to B3	C1 to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	C+ to D	Unrated
On and off-balance sheet exposures							
Sovereigns/ central banks		-	13,070,992	-	-	-	-
Total		**-**	**13,070,992**	**-**	**-**	**-**	**-**

5. CREDIT RISK (Cont'd.)

Rated Exposures according to ratings by ECAIs of the Islamic Banking Window as at 31 December 2019 were as follows:

RM'000

Exposure class	Ratings of Corporates by Approved ECAIs					
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	RAM	AAA to AA3	A to A3	BBB1 to BB3	B to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
On and off-balance sheet exposures						
Credit exposures (using corporate risk weights)						
Public sector entities (applicable for entities risk weighted based on their external ratings as corporates)		-	-	-	-	1,535
Insurance cos, securities firms and fund managers		-	-	-	-	742
Corporates						-
Total		**-**	**-**	**-**	**-**	**2,277**

RM'000

Exposure class	Ratings of Banking Institutions by Approved ECAIs						
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	RAM	AAA to AA3	A1 to A3	BBB1 to BBB3	BB1 to B3	C1 to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	C+ to D	Unrated
On and off-balance sheet exposures							
Banks, DFIs and MDBs		-	-	-	-	-	-
Total		**-**	**-**	**-**	**-**	**-**	**-**

5. CREDIT RISK (Cont'd.)

RM'000

Exposure class	Ratings of Sovereigns and Central Banks by Approved ECAIs						
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	RAM	AAA to AA3	A1 to A3	BBB1 to BBB3	BB1 to B3	C1 to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	C+ to D	Unrated
On and off-balance sheet exposures							
Sovereigns/ central banks		-	1,755,374	-	-	-	-
Total		**-**	**1,755,374**	**-**	**-**	**-**	**-**

Rated Exposures according to ratings by ECAIs of the Islamic Banking Window for the financial year ended 31 December 2018 were as follows:

RM'000

Exposure class	Ratings of Corporates by Approved ECAIs					
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	RAM	AAA to AA3	A to A3	BBB1 to BB3	B to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
On and off-balance sheet exposures						
Credit exposures (using corporate risk weights)						
Public sector entities (applicable for entities risk weighted based on their external ratings as corporates)		-	-	-	-	1,552
Insurance cos, securities firms and fund managers		-	-	-	-	-
Corporates						-
Total		**-**	**-**	**-**	**-**	**1,552**

5. CREDIT RISK (Cont'd.)

RM'000

Exposure class						
	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	AAA to AA3	A1 to A3	BBB1 to BBB3	BB1 to B3	C1 to D	Unrated
	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	C+ to D	Unrated
<u>On and off-balance sheet exposures</u>						
Banks, DFIs and MDBs	-	-	-	-	-	-
Total	-	-	-	-	-	-

RM'000

Exposure class		Ratings of Sovereigns and Central Banks by Approved ECAIs					
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
	RAM	AAA to AA3	A1 to A3	BBB1 to BBB3	BB1 to B3	C1 to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	C+ to D	Unrated
<u>On and off-balance sheet exposures</u>							
Sovereigns/ central banks		-	2,808,929	-	-	-	-
Total		**-**	**2,808,929**	**-**	**-**	**-**	**-**

5. CREDIT RISK (Cont'd.)

Internal credit rating system

The Bank employs internal rating models to support the assessment of credit risk and assignment of exposures to rating grades or pools. Internal ratings are used pervasively by the Bank in the areas of credit approval, credit review and monitoring, credit stress testing, limits setting, pricing and collections.

The Bank has established a credit rating governance framework to ensure the reliable and consistent performance of the Bank's rating systems. The framework defines the roles and responsibilities of the various parties in the credit rating process, including independent model performance monitoring, annual model validation and independent reviews by Internal Audit.

Credit risk models are independently validated before they are implemented to ensure they are fit for purpose. The robustness of these rating models is monitored on an ongoing basis, and all models are subject to annual reviews conducted by model owners to ascertain that the chosen risk factors and assumptions continue to remain relevant for the respective portfolios. All new models, model changes and annual reviews are approved by the EXCO or Board, depending on the materiality of the portfolio.

Non-Retail Exposures

The Bank has adopted the FIRB Approach for its non-retail exposures. Under this approach, the probability of default (PD) for each borrower is estimated using internal models. These PD models employ qualitative and quantitative factors to provide an assessment of the borrower's ability to meet their financial obligations, and are calibrated to provide an estimate of the likelihood of default over one-year time horizon. A default is considered to have occurred if:

- the obligor is unlikely to pay its credit obligations in full to the Bank, without recourse by the Bank to actions such as realising the security; or
- the obligor is past due for more than 90 days on any credit obligation to the Bank.

Supervisory loss given default (LGD) and exposure at default (EAD) parameters prescribed by the BNM are used together with the internal credit ratings to calculate risk weights and regulatory capital requirements.

While the Bank's internal risk rating grades may show some correlation with the rating grades of external credit assessment institutions (ECAIs), they are not directly comparable or equivalent to the ECAIs ratings.

5. CREDIT RISK (Cont'd.)

Corporate Portfolio

The Bank has developed models to rate exposures in the Non-bank Financial Institution (NBFI), Large Corporate and SME portfolios. Credit risk factors used to derive a borrower's risk rating include its financial strength, quality of management, business risks, and the industry in which it operates. The borrower risk rating process is augmented by facility risk ratings, which take into account the type and structure of the facility, availability and type of collateral, and seniority of the exposure.

The Bank's internal rating grade structure for the NBFI, Large Corporate and SME models consists of 16 pass grades. The models are mapped to the rating scale by calibration that takes into account the Bank's long-term average portfolio default rate.

Specialised Lending Portfolio

The Bank has developed models for four Specialised Lending portfolios, namely: Income Producing Real Estate (IPRE), Commodities Finance (CF), Project Finance (PF) and Ship Finance (SF). Internal risk grades are derived based on a comprehensive assessment of financial and non-financial risk factors using internal scorecards.

The rating grade structure for IPRE portfolios follows that of the corporate asset class, with 16 pass grades. Risk grades derived for CF, PF and SF portfolios are mapped to four supervisory slotting categories, which determines the risk weights to be applied to such exposures.

Bank Portfolio

The Bank's internal scorecard takes into account asset quality, capital adequacy, liquidity, management, regulatory environment and robustness of the overall banking system. The scorecard has an internal rating grade structure consisting of 15 pass grades.

Equity Portfolio

The Bank adopts the following approaches for its equity investments:

i. Simple Risk Weight (SRW) method for its equity investment portfolio; and
ii. PD/LGD method for its investments in Tier-1 and Tier-2 perpetual securities issued by banks.

Investment exposures adopting the SRW method are subject to the supervisory risk weights, while investment exposures adopting the PD/LGD method are rated using the Bank's internal scorecard.

5. CREDIT RISK (Cont'd.)

Retail Exposures

The Bank has adopted the AIRB Approach for its retail exposures, which comprises residential mortgages, qualifying revolving retail exposures and other retail exposures.

Exposures within each of these asset classes are not managed individually, but as part of a pool of similar exposures based on borrower and transaction characteristics. Internal risk segmentation models are used to estimate PD, LGD and EAD parameters for each of these exposure pools based on historical internal loss data. Where internal loss data are insufficient to provide robust risk estimates, the segmentation models may incorporate internal and/or external proxies and, where necessary, may be augmented with appropriate margins of conservatism.

Retail Probability of Default Models

Retail PD models are based on pools of homogeneous exposures segmented by a combination of application scores, behavioral scores and other risk drivers reflecting borrower, facility and delinquency characteristics. PD pools are calibrated through-the-cycle using at least five years of historical data that cover a full economic cycle. For low default portfolios, internal and/or external proxies that are highly correlated with internal defaults are used to estimate the long-run average PD. A regulatory floor of 0.03 per cent is applied to all PD pools.

In general, the long-run observed default rates are largely lower than the PD estimates due to the model's calibration philosophy and the application of conservative overlays to account for model risk.

Retail Loss Given Default Models

Retail LGDs are estimated directly using historical default and recovery data via the 'workout' approach, which considers the economic losses arising from different post-default scenarios such as cured, restructured and liquidated. LGD models are segmented using material pre-default risk drivers such as facility and collateral characteristics.

LGD models are calibrated to reflect a portfolio's economic downturn experience. In addition, for residential mortgages, an LGD floor of 10 per cent is applied at the segment level.

Retail Exposure at Default Models

For revolving products, EAD is computed based on the current outstanding balance and the estimated potential drawdown of undrawn commitments, which is statistically determined based on historical data. For closed-end products, the EAD is the current outstanding balance. EAD models are generally segmented by material pre-default risk drivers such as facility type, limit and utilisation. EAD models are calibrated to reflect the portfolio long-run averages, except for portfolios that exhibit positive correlation between LGD and PD values, in which case, these portfolios' EAD models are calibrated to reflect their economic downturn conditions. EADs must be at least equal to the current outstanding balances.

5. CREDIT RISK (Cont'd.)

Credit risk profile

The following tables presented the breakdown of exposures by RWA and EAD using the respective internal rating scale for the model applicable to the asset classes:

Exposures under the IRB approach by Risk Grade

31-Dec-19
Bank

CRR band	1-9	10-16	17-20 (Default)
	RM'000	RM'000	RM'000
(EAD)			
Large corporate, SMEs and specialised lending (IPRE)	24,441,803	17,347,264	833,429
Bank	13,817,071	22,360	-
Total non-retail exposures	38,258,874	17,369,624	833,429
Undrawn commitments			
Large corporate, SMEs and specialised lending (IPRE)	1,573,867	1,044,987	966
Bank	-	-	-
Total undrawn commitments	1,573,867	1,044,987	966
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending (IPRE)	42%	40%	45%
Bank	33%	45%	0%
Exposure weighted average risk			
Large corporate, SMEs and specialised lending (IPRE)	72%	116%	0%
Bank	10%	48%	0%

Specialised Lending Exposure under the Supervisory Slotting Criteria

Supervisory Categories / Risk Weights	Strong/ 70%	Good/ 90%	Satisfactory/ 115%	Weak/ 250%	Default/ 0%
	RM'000	RM'000	RM'000	RM'000	RM'000
Specialised Lending Exposure (EAD)					
Project Finance	79,780	-	-	-	-
Object Finance	4,048	-	-	-	-
Risk Weighted Assets	58,680	-	-	-	-

5. CREDIT RISK (Cont'd.)

Exposures under the IRB approach by Risk Grade (cont'd.)

31-Dec-19
Bank

PD range of retail exposures	**0.00% to 1.00%**	**1.01% to 2.00%**	**2.01% to 99.99%**	**SD to default**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Retail exposures (EAD)				
Residential mortgages	32,939,273	902,689	3,364,930	543,421
Qualifying revolving retail	4,206,863	950,767	2,072,330	45,620
Other retail	14,332,666	2,137,030	2,251,487	205,264
Total retail exposures	51,478,802	3,990,486	7,688,747	794,305
Undrawn commitments				
Residential mortgages	2,157,061	220,580	152,533	-
Qualifying revolving retail	3,067,736	490,014	830,962	-
Other retail	2,076,321	497,896	303,527	145
Total undrawn commitments	7,301,118	1,208,490	1,287,022	145
Exposure weighted average LGD (%)				
Residential mortgages	12.52%	14.38%	13.08%	13.46%
Qualifying revolving retail	33.03%	43.95%	45.48%	59.04%
Other retail	16.16%	26.59%	28.09%	25.17%
Exposure weighted average risk				
Residential mortgages	7.15%	22.43%	43.89%	50.61%
Qualifying revolving retail	6.35%	19.01%	67.52%	386.90%
Other retail	12.13%	29.97%	45.06%	127.46%

31-Dec-18
Bank

CRR band	**1-9**	**10-16**	**17-20 (Default)**
	RM'000	**RM'000**	**RM'000**
(EAD)			
Large corporate, SMEs and specialised lending (IPRE)	24,475,227	16,628,011	798,923
Bank	13,363,922	824,516	-
Total non-retail exposures	37,839,149	17,452,527	798,923
Undrawn commitments			
Large corporate, SMEs and specialised lending (IPRE)	1,930,295	1,753,562	21,579
Bank	-	-	-
Total undrawn commitments	1,930,295	1,753,562	21,579
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending (IPRE)	43%	39%	44%
Bank	34%	45%	0%
Exposure weighted average risk			
Large corporate, SMEs and specialised lending (IPRE)	71%	117%	2%
Bank	10%	40%	0%

5. CREDIT RISK (Cont'd.)

Specialised Lending Exposure under the Supervisory Slotting Criteria

Supervisory Categories / Risk Weights	**Strong/ 70%**	**Good/ 90%**	**Satisfactory/ 115%**	**Weak/ 250%**	**Default/ 0%**
	RM'000	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Specialised Lending Exposure (EAD)					
Project Finance	33,281	-	-	-	-
Object Finance	563	5,015	-	-	-
Risk Weighted Assets	23,691	4,514	-	-	-

PD range of retail exposures	**0.00% to 1.00%**	**1.01% to 2.00%**	**2.01% to 99.99%**	**SD to default**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Retail exposures (EAD)				
Residential mortgages	31,913,946	1,087,153	3,135,750	497,136
Qualifying revolving retail	4,241,809	760,733	1,744,008	38,737
Other retail	14,371,263	2,126,115	2,190,704	187,415
Total retail exposures	50,527,018	3,974,001	7,070,462	723,288
Undrawn commitments				
Residential mortgages	2,212,750	291,969	160,681	-
Qualifying revolving retail	3,126,817	328,075	587,096	-
Other retail	2,020,913	574,904	283,180	328
Total undrawn commitments	7,360,480	1,194,948	1,030,957	328
Exposure weighted average LGD (%)				
Residential mortgages	12.17%	14.16%	12.62%	12.68%
Qualifying revolving retail	31.99%	45.02%	45.09%	56.19%
Other retail	16.20%	26.51%	26.43%	24.35%
Exposure weighted average risk				
Residential mortgages	6.92%	21.94%	42.30%	80.57%
Qualifying revolving retail	5.99%	19.66%	65.86%	353.30%
Other retail	12.06%	28.95%	40.91%	131.67%

5. CREDIT RISK (Cont'd.)

Exposures under the IRB approach by Risk Grade (cont'd.)

31-Dec-19
Islamic Bank Window

CRR band	**1-9**	**10-16**	**17-20 (Default)**
	RM'000	**RM'000**	**RM'000**
(EAD)			
Large corporate, SMEs and specialised lending (IPRE)	1,049,020	537,180	-
Bank	50,529	-	-
Total non-retail exposures	1,099,548	537,180	-
Undrawn commitments			
Large corporate, SMEs and specialised lending (IPRE)	72,240	28,172	-
Bank	-	-	-
Total undrawn commitments	72,240	28,172	-
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending (IPRE)	45%	43%	0%
Bank	45%	0%	0%
Exposure weighted average risk			
Large corporate, SMEs and specialised lending (IPRE)	109%	130%	0%
Bank	11%	0%	0%

As at 31 December 2019, there were no Specialised Lending Exposure under the Supervisory Slotting Criteria for Islamic Banking Window.

PD range of retail exposures	**0.00% to 1.00%**	**1.01% to 2.00%**	**2.01% to 99.99%**	**SD to default**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Retail exposures (EAD)				
Residential mortgages	2,044,189	147,685	264,078	31,599
Other retail	532,453	327,262	139,157	6,767
Total retail exposures	2,576,642	474,947	403,235	38,366
Undrawn commitments				
Residential mortgages	322,448	42,512	11,101	-
Other retail	82,568	68,038	12,796	-
Total undrawn commitments	405,015	110,550	23,897	-
Exposure weighted average LGD (%)				
Residential mortgages	15.53%	15.51%	16.56%	15.71%
Other retail	21.57%	26.03%	31.41%	35.66%
Exposure weighted average risk				
Residential mortgages	10.63%	23.81%	53.38%	1.92%
Other retail	17.48%	29.20%	46.17%	133.72%

5. CREDIT RISK (Cont'd.)

Exposures under the IRB approach by Risk Grade (cont'd.)

31-Dec-18
Islamic Bank Window

CRR band	**1-9**	**10-16**	**17-20 (Default)**
	RM'000	**RM'000**	**RM'000**
(EAD)			
Large corporate, SMEs and specialised lending (IPRE)	605,507	326,368	-
Bank	8,117	-	-
Total non-retail exposures	613,624	326,368	-
Undrawn commitments			
Large corporate, SMEs and specialised lending (IPRE)	10,612	13,141	-
Bank	-	-	-
Total undrawn commitments	10,612	13,141	-
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending (IPRE)	44%	44%	-
Bank	45%	-	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending (IPRE)	85%	111%	-
Bank	10%	-	-

As at 31 December 2018, there were no Specialised Lending Exposure under the Supervisory Slotting Criteria for Islamic Banking Window.

PD range of retail exposures	**0.00% to 1.00%**	**1.01% to 2.00%**	**2.01% to 99.99%**	**SD to default**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Retail exposures (EAD)				
Residential mortgages	1,296,441	245,383	142,175	10,080
Other retail	356,351	279,316	84,742	2,617
Total retail exposures	1,652,792	524,699	226,917	12,697
Undrawn commitments				
Residential mortgages	267,182	68,623	13,717	-
Other retail	86,916	106,880	15,858	-
Total undrawn commitments	354,098	175,503	29,575	-
Exposure weighted average LGD (%)				
Residential mortgages	15.45%	15.44%	16.79%	15.69%
Other retail	20.29%	23.31%	26.59%	32.31%
Exposure weighted average risk				
Residential mortgages	10.18%	23.70%	50.48%	29.43%
Other retail	15.95%	26.21%	39.51%	223.88%

5. CREDIT RISK (Cont'd.)

Retail exposures under the IRB approach by expected loss range as at 31 December 2019 were as follows:

Bank

EL% range of retail exposures	0.0% to 1.0%	1.0% to 5.0%	5.0% to 10.0%	10.0% to 30.0%	30.0% to 100.0%
	RM'000	RM'000	RM'000	RM'000	RM'000
Retail exposures (EAD)					
Residential mortgages	36,402,155	947,392	97,276	303,490	-
Qualifying revolving retail	5,226,242	1,440,787	262,409	258,037	88,105
Other retail	17,678,728	872,494	232,159	99,587	43,479
Total retail exposures	59,307,125	3,260,672	591,844	661,114	131,585
Undrawn commitments					
Residential mortgages	2,516,661	11,683	1,830	-	-
Qualifying revolving retail	3,624,311	660,237	56,352	45,335	2,477
Other retail	2,790,222	34,937	2,985	49,745	-
Total undrawn commitments	8,931,193	706,858	61,167	95,080	2,477
Exposure weighted average risk weight (%)					
Residential mortgages	9.89%	66.72%	75.83%	0.53%	0.00%
Qualifying revolving retail	8.24%	48.47%	114.87%	169.27%	177.78%
Other retail	15.36%	62.98%	100.05%	141.86%	39.89%

Retail exposures under the IRB approach by expected loss range for the financial year ended 31 December 2018 were as follows:

Bank

EL% range of retail exposures	0.0% to 1.0%	1.0% to 5.0%	5.0% to 10.0%	10.0% to 30.0%	30.0% to 100.0%
	RM'000	RM'000	RM'000	RM'000	RM'000
Retail exposures (EAD)					
Residential mortgages	35,471,348	880,748	69,560	212,329	-
Qualifying revolving retail	5,062,787	1,220,837	214,840	213,146	73,677
Other retail	17,547,085	1,047,738	199,321	43,205	38,148
Total retail exposures	58,081,220	3,149,323	483,721	468,680	111,825
Undrawn commitments					
Residential mortgages	2,651,618	12,435	1,347	-	-
Qualifying revolving retail	3,511,836	464,725	39,867	23,561	1,999
Other retail	2,777,247	98,642	2,187	1,175	74
Total undrawn commitments	8,940,701	575,802	43,401	24,736	2,073
Exposure weighted average risk weight (%)					
Residential mortgages	9.81%	65.32%	81.89%	29.47%	-
Qualifying revolving retail	7.64%	47.45%	112.85%	165.36%	174.02%
Other retail	14.89%	56.94%	96.04%	180.23%	35.81%

5. CREDIT RISK (Cont'd.)

Retail exposures under the IRB approach by expected loss range as at 31 December 2019 were as follows:

Islamic Banking Window

EL% range of retail exposures	0.0% to 1.0%	1.0% to 5.0%	5.0% to 10.0%	10.0% to 30.0%	30.0% to 100.0%
	RM'000	RM'000	RM'000	RM'000	RM'000
Retail exposures (EAD)					
Residential mortgages	2,413,614	33,512	8,926	31,499	-
Other retail	935,987	55,613	10,230	1,064	2,745
Total retail exposures	3,349,601	89,125	19,156	32,563	2,745
Undrawn commitments					
Residential mortgages	375,898	163	-	-	-
Other retail	157,827	5,560	15	-	-
Total undrawn commitments	533,725	5,722	15	-	-
Exposure weighted average risk weight (%)					
Residential mortgages	14.87%	79.69%	89.53%	1.76%	0.00%
Other retail	22.54%	60.87%	154.23%	124.68%	0.00%

Retail exposures under the IRB approach by expected loss range for the financial year ended 31 December 2018 were as follows:

Islamic Banking Window

EL% range of retail exposures	0.0% to 1.0%	1.0% to 5.0%	5.0% to 10.0%	10.0% to 30.0%	30.0% to 100.0%
	RM'000	RM'000	RM'000	RM'000	RM'000
Retail exposures (EAD)					
Residential mortgages	1,669,858	10,403	3,838	9,980	-
Other retail	692,020	22,456	4,854	3,696	-
Total retail exposures	2,361,878	32,859	8,692	13,676	-
Undrawn commitments					
Residential mortgages	349,522	-	-	-	-
Other retail	206,573	3,082	-	-	-
Total undrawn commitments	556,094	3,082	-	-	-
Exposure weighted average risk weight (%)					
Residential mortgages	15.00%	77.43%	89.10%	29.00%	0.00%
Other retail	21.12%	56.75%	68.22%	194.49%	0.00%

5. CREDIT RISK (Cont'd.)

Actual loss by asset class

Actual loss consists of impairment loss allowance and write-off to the Bank's income statement for the financial year ended 31 December 2019.

Comparison of actual loss and expected loss by asset class

Bank

Asset class	Actual loss (as at 31 December 2019)	Expected loss (as at 31 December 2018)	Actual loss (as at 31 December 2018)	Expected loss (as at 31 December 2017)
	RM'000	RM'000	RM'000	RM'000
Corporate	19,355	867,297	22,159	769,260
Bank	-	5,022	-	3,211
Retail	155,368	287,377	77,891	274,935
Total	**174,723**	**1,159,696**	**100,050**	**1,047,406**

The actual loss in 2019 is lower than the expected loss computed as at 31 December 2018. The Bank continues to be proactive in its risk management approach to ensure that actual losses remained within Bank's expectations.

EL is the estimated credit loss from defaults over a one-year horizon. EL is the product of PD, LGD and EAD. A comparison of actual loss and expected loss provides an indication of the predictive power of the IRB models used by the Bank.

However, they are not directly comparable due to the following reasons:

i. EL as at 31 December 2018 is a measure of expected credit loss based on the credit exposure as at that date. On the other hand, impairment loss allowance and write-offs are accounting entries relating to a fluctuating portfolio over the course of the financial year. Moreover, write-offs may relate to defaults from prior years.

ii. EL is estimated based on non-default exposures only, while impairment loss allowance is an accounting estimate of likely loss from defaulted exposures. Write-offs are recorded on defaulted exposures when no further recovery is possible.

Islamic Banking Window

Asset class	Actual loss (as at 31 December 2019)	Expected loss (as at 31 December 2018)	Actual loss (as at 31 December 2018)	Expected loss (as at 31 December 2017)
	RM'000	RM'000	RM'000	RM'000
Corporate	-	8,416	-	5,064
Bank	-	21	-	6
Retail	6,235	6,881	1,583	2,460
Total	**6,235**	**15,318**	**1,583**	**7,530**

5. CREDIT RISK (Cont'd.)

Actual loss consists of allowances for ECL and write-off to the Bank's income statement for the financial year ended 31 December 2019.

Bank 2019	Stage 1 12 Months ECL RM'000	Stage 2 Lifetime ECL non credit-impaired RM'000	Stage 3 Lifetime ECL credit-impaired RM'000	Total ECL RM'000
At 1 January	798,668	362,169	212,674	1,373,511
Transferred to Stage 1	43,278	(136,731)	(7,005)	(100,458)
Transferred to Stage 2	(62,901)	235,776	(14,701)	158,174
Transferred to Stage 3	(583)	(53,267)	177,925	124,075
Allowances made for the financial year	370,086	62,989	168,365	601,440
Maturity/settlement/repayment	(277,433)	(103,645)	(100,221)	(481,299)
Exchange differences	(438)	(15)	-	(453)
Net total	72,009	5,107	224,363	301,479
Amounts written off	-	-	(145,329)	(145,329)
Other movements	-	-	(5,576)	(5,576)
At 31 December	870,677	367,276	286,132	1,524,085

Bank 2018	Stage 1 12 Months ECL RM'000	Stage 2 Lifetime ECL non credit-impaired RM'000	Stage 3 Lifetime ECL credit-impaired RM'000	Total ECL RM'000
At 1 January	690,916	402,436	310,143	1,403,495
Transferred to Stage 1	33,571	(104,752)	(5,340)	(76,521)
Transferred to Stage 2	(41,617)	189,282	(13,849)	133,816
Transferred to Stage 3	(678)	(52,481)	108,743	55,584
Allowances made for the financial year	398,271	88,051	141,417	627,739
Maturity/settlement/repayment	(281,908)	(160,254)	(113,673)	(555,835)
Exchange differences	113	(113)	-	-
Net total	107,752	(40,267)	117,298	184,783
Amounts written off	-	-	(216,045)	(216,045)
Other movements	-	-	1,278	1,278
At 31 December	798,668	362,169	212,674	1,373,511

5. CREDIT RISK (Cont'd.)

Movements in the allowances for ECL and write-off on financing, advances and others for Islamic Banking Window are as follows:

2019	Stage 1 12 Months ECL RM'000	Stage 2 Lifetime ECL not credit impaired RM'000	Stage 3 Lifetime ECL credit impaired RM'000	Total ECL RM'000
At 1 January	13,706	15,449	1,633	30,788
Transferred to Stage 1	499	(6,297)	-	(5,798)
Transferred to Stage 2	(952)	29,735	(1,134)	27,649
Transferred to Stage 3	(23)	(1,649)	6,405	4,733
Allowances made for the financial year	45,739	489	3,462	49,690
Maturity/settlement/ repayment	(48,206)	(10,397)	(2,496)	(61,099)
Exchange differences	-	-	-	-
Net total	(2,943)	11,881	6,237	15,175
Other movements	-	-	(755)	(755)
At 31 December	10,763	27,330	7,115	45,208

2018	Stage 1 12 Months ECL RM'000	Stage 2 Lifetime ECL not credit impaired RM'000	Stage 3 Lifetime ECL credit impaired RM'000	Total ECL RM'000
At 1 January	4,678	1,733	201	6,612
Transferred to Stage 1	349	(4,481)	-	(4,132)
Transferred to Stage 2	(1,054)	17,132	-	16,078
Transferred to Stage 3	-	(2,301)	2,130	(171)
Allowances made for the financial year	66,530	3,613	49	70,192
Maturity/settlement/ repayment	(56,801)	(251)	(596)	(57,648)
Exchange differences	2	2	-	4
Net total	9,026	13,714	1,583	24,323
Other movements	2	2	(151)	(147)
At 31 December	13,706	15,449	1,633	30,788

5. CREDIT RISK (Cont'd.)

Credit Risk Mitigation

Potential credit losses are mitigated using a variety of instruments such as collateral, derivatives and guarantee. As a fundamental credit principle, the Bank generally does not grant credit facilities solely on the basis of the collateral provided. All credit facilities are granted based on the credit standing of the borrower, source of repayment and debt servicing ability.

Collateral is taken whenever possible to mitigate the credit risk assumed and the value of the collateral is monitored periodically.

The frequency of valuation depends on the type, liquidity and volatility of the collateral value. The main types of collateral taken by the Bank are mainly properties, cash and marketable securities. Policies and processes are in place to monitor collateral concentration.

Appropriate haircuts are applied to the market value of collateral, reflecting the underlying nature of the collateral, quality, volatility and liquidity. In addition, collateral taken by the Bank has to fulfill certain eligibility criteria (such as legal certainty across relevant jurisdictions) in order to be eligible for Internal Ratings-Based (IRB) purposes.

In extending credit facilities to SMEs, personal guarantees are also often taken as a form of moral support to ensure commitment from the principal shareholders and directors.

For IRB purposes, the Bank does not recognise personal guarantees as an eligible credit risk protection. Corporate guarantees are often obtained when the borrower's credit worthiness is not sufficient to justify an extension of credit. To recognise the effects of guarantees under the FIRB Approach, the Bank adopts the PD substitution approach whereby the PD of an eligible guarantor of an exposure will be used for calculating the capital requirement.

Exposures arising from FX and derivatives are typically mitigated through agreements such as the International Swaps and Derivatives Association (ISDA) Master Agreements, the Credit Support Annex (CSA) and the Global Master Repurchase Agreements (GMRA). Such agreements help to minimise credit exposure by allowing the Bank to offset what it owes to a counterparty against what is due from that counterparty in the event of a default.

For IRB purpose, the Bank does not recognise ISDA netting. The Current Exposure Method is used to estimate its FX and derivative exposures on a gross basis.

5. CREDIT RISK (Cont'd.)

Credit Risk Mitigation (cont'd.)

The following tables presented the total exposures which are covered by eligible credit risk mitigants of the Bank for the financial year ended 31 December 2019:

Exposure class	Exposures before CRM	Exposures covered by guarantees/ credit derivatives	Exposures covered by eligible financial collateral	Exposures covered by other eligible collateral
	RM'000	RM'000	RM'000	RM'000
Credit risk				
On-balance sheet exposures				
Sovereign/central banks	13,070,835	-	-	-
Public Sector Entities	25,709	25,709	-	-
Banks, DFIs and MDBs	12,548,171	-	3,579,945	-
Insurances cos, securities firms and fund managers	31,794	-	31,515	-
Corporates	33,902,173	1,755,377	2,217,977	1,553,425
Regulatory retail	18,684,686	937	132	-
Residential mortgages	34,676,718	-	-	-
Other assets	910,065	-	-	-
Equity exposures	133,884	-	-	-
Defaulted exposures	1,308,745	3,479	46	30,481
Total on-balance sheet exposures	115,292,780	1,785,502	5,829,615	1,583,906
Off-balance sheet exposures				
OTC derivatives	1,096,550	203	930	-
Off-balance sheet exposures other thar OTC derivatives or credit derivatives	18,607,450	224,531	825,768	223,417
Defaulted exposures	5,056	-	186	-
Total off-balance sheet exposures	19,709,056	224,734	826,884	223,417
Total on and off-balance sheet exposures	135,001,836	2,010,236	6,656,499	1,807,322

5. CREDIT RISK (Cont'd.)

Credit Risk Mitigation (cont'd.)

The following tables presented the total exposures which are covered by eligible credit risk mitigants of the Bank for the financial year ended 31 December 2018:

Exposure class	Exposures before CRM	Exposures covered by guarantees/ credit derivatives	Exposures covered by eligible financial collateral	Exposures covered by other eligible collateral
	RM'000	RM'000	RM'000	RM'000
Credit risk				
On-balance sheet exposures				
Sovereign/central banks	13,036,857	-	-	-
Banks, DFIs and MDBs	12,935,681	-	3,373,455	-
Insurances cos, securities firms and fund managers	40,851	-	23,525	-
Corporates	31,736,591	1,511,970	2,245,903	1,578,968
Regulatory retail	18,513,646	187,209	-	-
Residential mortgages	33,471,449	-	-	-
Other assets	1,016,986	-	-	-
Equity exposures	114,445	-	-	-
Defaulted exposures	1,286,234	1,079	1,342	32,604
Total on-balance sheet exposures	112,152,740	1,700,258	5,644,225	1,611,572
Off-balance sheet exposures				
OTC derivatives	1,030,521	173	1,516	8
Off-balance sheet exposures other than OTC derivatives or credit derivatives	19,793,234	166,507	850,254	280,080
Defaulted exposures	22,495	-	20	378
Total off-balance sheet exposures	20,846,250	166,680	851,790	280,466
Total on and off-balance sheet exposures	132,998,990	1,866,938	6,496,015	1,892,038

5. CREDIT RISK (Cont'd.)

Credit risk mitigation (cont'd.)

The following tables presented the total exposures which are covered by eligible credit risk mitigants of Islamic Banking Window for the financial year ended 31 December 2019:

Exposure class	Exposures before CRM	Exposures covered by guarantees/ credit derivatives	Exposures covered by eligible financial collateral	Exposures covered by other eligible collateral
	RM'000	RM'000	RM'000	RM'000
Credit risk				
On-balance sheet exposures				
Sovereign/central banks	1,755,374	-	-	-
Banks, DFIs and MDBs	50,529	-	-	-
Corporates	1,446,443	93,571	24,092	27,872
Regulatory retail	835,470	-	-	-
Residential mortgages	2,079,891	-	-	-
Other assets	6,491	-	-	-
Defaulted exposures	31,336	-	-	-
Total on-balance sheet exposures	6,205,534	93,571	24,092	27,872
Off-balance sheet exposures				
OTC derivatives	2,277	-	-	-
Off-balance sheet exposures other thar	679,218	6,951	4,553	-
OTC derivatives or credit derivatives	0	-	-	-
Total off-balance sheet exposures	681,495	6,951	4,553	-
Total on and off-balance sheet exposures	6,887,029	100,522	28,645	27,872

5. CREDIT RISK (Cont'd.)

Credit risk mitigation (cont'd.)

The following tables presented the total exposures which are covered by eligible credit risk mitigants of Islamic Banking Window for the financial year ended 31 December 2018:

Exposure class	Exposures before CRM	Exposures covered by guarantees/ credit derivatives	Exposures covered by eligible financial collateral	Exposures covered by other eligible collateral
	RM'000	RM'000	RM'000	RM'000
Credit risk				
On-balance sheet exposures				
Sovereign/central banks	2,808,928	-	-	-
Banks, DFIs and MDBs	8,117	-	-	-
Corporates	880,506	111,522	14,156	1,143
Regulatory retail	510,755	-	-	-
Residential mortgages	1,334,476	-	-	-
Other assets	19,488	-	-	-
Defaulted exposures	11,070	-	-	-
Total on-balance sheet exposures	5,573,340	111,522	14,156	1,143
Off-balance sheet exposures				
OTC derivatives	1,745	-	-	-
Off-balance sheet exposures other than OTC derivatives or credit derivatives	610,352	2,185	4,561	-
Total off-balance sheet exposures	612,097	2,185	4,561	-
Total on and off-balance sheet exposures	6,185,437	113,707	18,717	1,143

5. CREDIT RISK (Cont'd.)

OFF-BALANCE SHEET EXPOSURES AND COUNTERPARTY CREDIT RISK

Counterparty Credit Risk

Unlike normal lending risk where the notional at risk can be determined with a high degree of certainty during the contractual period, counterparty credit risk exposure fluctuates with market variables. Counterparty credit risk is measured as the sum of current mark-to-market plus appropriate add-on factor for potential future exposure (PFE). The PFE factor is an estimate of the maximum credit exposure over the remaining life of the foreign exchange (FX)/ derivative transactions and is used for limit setting and internal risk management.

The Bank also has established policies and procedures to manage wrong-way risk, i.e. where the counterparty credit exposure is correlated positively with its default risk. Transactions that exhibit such characteristics are identified and reported to Senior Management on a regular basis. In addition, transactions with specific wrong-way risk are generally rejected at the underwriting stage.

Credit Exposures from Foreign Exchange and Derivatives

Pre-settlement limits for FX and derivative transactions are established using the PFE approach. This approach takes into consideration the transaction currency and tenor to address the credit risk exposures arising from adverse market movements.

5. CREDIT RISK (Cont'd.)

OFF-BALANCE SHEET EXPOSURES AND COUNTERPARTY CREDIT RISK (Cont'd.)

Credit Exposures from Foreign Exchange and Derivatives (cont'd.)

The Off-Balance Sheet Exposures and their related counterparty credit risk of the Bank for the financial year ended 31 December 2019 were as follows:

Description	Principal Amount	Positive Fair Value of Derivative Contracts	Credit Equivalent Amount	RWA
	RM'000	RM'000	RM'000	RM'000
Direct credit substitutes	2,705,659		2,620,287	1,696,912
Transaction related contingent items	6,107,043		3,042,267	2,036,302
Short Term Self Liquidating trade related contingencies	389,829		89,824	52,267
Foreign exchange related contracts				
One year or less	25,342,582	148,769	475,949	139,178
Over one year to five years	550,954	5,215	39,829	24,345
Over five years	-	-	-	-
Interest/Profit rate related contracts				
One year or less	10,034,013	36,573	133,368	60,810
Over one year to five years	15,392,386	157,015	713,544	405,647
Over five years	1,275,978	32,441	165,528	112,757
Equity related contracts				
One year or less	369,983	9,164	516	82
Over one year to five years	82,587	1,549	-	-
Over five years	-	-	-	-
Commodity contracts				
One year or less	486,130	43,026	74,099	44,693
Over one year to five years	76,363	1,274	9,471	1,217
Over five years	-	-	-	-
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	7,483,692		5,148,254	3,548,768
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	17,396,566		942,075	227,467
Any commitments that are unconditionally cancelled at any time by the bank without prior notice or that effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness	15,055,672		6,071,844	767,628
Unutilised credit card lines	84,694		16,939	15,264
Off-balance sheet for securitisation	-		-	-
Total	102,834,131	435,026	19,543,794	9,133,335

5. CREDIT RISK (Cont'd.)

OFF-BALANCE SHEET EXPOSURES AND COUNTERPARTY CREDIT RISK (Cont'd.)

Credit Exposures from Foreign Exchange and Derivatives (cont'd.)

The Off-Balance Sheet Exposures and their related counterparty credit risk of the Bank for the financial year ended 31 December 2018 were as follows:

Description	Principal Amount	Positive Fair Value of Derivative Contracts	Credit Equivalent Amount	RWA
	RM'000	RM'000	RM'000	RM'000
Direct credit substitutes	3,189,451		3,124,810	2,346,211
Transaction related contingent items	6,192,218		3,104,378	2,184,179
Short Term Self Liquidating trade related contingencies	420,884		92,276	49,619
Foreign exchange related contracts				
One year or less	25,089,263	112,941	432,896	134,002
Over one year to five years	604,766	7,499	39,997	21,641
Over five years	-	-	-	-
Interest/Profit rate related contracts				
One year or less	7,938,700	5,581	41,229	20,365
Over one year to five years	16,739,543	165,124	818,849	486,248
Over five years	444,858	8,569	62,165	47,091
Equity related contracts				
One year or less	368,736	42,506	21,318	19,472
Over one year to five years	592,241	362	24,477	3,863
Over five years	-	-	-	-
Commodity contracts				
One year or less	491,782	33,782	70,992	14,754
Over one year to five years	142,850	131	16,031	2,818
Over five years	-	-	-	-
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	11,436,035		6,463,900	4,894,091
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	16,268,384		801,816	175,486
Any commitments that are unconditionally cancelled at any time by the bank without prior notice or that effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness	11,595,281		5,724,250	629,471
Unutilised credit card lines	73,378		14,676	13,870
Off-balance sheet for securitisation	-		-	-
Total	101,588,370	376,495	20,854,060	11,043,181

5. CREDIT RISK (Cont'd.)

OFF-BALANCE SHEET EXPOSURES AND COUNTERPARTY CREDIT RISK (Cont'd.)

Credit Exposures from Foreign Exchange and Derivatives (cont'd.)

The off-balance sheet exposures and their related counterparty credit risk of the Islamic Banking Window for the financial year ended 31 December 2019 were as follows:

Description	Principal amount	Positive fair value of derivative contracts	Credit equivalent amount	RWA
	RM'000	RM'000	RM'000	RM'000
Direct credit substitutes	11,874		11,874	6,968
Transaction related contingent items	54,306		27,278	31,581
Short-term self-liquidating trade-related contigencies	3,259		652	359
Foreign exchange related contracts with an original maturity up to one year	153,257	2,637	2,277	1,049
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	950,177		637,296	210,473
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	212,341		2,119	789
Any commitments that are unconditionally cancelled at any time by the bank without prior notice or that effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness	212,239		-	-
Total	1,597,452	2,637	681,496	251,219

5. CREDIT RISK (Cont'd.)

OFF-BALANCE SHEET EXPOSURES AND COUNTERPARTY CREDIT RISK (Cont'd.)

Credit Exposures from Foreign Exchange and Derivatives (cont'd.)

The off-balance sheet exposures and their related counterparty credit risk of the Islamic Banking Window for the financial year ended 31 December 2018 were as follows:

Description	Principal amount	Positive fair value of derivative contracts	Credit equivalent amount	RWA
	RM'000	RM'000	RM'000	RM'000
Direct credit substitutes	11,092		11,092	5,833
Transaction related contingent items	31,974		15,987	14,260
Short-term self-liquidating trade-related contigencies	1,717		343	71
Foreign exchange related contracts with an original maturity up to one year.	113,442		1,745	422
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	1,052,207		582,650	114,732
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	162,598		280	126
Total	1,373,030	-	612,097	135,444

6. MARKET RISK

Market risk refers to the risk of losses to the Bank from movements in the market rates or prices (e.g. changes in interest rates, foreign exchange rates, equity prices, commodity prices, credit spreads) of the underlying asset.

Market risk is governed by the Bank's ALCO, which meets monthly to review and provide directions on market risk matters. The Market Risk Management (MRM) and Balance Sheet Risk Management (BSRM) under Risk Management supports the RMC, RCC and ALCO with independent assessment of the market risk profile of the Bank.

The Bank’s market risk framework comprises market risk policies, practices and the control structure with appropriate delegation of authority and market risk limits. The Bank employs valuation methodologies that are in line with sound market practices. Valuation and risk models are independently validated. In addition, a Product/Service Programme process ensures that market risk issues identified are adequately addressed prior to the launch of products and services.

One of the Bank’s main objectives in undertaking trading activities is to provide customer-centric products to support client franchise business and to cater for clients’ hedging needs. We review and enhance our management of derivatives risks continually to ensure that the complexities of the business are controlled appropriately.

Overall market risk appetite is balanced at the Bank and business unit levels with the targeted revenue, and takes into account the capital position of the Bank. This ensures that the Bank remain well-capitalised even under stress conditions. The risk appetite is translated into risk limits that are delegated to business units. These risk limits have proportional returns that are commensurate with the risks taken.

The Bank currently adopts the Standardised Approach for the calculation of regulatory market risk capital but uses internal models to measure and control trading market risks. The financial products which are warehoused, measured and controlled using internal models include FX and FX options, plain vanilla interest rate contracts, interest rate option, cross currency swap, government bonds, quasi government bonds, corporate bonds, commodity contracts and commodity options.

The Bank adopts a daily Expected Shortfall (ES) to estimate market risk within a 97.5% confidence interval over a one-day holding period, using the historical simulation method for its trading book. This entails the estimation of tail loss based on the most recent historical data. This methodology does not make assumptions on the distribution of returns and the correlations between risk classes. It assumes that possible future changes in market rates may be implied by observed historical market movements. ES is the average portfolio loss, assuming that the loss is greater than the specified percentile of the loss distribution. With effect from 2 January 2019, the Bank has adopted ES as a control for market risk. Previously, the Bank used daily Value-at-Risk (VaR) which estimates the potential loss over a given period at a 99% confidence interval. The level of ES is dependent on the exposures, as well as historical market prices and volatilities.

Backtesting is done against profit and loss of the trading book to validate the robustness of the measure. The backtesting process analyses whether the exceptions are due to model deficiencies or market volatility. All backtest exceptions are tabled at ALCO with recommended actions and resolutions.

6. MARKET RISK (Cont'd.)

To complement the ES measure, stress and scenario tests are performed to identify the Bank’s vulnerability to event risk. These tests serve to provide early warnings of plausible extreme losses to facilitate proactive management of market risks. The Bank's daily ES on 31 December 2019 was RM4.159 million.

	Year End RM'000	High RM'000	Low RM'000	Average RM'000
2019				
Interest rate	2,094	8,890	612	2,263
Foreign exchange	506	6,338	235	1,684
Commodities	20	964	20	239
Option Volatility*	114	185	84	132
Total diversified ES	4,159	11,009	1,933	3,963
2018				
Interest rate	3,677	10,470	1,998	3,978
Foreign exchange	3,572	6,818	1,162	3,128
Commodities	61	458	6	146
Total diversified VaR	5,082	10,463	3,306	5,572

** VaR/ ES for option volitility component was previously grouped under FX VaR in 2018.*

7. INTEREST RATE RISK/RATE OF RETURN RISK IN THE BANKING BOOK (IRRBB/RORRBB)

Interest rate/ rate of return risk in the banking book (IRRBB/RORRBB) is defined as the risk of potential loss of capital or reduction in earnings due to changes in interest/profit rate environment.

The ALCO maintains oversight of the effectiveness of the interest/profit rate risk management structure. Balance Sheet Risk Management supports the ALCO in monitoring the interest/profit rate risk profile of the banking book.

The primary objective of managing IRRBB/RORRBB is to protect and enhance capital or economic net worth through adequate, stable and reliable growth in net interest/profit earnings under a broad range of possible economic conditions.

IRRBB/RORRBB is quantified on a monthly basis using a combination of static analysis tools and simulation approaches. Static analysis tools include repricing gap approach and sensitivity approach (PV01). Mismatches in the longer tenor from repricing gap will experience greater change in dollar value of interest/profit rate positions for 1 basis point increase in prevailing interest/profit rate than similar position in the shorter tenor.

Simulation approach includes Net Interest Income (NII)/ Net Profit Income (NPI), Economic Value of Equity (EVE) and stress testing. NII/NPI simulation is performed to quantify a forward looking impact on NII/NPI for the next 12 months under various interest/profit rate scenarios to assess the impact of interest/profit rate movements on income. EVE provides a measure of the potential economic value impact of long term effect of interest/profit rate changes for the full tenor of balance sheet. It measures the net effect of the present value of expected cash flows of the banking book.

Stress tests are also performed regularly to determine the adequacy of capital in meeting the impact of extreme interest/profit rate movements on the balance sheet. Such tests are also performed to provide early warnings of potential extreme losses, facilitating the proactive management of interest/profit rate risks in an environment of rapid financial market changes.

The risks arising from the trading book, such as interest/profit rate, foreign exchange rates and equity prices are managed and controlled under the market risk framework that is discussed under the Market Risk section.

7. INTEREST RATE RISK/RATE OF RETURN RISK IN THE BANKING BOOK (IRRBB/RORRBB) (Cont'd.)

Interest/Profit Rate Sensitivity Analysis - Banking Book

The table below showed the results at 100 and 200 basis points parallel interest/profit rate shocks to EVE and NII/NPI. The repricing profile of loans is generally based on the earliest possible repricing dates. Interest/profit rate flooring effects are taken into consideration. Loan prepayment and time deposit early withdraw rates are estimated based on past statistics and trends where possible and material. The average repricing maturity of core non-maturity deposits is determined through empirical models.

Economic Value of Equity (EVE)

31-Dec-19	Increase/ (Decrease) in basis points	Sensitivity of EVE	Increase/ (Decrease) in basis points	Sensitivity of EVE
Currency		RM'000		RM'000
Total	**+200/(200)**	**(297,123)/ 358,234**	**+100/(100)**	**(156,417)/ 173,538**
MYR	+200/(200)	(314,436)/ 372,279	+100/(100)	(165,110)/ 182,306
USD	+200/(200)	17,313/ (14,045)	+100/(100)	8,693/ (8,768)

31-Dec-18	Increase/ (Decrease) in basis points	Sensitivity of EVE	Increase/ (Decrease) in basis points	Sensitivity of EVE
Currency		RM'000		RM'000
Total	**+200/(200)**	**(262,271)/ 332,200**	**+100/(100)**	**(139,187)/ 156,623**
MYR	+200/(200)	(263,504)/ 333,443	+100/(100)	(139,804)/ 157,243
USD	+200/(200)	1,232/ (1,243)	+100/(100)	618/ (620)

Net Interest/Profit Income (NII/NPI)

31-Dec-19	Increase/ (Decrease) in basis points	Sensitivity of NII/NPI	Increase/ (Decrease) in basis points	Sensitivity of NII/NPI
Currency		RM'000		RM'000
Total	**+200/(200)**	**552,409/ (644,135)**	**+100/(100)**	**277,912/ (309,474)**
MYR	+200/(200)	593,908/ (661,983)	+100/(100)	298,661/ (320,990)
USD	+200/(200)	(41,499)/ 17,848	+100/(100)	(20,749)/ 11,516

31-Dec-18	Increase/ (Decrease) in basis points	Sensitivity of NII	Increase/ (Decrease) in basis points	Sensitivity of NII
Currency		RM'000		RM'000
Total	**+200/(200)**	**549,737/ (549,714)**	**+100/(100)**	**260,891/ (260,891)**
MYR	+200/(200)	549,817/ (549,794)	+100/(100)	260,931/ (260,931)
USD	+200/(200)	(80)/ 80	+100/(100)	(40)/ 40

8. LIQUIDITY RISK

Liquidity risk is the risk to the Bank's earnings or capital from its inability to meet its obligations or fund increases in assets as they fall due. The Bank maintains sufficient liquidity to fund its day-to-day operations, to meet deposit withdrawals and loan/financing disbursements, to participate in new investments, and to repay borrowings. Hence, liquidity is managed in a manner to address known as well as unanticipated cash funding needs.

Liquidity risk is managed in accordance with a framework of policies, controls and limits. These policies, controls and limits enable the Bank to monitor and manage liquidity risk to ensure that sufficient sources of funds are available over a range of market conditions. These include minimising excessive funding concentrations by diversifying the sources and terms of funding as well as maintaining a portfolio of high quality and marketable liquid assets.

The Bank takes a conservative stance in its liquidity management by continuing to gather core deposits, ensuring that liquidity limits are strictly adhered to and that there are adequate liquid assets to meet cash shortfalls.

The distribution of deposits is managed actively to ensure a balance between cost effectiveness, continued accessibility to funds, and diversification of funding sources. Important factors in ensuring liquidity are competitive pricing, proactive management of the Bank's core deposits and the maintenance of customer confidence.

Aligned with the regulatory liquidity risk management framework, the Bank's liquidity risk is measured and managed on a projected cash flow basis. The Bank's liquidity is monitored under business-as-usual and stress scenarios. Cash flow mismatch limits are established to limit the Bank's liquidity exposure. The Bank also employs liquidity early warning indicators and trigger points to signal possible contingency situations.

With regard to the regulatory requirements on Liquidity Coverage Ratio (LCR), the Bank's ratios were above 100 per cent for both the All Currency LCR and the Ringgit Malaysia LCR as at 31 December 2019.

Contingency funding plans are in place to identify liquidity crisis using a series of warning indicators. Crisis management processes and various strategies including funding and communication have been developed to minimise the impact of any liquidity crunch.

The policy of the Bank is to be self-sufficient in its funding capabilities, notwithstanding that it has the support of parent bank in Singapore.

The table in Note 40 to the financial statements on pages 142 to 150 provides the maturity mismatch analysis of the Bank's near and long-term time bands relating to the cash inflows and outflows based on contractual maturity arising from the Bank's activities.

9. OPERATIONAL RISK

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Operational risk includes banking operations risk, fraud risk, legal risk, regulatory compliance risk (including Shariah non-compliance risk), reputational risk, outsourcing risk and technology risk.

The Bank's primary objective is to foster a sound reputation and operating environment.

Operational Risk Governance, Framework and Programmes

Operational risk is managed through a framework of policies and procedures by which business and support units properly identify, assess, monitor, mitigate and report their risks. The Operational Risk Management Committee (ORMC) meets monthly to provide oversight of operational risk matters across the Bank.

The Operational Risk Governance structure adopts the Three Lines of Defence Model. The business and support units, as the First Line of Defence, are responsible for establishing a robust control environment as part of their day-to-day operations. Each business and support unit is responsible for implementing the operational risk framework and policies, embedding appropriate internal controls into processes and maintaining business resilience for key activities.

The Operational Risk Management under Risk Management, as the Second Line of Defence, provides an overarching governance over operational risk through relevant frameworks, policies, programmes and system. It also monitors and reports key risk self-assessment results, outsourcing matters, operational risk indicator breaches, self-identified operational risk and operational risk incidents to management, ORMC and the Board.

Internal Audit, as the Third Line of Defence, provides an independent and objective assessment on the overall effectiveness of the risk governance framework and internal control through periodic audit reviews.

Technology Risk is defined as any potential adverse outcome, damage, loss, violation, failure or disruption arising from the use of or reliance on computer hardware, software, devices, systems, applications and networks. Governance over technology risks remains with ORMC to enable a holistic oversight of operational risk matters across the Bank. The Bank has an established Technology Risk Management framework to enable technology, information security and cyber risks to be managed in a systematic and consistent manner. A dedicated Technology Risk Management (TRM) function has been set-up in ORM to drive the governance and oversight for technology risk management across the Bank. TRM will work closely with business and support units to oversee, review and strengthen their current practices in technology risk management.

Regulatory compliance risk refers to the risk of non-compliance with laws, regulations, rules, standards and codes of conduct. This risk is identified, monitored and managed through a structured framework of policies, procedures and guidelines maintained by the Bank. The framework also manages the risk of regulatory breaches and sanctions relating to Anti-Money Laundering and Countering the Financing of Terrorism.

Legal risk arises from unenforceable, unfavourable, defective or unintended contracts, lawsuits or claims, developments in laws and regulations, or non-compliance with applicable laws and regulations. Business and support units work with both internal and external legal counsels to ensure that legal risks are effectively managed.

9. OPERATIONAL RISK (Cont'd.)

Reputational risk is the risk of adverse impact on earnings, liquidity or capital arising from negative stakeholder perception or opinion of the Bank’s business practices, activities and financial condition. The Bank recognises the impact of reputational risk and has developed a policy to identify and manage the risk across the Bank.

The Bank's Insurance programme covers civil and crime liability, cyber security, property damage, terrorism, public liability, as well as directors’ and officers’ liability. The programme reduces operational losses through adequate insurance coverage.

Fraud Risk

Fraud is defined as an act, with an element to deceive or to conceal facts, and is not restricted to the gain of monetary or material benefits.

The Bank actively manages fraud risks. The Integrated Fraud Management (IFM) under Risk Management, drives strategy and governance and oversees the framework of fraud risk management across the Bank. The corporate governance of fraud risk is provided by the Audit Committee at Board level, and primarily by the ORMC at Management level.

All employees are required to uphold the UOB Code of Conduct, which includes anti-bribery and anti-corruption provisions. The Bank’s fraud hotline to IFM ensures independent fraud investigation. IFM also works closely with business and support units to strengthen their current practices across the five pillars of prevention, detection, response, remediation and reporting.

10. EQUITIES (Disclosures for Banking Book position)

The following table presented the equity exposures in the banking book.

These exposures were classified under available-for-sale (AFS) securities which were being measured at fair value.

Type of Equities	Bank			
	31-Dec-19		31-Dec-18	
	Exposures	RWA	Exposures	RWA
	RM'000	RM'000	RM'000	RM'000
Publicly traded equity exposures * mainly acquired via loan restructuring activities	2,076	6,226	1,956	5,868
All other equity exposures	131,809	131,809	112,489	112,489
Total	133,885	138,035	114,445	118,357

	Bank	
	31-Dec-19 RM'000	31-Dec-18 RM'000
Realised (loss)/gains arising from sales and liquidation	-	-
Unrealised gains included in fair value reserve	121,346	101,907

As at 31 December 2018, there were no equity exposures under Islamic Banking Window.

11. PROFIT SHARING INVESTMENT ACCOUNTS AND SHARIAH GOVERNANCE

Profit Sharing Investment Accounts (PSIA)

This disclosure is not applicable as United Overseas Bank (Malaysia) Bhd's Islamic Banking Window does not have any PSIA arrangement with third party.

Shariah Governance

This is disclosed in United Overseas Bank (Malaysia) Bhd's Annual Report, under the section "Corporate Governance".

No actual Shariah non-compliance event has been detected for the financial year ended 31 December 2019. As such, no Shariah non-compliant income has been recorded for the year.