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

PILLAR 3 DISCLOSURE
31 DECEMBER 2021

Domiciled in Malaysia
Registered Office:
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50350 Kuala Lumpur

United Overseas Bank (Malaysia) Bhd (271809-K)
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Attestation by Chief Executive Officer pursuant to BASEL II – Pillar 3 Disclosures for the financial year ended 31 December 2021

I hereby confirm that the Pillar 3 disclosures for the financial year ended 31 December 2021 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: 21 February 2022

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 Management and/or to the Board for approval.

2. CAPITAL ADEQUACY (Cont'd.)

The aggregate breakdown of Risk-Weighted Assets (RWA) of the Bank by exposures in each risk category for the financial year ended 31 December 2021 were as follows:

Item	Exposure class 2021	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	23,974,164	23,974,164	231	18
	Public Sector Entities	490,369	490,369	-	-
	Insurance Cos, Securities Firms	79	79	79	6
	and Fund Managers	-	-	-	-
	Corporates	286,231	283,471	282,521	22,602
	Regulatory Retail	2,885	2,885	2,885	231
	Other Assets	1,312,402	1,312,402	715,963	57,277
	Equity Exposure	155,420	155,420	155,420	12,434
	Defaulted exposures	1,361	1,361	2,042	163
	Total on-balance sheet exposures	26,222,911	26,220,151	1,159,141	92,731
	Off-balance sheet exposures				
	OTC derivatives	79,115	79,115	36,564	2,925
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	57,527	55,644	47,598	3,808
	Total off-balance sheet exposures	136,642	134,759	84,162	6,733
	Total on and off-balance sheet exposures (SA)	**26,359,553**	**26,354,909**	**1,243,302**	**99,464**
1.2	**Exposures under the Foundation IRB Approach (FIRB)**				
	On-balance sheet exposures				
	Banks, Development Financial Institutions and MDBs	5,118,838	5,118,838	710,630	56,850
	Insurance Cos, Securities Firms and Fund Managers	1,100,850	1,090,832	265,444	21,236
	Corporates	36,909,182	32,827,475	33,913,283	2,713,063
	Equity (simple risk weight)	1,604	1,604	4,811	385
	Defaulted exposures	1,206,375	1,175,949	3,087	247
	Total on-balance sheet exposures	44,336,849	40,214,698	34,897,255	2,791,781
	Off-balance sheet exposures				
	OTC derivatives	2,316,478	2,313,617	811,908	64,953
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	8,401,933	7,373,286	7,026,857	562,149
	Defaulted exposures	14,652	13,466	-	-
	Total off-balance sheet exposures	10,733,063	9,700,369	7,838,765	627,102
	Total on and off-balance sheet exposures (FIRB)	**55,069,911**	**49,915,067**	**42,736,020**	**3,418,883**

2. CAPITAL ADEQUACY (Cont'd.)

Item	Exposure class 2021	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	35,779,788	35,779,788	3,632,064	290,565
	Qualifying revolving retail	2,354,160	2,354,160	806,937	64,555
	Other retail	15,103,074	15,103,074	2,545,133	203,611
	Defaulted exposures	1,164,324	1,164,324	483,876	38,710
	Total on-balance sheet exposures	54,401,346	54,401,346	7,468,010	597,441
	Off-balance sheet exposures				
	OTC derivatives	550	550	188	15
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	8,978,243	8,978,243	1,140,920	91,274
	Defaulted exposures	-	-	-	-
	Total off-balance sheet exposures	**8,978,793**	**8,978,793**	**1,141,108**	**91,289**
	Total on and off-balance sheet exposures (AIRB)	**63,380,138**	**63,380,139**	**8,609,118**	**688,730**
	Total exposures under IRB Approach	**118,450,049**	**113,295,206**	**51,345,138**	**4,107,613**
	Total (exempted exposures and exposures under the IRB Approach) after scaling factor			**55,669,148**	**4,453,532**
2.0	**Large exposures risk requirement**				
3.0	**Market risk**	**Long position**	**Short position**		
	Interest rate risk	105,539	79,668	942,345	75,388
	Foreign currency risk	30,449	9,491	30,485	2,439
	Commodity risk	-	-	-	-
	Options risk	-	-	164,351	13,148
4.0	**Operational risk (Basic Indicator Approach)**			5,843,127	467,450
5.0	**Total RWA and capital requirements**			62,649,456	5,011,957

2. CAPITAL ADEQUACY (Cont'd.)

The aggregate breakdown of Risk-Weighted Assets (RWA) of the Bank by exposures in each risk category for the financial year ended 31 December 2020 were as follows:

Item	Exposure class 2020	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	23,059,910	22,859,553	229,862	18,389
	Public Sector Entities	179,046	179,046	-	-
	Insurance Cos, Securities Firms and Fund Managers	62	62	62	5
	Corporates	294,798	292,128	291,658	23,333
	Regulatory Retail	9,965	9,965	9,965	797
	Other Assets	1,321,778	1,321,778	702,149	56,172
	Equity Exposure	155,929	155,929	155,929	12,474
	Defaulted exposures	3,950	3,950	5,922	474
	Total on-balance sheet exposures	25,025,438	24,822,411	1,395,547	111,644
	Off-balance sheet exposures				
	OTC derivatives	98,390	98,390	56,255	4,500
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	90,766	89,748	88,198	7,056
	Total off-balance sheet exposures	189,156	188,138	144,453	11,556
	Total on and off-balance sheet exposures (SA)	**25,214,594**	**25,010,549**	**1,540,000**	**123,200**
1.2	**Exposures under the Foundation IRB Approach (FIRB)**				
	On-balance sheet exposures				
	Banks, Development Financial Institutions and MDBs	8,545,328	7,696,678	743,093	59,447
	Insurance Cos, Securities Firms and Fund Managers	1,130,296	1,120,279	278,386	22,271
	Corporates	34,219,891	30,171,147	30,587,833	2,447,027
	Equity (simple risk weight)	2,456	2,456	7,369	590
	Defaulted exposures	983,679	965,294	-	-
	Total on-balance sheet exposures	44,881,649	39,955,855	31,616,681	2,529,334
	Off-balance sheet exposures				
	OTC derivatives	2,201,029	2,197,675	883,199	70,656
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	7,546,399	6,555,912	6,106,505	488,520
	Defaulted exposures	16,613	15,446	-	-
	Total off-balance sheet exposures	9,764,041	8,769,033	6,989,704	559,176
	Total on and off-balance sheet exposures (FIRB)	**54,645,690**	**48,724,888**	**38,606,385**	**3,088,511**

2. CAPITAL ADEQUACY (Cont'd.)

Item	Exposure class 2020	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	35,534,166	35,534,166	3,822,943	305,835
	Qualifying revolving retail	2,548,509	2,548,509	929,284	74,343
	Other retail	15,730,978	15,730,978	2,836,203	226,896
	Defaulted exposures	745,269	745,269	358,289	28,663
	Total on-balance sheet exposures	54,558,922	54,558,922	7,946,719	635,738
	Off-balance sheet exposures				
	OTC derivatives	482	482	110	9
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	9,347,069	9,347,069	1,251,725	100,138
	Defaulted exposures	-	-	-	-
	Total off-balance sheet exposures	**9,347,551**	**9,347,551**	**1,251,836**	**100,147**
	Total on and off-balance sheet exposures (AIRB)	**63,906,473**	**63,906,473**	**9,198,555**	**735,884**
	Total exposures under IRB Approach	**118,552,163**	**112,631,361**	**47,804,940**	**3,824,395**
	Total (exempted exposures and exposures under the IRB Approach) after scaling factor			**52,213,236**	**4,177,059**
2.0	**Large exposures risk requirement**	-	-	-	-
3.0	**Market risk**	**Long position**	**Short position**		
	Interest rate risk	121,706	88,261	907,177	72,574
	Foreign currency risk	498,504	570,773	94,230	7,538
	Commodity risk	1,622	-	3,041	243
	Options risk	-	-	62,200	4,976
4.0	**Operational risk (Basic Indicator Approach)**			5,658,697	452,696
5.0	**Total RWA and capital requirements**			58,938,581	4,715,087

2. CAPITAL ADEQUACY (Cont'd.)

The aggregate breakdown of RWA under the Islamic Banking Window by exposures in each risk category for the financial year ended 31 December 2021 were as follows:

Item	Exposure class 2021	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	<u>**Credit risk**</u>						
1.1	<u>**Exempted exposures under the Standardised Approach (SA)**</u>						
	<u>*On-balance sheet*</u>						
	Sovereigns/central banks	2,985,869	2,985,869	-	-	-	-
		-	-	-	-	-	-
	Corporate	1,422	830	830	-	830	66
	Other assets	6,781	6,781	6,781	-	6,781	542
	Total on-balance sheet exposures	2,994,072	2,993,480	7,611	-	7,611	608
	<u>*Off-balance sheet exposures*</u>						
	OTC derivatives	4,098	4,098	2,179	-	2,179	174
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	-	-	-	-	-	-
	Total off-balance sheet exposures	**4,098**	**4,098**	**2,179**	**-**	**2,179**	**174**
	Total on and off-balance sheet exposures (SA)	**2,998,170**	**2,997,578**	**9,790**	**-**	**9,790**	**782**
1.2	<u>**Exposures under the FIRB Approach**</u>						
	<u>*On-balance sheet exposures*</u>						
	Banks, Development Financial Institutions and MDBs	203,839	203,839	20,946	-	20,946	1,676
	Insurance Cos, Securities Firms & Fund Managers	1,001,490	1,001,490	237,727	237,727	-	-
	Corporates	2,772,166	2,638,527	3,206,101	1,310,128	1,895,973	151,678
	Defaulted Exposures	96,211	96,211	-	-	-	-
	Total on-balance sheet exposures	**4,073,706**	**3,940,067**	**3,464,774**	**1,547,855**	**1,916,919**	**153,354**
	<u>*Off-balance sheet exposures*</u>						
	OTC Derivatives	7,743	7,704	4,962	-	4,962	397
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	525,636	512,917	719,166	611,459	107,707	8,617
	Total off-balance sheet exposures	**533,379**	**520,621**	**724,128**	**611,459**	**112,669**	**9,014**
	Total on and off-balance sheet exposures (FIRB)	**4,607,085**	**4,460,688**	**4,188,902**	**2,159,314**	**2,029,588**	**162,368**

2. CAPITAL ADEQUACY (Cont'd.)

Item	Exposure class 2021	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	2,937,154	2,937,154	437,200	-	437,200	34,976
	Other retail	1,212,831	1,212,831	313,002	-	313,002	25,040
	Defaulted exposures	100,014	100,014	45,784	-	45,784	3,663
	Total on-balance sheet exposures	**4,249,999**	**4,249,999**	**795,986**	**-**	**795,986**	**63,679**
	Off-balance sheet exposures						
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	435,782	435,782	71,465	-	71,465	5,717
	Total off-balance sheet exposures	**435,782**	**435,782**	**71,465**	**-**	**71,465**	**5,717**
	Total on and off-balance sheet exposures (AIRB)	**4,685,781**	**4,685,781**	**867,451**	**-**	**867,451**	**69,396**
	Total exposures under IRB Approach	**9,292,866**	**9,146,469**	**5,056,353**	**2,159,314**	**2,897,039**	**231,764**
	Total (exempted exposures and exposures under the IRB Approach) after scaling factor			**5,369,525**	**2,288,873**	**3,080,652**	**246,452**
2.0	**Large exposures risk requirement**	-	-	-	-	-	-
3.0	**Market risk**	**Long position**	**Short position**				
	Interest Rate Risk	19	4	272		272	22
	Foreign Currency Risk	353	389	389		389	31
	Commodity Risk	-	-	-		-	-
	Options Risk	-	-	-		-	-
4.0	**Operational risk (Basic Indicator Approach)**			156,436		156,436	12,515
5.0	**Total RWA and capital requirements**			5,526,622	2,288,873	3,237,749	259,020

2. CAPITAL ADEQUACY (Cont'd.)

The aggregate breakdown of RWA under the Islamic Banking Window by exposures in each risk category for the financial year ended 31 December 2020 were as follows:

Item	Exposure class 2020	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	**<u>Credit risk</u>**						
1.1	**<u>Exempted exposures under the Standardised Approach (SA)</u>**						
	<u>On-balance sheet</u>						
	Sovereigns/central banks	1,338,772	1,338,772	-	-	-	-
	Corporate	535	95	95	-	95	8
	Other assets	6,486	6,486	6,486	-	6,486	519
	Total on-balance sheet exposures	1,345,793	1,345,353	6,581	-	6,581	526
	<u>Off-balance sheet exposures</u>						
	OTC derivatives	5,627	5,627	2,013	-	2,013	161
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	-	-	-	-	-	-
	Total off-balance sheet exposures	**5,627**	**5,627**	**2,013**	**-**	**2,013**	**161**
	Total on and off-balance sheet exposures (SA)	**1,351,421**	**1,350,981**	**8,594**	**-**	**8,594**	**688**
1.2	**<u>Exposures under the FIRB Approach</u>**						
	<u>On-balance sheet exposures</u>						
	Banks, Development Financial Institutions and MDBs	115,504	115,504	11,893	-	11,893	951
	Insurance Cos, Securities Firms & Fund Managers	1,001,476	1,001,476	238,004	-	238,004	19,040
	Corporates	2,092,581	1,966,802	2,457,216	765,372	1,691,844	135,348
	Defaulted Exposures	15,486	15,486	-	-	-	-
	Total on-balance sheet exposures	**3,225,048**	**3,099,269**	**2,707,113**	**765,372**	**1,941,741**	**155,339**
	<u>Off-balance sheet exposures</u>						
	OTC Derivatives	637	612	804	-	804	64
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	131,255	124,533	160,743	-	160,743	12,859
	Total off-balance sheet exposures	**131,892**	**125,145**	**161,547**	**-**	**161,547**	**12,924**
	Total on and off-balance sheet exposures (FIRB)	**3,356,940**	**3,224,414**	**2,868,660**	**765,372**	**2,103,288**	**168,263**

2. CAPITAL ADEQUACY (Cont'd.)

Item	Exposure class 2020	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	2,539,930	2,539,930	408,690	-	408,690	32,695
	Other retail	1,087,704	1,087,704	294,283	-	294,283	23,543
	Defaulted exposures	59,951	59,951	18,139	-	18,139	1,451
	Total on-balance sheet exposures	**3,687,585**	**3,687,585**	**721,111**	**-**	**721,111**	**57,689**
	Off-balance sheet exposures						
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	457,948	457,948	73,259	-	73,259	5,861
	Total off-balance sheet exposures	**457,948**	**457,948**	**73,259**	**-**	**73,259**	**5,861**
	Total on and off-balance sheet exposures (AIRB)	**4,145,532**	**4,145,532**	**794,370**	**-**	**794,370**	**63,550**
	Total exposures under IRB Approach	**7,502,472**	**7,369,946**	**3,663,030**	**765,372**	**2,897,658**	**231,813**
	Total (exempted exposures and exposures under the IRB Approach) after scaling factor			**3,891,406**	**811,295**	**3,080,111**	**246,409**
2.0	**Large exposures risk requirement**	-	-	-	-	-	-
3.0	**Market risk**	**Long position**	**Short position**				
	Interest Rate Risk	256	256	5,221		5,221	418
	Foreign Currency Risk	62	339	339		339	27
	Commodity Risk	-	-	-	-	-	-
	Options Risk	-	-	-	-	-	-
4.0	**Operational risk (Basic Indicator Approach)**			93,714	-	93,714	7,497
5.0	**Total RWA and capital requirements**			3,990,680	811,295	3,179,385	254,351

3. CAPITAL STRUCTURE

As at 31 December 2021, the Bank had issued the following subordinated notes under the RM8 billion Medium Term Notes and/or Senior Medium Term Notes Programme :
(1) On 25 July 2018, the Bank issued RM600 million subordinated notes at 4.80% p.a maturing on 25 July 2028;
(2) On 3 August 2020, the Bank issued RM750 million subordinated notes at 3.00% p.a. maturing on 2 August 2030.

For the main features of the subordinated notes, please refer to Note 22 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) and Capital Adequacy Framework (Basel II – Risk-Weighted Assets).

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

	Group		Bank	
	31-Dec-21 RM'000	31-Dec-20 RM'000	31-Dec-21 RM'000	31-Dec-20 RM'000
Common Equity Tier 1 (CET1)/ Tier 1 Capital				
Paid-up share capital	792,555	792,555	792,555	792,555
Retained profits	10,809,329	10,174,394	10,878,366	10,236,774
Other reserves	185,636	493,176	(14,002)	302,144
Regulatory adjustments applied in the calculation of CET1 Capital	(532,347)	(469,918)	(899,615)	(704,740)
Total CET1/Tier 1 Capital	11,255,173	10,990,207	10,757,304	10,626,733
Tier 2 Capital				
Tier 2 Capital instruments	1,350,000	1,350,000	1,350,000	1,350,000
Loan/financing loss provision				
- Surplus eligible provisions over expected losses	312,387	298,644	312,822	299,172
- General provisions	26,425	30,000	15,541	19,249
Regulatory adjustments applied in the calculation of Tier 2 Capital	86,731	82,858	-	-
Total Tier 2 Capital	1,775,543	1,761,502	1,678,363	1,668,421
Total Capital	13,030,716	12,751,709	12,435,667	12,295,154

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

	Group		Bank	
	31-Dec-21	31-Dec-20	31-Dec-21	31-Dec-20
CET1/Tier 1 Capital	17.740%	18.407%	17.171%	18.030%
Total Capital	20.538%	21.358%	19.850%	20.861%
CET1/Tier 1 Capital (net of proposed dividends)	17.740%	17.558%	17.171%	17.170%
Total Capital (net of proposed dividends)	20.538%	20.508%	19.850%	20.001%

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 Capital Adequacy Framework for Islamic Banks (Risk Weighted Assets).

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

	31-Dec-21 RM'000	31-Dec-20 RM'000
Common Equity Tier 1 (CET1)/ Tier 1 Capital		
Capital fund	450,000	450,000
Retained profits	14,261	6,311
Other reserves	(966)	262
Regulatory adjustments applied in the calculation of CET1 Capital	(11,130)	(10,130)
Total CET1/Tier 1 Capital	452,165	446,443
Tier 2 Capital		
Financing loss provision		
- Surplus eligible provisions over expected losses	18,426	18,173
- General provisions	122	107
Total Tier 2 Capital	18,548	18,280
Total Capital	470,713	464,723

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

	31-Dec-21	31-Dec-20
Before the effects of RSIA		
CET1/Tier 1 Capital	8.182%	11.187%
Total Capital	8.766%	11.645%
After the effects of RSIA		
CET1/Tier 1 Capital	13.965%	14.042%
Total Capital	14.538%	14.617%

In accordance with BNM's Guidelines on the Investment Account, the credit and market risk weighted assets funded by the Restricted Specific Investment Account (RSIA) which qualify as risk absorbent are excluded from the calculation of capital adequacy ratio. As at 31 December 2021, credit risks related to RSIA assets excluded from the total capital ratio calculation amounting to RM2,288,873,000 (2020: RM811,295,000).

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. We are committed to upholding high standards of corporate governance, sound risk management principles and business practices to achieve sustainable, long-term growth. We are continually strengthening our risk management practices in support of our strategic objectives.

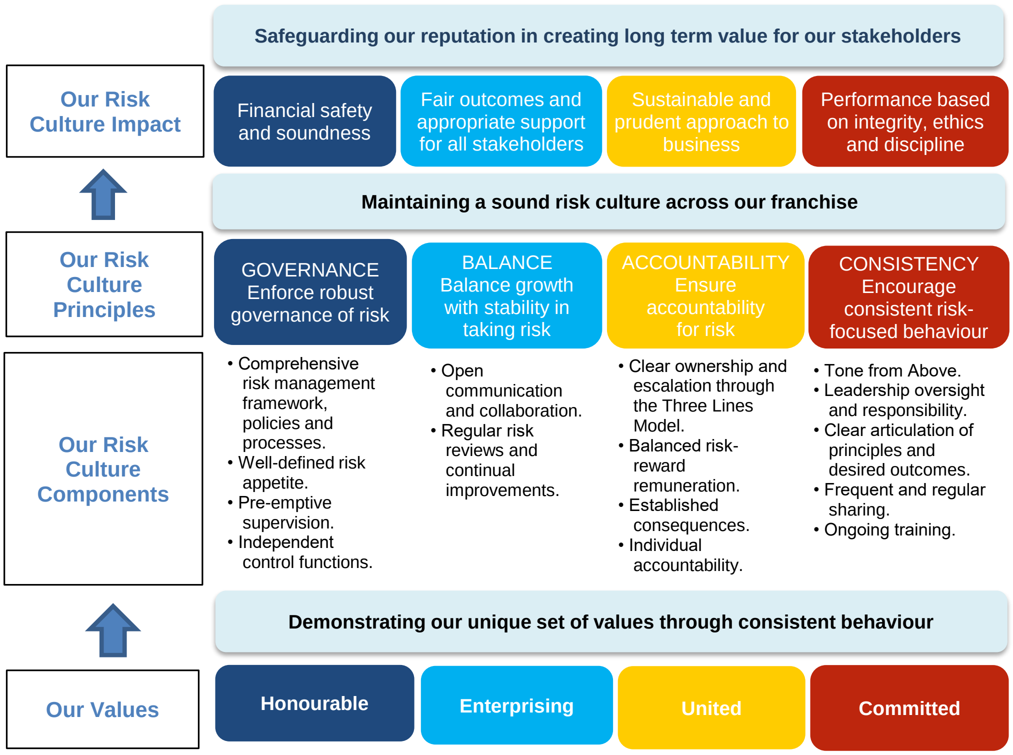
Risk Culture

A strong risk culture is vital to the long-term sustainability of the Bank’s business franchise. Specifically, risk culture refers to the norms, attitudes and behaviours related to risk awareness, risk-taking and risk management, and controls that shape decisions on risks. At UOBM, our risk culture is based on our values. A strong risk culture ensures that our decisions and actions are considered and focused on our stakeholders, and that we are not distracted by short-term gains.

UOBM's Risk Culture Statement
Managing risk is integral to how we create long-term value for our customers and other stakeholders. Our risk culture is built on four principles: enforcing robust risk governance; balancing growth with stability; ensuring accountability for all the risk-based decisions and actions; and encouraging awareness, engagement and consistent behaviour in every employee.

Each of these principles is based on our distinctive set of values that guides every action we take. In entrenching our risk culture further across our franchise, we uphold the commitment to financial safety and soundness; fair outcomes and appropriate support for our stakeholders; sustainable and prudent business approach and performance based on integrity, ethics and discipline.

4. RISK MANAGEMENT (Cont'd.)



Our risk management strategy embeds our risk culture across the Bank, so as to facilitate ongoing effective discovery, management and mitigation of risks arising from external factors and our business activities, and to use capital efficiently to address these risks. Risks are managed within levels established by senior management committees and approved by the Board and its committees. We have put in place frameworks, policies, methodologies, tools and processes to identify, to measure, to monitor and to manage the material risks faced by the Bank. These enable us to focus on the fundamentals of banking and create long-term value for all our stakeholders.

4. RISK MANAGEMENT (Cont'd.)

Risk Governance

Our risk frameworks, policies and appetite provide the principles and guidance for the Bank's risk management activities. They guide our key decisions for capital management, strategic planning and budgeting, and performance management to ensure that risk dimension is appropriately and sufficiently considered. Risk reports are submitted regularly to senior management committees and the Board to keep them apprised of the Bank's risk profile.

Responsibility for risk management starts with the Board oversight of the governance structure, which ensures 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
- subject to adequate risk management and internal controls.

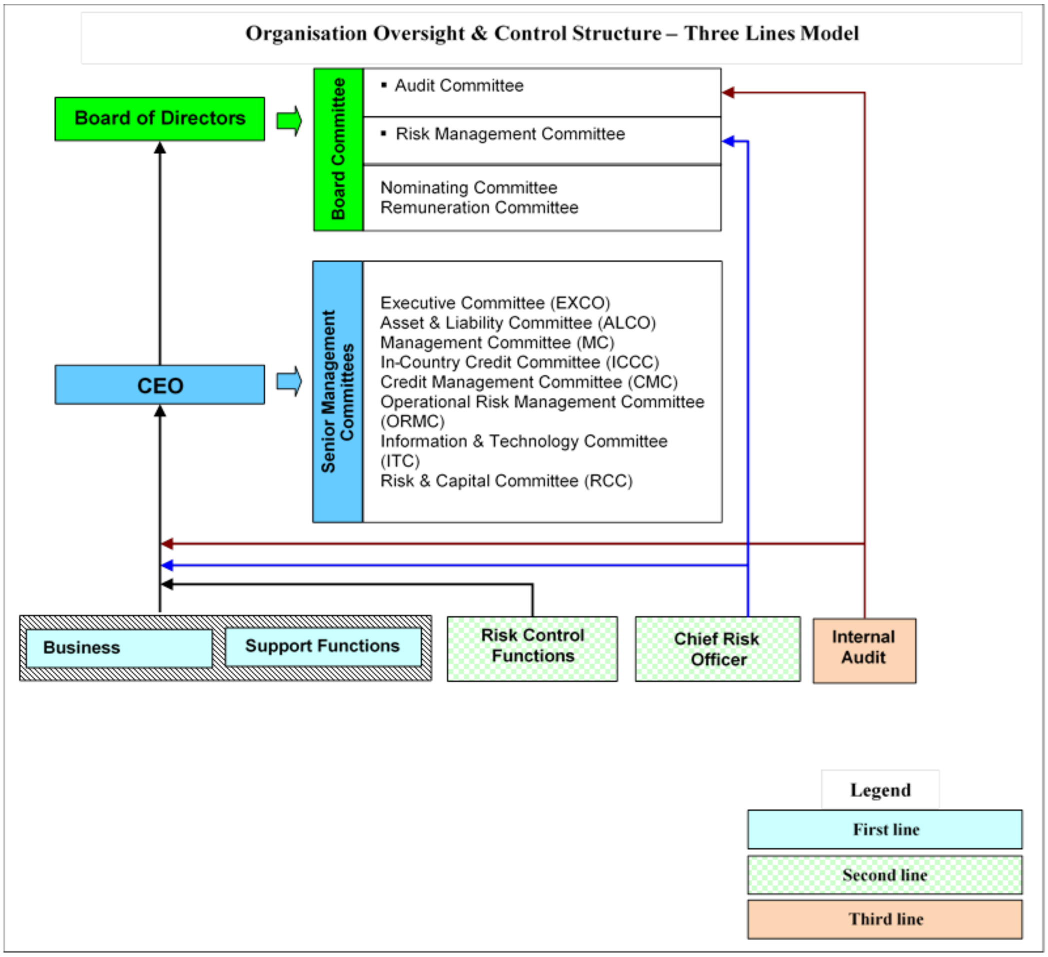
The Board is assisted primarily by the Risk Management Committee (RMC), which reviews the overall risk appetite and level of risk capital to be maintained for the Bank.

The Chief Executive Officer (CEO) has established senior management committees to assist him 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 Board committees in specific risk areas.

Management and the senior management committees are authorised to delegate risk appetite limits by location, business units and/or broad product lines.

Risk management is the responsibility of every employee in the Bank. We strive to instill awareness of the risks created by their actions and the accountability for the consequences of those actions in our employees. We have an established framework to ensure appropriate oversight, accountability and management of all risk types encountered in the course of our business. The organisational control structure provides the Three Lines Model as follows:

4. RISK MANAGEMENT (Cont'd.)



First Line - The Risk Owner

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

Second Line - Risk Oversight

The risk and control oversight functions (Risk Management and Compliance) and the Chief Risk Officer (CRO), as the Second Line, 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. They are also responsible for the independent review and monitoring of the Bank's risk profile and highlighting any significant vulnerabilities and risk issues to the respective senior management committees.

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

4. RISK MANAGEMENT (Cont'd.)

Third Line - Independent Audit

The Bank's internal auditors conduct risk-based audits covering all aspects of the First and Second Lines to provide independent assurance to the CEO, Audit Committee and the Board, on the adequacy and effectiveness of our system of risk management and internal controls.

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

Risk Appetite

Our risk appetite framework defines the amount of risk that we are able and willing to take in the pursuit of our business objectives. It ensures that the Bank’s risk profile remains within well-defined and tolerable boundaries. The framework is formulated based on the following key criteria:
- alignment to the Bank's business strategy;
- relevance to the respective stakeholders, with appropriate levels of granularity;
- practical, consistent and easy to understand metrics for communication and implementation; and
- analytically-substantiated and measurable metrics.

The risk appetite defines suitable thresholds and limits across key areas of 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 whose risks we are well-equipped to manage. This approach helps us to minimise earnings volatility and concentration risk, and ensures that our high credit ratings, strong capital and stable funding base remain intact. This enables us to remain a steadfast partner to our customers through changing economic conditions and cycles.

Our risk appetite framework and risk appetite are reviewed and approved annually by the Board. Management monitors and reports the risk profiles and compliance with the risk appetite to the Board on a regular basis.

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 take 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, taking into account all material risks. Stress-testing is 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 they are due. It 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.

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. Integral to the management of credit risk is a framework that clearly defines policies and processes relating to the identification, measurement and management of credit risk. The Bank continually monitors the operating environment to identify emerging risks and to formulate appropriate mitigating actions.

Credit Risk Governance and Organisation

The CMC supports the CEO and the RMC in managing the Bank's overall credit risk exposures and serves as an executive forum for discussions on all credit-related matters. The CMC also reviews and assesses the Bank's credit portfolios and credit risk profiles.

The Credit Risk Management under Risk Management develops bank-wide credit policies and guidelines and facilitates business development within a framework that results in prudent, consistent and efficient credit risk management. It is responsible for the reporting, analysis and management of credit risk to the CMC, RMC and Board. The comprehensive credit risk reports cover business segments at the overall portfolio level by various dimensions including industry, product and country.

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

Credit origination and approval functions are segregated to maintain the independence and integrity of the credit approval process. Credit approval authority is delegated to officers based on their experience, seniority and track record. All credit approval officers are guided by credit policies and credit acceptance guidelines which are reviewed periodically to ensure their continued relevance to the Bank's business strategy and the business environment.

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 manages its country risk exposures within an established framework that involves setting country limits. 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. The Bank also conducts frequent stress-testing to assess the resilience of our portfolio in the event of a marked deterioration in operating conditions.

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 three objectives are:

- to assess the profit and loss and balance sheet impact of business strategies;
- to quantify the sensitivity of performance drivers under various macroeconomic and business planning scenarios; and
- to evaluate the impact of Management's decisions on capital, funding and leverage.

Stress tests are conducted to assess if the Bank's capital can withstand credit portfolio losses resulting from stress scenarios, and their impact on profitability and balance sheet quality. Stress tests also help us to identify the vulnerability of various business units and enable us to formulate appropriate mitigating measures.

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

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 committees are updated on credit trends through internal risk reports, so that the neccessary mitigating measures can be implemented promptly.

Delinquency monitoring

The Bank monitors closely the delinquency of borrowing accounts, a key indicator of credit quality. An account is considered delinquent when payment has not been received by the payment due date. All delinquent accounts, including revolving credit facilities (such as an overdraft) with limit excesses, are 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 facilities from their normal source of income.

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

Upgrading and declassification of a 'Non-Performing' account to 'Pass' or 'Special Mention' 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 de-classified, 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 de-classified.

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 to comply with the Bank's impairment policy and the BNM requirements.

Special Asset Management

Special Asset Management (SAM) is an independent division that manages the restructuring, workout and recovery of the Bank's non-performing portfolios. Its primary objectives are (i) to restructure/nurse the non-performing accounts back to financial health whenever possible for transfer back to the business units for management and (ii) to maximise recovery of the Non-Performing accounts that the Bank intends to exit.

Write-Off Policy

A non-performing account is 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 of the Bank by sectors for the financial year ended 31 December 2021 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	-	-	-	-	1,748,188	23,116	-	-	-	1,771,304
Mining and quarrying	-	-	465,278	-	193,661	10,751	-	-	-	669,690
Manufacturing	-	-	101,558	-	8,887,742	1,308,877	-	-	-	10,298,177
Electricity, gas and water	-	-	-	-	710,815	9,876	-	-	-	720,691
Construction	-	-	-	-	10,683,853	510,463	-	-	-	11,194,316
Wholesale, retail trade, restaurant and hotels	-	-	69,837	-	15,978,330	4,299,114	-	-	-	20,347,281
Transport, storage and communication	-	-	1,889	-	1,613,686	185,071	-	-	-	1,800,646
Finance, insurance and business services	2,553	39,858	6,644,993	1,228,166	2,951,604	942,398	-	-	-	11,809,572
Real estate	-	-	-	-	4,093,291	631,683	-	-	-	4,724,974
Community, social and personal services	-	-	-	-	36,276	133,048	-	-	-	169,324
Households	-	-	-	-	5,511	16,343,096	38,985,530	-	-	55,334,137
Others	23,991,341	490,369	-	-	292	-	-	157,023	1,330,465	25,969,490
	23,993,894	530,227	7,283,555	1,228,166	46,903,249	24,397,493	38,985,530	157,023	1,330,465	144,809,603

Note: The credit exposures in the tables (i) to (iv) and table (viii) are based on exposures as defined under BNM's Capital Adequacy Framework for Standardised Approach and IRB Approach respectively.

5. CREDIT RISK (Cont'd.)

The credit exposures of the Bank by sectors for the financial year ended 31 December 2020 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	**-**	**-**	**-**	**-**	**1,912,643**	**26,806**	**-**	**-**	**-**	1,939,449
Mining and quarrying	-	-	939,264	-	196,953	10,209	-	-	-	1,146,426
Manufacturing	-	-	76,037	-	7,307,636	1,365,505	-	-	-	8,749,178
Electricity, gas and water	-	-	-	-	262,442	12,793	-	-	-	275,235
Construction	-	-	-	-	10,891,718	549,171	-	-	-	11,440,889
Wholesale, retail trade, restaurant and hotels	-	179,045	3,230	-	13,412,676	4,383,772	-	-	-	17,978,723
Transport, storage and communication	-	-	268	-	2,078,322	187,574	-	-	-	2,266,164
Finance, insurance and business services	14,104	52,467	9,415,524	1,238,898	3,019,857	975,109	-	-	-	14,715,959
Real estate	-	-	-	-	4,053,440	666,667	-	-	-	4,720,107
Community, social and personal services	-	-	-	-	40,629	126,365	-	-	-	166,994
Households	-	-	-	-	3,406	17,208,786	38,403,682	-	-	55,615,874
Others	23,045,806	-	-	-	171,290	-	-	158,385	1,376,278	24,751,759
	23,059,910	231,512	10,434,323	1,238,898	43,351,012	25,512,757	38,403,682	158,385	1,376,278	143,766,757

5. CREDIT RISK (Cont'd.)

(ii) The credit exposures under the Islamic Banking Window by sectors for the financial year ended 31 December 2021 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	-	-	-	-	336,538	419	-	-	-	336,957
Mining and Quarrying	-	-	-	-	90,304	-	-	-	-	90,304
Manufacturing	-	-	-	-	1,013,493	171,938	-	-	-	1,185,431
Electricity, gas and water	-	-	-	-	512,805	-	-	-	-	512,805
Construction	-	-	-	-	585,886	67,414	-	-	-	653,300
Wholesale, retail trade,	-	-	-	-	556,652	467,448	-	-	-	1,024,100
restaurant and hotels										-
Transport, storage and	-	-	-	-	93,518	34,824	-	-	-	128,342
communication										-
Finance, insurance and	2,553	2,399	203,839	1,003,189	44,645	169,234	-	-	-	1,425,858
business services										-
Real estate	-	-	-	-	169,338	115,659	-	-	-	284,997
Community, social and	-	-	-	-	-	35,458	-	-	-	35,458
personal services										-
Households	-	-	-	-	-	305,240	3,318,148	-	-	3,623,388
Others	2,983,316	-	-	-	-	-	-	-	6,781	2,990,097
	2,985,869	2,399	203,839	1,003,189	3,403,179	1,367,634	3,318,148	-	6,781	12,291,036

5. CREDIT RISK (Cont'd.)

The credit exposures under the Islamic Banking Window by sectors for the financial year ended 31 December 2020 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	-	-	-	-	524,065	450	-	-	-	524,515
Mining and Quarrying	-	-	-	-	96,873	-	-	-	-	96,873
Manufacturing	-	-	-	-	319,301	160,764	-	-	-	480,065
Electricity, gas and water	-	-	-	-	56,921	-	-	-	-	56,921
Construction	-	-	-	-	416,643	66,793	-	-	-	483,436
Wholesale, retail trade, restaurant and hotels	-	-	-	-	479,525	389,479	-	-	-	869,004
Transport, storage and communication	-	-	-	-	96,846	34,482	-	-	-	131,328
Finance, insurance and business services	1,405	4,518	115,504	1,002,586	36,288	158,644	-	-	-	1,318,945
Real estate	-	-	-	-	214,033	109,194	-	-	-	323,227
Community, social and personal services	-	-	-	-	-	26,942	-	-	-	26,942
Households	-	-	-	-	-	291,032	2,907,752	-	-	3,198,784
Others	1,337,367	-	-	-	-	-	-	-	6,486	1,343,854
	1,338,772	4,518	115,504	1,002,586	2,240,495	1,237,780	2,907,752	-	6,486	8,853,893

5. CREDIT RISK (Cont'd.)

(iii) The credit exposures of the Bank by remaining contractual maturities for the financial year ended 31 December 2021 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	8,894,308	16,121	2,751,777	141,384	13,821,556	936,232	11,293	-	-	26,572,672
3 - 6 months	1,397,040	69,119	1,956,894	23,921	3,415,986	230,128	4,684	-	-	7,097,772
6 - 12 months	934,050	118,129	705,131	29,633	3,828,096	6,703,554	1,523,709	-	480,123	14,322,425
1 - 3 years	5,765,580	124,150	1,192,280	31,612	11,131,151	2,483,304	110,359	157,023	850,342	21,845,801
3 - 5 years	3,283,638	-	606,804	1,001,616	8,069,100	818,565	272,350	-	-	14,052,073
> 5 years	3,719,278	202,707	70,669	-	6,637,360	13,225,710	37,063,134	-	-	60,918,858
	23,993,894	530,227	7,283,555	1,228,166	46,903,249	24,397,493	38,985,529	157,023	1,330,465	144,809,603

The credit exposures of the Bank by remaining contractual maturities for the financial year ended 31 December 2020 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	7,418,993	29,575	6,287,134	166,738	11,963,366	824,667	11,376	-	-	26,701,849
3 - 6 months	399,945	22,892	1,766,966	15,203	3,183,683	236,593	7,176	-	-	5,632,458
6 - 12 months	925,705	-	234,336	16,167	4,404,287	7,229,928	1,562,091	-	505,038	14,877,552
1 - 3 years	7,961,590	152,118	1,523,194	19,566	11,465,997	2,648,115	100,174	158,385	871,240	24,900,379
3 - 5 years	3,640,054	26,927	526,916	1,021,224	6,578,760	847,866	264,882	-	-	12,906,629
> 5 years	2,713,623	-	95,777	-	5,754,919	13,725,588	36,457,983	-	-	58,747,890
	23,059,910	231,512	10,434,323	1,238,898	43,351,012	25,512,757	38,403,682	158,385	1,376,278	143,766,757

5. CREDIT RISK (Cont'd.)

(iv) The credit exposures under the Islamic Banking Window by remaining contractual maturities for the financial year ended 31 December 2021 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
< 3 months	1,407,000	-	133,686	1,699	558,765	3,778	-	-	-	2,104,928
3 - 6 months	1,244,241	2,399	-		62,410	766	-	-	-	1,309,816
6 - 12 months	197,204	-	-	-	85,420	158	-	-	-	282,782
1 - 3 years	137,424		70,153		156,681	8,323	606	-	6,781	379,968
3 - 5 years	-		-	1,001,490	1,363,684	3,938	299	-	-	2,369,411
> 5 years	-		-	-	1,176,219	1,350,671	3,317,243	-	-	5,844,132
	2,985,869	2,399	203,839	1,003,189	3,403,179	1,367,634	3,318,148	-	6,781	12,291,036

The credit exposures under the Islamic Banking Window by remaining contractual maturities for the financial year ended 31 December 2020 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
< 3 months	1,216,661	2,410	100,896	1,109	653,095	2,825	-	-	-	1,976,996
3 - 6 months	120,706	2,108	-	-	32,686	427	-	-	-	155,927
6 - 12 months	-	-	-	-	101,832	195	-	-	-	102,027
1 - 3 years	1,405	-	14,608	-	101,393	7,591	-	-	6,486	131,483
3 - 5 years	-	-	-	1,001,477	261,337	3,908	1,253	-	-	1,267,975
> 5 years	-	-	-	-	1,090,152	1,222,834	2,906,499	-	-	5,219,485
	1,338,772	4,518	115,504	1,002,586	2,240,495	1,237,780	2,907,752	-	6,486	8,853,893

5. CREDIT RISK (Cont'd.)

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

Bank	2021 Past due but not impaired RM'000	2021 Impaired loans RM'000	2020 Past due but not impaired RM'000	2020 Impaired loans RM'000
Agriculture, hunting, forestry and fishing	6,545	1,273	50,632	559
Mining and quarrying	7,101	81,750	10,412	776
Manufacturing	31,410	205,181	169,827	213,580
Electricity, gas and water	-	-	3,855	-
Construction	197,367	430,926	598,013	314,203
Wholesale, retail trade, restaurant and hotels	53,590	304,175	292,238	212,724
Transport, storage and communication	2,367	97,410	68,637	92,750
Finance, insurance and business services	14,604	29,184	74,141	23,895
Real estate	144,544	171,016	120,049	181,370
Community, social and personal services	836	-	6,047	-
Households:				
- purchase of residential properties	258,161	718,355	743,747	466,125
- purchase of non residential properties	80,900	185,960	280,502	96,145
- others	69,931	97,209	127,975	76,244
	867,356	2,322,439	2,546,075	1,678,371

5. CREDIT RISK (Cont'd.)

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

	2021		2020	
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**
Agriculture, hunting, forestry and fishing	-	-	-	-
Mining and quarrying	-	81,750	-	-
Manufacturing	-	18,544	20,629	15,485
Construction	-	3,348	2,582	4,386
Wholesale, retail trade, restaurant and hotels	1,332	10,040	8,310	10,006
Transport, storage and communication	-	3,315	3,406	-
Finance, insurance and business services	2,275	680	3,717	-
Real estate	-	-	4,290	-
Community, social and personal services	-	-	2,653	-
Households:				
- purchase of residential properties	30,994	78,045	55,130	45,488
- purchase of non residential properties	62	1,342	5,605	538
- others	294	143	615	-
	34,957	197,207	106,937	75,903

5. CREDIT RISK (Cont'd.)

(vi) Allowances for Expected Credit Loss (ECL) 1,2 and 3 of the Bank analysed by economic sectors:

	2021		2020	
Bank	**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	-	45,390	-	113,987
Mining and quarrying	81,750	995	-	4,422
Manufacturing	95,708	51,028	98,382	230,894
Electricity, gas and water	-	6,393	-	12,810
Construction	37,547	312,151	43,409	191,436
Wholesale, retail trade, restaurant and hotels	142,532	477,938	94,088	289,490
Transport, storage and communication	44,426	16,816	42,621	68,804
Finance, insurance and business services	11,092	67,825	10,612	131,110
Real estate	45,457	293,927	33,044	90,576
Community, social and personal services	-	6,112	-	10,649
Households:				
- purchase of residential properties	135,823	164,337	98,378	150,134
- purchase of non residential properties	23,201	4,430	17,261	9,720
- others	23,266	163,714	17,781	194,224
	640,802	1,611,056	455,576	1,498,256

Note: Expected Credit Loss (ECL) measurement approaches can be found in Financial Statement Note 40.1 (b).

5. CREDIT RISK (Cont'd.)

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

	2021		2020	
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	-	519	-	20,122
Mining and quarrying	81,750	6	-	255
Manufacturing	3,437	3,930	4,068	6,761
Electricity, gas and water	-	5,447	-	10
Construction	613	6,792	1,203	5,118
Wholesale, retail trade, restaurant and hotels	4,829	20,085	4,490	9,705
Transport, storage and communication	-	569	-	2,048
Finance, insurance and business services	119	2,599	-	1,949
Real estate	-	6,440	-	2,951
Community, social and personal services	-	1,834	-	967
Households:				
- purchase of residential properties	14,879	6,859	10,776	5,679
- purchase of non residential properties	62	55	147	105
- others	-	25	-	37
	105,689	55,160	20,684	55,707

5. CREDIT RISK (Cont'd.)

(vii) Allowances for Expected Credit Loss 3 (ECL 3) of the Bank analysed by economic sectors:

	2021		2020	
Bank	**Allowances for ECL 3 made during the year RM'000**	**Write-offs during the year RM'000**	**Allowances for ECL 3 made during the year RM'000**	**Write-offs during the year RM'000**
Agriculture, hunting, forestry and fishing	3	-	1,604	-
Mining and quarrying	81,750	-	-	-
Manufacturing	30,565	27,850	45,757	10,145
Electricity, gas and water	-	-	-	-
Construction	6,980	2,398	38,491	19,054
Wholesale, retail trade, restaurant and hotels	71,285	13,799	78,549	9,189
Transport, storage and communication	3,186	1,292	5,540	654
Finance, insurance and business services	4,303	3,062	6,643	3,669
Real estate	17,339	2	34,298	830
Community, social and personal services	91	91	42	42
Households:				
- purchase of residential properties	107,698	54,414	111,801	36,500
- purchase of non residential properties	27,441	17,850	21,642	4,343
- others	75,987	67,143	61,767	49,572
	426,628	187,901	406,133	133,998

5. CREDIT RISK (Cont'd.)

Allowances for ECL 3 under the Islamic Banking Window analysed by economic sectors:

Islamic Banking Window	2021 Allowances for ECL 3 made during the year RM'000	2021 Write-offs during the year RM'000	2020 Allowances for ECL 3 made during the year RM'000	2020 Write-offs during the year RM'000
Agriculture, hunting, forestry and fishing	-	-	-	-
Mining and quarrying	81,750	-	-	-
Manufacturing	4	-	4,086	-
Electricity, gas and water	-	-	-	-
Construction	175	605	1,554	-
Wholesale, retail trade, restaurant and hotels	581	-	4,041	791
Transport, storage and communication	-	-	-	-
Finance, insurance and business services	121	-	-	-
Real estate	-	-	-	-
Community, social and personal services	-	-	-	-
Households:				
- purchase of residential properties	11,589	6,070	9,681	1,165
- purchase of non residential properties	71	111	207	-
- others	-	-	31	-
	94,291	6,786	19,600	1,956

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 exposures of the Bank analysed by geography:

Bank As at 31 December 2021	In Malaysia RM'000	Outside Malaysia RM'000	Total RM'000
Exempted exposures under Standardised Approach			
Sovereigns/Central Banks	23,993,894	-	23,993,894
Public Sector Entities	530,227	-	530,227
Banks, Development Financial Institutions & MDBs	-	-	-
Insurance Cos, Securities Firms & Fund Managers	25,532	-	25,532
Corporates	321,131	-	321,131
Regulatory Retail	2,885	-	2,885
Other Assets	1,330,465	-	1,330,465
Equity Exposure	155,420	-	155,420
Total Exempted Exposures	26,359,554	-	26,359,554
Exposures under IRB Approach			
Sovereigns/Central Banks	-	-	-
Public Sector Entities	-	-	-
Banks, Development Financial Institutions & MDBs	5,903,169	1,380,386	7,283,555
Insurance Cos, Securities Firms & Fund Managers	1,202,634	-	1,202,634
Corporates	44,803,223	1,778,894	46,582,118
Residential Mortgages	35,158,968	3,826,562	38,985,530
Qualifying Revolving Retail Exposures	6,256,596	11,984	6,268,579
Other Retail Exposures	16,897,299	1,228,730	18,126,029
Equity Exposure	1,604	-	1,604
Total IRB Approach	110,223,492	8,226,556	118,450,049
Total credit risk exposures	136,583,046	8,226,556	144,809,602

Note: Exposures outside of Malaysia are mainly loans extended to non-residents.

Bank As at 31 December 2020	In Malaysia RM'000	Outside Malaysia RM'000	Total RM'000
Exempted exposures under Standardised Approach			
Sovereigns/Central Banks	23,059,910	-	23,059,910
Public Sector Entities	231,512	-	231,512
Banks, Development Financial Institutions & MDBs	-	-	-
Insurance Cos, Securities Firms & Fund Managers	43,041	-	43,041
Corporates	337,959	-	337,959
Regulatory Retail	9,965	-	9,965
Other Assets	1,376,278	-	1,376,278
Equity Exposure	155,929	-	155,929
Total Exempted Exposures	25,214,594	-	25,214,594
Exposures under IRB Approach			
Sovereigns/Central Banks	-	-	-
Public Sector Entities	-	-	-
Banks, Development Financial Institutions & MDBs	8,293,638	2,140,685	10,434,323
Insurance Cos, Securities Firms & Fund Managers	1,195,857	-	1,195,857
Corporates	41,780,807	1,232,247	43,013,054
Residential Mortgages	34,344,697	4,058,985	38,403,682
Qualifying Revolving Retail Exposures	6,720,154	12,202	6,732,356
Other Retail Exposures	17,472,577	1,297,859	18,770,435
Equity Exposure	2,456	-	2,456
Total IRB Approach	109,810,186	8,741,977	118,552,163
Total credit risk exposures	135,024,779	8,741,977	143,766,757

Note: Exposures outside of Malaysia are mainly loans extended to non-residents.

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	26,355	49,915	63,380

*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 exposures of the Bank by risk weights under the Standardised Approach for the financial year ended 31 December 2021 were as follows:

	Bank									
Risk weights	Sovereigns/ central banks	Public sector entities	Banks, DFIs and MDBs	Ins cos, securities firms and fund managers	Corporates	Regulatory Retail	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	RM'000
0%	23,980,527	490,369	-	-	2,401	-	596,439	-	25,069,736	-
10%	-	-	-	-	-	-	-	-	-	-
20%	13,136	39,858	-	-	196	-	-	-	53,189	10,638
35%	-	-	-	-	-	-	-	-	-	-
50%	-	-	-	-	-	-	-	-	-	-
75%	-	-	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-	-	-
100%	231			25,532	312,529	2,885	734,026	155,420	1,230,623	1,230,622
110%	-	-	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-	-	-
150%	-	-	-	-	1,361	-	-	-	1,361	2,042
270%	-	-	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-	-	-
1250.0%	-	-	-	-	-	-	-	-	-	-
Total	**23,993,894**	**530,227**	**-**	**25,532**	**316,487**	**2,885**	**1,330,465**	**155,420**	**26,354,909**	**1,243,302**

5. CREDIT RISK (Cont'd.)

The aggregate breakdown of credit risk exposures of the Bank by risk weights under the Standardised Approach for the financial year ended 31 December 2020 were as follows:

Risk weights	Bank									
	Sovereigns/ central banks	Public sector entities	Banks, DFIs and MDBs	Ins cos, securities firms and fund managers	Corporates	Regulatory Retail	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	RM'000
0%	21,710,244	179,046	-	-	2,021	-	619,629	-	22,510,940	-
10%	-	-	-	-	-	-	-	-	-	-
20%	1,149,309	52,467	-	-	202	-	0	-	1,201,977	240,395
35%	-	-	-	-	-	-	-	-	-	-
50%	-	-	-	-	2	-	-	-	2	1
75%	-	-	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-	-	-
100%	-	-	-	43,041	328,099	9,965	756,649	155,929	1,293,683	1,293,683
110%	-	-	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-	-	-
150%	-	-	-	-	3,947	-	-	-	3,947	5,921
270%	-	-	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-	-	-
1250.0%	-	-	-	-	-	-	-	-	-	-
Total	**22,859,553**	**231,512**	**-**	**43,041**	**334,270**	**9,965**	**1,376,278**	**155,929**	**25,010,549**	**1,540,000**

5. CREDIT RISK (Cont'd.)

Credit Exposures under Basel II (cont'd.)

The table below summarises the approaches adopted under the Islamic Banking Window 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	2,998	4,461	4,686

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

5. CREDIT RISK (Cont'd.)

The aggregate breakdown of credit risk exposures under Islamic Banking Window by risk weights under the Standardised Approach for the financial year ended 31 December 2021 were as follows:

Risk weights	Islamic Banking Window							
	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%	2,985,869	-	-	-	-	-	2,985,869	-
10%	-	-	-	-	-	-	-	-
20%	-	2,399	-	-	-	-	2,399	480
35%	-	-	-	-	-	-	-	-
50%	-	-	-	-	-	-	-	-
75%	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-
100%	-	-	-	1,699	830	6,781	9,310	9,310
110%	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-
150%	-	-	-	-	-	-	-	-
270%	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-
1250.0%	-	-	-	-	-	-	-	-
Total	**2,985,869**	**2,399**	**-**	**1,699**	**830**	**6,781**	**2,997,578**	**9,790**

5. CREDIT RISK (Cont'd.)

The aggregate breakdown of credit risk exposures under Islamic Banking Window by risk weights under the Standardised Approach for the financial year ended 31 December 2020 were as follows:

Risk weights	Islamic Banking Window							
	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%	1,338,772	-	-	-	-	-	1,338,772	-
10%	-	-	-	-	-	-	-	-
20%	-	4,518	-	-	-	-	4,518	904
35%	-	-	-	-	-	-	-	-
50%	-	-	-	-	-	-	-	-
75%	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-
100%	-	-	-	1,109	95	6,486	7,690	7,690
110%	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-
150%	-	-	-	-	-	-	-	-
270%	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-
1250.0%	-	-	-	-	-	-	-	-
Total	**1,338,772**	**4,518**	**-**	**1,109**	**95**	**6,486**	**1,350,981**	**8,594**

5. CREDIT RISK (Cont'd.)

Rated Exposures of the Bank by ECAI ratings for the financial year ended 31 December 2021 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
<u>On and off-balance sheet exposures</u>						
Credit exposures (using corporate risk weights)						
Public sector entities (applicable for entities risk weighted based on their external ratings as corporates)		-	-	-	-	530,227
Insurance cos, securities firms and fund managers		-	-	-	-	25,532
Corporates		-	-	-	-	316,487
Regulatory Retail		-	-	-	-	2,885
Total		**-**	**-**	**-**	**-**	**875,131**

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
<u>On and off-balance sheet exposures</u>							
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		-	23,993,894	-	-	-	-
Total		**-**	**23,993,894**	**-**	**-**	**-**	**-**

Rated Exposures of the Bank by ECAI ratings for the financial year ended 31 December 2020 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)		-	-	-	-	231,512
Insurance cos, securities firms and fund managers		-	-	-	-	43,041
Corporates		-	-	-	-	334,270
Regulatory Retail		-	-	-	-	9,965
Total		**-**	**-**	**-**	**-**	**618,789**

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		-	21,761,800	-	-	-	1,097,753
Total		**-**	**21,761,800**	**-**	**-**	**-**	**1,097,753**

5. CREDIT RISK (Cont'd.)

Rated Exposures of the Islamic Banking Window by ECAI ratings for the financial year ended 31 December 2021 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)		-	-	-	-	2,399
Insurance cos, securities firms and fund managers		-	-	-	-	1,699
Corporates		-	-	-	-	830
Total		**-**	**-**	**-**	**-**	**4,928**

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		-	2,985,869	-	-	-	-
Total		**-**	**2,985,869**	**-**	**-**	**-**	**-**

Rated Exposures of the Islamic Banking Window by ECAI ratings for the financial year ended 31 December 2020 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)		-	-	-	-	4,518
Insurance cos, securities firms and fund managers		-	-	-	-	1,109
Corporates		-	-	-	-	95
Total		**-**	**-**	**-**	**-**	**5,722**

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
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		-	829,859	-	-	-	508,913
Total		**-**	**829,859**	**-**	**-**	**-**	**508,913**

5. CREDIT RISK (Cont'd.)

Internal Credit Rating System

The Bank employs internal rating models to support the assessment of credit risk and the 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 model changes, model performance monitoring, annual model validation and independent reviews by Internal Audit.

Credit risk models are independently validated before they are implemented to ensure that 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 internal models estimate a probability of default (PD) or supervisory slot for each borrower. These models employ qualitative and quantitative factors to provide an assessment of the borrowers' ability to meet their financial obligations. The models are calibrated to provide an estimate of the likelihood of default over a 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 the ECAIs, they are not directly comparable with or equivalent to the ECAIs ratings.

5. CREDIT RISK (Cont'd.)

Corporate Portfolio

The Bank has developed models to rate Non-bank Financial Institution (NBFI), Large Corporate (LC) and SME portfolios. Credit risk factors used to derive a borrower's risk rating include the borrower's 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, LC and SME models consists of 16 pass grades. The models are mapped to the rating scale by calibration that takes into account the respective portfolio's long-term average default rate.

Specialised Lending Portfolio

The Bank has also developed models for three Specialised Lending portfolios, namely: Income Producing Real Estate (IPRE), Commodities Finance (CF) and Project Finance (PF). These models produce internal risk grades which are derived based on a comprehensive assessment of financial and non-financial risk factors.

The rating grade structure for IPRE portfolio, like our Corporate models, has 16 pass grades. Risk grades derived for CF and PF portfolios are mapped to four supervisory slotting categories, which determines the risk weights to be applied to such exposures.

Bank Portfolio

Exposures in our Bank portfolio are rated by our internal Bank model, which takes into account asset quality, capital adequacy, liquidity, management, regulatory environment and robustness of the overall banking system. The model 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 model.

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 that are segemented based on borrower and transaction characteristics. As loss characteristics of retail exposures are geography and product specific, bespoke PD, LGD and EAD segmentation models are developed using empirical loss data for the respective exposures across the Bank. Where internal loss data is insufficient to provide robust risk estimates, the segmentation models may incorporate internal and/or external proxies. Where necessary, the model is 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 using historical default data and the recovery experience from such defaulted cases. 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 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, the 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 provide the breakdown of exposures of the Bank using the respective internal rating scale for the models applicable to the asset classes for the financial year ended 31 December 2021:

Exposures under the IRB Approach by Risk Grade

CRR band	1-9	10-16	17-20 (Default)
	RM'000	RM'000	RM'000
Non-retail exposures (EAD)			
Large corporate, SMEs and specialised lending	23,015,408	21,807,994	1,224,577
Bank	7,264,480	19,075	-
Total non-retail exposures	30,279,888	21,827,069	1,224,577
Undrawn commitments			
Large corporate, SMEs and specialised lending	1,478,295	595,756	1,288
Bank	-	-	-
Total undrawn commitments	1,478,295	595,756	1,288
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending	42%	40%	45%
Bank	45%	45%	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending	68%	115%	0%
Bank	17%	55%	-

Specialised Lending exposures under the Supervisory Slotting Criteria

Supervisory Categories / Risk Weights	Strong/ 50%	Strong/ 70%	Good/ 70%	Good/ 90%	Satisfactory/ 115%	Weak/ 250%	Default/ 0%
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Specialised Lending exposures (EAD)							
Project Finance	-	66,332	10,457	454,850	-	2,500	-
Risk Weighted Assets	-	46,433	7,320	409,365	-	6,250	-

5. CREDIT RISK (Cont'd.)

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

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	34,897,177	770,583	2,538,095	779,675
Qualifying revolving retail	3,937,270	709,801	1,598,311	23,197
Other retail	13,859,186	2,093,871	1,811,261	361,711
Total retail exposures	52,693,633	3,574,255	5,947,667	1,164,583
Undrawn commitments				
Residential mortgages	2,123,053	193,635	109,379	-
Qualifying revolving retail	2,854,041	337,320	699,862	-
Other retail	2,036,824	450,101	174,319	259
Total undrawn commitments	7,013,918	981,056	983,560	259
Exposure weighted average LGD (%)				
Residential mortgages	12.84%	14.23%	13.48%	14.01%
Qualifying revolving retail	32.91%	45.33%	43.30%	51.67%
Other retail	15.94%	24.07%	25.87%	20.72%
Exposure weighted average risk weight (%)				
Residential mortgages	7.46%	22.03%	42.79%	30.86%
Qualifying revolving retail	6.16%	19.94%	59.39%	198.91%
Other retail	11.87%	26.92%	39.92%	54.52%

The following tables provide the breakdown of exposures of the Bank using the respective internal rating scale for the models applicable to the asset classes for the financial year ended 31 December 2020:

Exposures under the IRB Approach by Risk Grade

CRR band	**1-9**	**10-16**	**17-20 (Default)**
	RM'000	**RM'000**	**RM'000**
Non-retail exposures (EAD)			
Large corporate, SMEs and specialised lending	22,064,468	19,858,378	998,245
Bank	10,343,279	91,044	-
Total non-retail exposures	32,407,748	19,949,422	998,245
Undrawn commitments			
Large corporate, SMEs and specialised lending	1,682,598	605,667	1,877
Bank	-	-	-
Total undrawn commitments	1,682,598	605,667	1,877
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending	42%	40%	45%
Bank	41%	45%	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending	66%	114%	0%
Bank	11%	62%	-

5. CREDIT RISK (Cont'd.)

Specialised Lending exposures under the Supervisory Slotting Criteria

Supervisory Categories / Risk Weights	Strong/ 50%	Strong/ 70%	Good/ 70%	Good/ 90%	Satisfactory/ 115%	Weak/ 250%	Default/ 0%
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Specialised Lending exposures (EAD)							
Project Finance	-	91,962	-	-	-	-	-
Object Finance	-	-	-	-	-	-	-
Risk Weighted Assets	-	64,373	-	-	-	-	-

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	34,025,110	598,344	3,270,180	510,048
Qualifying revolving retail	4,105,639	856,893	1,746,060	23,764
Other retail	14,223,677	2,074,020	2,261,152	211,587
Total retail exposures	52,354,426	3,529,257	7,277,392	745,399
Undrawn commitments				
Residential mortgages	2,045,170	168,974	145,325	-
Qualifying revolving retail	3,003,987	391,010	765,085	-
Other retail	2,171,693	418,075	238,102	129
Total undrawn commitments	7,220,849	978,059	1,148,512	129
Exposure weighted average LGD (%)				
Residential mortgages	12.74%	13.87%	13.49%	14.06%
Qualifying revolving retail	32.91%	45.65%	44.32%	59.03%
Other retail	16.34%	26.77%	25.61%	25.34%
Exposure weighted average risk weight (%)				
Residential mortgages	7.33%	21.89%	43.63%	27.51%
Qualifying revolving retail	6.26%	19.84%	62.75%	287.35%
Other retail	12.19%	29.91%	40.37%	70.75%

5. CREDIT RISK (Cont'd.)

The following tables provide the breakdown of exposures of the Islamic Banking Window using the respective internal rating scale for the models applicable to the asset classes for the financial year ended 31 December 2021:

Exposures under the IRB Approach by Risk Grade

CRR band	**1-9**	**10-16**	**17-20 (Default)**
	RM'000	**RM'000**	**RM'000**
Non-retail exposures (EAD)			
Large corporate, SMEs and specialised lending	1,749,935	1,094,553	96,961
Bank	203,623	216	-
Total non-retail exposures	1,953,558	1,094,770	96,961
Undrawn commitments			
Large corporate, SMEs and specialised lending	30,643	11,464	750
Bank	-	-	-
Total undrawn commitments	30,643	11,464	750
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending	44%	41%	45%
Bank	45%	45%	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending	110%	146%	0%
Bank	10%	43%	-

Supervisory Categories / Risk Weights	**Strong/ 50%**	**Strong/ 70%**	**Good/ 70%**	**Good/ 90%**	**Satisfactory/ 115%**	**Weak/ 250%**	**Default/ 0%**
	RM'000	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Specialised Lending exposures (EAD)							
Project Finance	-	-	5,457	454,850	-	-	-
Risk Weighted Assets	-	-	3,820	409,365	-	-	-

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	2,854,384	99,828	286,363	77,573
Other retail	733,550	477,406	134,237	22,441
Total retail exposures	3,587,934	577,234	420,600	100,014
Undrawn commitments				
Residential mortgages	262,373	35,161	5,886	-
Other retail	55,254	72,848	4,260	-
Total undrawn commitments	317,627	108,009	10,146	-
Exposure weighted average LGD (%)				
Residential mortgages	14.84%	14.82%	16.08%	15.46%
Other retail	22.62%	27.11%	28.96%	35.85%
Exposure weighted average risk weight (%)				
Residential mortgages	11.08%	22.72%	49.74%	7.75%
Other retail	19.09%	29.98%	42.49%	177.24%

5. CREDIT RISK (Cont'd.)

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

The following tables provide the breakdown of exposures of the Islamic Banking Window using the respective internal rating scale for the models applicable to the asset classes for the financial year ended 31 December 2020:

CRR band	**1-9**	**10-16**	**17-20 (Default)**
	RM'000	**RM'000**	**RM'000**
Non-retail exposures (EAD)			
Large corporate, SMEs and specialised lending	1,354,068	869,279	16,612
Bank	115,504	-	-
Total non-retail exposures	1,469,572	869,279	16,612
Undrawn commitments			
Large corporate, SMEs and specialised lending	50,107	15,936	1,126
Bank	-	-	-
Total undrawn commitments	50,107	15,936	1,126
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending	44%	41%	45%
Bank	45%	-	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending	105%	138%	0%
Bank	10%	-	-

As at 31 December 2020, there were no Specialised Lending exposures 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	2,477,900	73,348	311,319	45,185
Other retail	649,306	435,782	137,926	14,766
Total retail exposures	3,127,206	509,130	449,245	59,951
Undrawn commitments				
Residential mortgages	285,376	25,760	11,501	-
Other retail	61,503	67,711	6,097	-
Total undrawn commitments	346,879	93,471	17,598	-
Exposure weighted average LGD (%)				
Residential mortgages	15.55%	15.46%	16.52%	15.71%
Other retail	23.84%	27.31%	27.64%	41.90%
Exposure weighted average risk weight (%)				
Residential mortgages	11.04%	23.69%	52.17%	2.04%
Other retail	20.00%	30.39%	43.93%	116.61%

5. CREDIT RISK (Cont'd.)

Retail exposures of the Bank under the IRB Approach by expected loss range for the financial year ended 31 December 2021 were as follows:

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	37,822,494	530,293	64,871	567,872	-
Qualifying revolving retail	4,730,051	1,056,109	204,808	212,847	64,764
Other retail	17,068,391	655,367	58,459	256,989	86,823
Total retail exposures	59,620,936	2,241,769	328,138	1,037,708	151,587
Undrawn commitments					
Residential mortgages	2,414,653	10,883	531	-	-
Qualifying revolving retail	3,281,103	441,458	65,166	96,914	6,582
Other retail	2,622,632	37,923	597	299	52
Total undrawn commitments	8,318,388	490,264	66,294	97,213	6,634
Exposure weighted average risk weight (%)					
Residential mortgages	9.76%	66.21%	90.96%	0.00%	0.00%
Qualifying revolving retail	8.03%	45.80%	106.36%	111.43%	94.22%
Other retail	14.97%	59.02%	96.03%	43.93%	20.39%

Retail exposures of the Bank under the IRB Approach by expected loss range for the financial year ended 31 December 2020 were as follows:

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	37,117,141	830,021	86,040	370,480	-
Qualifying revolving retail	5,017,892	1,229,668	239,944	197,628	47,224
Other retail	17,544,085	856,165	175,754	127,952	66,480
Total retail exposures	59,679,118	2,915,854	501,738	696,060	113,704
Undrawn commitments					
Residential mortgages	2,341,425	17,062	982	-	-
Qualifying revolving retail	3,450,546	542,915	86,516	78,368	1,737
Other retail	2,775,908	48,743	3,215	133	-
Total undrawn commitments	8,567,879	608,720	90,713	78,501	1,737
Exposure weighted average risk weight (%)					
Residential mortgages	9.50%	71.45%	83.07%	0.64%	0.00%
Qualifying revolving retail	8.30%	47.81%	106.02%	129.28%	162.14%
Other retail	15.13%	57.52%	105.09%	47.38%	36.32%

5. CREDIT RISK (Cont'd.)

Retail exposures of the Islamic Banking Window under the IRB Approach by expected loss range for the financial year ended 31 December 2021 were as follows:

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	3,205,321	32,123	7,942	72,762	-
Other retail	1,292,053	56,458	5,684	5,286	8,153
Total retail exposures	4,497,374	88,581	13,626	78,048	8,153
Undrawn commitments					
Residential mortgages	302,848	572	-	-	-
Other retail	129,221	3,141	-	-	-
Total undrawn commitments	432,069	3,713	-	-	-
Exposure weighted average risk weight (%)					
Residential mortgages	14.25%	70.55%	102.53%	0.00%	0.00%
Other retail	26.02%	53.44%	73.58%	174.97%	2.81%

Retail exposures of the Islamic Banking Window under the IRB Approach by expected loss range for the financial year ended 31 December 2020 were as follows:

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	2,818,294	35,866	8,407	45,185	-
Other retail	1,159,614	48,323	10,938	9,655	9,250
Total retail exposures	3,977,908	84,189	19,345	54,840	9,250
Undrawn commitments					
Residential mortgages	321,948	689	-	-	-
Other retail	133,460	1,851	-	-	-
Total undrawn commitments	455,408	2,540	-	-	-
Exposure weighted average risk weight (%)					
Residential mortgages	14.79%	80.38%	89.95%	2.04%	0.00%
Other retail	25.09%	50.00%	68.29%	140.91%	42.54%

5. CREDIT RISK (Cont'd.)

Actual loss by asset class

Actual loss consists of impairment loss allowance and write-off posted to the Bank's income statement for the financial year ended 31 December 2021.

Comparison of actual loss and expected loss by asset class

Bank

Asset class	Actual loss (as at 31 December 2021)	Expected loss (as at 31 December 2020)	Actual loss (as at 31 December 2020)	Expected loss (as at 31 December 2019)
	RM'000	RM'000	RM'000	RM'000
Corporate	144,610	1,018,671	162,496	887,882
Bank	-	3,201	-	3,784
Retail	190,944	365,635	117,955	368,221
Total	**335,554**	**1,387,507**	**280,451**	**1,259,887**

The actual loss in 2021 was lower than the expected loss computed as at 31 December 2020. The Bank continues to be proactive in its risk management approach to ensure that actual losses remain within the 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 2020 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 2021)	Expected loss (as at 31 December 2020)	Actual loss (as at 31 December 2020)	Expected loss (as at 31 December 2019)
	RM'000	RM'000	RM'000	RM'000
Corporate	81,290	39,197	4,086	18,557
Bank	-	16	-	17
Retail	11,884	27,994	12,478	16,567
Total	**93,174**	**67,207**	**16,564**	**35,141**

5. CREDIT RISK (Cont'd.)

Actual loss consists of allowances for ECL and write-off posted to the Bank's income statement for the financial year ended 31 December 2021.

Bank 2021	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	712,300	785,956	455,576	1,953,832
Transferred to Stage 1	34,188	(77,956)	(2,501)	(46,269)
Transferred to Stage 2	(37,237)	134,368	(1,733)	95,398
Transferred to Stage 3	(1,951)	(22,872)	301,676	276,853
Allowances made for the financial year	142,177	556,993	124,952	824,122
Maturity/settlement/repayment	(535,116)	(78,717)	(34,643)	(648,476)
Exchange differences	(1,788)	711	-	(1,077)
Net total	(399,727)	512,527	387,751	500,551
Amounts written off	-	-	(187,901)	(187,901)
Other movements	-	-	(14,624)	(14,624)
At 31 December	312,573	1,298,483	640,802	2,251,858

Bank 2020	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	870,677	367,276	286,132	1,524,085
Transferred to Stage 1	66,937	(167,488)	(4,439)	(104,990)
Transferred to Stage 2	(75,955)	281,661	(11,214)	194,492
Transferred to Stage 3	(566)	(48,500)	169,358	120,292
Allowances made for the financial year	371,575	478,059	236,775	1,086,409
Maturity/settlement/repayment	(521,555)	(124,189)	(74,951)	(720,695)
Exchange differences	1,187	(863)	-	324
Net total	(158,377)	418,680	315,529	575,832
Amounts written off	-	-	(133,998)	(133,998)
Other movements	-	-	(12,087)	(12,087)
At 31 December	712,300	785,956	455,576	1,953,832

5. CREDIT RISK (Cont'd.)

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

2021	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	20,975	34,732	20,684	76,391
Transferred to Stage 1	2,642	(19,561)	(28)	(16,947)
Transferred to Stage 2	(3,749)	8,420	(38)	4,633
Transferred to Stage 3	(248)	(1,657)	89,451	87,546
Allowances made for the financial year	13,430	33,652	4,840	51,922
Maturity/settlement/ repayment	(16,387)	(17,089)	(1,242)	(34,718)
Net total	(4,312)	3,765	92,983	92,436
Amounts written off	-	-	(6,786)	(6,786)
Other movements	-	-	(1,192)	(1,192)
At 31 December	16,663	38,497	105,689	160,849

2020	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	10,763	27,330	7,115	45,208
Transferred to Stage 1	1,217	(7,722)	-	(6,505)
Transferred to Stage 2	(2,884)	17,670	(105)	14,681
Transferred to Stage 3	(282)	(1,605)	3,263	1,376
Allowances made for the financial year	75,965	7,591	16,337	99,893
Maturity/settlement/ repayment	(63,804)	(8,532)	(2,917)	(75,253)
Net total	10,212	7,402	16,578	34,192
Other movements	-	-	(1,956)	(1,956)
At 31 December	-	-	(1,053)	(1,053)
	20,975	34,732	20,684	76,391

5. CREDIT RISK (Cont'd.)

Credit Risk Mitigation

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

Collateral is taken whenever possible to mitigate the credit risk assumed. The value of the collateral is monitored periodically and the frequency of such valuation depends on the type, liquidity and volatility of the collateral value. The collaterals are mostly in the forms of properties. Cash and marketable securities may also be accepted. The collateral has to fulfill certain criteria (such as legal certainty across relevant jurisdictions) in order to be eligible for the Internal Ratings-based (IRB) Approach purposes. Policies and processes are in place to monitor collateral concentration. Appropriate haircuts that reflect the underlying nature of the collaterals, quality, volatility and liquidity would be applied to the market value of collaterals as appropriate.

When extending credit facilities to small- and medium-sized enterprises (SMEs), the Bank often take personal guarantees to secure the moral commitment from the principal shareholders and directors.

For IRB Approach purposes, the Bank does not recognise personal guarantees as 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 Foundation Internal Ratings-based (FIRB) Approach, the Bank adopts the Probability of Default (PD) substitution approach whereby the PD of an eligible guarantor of an exposure is 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 table presents the total exposures of the Bank which are covered by eligible credit risk mitigants for the financial year ended 31 December 2021:

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	23,974,164	-	-	-
Public Sector Entities	490,369	490,369	-	-
Banks, DFIs and MDBs	5,118,838	-	-	-
Insurances cos, securities firms and fund managers	1,100,929	-	10,018	-
Corporates	37,193,516	2,829,288	2,263,069	1,821,399
Regulatory retail	17,457,234	-	-	-
Residential mortgages	35,779,788	-	-	-
Other assets	1,312,402	-	-	-
Equity exposures	157,023	-	-	-
Defaulted exposures*	1,721,583	8,518	12	29,178
Total on-balance sheet exposures	124,305,846	3,328,175	2,273,099	1,850,577
Off-balance sheet exposures				
OTC derivatives	1,739,838	2,509	1,572	641
Off-balance sheet exposures other than OTC derivatives or credit derivatives	18,093,749	256,968	1,389,609	188,337
Defaulted exposures*	7,256	-	895	-
Total off-balance sheet exposures	19,840,843	259,477	1,392,076	188,978
Total on and off-balance sheet exposures	144,146,689	3,587,653	3,665,175	2,039,555

*Defaulted exposure is net off specific provision.

5. CREDIT RISK (Cont'd.)

Credit Risk Mitigation (cont'd.)

The following table presents the total exposures of the Bank which are covered by eligible credit risk mitigants for the financial year ended 31 December 2020:

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	23,059,910	-	200,357	-
Public Sector Entities	179,046	179,046	-	-
Banks, DFIs and MDBs	8,545,328	-	848,650	-
Insurances cos, securities firms and fund managers	1,130,358	-	10,016	-
Corporates	34,524,654	2,803,114	2,339,840	1,711,575
Regulatory retail	18,279,487	-	-	-
Residential mortgages	35,534,166	-	-	-
Other assets	1,321,778	-	-	-
Equity exposures	158,385	-	-	-
Defaulted exposures*	1,283,719	4,407	566	14,599
Total on-balance sheet exposures	124,016,831	2,986,567	3,399,428	1,726,174
Off-balance sheet exposures				
OTC derivatives	1,679,485	2,314	1,797	0
Off-balance sheet exposures other than OTC derivatives or credit derivatives	17,604,520	145,264	821,528	182,240
Defaulted exposures*	7,665	-	878	-
Total off-balance sheet exposures	19,291,670	147,578	824,204	182,240
Total on and off-balance sheet exposures	143,308,501	3,134,145	4,223,632	1,908,414

*Defaulted exposure is net off specific provision.

5. CREDIT RISK (Cont'd.)

Credit risk mitigation (cont'd.)

The following table presents the total exposures of the Islamic Banking Window which are covered by eligible credit risk mitigants for the financial year ended 31 December 2021:

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	2,985,869	-	-	-
Banks, DFIs and MDBs	203,839	-	-	-
Insurances cos, securities firms and fund managers	1,001,490	-	-	-
Corporates	2,773,588	86,499	85,715	47,747
Regulatory retail	1,212,831	-	-	-
Residential mortgages	2,937,154	-	-	-
Other assets	6,781	-	-	-
Defaulted exposures*	91,380	-	-	-
Total on-balance sheet exposures	11,212,934	86,499	85,715	47,747
Off-balance sheet exposures				
OTC derivatives	11,841	-	40	-
Off-balance sheet exposures other than OTC derivatives or credit derivatives	960,668	2,743	10,974	1,745
Defaulted exposures*	750	-	-	-
Total off-balance sheet exposures	973,259	2,743	11,014	1,745
Total on and off-balance sheet exposures	12,186,193	89,241	96,728	49,492

*Defaulted exposure is net off specific provision.

5. CREDIT RISK (Cont'd.)

<u>Credit risk mitigation (cont'd.)</u>

The following table presents the total exposures of the Islamic Banking Window which are covered by eligible credit risk mitigants for the financial year ended 31 December 2020:

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**
<u>Credit risk</u>				
<u>On-balance sheet exposures</u>				
Sovereign/central banks	1,338,772	-	-	-
Banks, DFIs and MDBs	115,504	-	-	-
Insurances cos, securities firms and fund managers	1,001,476	-	-	-
Corporates	2,093,116	94,904	80,354	45,864
Regulatory retail	1,087,704	-	-	-
Residential mortgages	2,539,930	-	-	-
Other assets	6,486	-	-	-
Defaulted exposures*	55,183	-	-	-
Total on-balance sheet exposures	8,238,171	94,904	80,354	45,864
<u>Off-balance sheet exposures</u>				
OTC derivatives	6,265	-	25	-
Off-balance sheet exposures other than OTC derivatives or credit derivatives	588,077	3,127	6,681	41
Defaulted exposures*	1,126	-	-	-
Total off-balance sheet exposures	595,468	3,127	6,707	41
Total on and off-balance sheet exposures	8,833,639	98,031	87,061	45,905

*Defaulted exposure is net off specific provision.

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 2021 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	3,283,375		3,189,255	2,369,357
Transaction related contingent items	6,050,045		3,001,739	2,059,927
Short Term Self Liquidating trade related contingencies	620,294		136,216	80,964
Lending of banks' securities or the posting of securities as collateral by banks, including instances where these arise out of repo-style transactions (i.e. repurchase/reverse repurchase and securities lending/borrowing transactions), and commitment to buy-back Islamic securities under Sell and Buy Back Agreement transactions.	563,417		16,649	723
Foreign exchange related contracts				
One year or less	43,703,666	170,026	729,714	168,577
Over one year to five years	338,754	6,215	28,112	11,370
Over five years	-	-	-	-
Interest/Profit rate related contracts				
One year or less	17,383,220	57,846	140,160	73,134
Over one year to five years	32,775,558	206,915	1,261,652	472,061
Over five years	1,600,697	41,510	186,264	100,431
Equity related contracts				
One year or less	44,935	20	-	-
Over one year to five years	-	-	-	-
Over five years	-	-	-	-
Commodity contracts				
One year or less	313,096	33,214	50,241	23,086
Over one year to five years	-	-	-	-
Over five years	-	-	-	-
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	6,644,725		4,577,876	2,845,756
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	19,253,186		913,737	168,450
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	15,372,716		5,598,135	673,025
Unutilised credit card lines	93,739		18,748	17,181
Off-balance sheet for securitisation	-		-	-
Total	148,041,422	515,746	19,848,498	9,064,044

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 2020 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	2,627,192		2,549,849	1,727,545
Transaction related contingent items	5,866,993		2,910,012	1,801,497
Short Term Self Liquidating trade related contingencies	436,465		99,150	61,223
Foreign exchange related contracts				
One year or less	35,267,102	257,337	670,627	182,943
Over one year to five years	196,407	1,300	17,149	11,954
Over five years	-	-	-	-
Interest/Profit rate related contracts				
One year or less	6,219,513	44,782	94,004	44,549
Over one year to five years	25,759,642	385,087	1,196,853	516,581
Over five years	1,807,224	69,181	242,603	126,779
Equity related contracts				
One year or less	118,736	4,263	-	-
Over one year to five years	-	-	-	-
Over five years	-	-	-	-
Commodity contracts				
One year or less	518,729	51,824	78,012	56,693
Over one year to five years	19,308	343	653	65
Over five years	-	-	-	-
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	6,483,994		4,456,619	2,852,274
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	20,177,400		1,040,924	233,966
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	15,634,135		5,925,122	751,331
Unutilised credit card lines	95,857		19,171	17,579
Off-balance sheet for securitisation	-		-	-
Total	121,228,697	814,118	19,300,748	8,384,979

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 2021 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	146,542		146,542	281,909
Transaction related contingent items	158,716		79,458	152,484
Short-term self-liquidating trade-related contigencies	1,564		313	178
Foreign exchange related contracts with an original maturity up to one year				
One year or less	378,843	1,719	6,165	3,699
Over one year to five years	14,149	245	1,047	733
Over five years				
Interest/Profit rate related contracts				
One year or less	-	-	-	-
Over one year to five years	362,880	-	4,629	2,708
Over five years	-	-	-	-
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	1,011,585		727,874	353,527
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	224,833		7,231	2,534
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	481,577		-	-
Total	2,780,689	1,964	973,259	797,772

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 2020 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	35,164		35,164	36,981
Transaction related contingent items	56,499		28,449	32,415
Short-term self-liquidating trade-related contigencies	4,362		872	1,436
Foreign exchange related contracts with an original maturity up to one year	435,412	8,729	6,265	2,817
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	720,560		518,124	160,519
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	260,048		6,594	2,651
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	227,495		-	-
Total	1,739,540	8,729	595,468	236,819

6. MARKET RISK

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

Market risk is governed by the 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 ALCO, RCC, RMC and Board 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 validated independently. 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 and services to support our customers' business and hedging needs. We continually review and enhance our management of derivatives risks to ensure that the complexities of the Bank's business are appropriately controlled.

Our overall market risk appetite is balanced with targeted revenue at the Bank and business unit levels and takes into account the capital position of the Bank. Market Risk appetite is established for all trading exposures and non-trading FX exposures within the Bank. This ensures that the Bank remains 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 option, plain vanilla interest rate contract and interest rate option, cross currency swap, government bond, quasi government bond, corporate bond, commodity contract and commodity option.

The Bank estimates a daily Expected Shortfall (ES) within a 97.5 percent confidence interval over a one-day holding period, using the historical Value-at-Risk (VaR) simulation method, as a control of market risk. This method assumes observed historical market movements can be used to imply possible changes in market rates. ES is the average of the worse losses in the loss distribution, assuming that the losses exceed the specified percentile.

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.

For backtesting purpose, the Bank uses daily VaR within a 99 percent confidence interval over a one-day holding period, based on historical simulation method. VaR uses the same loss distribution as ES. The backtesting process analyses whether the exceptions are due to model deficiencies or market volatility. All backtesting exceptions are tabled to the ALCO with recommended actions and resolutions.

6. MARKET RISK (Cont'd.)

The Bank's daily ES as at 31 December 2021 was RM5.281 million.

	Year End RM'000	High RM'000	Low RM'000	Average RM'000
2021				
Interest rate	1,864	9,295	1,573	4,183
Foreign exchange	392	2,967	69	603
Commodities	11	347	2	103
Option Volatility	1	311	0	85
Total diversified ES	5,281	18,095	4,274	8,829
2020				
Interest rate	3,375	10,615	883	4,466
Foreign exchange	1,737	3,191	75	868
Commodities	145	560	5	155
Option Volatility	135	426	3	113
Total diversified ES	7,843	15,455	2,555	7,794

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

Interest rate risk/ 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.

Mismatches in pricing and other characteristics of assets and liabilities of the Bank would give rise to sensitivity to interest/profit rate movements. As interest/profit rates and yield curves change over time, these mismatches may result in a change in the Bank's earnings and economic net worth. The primary objective of managing IRRBB/RORRBB is to protect and to 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.

The ALCO oversees the effectiveness of the interest/profit rate risk management structure including policies, limits and controls. Balance Sheet Risk Management under Risk Management supports the ALCO in monitoring the interest/profit rate risk profile of the banking book.

Our banking book interest/profit rate exposure is quantified on a monthly basis using dynamic simulation techniques. Interest/profit rate risk varies with different repricing periods, currencies, embedded options and interest/profit rate basis. Embedded options may be in the form of loan prepayment and early withdrawal of time deposit.

In Economic Value of Equity (EVE) sensitivity simulations, we compute the present value for repricing cashflows, with the focus on changes in EVE under different interest/profit rate scenarios. This economic perspective measures interest/profit rate risks across the full maturity profile of the balance sheet, including off-balance sheet items. We estimate the potential effects of interest/profit rate changes on Net Interest Income (NII) by simulating the possible future course of interest/profit rates over a 12-month horizon. Mismatches in the longer tenor would result in greater change in EVE than similar positions in the shorter tenor while mismatches in the shorter tenor would have greater impact on NII. Interest/profit rate scenarios used in simulations include the six standard scenarios prescribed by the Basel Committee on Banking Supervision as well as internal scenarios covering changes in the shape of the yield curve, including positive and negative tilt scenarios.

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 movements in interest/profit rates, foreign exchange rates and equity prices are managed and controlled under the market risk framework.

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 shows the results of 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-21	Increase/ (Decrease) in basis points	Sensitivity of EVE	Increase/ (Decrease) in basis points	Sensitivity of EVE
Currency		RM'000		RM'000
Total	**+200/(200)**	**(833,072)/ 997,910**	**+100/(100)**	**(445,392)/ 520,914**
MYR	+200/(200)	(850,249)/ 1,000,335	+100/(100)	(454,035)/ 524,580
USD	+200/(200)	17,177/ (2,425)	+100/(100)	8,643/ (3,666)

31-Dec-20	Increase/ (Decrease) in basis points	Sensitivity of EVE	Increase/ (Decrease) in basis points	Sensitivity of EVE
Currency		RM'000		RM'000
Total	**+200/(200)**	**(544,784)/ 533,352**	**+100/(100)**	**(281,127)/ 304,669**
MYR	+200/(200)	(554,087)/ 532,553	+100/(100)	(285,816)/ 304,481
USD	+200/(200)	9,303/ 799	+100/(100)	4,689/ 188

Net Interest/Profit Income (NII/NPI)

31-Dec-21	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)**	**451,685/ (657,880)**	**+100/(100)**	**225,843/ (296,834)**
MYR	+200/(200)	487,278/ (653,648)	+100/(100)	243,639/ (292,605)
USD	+200/(200)	(35,593)/ (4,232)	+100/(100)	(17,796)/ (4,229)

31-Dec-20	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)**	**389,685/ (570,677)**	**+100/(100)**	**194,843/ (264,821)**
MYR	+200/(200)	422,720/ (549,896)	+100/(100)	211,360/ (255,267)
USD	+200/(200)	(33,035)/ (20,781)	+100/(100)	(16,517)/ (9,554)

8. LIQUIDITY RISK

Liquidity risk is the risk that arises from the Bank's 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. This is done by minimising excessive funding concentrations by diversifying the sources and terms of funding and maintaining a portfolio of high quality and marketable debt securities.

The Bank takes a conservative stance on 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 potential cash shortfall.

The distribution of deposits is actively managed 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 risk 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.

The Bank's liquidity ratios, Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), are above the regulatory requirement.

Contingency funding plans are in place to identify potential liquidity crisis using a series of warning indicators. Crisis management processes and various strategies including funding and communication plans 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 42 to the financial statements on pages 205 to 208 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, technology risk, fraud risk, legal risk, regulatory compliance risk (including Shariah non-compliance risk), reputational risk, outsourcing risk and third party non-outsourcing 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 to help business and support units properly identify, assess, monitor, mitigate and report their risks. The ORMC meets monthly to provide oversight of operational risk matters across the Bank.

The Operational Risk Governance structure adopts the Three Lines Model. The business and support units, as the First Line, 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 (ORM) under Risk Management, as part of the Second Line, provides overarching governance of operational risk through relevant frameworks, policies, programmes and systems. It also monitors and reports key risk self-assessment results, outsourcing matters, operational risk indicator breaches, self-identified operational risks and incidents to the ORMC and the Board.

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

The Bank has an established business continuity and crisis management programme which ensures prompt recovery of critical business and support units should there be unforeseen events. An annual attestation is provided to the Board on the state of business continuity readiness of the Bank.

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

The Bank adopts the Basic Indicator Approach for the calculation of operational risk capital.

9. OPERATIONAL RISK (Cont'd.)

The subject-specific key risks that we focus on include but not limited to :

Technology Risk

Technology risk is defined as any potential adverse outcome, damage, loss, violation, failure or disruption arising from the use of or reliance on information and communication technologies. The governance of technology risk rests with the ORMC, who facilitates a holistic oversight of operational risk matters across the Bank. The Bank has an established technology risk management framework which ensures technology and cyber risks are managed in a systematic and consistent manner. The scope of technology risk management covers many aspects, including technology asset management, technology resilience and service continuity, cybersecurity management and information security management. A dedicated Technology Risk Management (TRM) function within ORM, as part of the Second Line, drives the governance and oversight for technology risk management across the Bank. TRM works closely with business and support units, including the technology and information security teams, to oversee, review and strengthen their practices in technology risk management. The ORMC, RMC and Board are briefed regularly on technology risk appetite and technology risk matters.

Regulatory Compliance Risk

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 governance framework of compliance policies, procedures and guidelines. The framework also manages the risk of regulatory breaches relating to sanctions, anti-money laundering and countering the financing of terrorism.

Legal Risk

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.

Reputational Risk

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 established a policy to identify and manage the risk across the Bank.

Outsourcing Risk

Outsourcing risk is the risk of adverse financial, operational, reputational, legal and compliance impact arising from the failure of a service provider to provide the outsourced service, or to comply with legal and regulatory requirements or breaches of security by a service provider. The Bank manages this risk through an outsourcing framework, policy, procedures and guidelines.

9. OPERATIONAL RISK (Cont'd.)

Third Party Non-Outsourcing Risk

Third party non-outsourcing risk is one that is not within the scope of outsourcing risk. The key risks in relation to third party non-outsourcing arrangements include information security/cyber risks (including data loss), regulatory obligations/ requirements and reputational risks. The Bank manages this risk through its Third Party Non-Outsourcing Policy and Guidelines.

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

The Bank’s fraud hotline managed by IFM provides a safe channel to report suspected frauds. IFM conducts independent fraud investigations and works closely with business and support units to strengthen its practices across the five pillars of prevention, detection, response, remediation and reporting.

Anti-bribery and Corruption

The Bank adopts a zero tolerance policy against any form of bribery and corruption, and all other illegal or unethical behaviour. All employees are required to comply fully with laws and regulations governing bribery and corruption which include the Malaysian Anti-Corruption Commission Act 2009 (MACC Act) and the UK Bribery Act 2010 amongst others. The Bank’s contracts with customers, service providers, agents and business associates contain provisions prohibiting bribery and corruption practices. Procedures and controls are put in place to identify and manage the risks of bribery and corruption across our business. All employees are also educated via the UOB Code of Conduct and mandatory online training on what would constitute corrupt practices as well as related legal and regulatory requirements on bribery and corruption.

10. EQUITIES (Disclosures for Banking Book position)

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

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

Type of Equities	Bank			
	31-Dec-21		31-Dec-20	
	Exposures	RWA	Exposures	RWA
	RM'000	RM'000	RM'000	RM'000
Publicly traded equity exposures * mainly acquired via loan restructuring activities	1,604	4,811	2,456	7,369
All other equity exposures *unquoted shares which are non-traded in the stock exchange	155,420	155,420	155,929	155,929
Total	157,024	160,231	158,385	163,298

	Bank	
	31-Dec-21 RM'000	31-Dec-20 RM'000
Realised (loss)/gains arising from sales and liquidation	6	-
Unrealised gains included in fair value reserve	144,677	145,850

As at 31 December 2021 and 31 December 2020, there were no equity exposures under Islamic Banking Window.

11. PROFIT SHARING INVESTMENT ACCOUNTS AND SHARIAH GOVERNANCE

Profit Sharing Investment Accounts (PSIA)

United Overseas Bank (Malaysia) Bhd's Islamic Banking Window did not have any PSIA arrangement with third party as at 31 December 2021.

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 had been detected for the financial year ended 31 December 2021. As such, no Shariah non-compliant income had been recorded for the year.