UNITED OVERSEAS BANK (MALAYSIA) BHD

(Company No. 271809 K)

AND ITS SUBSIDIARY COMPANIES

(Incorporated in Malaysia)

PILLAR 3 DISCLOSURE 31 DECEMBER 2022

Domiciled in Malaysia Registered Office: Level 22, UOB Plaza 1 KL, Jalan Raja Laut, 50350 Kuala Lumpur.





Risk Management Level 28, UOB Plaza 1 Kuala Lumpur No. 7 Jalan Raja Laut

50350 Kuala Lumpur, Malaysia www.uob.com.my

Co Reg. No. 199301017069 (271809-K)

Attestation by Chief Executive Officer pursuant to BASEL II – Pillar 3 Disclosures for the financial year ended 31 December 2022

I hereby confirm that the Pillar 3 disclosures for the financial year ended 31 December 2022 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.

Ng Wei Wei

Chief Executive Officer

Date: 3 May 2023



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 associates 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.

The aggregate breakdown of Risk-Weighted Assets (RWA) of the Bank by exposures in each risk category as at 31 December 2022:

Item	Exposure class 2022	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	<u>Credit risk</u>				
	Exempted exposures under the				
1.1	Standardised Approach (SA)				
	On-balance sheet exposures				
	Sovereigns/Central Banks	27,260,129	27,260,129	-	-
	Public Sector Entities	658,203	658,203	-	-
	Bank, Development Financial	869		174	14
	Institutions & MDBs	009	869		
	Insurance Cos, Securities Firms and Fund Managers	154	154	154	12
	Corporates	335,624	334,390	377,124	30,170
	Regulatory Retail	6,572,095	6,572,095	4,984,360	398,748
	Residential Mortgages	6,512,010	6,512,010	2,372,582	189,807
	Higher Risk Assets	4,683	4,683	7,024	562
	Other Assets	2,111,802	2,111,802	1,309,111	104,729
	Securitisation Exposure	120,026	120,026	24,005	1,920
	Equity Exposure	152,757	152,757	152,757	12,221
	Defaulted exposures	249,995	249,995	256,371	20,510
	Total on-balance sheet exposures	43,978,347	43,977,113	9,483,662	758,693
	Off-balance sheet exposures				
	OTC derivatives	175,117	175,117	64,801	5,184
	Off-balance sheet exposures other	4,155,747	4,153,931	2,846,525	227,722
	than OTC derivatives or credit				
	derivatives	0.040	0.040	0.000	201
	Defaulted Exposures	6,610	6,610	8,260	661
	Total off-balance sheet exposures	4,337,474	4,335,658	2,919,586	233,567
	Total on and off-balance sheet exposures (SA)	48,315,821	48,312,771	12,403,248	992,260
1.2	Exposures under the Foundation IRB Approach (FIRB)				
	On-balance sheet exposures Banks, Development Financial Institutions and MDBs	5,377,106	5,377,106	510,725	40,858
	Insurance Cos, Securities Firms and Fund Managers	1,100,389	1,073,233	168,827	13,506
	Corporates	39,349,076	34,586,216	34,247,480	2,739,798
	Equity (simple risk weight)	924	924	2,773	222
	Defaulted exposures	1,367,408	1,313,216	-	-
	Total on-balance sheet exposures	47,194,903	42,350,695	34,929,805	2,794,384
	Off-balance sheet exposures				
	OTC derivatives	4,077,000	4,074,018	874,897	69,992
	Off-balance sheet exposures other				
	than OTC derivatives or credit				
	derivatives	9,639,841	8,511,088	7,147,827	571,826
	Defaulted exposures	46,760	43,864	-	-
	Total off-balance sheet exposures	13,763,601	12,628,970	8,022,724	641,818
	Total on and off-balance sheet	60 050 504	E4 070 005	42 0E0 E00	2 426 202
	exposures (FIRB)	60,958,504	54,979,665	42,952,529	3,436,202

Item	Exposure class 2022	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	35,963,617	35,963,617	4,140,112	331,210	
	Qualifying revolving retail	2,560,579	2,560,579	909,524	72,762	
	Other retail	14,761,751	14,761,751	2,487,330	198,986	
	Defaulted exposures	1,181,349	1,181,349	564,130	45,130	
	Total on-balance sheet exposures	54,467,296	54,467,296	8,101,096	648,088	
	Off-balance sheet exposures OTC derivatives Off-balance sheet exposures other than OTC derivatives or credit derivatives Defaulted exposures	895 9,537,360	895 9,537,360	216 1,356,689	17 108,535	
	Total off-balance sheet exposures	9,538,255	9,538,255	1,356,905	108,552	
	Total on and off-balance sheet exposures (AIRB)	64,005,551	64,005,551	9,458,001	756,640	
	Total exposures under IRB Approach	124,964,055	118,985,216	52,410,530	4,192,842	
	Total (exempted exposures and exposures under the IRB Approach) after scaling factor			67,958,409	5,436,673	
2.0	Large exposures risk requirement	-	-	-	-	
3.0	Market risk	Long position	Short position			
	Interest rate risk	161,049	154,584	649,643	51,971	
	Foreign currency risk	57,767	31,896	57,767	4,621	
	Commodity risk Options risk	-	-	194,509	15,560	
4.0	Operational risk (Basic Indicator Approach)			6,356,550	508,524	
5.0	Total RWA and capital requirements			75,216,879	6,017,350	

The aggregate breakdown of Risk-Weighted Assets (RWA) of the Bank by exposures in each risk category as at 31 December 2021:

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 and Fund Managers	79	79	79	6	
	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	57,527	55,644	47,598	3,808	
	than OTC derivatives or credit					
	derivatives					
	Total off-balance sheet exposures	136,642	134,759	84,162	6,733	
	Total on and off-balance sheet	20 250 552	20 254 200	4 040 000	00.464	
	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	

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	- 35 770 700	- 35 770 700	2 622 064	200 565
	Qualifying revolving retail	35,779,788 2,354,160	35,779,788 2,354,160	3,632,064 806,937	290,565 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 Off-balance sheet exposures other than OTC derivatives or credit derivatives	550 8,978,243	550 8,978,243	188 1,140,920	15 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

The aggregate breakdown of RWA under the Islamic Banking Window by exposures in each risk category as at 31 December 2022:

Item	Exposure class 2022	Exposures pre CRM RM'000	Exposures post CRM	RWA	RWA absorbed by RSIA RM'000	Total RWA after effects of RSIA RM'000	Min. capital requirement at 8%
1.0	Credit risk	KIVI UUU	KIVI UUU	KIVI UUU	RIVI UUU	RIVI UUU	KIVI UUU
1.1	Exempted exposures under the Standardised Approach (SA) On-balance sheet						
	Sovereigns/central	4,194,758	4,194,758	-	-	-	-
	banks Public Sector Entities Insurance Cos, Securities Firms & Fund Managers	-	-	-	-	-	-
	Corporates Residential Mortgages	89,775	89,775	31,432	-	31,432	2,514
	Other assets Defaulted Exposures	22,273 3,167	22,273 3,167	20,107 3,107	-	20,107 3,107	1,609 249
	Total on-balance sheet exposures	4,309,973	4,309,973	54,646	-	54,646	4,372
	Off-balance sheet exposures OTC derivatives Off-balance sheet exposures other than OTC	11,290 3	11,290 3	8,381 1	-	8,381 1	670 -
	derivatives or credit derivatives						
	Total off-balance sheet exposures	11,293	11,293	8,382	-	8,382	670
	Total on and off-balance sheet exposures (SA)	4,321,266	4,321,266	63,028	-	63,028	5,042
1.2	Exposures under the FIRB Approach On-balance sheet						
	exposures Banks, Development Financial Institutions and MDBs	215,891	215,891	22,165	-	22,165	1,773
	Insurance Cos, Securities Firms & Fund Managers	1,002,226	1,002,226	146,454	146,454	-	-
	Corporates Defaulted Exposures	2,791,385 113,093	2,663,122 98,780	3,006,432	1,271,724 -	1,734,709	138,777
	Total on-balance sheet exposures	4,122,595	3,980,019	3,175,051	1,418,178	1,756,874	140,550
	Off-balance sheet exposures OTC Derivatives	3,770 455,184	3,770 443,970	2,485 639,000	509,187	2,485 129,813	199 10,385
	Off-balance sheet exposures other than OTC derivatives or credit derivatives	400,104	11 3,870	008,000	509,107	129,013	10,303
	Total off-balance sheet exposures	458,954	447,740	641,485	509,187	132,298	10,584
	Total on and off-balance sheet exposures (FIRB)	4,581,549	4,427,759	3,816,536	1,927,365	1,889,172	151,134

Item	Exposure class 2022	Exposures pre CRM	Exposures post CRM	RWA	RWA absorbed by RSIA	Total RWA after effects of RSIA	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							
	Corporates	-	-	-	-	-	-	
	Residential mortgages	3,296,372	3,296,372	580,667	-	580,667	46,454	
	Other retail	1,296,036	1,296,036	330,070	-	330,070	26,406	
	Defaulted exposures	127,346	127,346	71,980	-	71,980	5,758	
	Total on-balance sheet							
	exposures	4,719,754	4,719,754	982,717	-	982,717	78,618	
	Off-balance sheet exposures Off-balance sheet exposures other than OTC derivatives or credit derivatives	433,201	433,201	71,818	-	71,818	5,745	
	Total off-balance sheet					_, _,		
	exposures	433,201	433,201	71,818	-	71,818	5,745	
	Total on and off-balance	5,152,955	5,152,955	1,054,535	_	1,054,535	84,363	
	sheet exposures (AIRB) Total exposures under	5, 152,955	5,152,955	1,054,555	-	1,054,555	64,363	
	IRB Approach	9,734,504	9,580,714	4,871,071	1,927,365	2,943,707	235,497	
	Total (exempted exposures and exposures under the IRB Approach) after scaling factor			5,226,363	2,043,007	3,183,356	254,669	
2.0	Large exposures risk requirement	-	-	-	-	-	-	
3.0	Market risk	Long	Short					
		position	position					
	Interest Rate Risk	173	167	3,098	-	3,098	248	
	Foreign Currency Risk	1,749	322	1,749	_	1,749	140	
	Commodity Risk	-	-		_	-	-	
	Options Risk	-	-	-	-	-	-	
4.0	Operational risk (Basic Indicator Approach)			224,198	-	224,198	17,936	
5.0	Total RWA and capital requirements			5,455,409	2,043,007	3,412,402	272,992	

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The aggregate breakdown of RWA under the Islamic Banking Window by exposures in each risk category as at 31 December 2021:

Item	Exposure class 2021	Exposures pre CRM	Exposures post CRM	RWA	RWA absorbed by RSIA	Total RWA after effects of RSIA	ects requirement	
		RM'000	RM'000	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	2,985,869	2,985,869	-	-	-	-	
	Corporates	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	
	Off-balance sheet							
	<u>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	2 000 470	2 007 570	0.700		0.700	782	
	sheet exposures (SA)	2,998,170	2,997,578	9,790	-	9,790	102	
1.2	Exposures under the							
	FIRB Approach							
	On-balance sheet							
	<u>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 Defaulted Exposures	2,772,166 96,211	2,638,527 96,211	3,206,101	1,310,128	1,895,973	151,678	
	Total on-balance sheet	30,211	30,211			_	_	
	exposures	4,073,706	3,940,067	3,464,774	1,547,855	1,916,919	153,354	
	Off-balance sheet							
	<u>exposures</u>							
	OTC Derivatives	7,743	7,704	4,962	-	4,962	397	
	Off-balance sheet	525,636	512,917	719,166	611,459	107,707	8,617	
	exposures other than OTC derivatives or							
	credit derivatives							
	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	

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Item	Exposure class 2021	Exposures pre CRM	Exposures post CRM	RWA	RWA absorbed by RSIA	Total RWA after effects of RSIA	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 Corporates							
	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	100,014	100,014	40,704		10,701	0,000	
	exposures	4,249,999	4,249,999	795,986	-	795,986	63,679	
	Off-balance sheet							
	exposures Off-balance sheet exposures other than	435,782	435,782	71,465	-	71,465	5,717	
	OTC derivatives or							
	credit derivatives Total off-balance sheet							
	exposures	435,782	435,782	71,465	_	71,465	5,717	
	Total on and off-balance	100,102	100,102	7 1,100		,	3,7.11	
	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	

3. CAPITAL STRUCTURE

As at 31 December 2022, 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;
- (3) On 27 October 2022, the Bank issued RM1 billion subordinated notes at 4.91% p.a. maturing on 27 October 2032;

The subordinated notes are for working capital, general funding and corporate funding purposes.

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:

	Grou	ıp	Bank			
	31-Dec-22 RM'000	31-Dec-21 RM'000	31-Dec-22 RM'000	31-Dec-21 RM'000		
Common Equity Tier 1 (CET1)/ Tier 1 Capital						
Paid-up share capital	792,555	792,555	792,555	792,555		
Retained profits	11,447,521	10,809,329	11,616,857	10,878,366		
Other reserves	66,934	185,636	(173,464)	(14,002)		
Regulatory adjustments applied in						
the calculation of CET1 Capital	(1,140,963)	(532,347)	(1,492,626)	(899,615)		
Total CET1/Tier 1 Capital	11,166,047	11,255,173	10,743,322	10,757,304		
<u>Tier 2 Capital</u>						
Tier 2 Capital instruments	2,350,000	1,350,000	2,350,000	1,350,000		
Loan/financing loss provision						
 Surplus eligible provisions over 						
expected losses	320,555	312,387	321,073	312,822		
- General provisions	164,706	26,425	155,041	15,541		
Regulatory adjustments applied in						
the calculation of Tier 2 Capital	105,073	86,731	-			
Total Tier 2 Capital	2,940,334	1,775,543	2,826,114	1,678,363		
Total Capital	14,106,381	13,030,716	13,569,436	12,435,667		

3. CAPITAL STRUCTURE (Cont'd.)

The capital adequacy ratios of the Group and the Bank:

	Grou	р	Bank		
	31-Dec-22	31-Dec-21	31-Dec-22	31-Dec-21	
CET1/Tier 1 Capital	14.711%	17.740%	14.283%	17.171%	
Total Capital	18.585%	20.538%	18.040%	19.850%	

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:

Common Equity Tier 1 (CET1)/ Tier 1 Capital 450,000 450,000 Retained profits 86,744 14,261 Other reserves (3,318) (966) Regulatory adjustments applied in the calculation of CET1 Capital (14,025) (11,130) Total CET1/Tier 1 Capital 519,401 452,165 Tier 2 Capital Financing loss provision - Surplus eligible provisions over expected losses 18,722 18,426 - General provisions 788 122 Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: The capital adequacy ratios of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 9.521% 8.182% After the effects of RSIA 10.101% 8.766% After the effects of RSIA 15.221% 13.965% Total Capital 15.793% 14.538%		31-Dec-22 RM'000	31-Dec-21 RM'000
Capital fund 450,000 450,000 Retained profits 86,744 14,261 Other reserves (3,318) (966) Regulatory adjustments applied in the calculation of CET1 Capital (14,025) (11,130) Total CET1/Tier 1 Capital 519,401 452,165 Tier 2 Capital Financing loss provision 788 122 Surplus eligible provisions over expected losses 18,722 18,426 - General provisions 788 122 Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: Sefore the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	Common Equity Tier 1 (CET1)/ Tier 1 Capital		
Other reserves (3,318) (966) Regulatory adjustments applied in the calculation of CET1 Capital (14,025) (11,130) Total CET1/Tier 1 Capital 519,401 452,165 Tier 2 Capital Financing loss provision 8 122 - Surplus eligible provisions over expected losses 18,722 18,426 - General provisions 788 122 Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: Before the effects of RSIA CET1/Tier 1 Capital 9,521% 8,182% Total Capital 9,521% 8,766% After the effects of RSIA CET1/Tier 1 Capital 10,101% 8,766% After the effects of RSIA CET1/Tier 1 Capital 15,221% 13,965%		450,000	450,000
Regulatory adjustments applied in the calculation of CET1 Capital (14,025) (11,130) Total CET1/Tier 1 Capital 519,401 452,165 Tier 2 Capital Financing loss provision - Surplus eligible provisions over expected losses 18,722 18,426 - General provisions 788 122 Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: Sefore the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 9.521% 8.766% After the effects of RSIA CET1/Tier 1 Capital 10.101% 8.766%	Retained profits	86,744	14,261
calculation of CET1 Capital (14,025) (11,130) Total CET1/Tier 1 Capital 519,401 452,165 Tier 2 Capital Financing loss provision - Surplus eligible provisions over expected losses 18,722 18,426 - General provisions 788 122 Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: 31-Dec-22 31-Dec-21 Before the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	Other reserves	(3,318)	(966)
Total CET1/Tier 1 Capital 519,401 452,165 Tier 2 Capital Financing loss provision - - - Surplus eligible provisions over expected losses 18,722 18,426 - General provisions 788 122 Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: Sefore the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 9.521% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	Regulatory adjustments applied in the		
Tier 2 Capital Financing loss provision 18,722 18,426 - General provisions 788 122 Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: 31-Dec-22 31-Dec-21 Before the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	calculation of CET1 Capital	(14,025)	(11,130)
Financing loss provision - Surplus eligible provisions over expected losses 18,722 18,426 - General provisions 788 122 Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: 31-Dec-22 31-Dec-21 Before the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	Total CET1/Tier 1 Capital	519,401	452,165
Total Tier 2 Capital 19,510 18,548 Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: 31-Dec-22 31-Dec-21 Before the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	Financing loss provision	18,722	18,426
Total Capital 538,911 470,713 The capital adequacy ratios of the Islamic Banking Window: 31-Dec-22 31-Dec-21 Before the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	- General provisions	788	122
The capital adequacy ratios of the Islamic Banking Window: 31-Dec-22 31-Dec-21 Before the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	Total Tier 2 Capital	19,510	18,548
31-Dec-22 31-Dec-21	Total Capital	538,911	470,713
Before the effects of RSIA CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	The capital adequacy ratios of the Islamic Banking Window:		
CET1/Tier 1 Capital 9.521% 8.182% Total Capital 10.101% 8.766% After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	Refore the effects of PSIA	31-Dec-22	31-Dec-21
Total Capital 10.101% 8.766% After the effects of RSIA 20.101% 10.101		9 521%	8 182%
After the effects of RSIA CET1/Tier 1 Capital 15.221% 13.965%	·	*	
CET1/Tier 1 Capital 15.221% 13.965%	•		
!	After the effects of RSIA		
Total Capital15.793% 14.538%	CET1/Tier 1 Capital	15.221%	13.965%
	Total Capital	15.793%	14.538%

In accordance with BNM's Guidelines on the Investment Account, the credit and market risk weighted assets funded by the RSIA which qualify as risk absorbent are excluded from the calculation of capital adequacy ratio. As at 31 December 2022, credit risks related to RSIA assets excluded from the total capital ratio calculation amounting to RM2,043,006,700 (2021: RM2,288,873,000).

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 robust business practices to achieve sustainable, long-term growth. We continually strengthen our risk management practices in support of our strategic objectives.

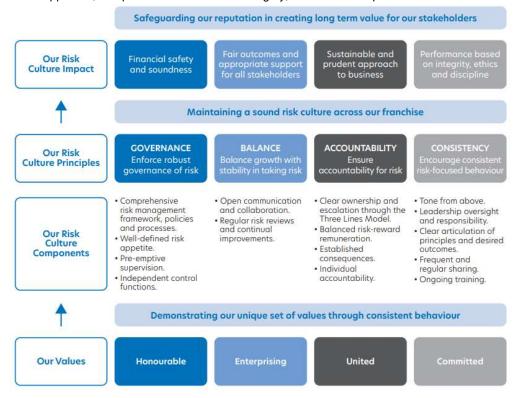
Risk Culture

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 that help us 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.

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.

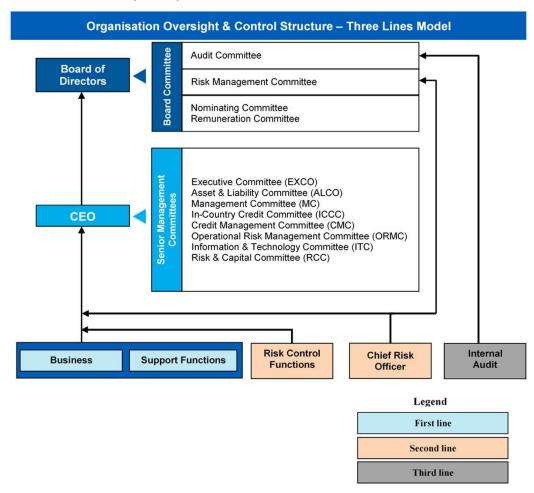
The Board is assisted primarily by the Risk Management Committee (RMC), which reviews the overall risk appetite and level of risk capital to be maintained for the Bank.

Our Chief Executive Officer (CEO) has established senior management committees to assist her 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 established frameworks 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 own and have primary responsibility for implementing and executing effective controls to manage the risks arising from their 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 (i.e., 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 adhere to and comply within their operations. They are also responsible for the independent review and monitoring of the Bank's risk profile and for 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, the Audit Committee (AC) and the Board on the adequacy and effectiveness of our system of risk management and internal controls. The Internal auditor's overall opinion of the internal controls and risk management system is provided to the AC and the Board annually.

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 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 has been formulated based on the following key criteria:

- alignment to the Bank's key 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, reputation risk and conduct 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 is reviewed and approved annually by the Board. Management monitors and reports the risk profiles and compliance with the Bank's 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.

^{*} The acquired Citi's consumer banking portfolio is reported under Standardised Approach.

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 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.

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. 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 our 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 necessary 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.

Classification and loan/ financing loss impairment

The Bank classifies its credit portfolios according to the borrowers' ability to repay the credit facilities from their normal source of income.

All borrowing accounts are categorised as '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 past due (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 credit facility is rescheduled or restructured when a bank grants concessions (usually non-commercial) to a borrower because of a deterioration in the financial position of the borrower or the inability of the borrower to meet the original repayment schedule.

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

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

(i) The credit exposures of the Bank by sectors as at 31 December 2022:

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	Higher Risk Assets RM'000	Other assets RM'000	Securitisation exposure RM'000	Equity exposure RM'000	Grand total RM'000
Agriculture, hunting, forestry and fishing	-	-	-	-	1,702,453	20,393	-	-	-	-	-	1,722,846
Mining and quarrying	=	-	16,838	-	223,272	9,534	-	-	-	=	-	249,644
Manufacturing	-	-	80,808	-	9,329,299	1,347,792	-	-	-	-	-	10,757,899
Electricity, gas and water	-	-	-	-	1,240,616	9,248	-	-	-	-	-	1,249,864
Construction	-	-	-	-	11,404,964	481,645	-	-	-	-	-	11,886,609
Wholesale, retail trade, restaurant and hotels	-	-	31,222	-	17,004,778	4,456,088	-	-	-	-	-	21,492,088
Transport, storage and communication	-	=	828	-	2,168,780	202,162	-	-	-	-	-	2,371,770
Finance, insurance and business services	10,433	45,320	9,162,692	1,244,204	3,437,259	960,460	-	-	-	-	-	14,860,368
Real estate	-	-	-	-	4,275,064	608,433	-	-	-	120,026	-	5,003,523
Community, social and personal services	-	-	-	-	84,579	133,688	-	-	-	-	-	218,267
Households	-	-	-	-	11,295	26,568,131	46,215,490	10,958	-	-	-	72,805,874
Others	27,723,926	658,203	-	-	-	-	-	-	2,125,314	-	153,681	30,661,124
	27,734,359	703,523	9,292,388	1,244,204	50,882,359	34,797,574	46,215,490	10,958	2,125,314	120,026	153,681	173,279,876

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.

The credit exposures of the Bank by sectors as at 31 December 2021:

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	Other assets RM'000	Equity exposures 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	-	-	1,330,465	157,023	25,969,490
- -	23,993,894	530,227	7,283,555	1,228,166	46,903,249	24,397,493	38,985,530	1,330,465	157,023	144,809,603

(ii) The credit exposures under the Islamic Banking Window by sectors as at 31 December 2022:

Window banks entities MDBs managers SMEs) Retail mortgages assets exposures to RM'000 RM'000 RM'000 RM'000 RM'000 RM'000 RM'000 RM'000 RM'000	
Agriculture, hunting,	
forestry & fishing 276,974 388 2	77,362
Mining and Quarrying 90,422	90,422
Manufacturing 893,279 182,113 1,0	75,392
Electricity, gas and water 540,236 5	40,236
Construction 484,221 63,787 5	48,008
Wholesale, retail trade, 564,120 515,943 1,0 restaurant and hotels	30,063 -
Transport, storage and 138,483 40,798 1 communication	79,281 -
Finance, insurance and 10,433 3,637 215,891 1,009,880 112,314 175,761 1,5 business services	27,916 -
Real estate 212,338 121,759 3	34,097
Community, social and 51,045 36,567 personal services	87,612 -
Households 305,708 3,803,075 4,1	08,783
Others 4,184,325 22,273 - 4,2	06,598
4,194,758 3,637 215,891 1,009,880 3,363,432 1,442,824 3,803,075 22,273 - 14,0	55,770

The credit exposures under the Islamic Banking Window by sectors as at 31 December 2021:

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	Other assets RM'000	Equity 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 an	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

(iii) The credit exposures of the Bank by remaining contractual maturities as at 31 December 2022:

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	Higher Risk Assets RM'000	Other assets RM'000	Securitisation exposure RM'000	Equity exposure RM'000	Grand total RM'000
< 3 months	4,547,881	33,504	4,582,178	144,740	16,141,808	924,912	2,167	-	-	=	=	26,377,190
3 - 6 months	595,079	11,817	386,120	20,589	4,469,482	219,732	5,542	-	-	=	=	5,708,361
6 - 12 months	372,215	290,064	552,774	13,697	3,891,240	7,078,645	1,441,227	-	415,969	=	=	14,055,831
1 - 3 years	7,888,607	65,993	2,950,560	1,017,920	9,601,049	12,856,249	6,856,766	10,958	1,709,345	=	153,681	43,111,128
3 - 5 years	4,295,282	25,079	740,745	-	9,191,643	819,014	269,337	-	-	=	=	15,341,100
> 5 years	10,035,295	277,066	80,011	47,258	7,587,137	12,899,022	37,640,451	=	-	120,026	=	68,686,266
	27,734,359	703,523	9,292,388	1,244,204	50,882,359	34,797,574	46,215,490	10,958	2,125,314	120,026	153,681	173,279,876

The credit exposures of the Bank by remaining contractual maturities as at 31 December 2021:

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	Other assets RM'000	Equity exposures 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	850,342	157,023	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	1,330,465	157,023	144,809,603

(iv) The credit exposures under the Islamic Banking Window by remaining contractual maturities as at 31 December 2022:

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	Other assets RM'000	Equity exposures RM'000	Grand total RM'000
< 3 months	2,579,529	3,637	-	6,516	592,696	7,803	=	-	=	3,190,181
3 - 6 months	251,078	-	=	1,137	34,478	1,115	=	=	-	287,808
6 - 12 months	-	-	-	-	22,621	157	=	-	-	22,778
1 - 3 years	1,364,151	-	215,891	1,002,227	163,453	13,754	93,366	22,273	-	2,875,115
3 - 5 years	=	-	=	=	1,559,453	4,067	394	=	-	1,563,914
> 5 years		-	-	-	990,731	1,415,928	3,709,315	-	-	6,115,974
	4,194,758	3,637	215,891	1,009,880	3,363,432	1,442,824	3,803,075	22,273	-	14,055,770

The credit exposures under the Islamic Banking Window by remaining contractual maturities as at 31 December 2021:

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	Other assets RM'000	Equity exposures 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

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

	2022	2	202	
	Past due		Past due	
	but not	Impaired	but not	Impaired
	impaired	loans	impaired	loans
Bank	RM'000	RM'000	RM'000	RM'000
Agriculture, hunting,				
forestry and fishing	37,940	-	6,545	1,276
Mining and quarrying	4,198	83,075	7,101	81,750
Manufacturing	161,546	190,171	31,410	210,436
Electricity, gas and water	-	-	-	-
Construction	386,763	658,549	197,367	445,367
Wholesale, retail trade,				
restaurant and hotels	274,133	340,269	53,590	309,863
Transport, storage and				
communication	7,893	36,830	2,367	103,371
Finance, insurance and				
business services	50,160	42,710	14,604	30,148
Real estate	94,961	195,714	144,544	181,574
Community, social and				
personal services	13,331	11,169	836	-
Households:				
 purchase of residential 				
properties	1,904,161	972,294	258,161	740,211
- purchase of non				
residential properties	264,531	158,602	80,900	190,879
- others	390,344	143,797	69,931	100,071
	3,589,961	2,833,180	867,356	2,394,946

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

	202	2	2021			
		Credit- impaired		Credit- impaired		
	Past due but not impaired	financing, advances and others	Past due but not impaired	financing, advances and others		
Islamic Banking Window	RM'000	RM'000	RM'000	RM'000		
Agriculture, hunting,						
forestry and fishing	-	-	-	-		
Mining and quarrying	_	81,862	-	81,750		
Manufacturing	1,552	7,814	-	18,733		
Construction	2,708	31,598	-	3,595		
Wholesale, retail trade,						
restaurant and hotels	41,077	15,759	1,332	10,636		
Transport, storage and						
communication	2,052	3,317	-	3,315		
Finance, insurance and						
business services	3,709	2,411	2,275	682		
Real estate	_	-	-	-		
Community, social and						
personal services	5,553	4,954	-	-		
Households:						
- purchase of residential						
properties	207,935	99,293	30,994	80,157		
- purchase of non						
residential properties	4,823	4,114	62	1,351		
- others	2,615	221	294	143		
	, -			-		
	272,024	251,343	34,957	200,362		

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

ECL 1		202	2	202	21
Bank RM'000 RM'000 RM'000 RM'000 Agriculture, hunting, forestry and fishing - 53,497 3 45,390 Mining and quarrying 82,020 7,185 81,750 995 Manufacturing 98,153 144,623 100,962 51,028 Electricity, gas and water - 52,405 - 6,393 Construction 130,337 254,573 51,988 312,151 Wholesale, retail trade, restaurant and hotels 150,775 359,359 148,219 477,938 Transport, storage and communication 4,251 27,839 50,387 16,816 Finance, insurance and business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - 209,001 204,187 157,679 164,337 - purchase of residential properties 27,316 9,789 28,120 4					
Agriculture, hunting, forestry and fishing					
forestry and fishing	Bank	RM'000	RM'000	RM'000	RM'000
Mining and quarrying 82,020 7,185 81,750 995 Manufacturing 98,153 144,623 100,962 51,028 Electricity, gas and water - 52,405 - 6,393 Construction 130,337 254,573 51,988 312,151 Wholesale, retail trade, restaurant and hotels 150,775 359,359 148,219 477,938 Transport, storage and communication 4,251 27,839 50,387 16,816 Finance, insurance and business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - - 6,112 - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Agriculture, hunting,				
Manufacturing 98,153 144,623 100,962 51,028 Electricity, gas and water - 52,405 - 6,393 Construction 130,337 254,573 51,988 312,151 Wholesale, retail trade, restaurant and hotels 150,775 359,359 148,219 477,938 Transport, storage and communication 4,251 27,839 50,387 16,816 Finance, insurance and business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - - 6,112 - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	forestry and fishing	-	53,497	3	45,390
Electricity, gas and water -	Mining and quarrying	82,020	7,185	81,750	995
Construction 130,337 254,573 51,988 312,151 Wholesale, retail trade, restaurant and hotels 150,775 359,359 148,219 477,938 Transport, storage and communication 4,251 27,839 50,387 16,816 Finance, insurance and business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Manufacturing	98,153	144,623	100,962	51,028
Wholesale, retail trade, restaurant and hotels 150,775 359,359 148,219 477,938 Transport, storage and communication 4,251 27,839 50,387 16,816 Finance, insurance and business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Electricity, gas and water	-	52,405	-	6,393
restaurant and hotels Transport, storage and communication 4,251 27,839 50,387 16,816 Finance, insurance and business services Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties - purchase of non residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Construction	130,337	254,573	51,988	312,151
Transport, storage and communication 4,251 27,839 50,387 16,816 Finance, insurance and business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Wholesale, retail trade,				
communication 4,251 27,839 50,387 16,816 Finance, insurance and business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	restaurant and hotels	150,775	359,359	148,219	477,938
Finance, insurance and business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Transport, storage and				
business services 15,563 105,594 12,057 67,825 Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	communication	4,251	27,839	50,387	16,816
Real estate 65,016 202,814 56,016 293,927 Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Finance, insurance and				
Community, social and personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	business services	15,563	105,594	12,057	67,825
personal services 1,378 3,869 - 6,112 Households: - purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Real estate	65,016	202,814	56,016	293,927
Households: - purchase of residential properties - purchase of non residential properties 209,001 204,187 157,679 164,337 - purchase of non 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Community, social and				
- purchase of residential properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	personal services	1,378	3,869	-	6,112
properties 209,001 204,187 157,679 164,337 - purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	Households:				
- purchase of non residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	- purchase of residential				
residential properties 27,316 9,789 28,120 4,430 - others 59,394 301,471 26,128 163,714	properties	209,001	204,187	157,679	164,337
- others 59,394 301,471 26,128 163,714	- purchase of non				
	residential properties	27,316	9,789	28,120	4,430
843.204 1.727.205 713.309 1.611.056	- others	59,394	301,471	26,128	163,714
843.204 1.727.205 713.309 1.611.056					
5.0,200 1,011,000		843,204	1,727,205	713,309	1,611,056

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

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

	202	2	2021		
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	-	139	-	519	
Mining and quarrying	81,862	2	81,750	6	
Manufacturing	4,133	1,125	3,627	3,930	
Electricity, gas and water	-	9,988	-	5,447	
Construction	16,324	1,554	859	6,792	
Wholesale, retail trade,					
restaurant and hotels	5,937	9,915	5,425	20,085	
Transport, storage and					
communication	-	551	-	569	
Finance, insurance and					
business services	704	977	121	2,599	
Real estate	-	1,941	-	6,440	
Community, social and					
personal services	166	561	-	1,834	
Households:					
- purchase of residential					
properties	22,786	13,498	16,991	6,859	
- purchase of non					
residential properties	772	214	71	55	
- others	22	73	-	25	
	132,706	40,538	108,844	55,160	

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

2022	2021
2022	2021

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
57	60	3	-
251	-	81,750	-
9,296	5,991	30,565	27,850
-	-	-	-
87,526	4,776	6,980	2,398
45,251	26,681	71,285	13,799
996	46,353	3,186	1,292
-,	5,320	4,303	3,062
9,112	-	17,339	2
1,064	-	91	91
115,310	64,065	107,698	54,414
44.057	44.050	07.444	47.050
1	<i>'</i>		17,850
81,217	62,147	75,987	67,143
374,768	227,341	426,628	187,901
	for ECL 3 made during the year RM'000 57 251 9,296 - 87,526 45,251 996 9,830 9,112 1,064 115,310 14,857 81,217	for ECL 3 made during the year RM'000 57 60 251 9,296 5,991 - 87,526 45,251 26,681 996 46,353 9,830 9,830 9,112 - 1,064 - 115,310 64,065 14,857 11,950 81,217 62,147	for ECL 3 made during the year RM'000 Write-offs during the year RM'000 for ECL 3 made during the year RM'000 57 60 3 251 - 81,750 9,296 5,991 30,565 - - - 87,526 4,776 6,980 45,251 26,681 71,285 996 46,353 3,186 9,830 5,320 4,303 9,112 - 17,339 1,064 - 91 115,310 64,065 107,698 14,857 11,950 27,441 81,217 62,147 75,987

- others

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

	202	2	2021		
Islamic Banking Window	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	-	-	-	-	
Mining and quarrying	112	-	81,750	-	
Manufacturing	2,869	-	4	-	
Electricity, gas and water	-	-	-	-	
Construction	15,647	102	175	605	
Wholesale, retail trade,					
restaurant and hotels	2,303	1,252	581	-	
Transport, storage and					
communication	-	-	-	-	
Finance, insurance and					
business services	583	-	121	-	
Real estate	-	-	-	-	
Community, social and					
personal services	166	-	-	-	
Households:					
- purchase of residential					
properties	14,261	4,609	11,589	6,070	
- purchase of non					
residential properties	757	-	71	111	

Impaired loans and impairment provision by geographical area

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

5,963

94,291

6,786

22

36,720

(viii) Credit exposures of the Bank analysed by geography:

		Outside	
Bank	In Malaysia	Malaysia	Total
As at 31 December 2022	RM'000	RM'000	RM'000
Exempted exposures under Standardised Approach			
Sovereigns/Central Banks	27,734,359	-	27,734,359
Public Sector Entities	703,523	-	703,523
Banks, Development Financial Institutions & MDBs	869	-	869
Insurance Cos, Securities Firms & Fund Managers	35,962	-	35,962
Corporates	424,540	-	424,540
Regulatory Retail	10,258,482	-	10,258,482
Residential Mortgages	6,749,031	-	6,749,031
Higher Risk Assets	10,958	-	10,958
Other Assets	2,125,314	-	2,125,314
Securitisation Exposure	120,026	-	120,026
Equity Exposure	152,757	-	152,757
Total Exempted Exposures	48,315,821	-	48,315,821
Exposures under IRB Approach			
Banks, Development Financial Institutions & MDBs	7,168,235	2,123,284	9,291,518
Insurance Cos, Securities Firms & Fund Managers	1,146,778	61,463	1,208,242
Corporates	48,174,468	2,283,352	50,457,820
Residential Mortgages	35,822,283	3,644,177	39,466,460
Qualifying Revolving Retail Exposures	6,696,458	12,096	6,708,554
Other Retail Exposures	16,633,440	1,197,098	17,830,538
Equity Exposure	924	-	924
Total IRB Approach	115,642,586	9,321,469	124,964,055
Total credit risk exposures	163,958,407	9,321,469	173,279,876

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

		Outside	
Bank	In Malaysia	Malaysia	Total
As at 31 December 2021	RM'000	RM'000	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			
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.

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* <u>RM'million</u>		
Total Credit Exposures	48,313	54,980	64,006

Note*:

- Amount under Standardised Approach refers to credit exposures where IRB Approach is not applicable.
- On 1 November 2022, the Bank had acquired Citibank Bhd's consumer banking portfolio which is reported under Standardised Approach.

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 (RAM), Fitch Ratings, Moody's Investors Service, Malaysian Rating Corporation Berhad (MARC) and Standard & Poor's (S&P). ECAI ratings are mapped to a common credit quality grade prescribed by BNM.

The aggregate breakdown of credit risk exposures of the Bank by risk weights under the Standardised Approach as at 31 December 2022:

	Bank												
Risk weights	Sovereigns/ central banks	Public sector entities	Banks, DFIs and MDBs	Ins cos, securities firms and fund managers	Corporates	Regulatory Retail	Mortgages	Higher Risk Assets	assets		exposure	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	RM'000	RM'000	RM'000
0%	27,641,784	658,203	-	-	1,583	-	-	-	758,791	-	-	29,060,361	-
10%	-	-	-	-	-	-	-	-	-	-	-	-	-
20%	92,575	45,320	869	-	-	-	-	-	-	120,026	-	258,790	51,758
35%	-	-	-	-	-	-	6,140,620	-	-	-	-	6,140,620	2,149,217
50%	-	-	-	-	-	9,171	328,639	-	-	-	-	337,810	168,905
75%	-	-	-	-	-	10,002,717	113	-	-	-	-	10,002,830	7,502,123
90%	-	-	-	-	-	-	-	-	-	-	-	-	-
100%	-	-	-	35,962	414,917	227,804	276,625	-	1,366,523	-	152,757	2,474,588	2,474,588
110%	-	-	-	-	-	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-	-	-	-	-	-
150%	-	-	-	-	4,990	18,790	3,034	10,958	-	-	-	37,772	56,657
270%	-	-	-	-	-	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-	-	-	-	-	-
1250%	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	27,734,359	703,523	869	35,962	421,490	10,258,482	6,749,031	10,958	2,125,314	120,026	152,757	48,312,771	12,403,248

The aggregate breakdown of credit risk exposures of the Bank by risk weights under the Standardised Approach as at 31 December 2021:

	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 exposure	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%	-	-	-	-	-	-	-	-	-	-
Total	23,993,894	530,227	•	25,532	316,487	2,885	1,330,465	155,420	26,354,909	1,243,302

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*	FIRB	AIRB
	<u>RM'million</u>	<u>RM'million</u>	<u>RM'million</u>
Total Credit Exposures	4,321	4,428	5,153

Note*:

- Amount under Standardised Approach refers to credit exposures where IRB Approach is not applicable.
- The acquired islamic banking consumer portfolio from Citibank Bhd is reported under Standardised Approach.

The aggregate breakdown of credit risk exposures under Islamic Banking Window by risk weights under the Standardised Approach as at 31 December 2022:

				Islamic B	anking Windo	w			
	Sovereigns/	Public		Ins cos, securities				Total exposures	
	central	sector	Banks, DFIs	firms and fund		Residential	Other	after netting	
Risk weights	banks	entities	and MDBs	managers	Corporates	Mortgages	assets	and CRM	Total RWA
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
0%	4,194,758	-	-	-	-	-	2,166	4,196,924	-
10%	-	-	-	-	-	-	-	-	-
20%	-	3,637	-	-	-	-	-	3,637	727
35%	-	-	-	-	-	89,711	-	89,711	31,399
50%	-	-	-	-	-	186	-	186	93
75%	-	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-	-
100%	-	-	-	7,653	-	3,048	20,107	30,808	30,809
110%	-	-	-	-	-	-	-	-	-
125%	-	-	-	-	-	-	-	-	-
135%	-	-	-	-	-	-	-	-	-
150%	-	-	-	-	-	-	-	-	-
270%	-	-	-	-	-	-	-	-	-
350%	-	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	-	-
625%	-	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	-	-
1250%	-	-	-	-	-	-	-	-	-
Total	4,194,758	3,637	-	7,653	-	92,945	22,273	4,321,266	63,028

The aggregate breakdown of credit risk exposures under Islamic Banking Window by risk weights under the Standardised Approach as at 31 December 2021:

				Islamic Banking	Window			
				Ins cos,			Total	
	Sovereigns/	Public		securities			exposures	
	central	sector	Banks, DFIs	firms and fund		Other	after netting	
Risk weights	banks	entities	and MDBs	managers	Corporates	assets	and CRM	Total RWA
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
0%	2,985,869	-	ı	-	-	1	2,985,869	ı
10%	-	-	ı	-	-	ı	-	ı
20%	-	2,399	-	-	-	•	2,399	480
35%	-	1	ı	-	-	1	1	ı
50%	-		-	-	-	-	-	-
75%	-	-	-	-	-	-	-	ı
90%	-	-	-	-	-	-	-	•
100%	-	•	-	1,699	830	6,781	9,310	9,310
110%	-	1	ı	-	-	1	1	İ
125%	-	-	ı	-	-	1	1	İ
135%	-	-	-	-	-	-	-	-
150%	-	-	-	-	-	-	-	-
270%	-	•	-	-	-	•	-	•
350%	-	-	-	-	-	-	-	-
400%	-	-	-	-	-	-	-	_
625%	-	-	-	-	-	-	-	-
937.5%	-	-	-	-	-	-	-	
1250%	-	-			-		-	
Total	2,985,869	2,399	-	1,699	830	6,781	2,997,578	9,790

Rated Exposures of the Bank by ECAI ratings as at 31 December 2022:

RM'000

						KIVI UUU			
	Ratings of Corporates by Approved ECAIs								
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated			
Exposure class	S&P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated			
Exposure class	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		-	-	-	-	703,523			
their external ratings as corporates)									
Insurance cos,									
securities firms and		-	-	-	-	35,962			
fund managers									
Corporates		-		-	1	421,490			
Total		-		-	-	1,160,975			

RM'000

		R	atings of Bank	ing Institutions	by Approved E	CAIs	
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
Exposure	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
class	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-							
<u>balance</u>							
sheet							
<u>exposures</u>							
Banks, DFIs and MDBs		869	-	-	-	-	-
Total		869	-	-	-	-	-

RM'000

		Rating	s of Sovereign	s and Central B	anks by Appro	ved ECAIs	
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
Exposure	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
class	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-							
<u>balance</u>							
sheet							
<u>exposures</u>							
Sovereigns/			21,512,979	6.200.961	_		20,419
central banks		-	21,312,919	0,200,901		-	20,419
Total		-	21,512,979	6,200,961	-	-	20,419

Rated Exposures of the Bank by ECAI ratings as at 31 December 2021:

RM'000

	Ratings of Corporates by Approved ECAIs								
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated			
Exposure class	S&P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated			
Exposure class	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		-	-	-	-	530,227			
their external ratings as corporates)									
Insurance cos,									
securities firms and		-	-	-	-	25,532			
fund managers									
Corporates		-	-	-	-	316,487			
Total		-	-	-	-	872,246			

RM'000

		R	atings of Bank	ing Institutions	by Approved E	CAIs	
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
Exposure	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
class	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-							
<u>balance</u>							
<u>sheet</u>							
<u>exposures</u>							
Banks, DFIs and MDBs		1	1	-	-	1	1
Total		-	-	-	-	-	-

RM'000

		Rating	s of Sovereign	s and Central B	anks by Appro	ved ECAIs	
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
Exposure	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
class	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 Islamic Banking Window by ECAI ratings as at 31 December 2022:

RM'000

					RIVI UUU
	Ratings	s of Corporates	by Approved E	CAIs	
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
	-	1	1	1	3,637
	-	-	-	-	7,653
	-	-	-	-	-
	-	-	-	-	11,290
	S&P Fitch RAM	Moody's Aaa to Aa3 S&P AAA to AA- Fitch AAA to AA- RAM AAA to AA3	Moody's Aaa to Aa3 A1 to A3 S&P AAA to AA- A+ to A- Fitch AAA to AA- A+ to A- RAM AAA to AA3 A to A3	Moody's Aaa to Aa3 A1 to A3 Baa1 to Ba3 S&P AAA to AA- A+ to A- BBB+ to BB- Fitch AAA to AA- A+ to A- BBB+ to BB- RAM AAA to AA3 A to A3 BBB1 to BB3	S&P AAA to AA- A+ to A- BBB+ to BB- B+ to D Fitch AAA to AA- A+ to A- BBB+ to BB- B+ to D RAM AAA to AA3 A to A3 BBB1 to BB3 B to D MARC AAA to AA- A+ to A- BBB+ to BB- B+ to D - - - - - - - - - -

RM'000

		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					
Exposure	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated					
class	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-												
<u>balance</u>												
<u>sheet</u>												
<u>exposures</u>												
Banks, DFIs		-	_	_	_	_	-					
and MDBs												
Total		-	-	-	-	-	-					

RM'000

		Rating	s of Sovereign	s and Central B	anks by Appro	ved ECAIs	
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
Exposure	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
class	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-							
<u>balance</u>							
sheet							
<u>exposures</u>							
Sovereigns/ central banks		1	4,194,758	1	1	1	-
Total		-	4,194,758	-	-	-	-

Rated Exposures of the Islamic Banking Window by ECAI ratings as at 31 December 2021:

RM'000

						12101 000			
		Ratings of Corporates by Approved ECAIs							
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated			
Exposure class	S&P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated			
Exposure class	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		-	-	-	-	2,399			
their external ratings as									
corporates)									
Insurance cos,									
securities firms and		-	-	-	-	1,699			
fund managers									
Corporates		-	-	-	-	830			
Total		-	-	-	-	4,928			

RM'000

	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
Exposure class	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
Exposure class	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						
Silect exposures						
Banks, DFIs and						
MDBs	-	-	-	-	-	-
Total	-	-	-	-	-	-

RM'000

							IXIVI OOO
		Rating	s of Sovereign	s and Central B	anks by Appro	ved ECAIs	
	Moody's	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to B3	Caa1 to C	Unrated
Exposure	S&P	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	CCC+ to D	Unrated
class	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-							
<u>balance</u>							
sheet							
<u>exposures</u>							
Sovereigns/ central banks		-	2,985,869	-	-	-	-
Total		-	2,985,869	-	-	-	-

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 defined the roles and responsibilities of the various stakeholders in the credit rating process, including model development and review, model performance monitoring, annual model validation and independent reviews by Internal Audit in order to ensure the reliable and consistent performance of the Bank's rating systems.

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 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 External Credit Assessment Institutions (ECAIs), they are not directly comparable with or equivalent to the ECAIs ratings.

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.

Retail Exposures

The Bank has adopted the Advanced Internal Ratings-Based (AIRB) Approach for its retail exposures, which consist of 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 segmented 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, behavioural 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 covers 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 LGD models 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, a 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 closedend products, the EAD is the current outstanding balance. EAD models are generally segmented by material pre-default risk drivers such as facility type, limit and utilisation. EAD models are calibrated to reflect the portfolio long-run averages, except for portfolios that exhibit positive correlation between LGD and PD values, in which case, these portfolio's EAD models are calibrated to reflect their economic downturn conditions. EADs must be at least equal to the current outstanding balances.

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 as at 31 December 2022:

Exposures under the IRB Approach by Risk Grade

CRR band of non-retail exposures	1-9	10-16	17-20
			(Default)
	RM'000	RM'000	RM'000
Non-retail exposures (EAD)			
Large corporate, SMEs and specialised lending (IPRE)	28,032,806	20,100,253	1,431,677
Bank	9,268,152	23,367	-
Insurance Cos, securities firm and fund managers	1,208,242	-	-
Total non-retail exposures	38,509,200	20,123,620	1,431,677
<u>Undrawn commitments</u>			
Large corporate, SMEs and specialised lending (IPRE)	1,242,956	677,322	5,909
Bank	-	-	-
Insurance Cos, securities firm and fund managers	-	-	-
Total undrawn commitments	1,242,956	677,322	5,909
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending (IPRE)	42%	41%	44%
Bank	45%	45%	-
Insurance Cos, securities firm and fund managers	44%	-	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending (IPRE)	61%	118%	0%
Bank	12%	42%	-
Insurance Cos, securities firm and fund managers	19%	-	-

Specialised Lending exposures under the Supervisory Slotting Criteria

Supervisory Categories /	Strong/	Strong/	Good/	Good/	Satisfactory/	Weak/	Default/
Risk Weights	50%	70%	70%	90%	115%	250%	0%
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Specialised Lending							
exposures (EAD)							
Project Finance	22,500	107,930	41,504	640,991	-	80,159	-
Risk Weighted Assets	11,250	75,551	29,053	576,891	-	200,397	-

Exposures under the IRB Approach by PD range

PD range of retail expecures	0.00% to	1.01% to	2.01% to	SD to
PD range of retail exposures	1.00%	2.00%	99.99%	default
	RM'000	RM'000	RM'000	RM'000
Retail exposures (EAD)				
Residential mortgages	34,338,994	932,462	3,408,507	786,497
Qualifying revolving retail	3,804,584	769,767	2,093,739	40,464
Other retail	13,199,428	2,536,107	1,740,486	354,517
Total retail exposures	51,343,006	4,238,336	7,242,732	1,181,478
<u>Undrawn commitments</u>				
Residential mortgages	2,315,132	304,148	97,065	-
Qualifying revolving retail	2,581,048	391,577	1,134,886	-
Other retail	1,999,101	561,107	154,063	129
Total undrawn commitments	6,895,281	1,256,832	1,386,014	129
Exposure weighted average LGD (%)				
Residential mortgages	12.94%	14.27%	13.71%	14.01%
Qualifying revolving retail	34.18%	44.49%	40.05%	51.61%
Other retail	15.88%	23.10%	24.32%	21.42%
Exposure weighted average risk weight				
<u>(%)</u>				
Residential mortgages	7.52%	22.24%	47.64%	31.24%
Qualifying revolving retail	6.43%	19.65%	56.58%	282.23%
Other retail	11.87%	25.96%	38.75%	57.60%

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 as at 31 December 2021:

Exposures under the IRB Approach by Risk Grade

CRR band of non-retail exposures	1-9	10-16	17-20 (Default)
	RM'000	RM'000	RM'000
Non-retail exposures (EAD)			
Large corporate, SMEs and specialised lending (IPRE)	23,015,408	21,807,994	1,224,577
Bank	7,264,480	19,075	-
Insurance Cos, securities firm and fund managers	1,202,610	24	-
Total non-retail exposures	31,482,498	21,827,092	1,224,577
<u>Undrawn commitments</u>			
Large corporate, SMEs and specialised lending (IPRE)	1,478,295	595,756	1,288
Bank	-	-	-
Insurance Cos, securities firm and fund managers	1	-	-
Total undrawn commitments	1,478,295	595,756	1,288
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending (IPRE)	42%	40%	45%
Bank	45%	45%	-
Insurance Cos, securities firm and fund managers	45%	45%	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending (IPRE)	68%	115%	0%
Bank	17%	55%	-
Insurance Cos, securities firm and fund managers	24%	235%	-

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)							1
Project Finance	-	66,332	10,457	454,850	-	2,500	-
Risk Weighted Assets	-	46,433	7,320	409,365	-	6,250	-

Exposures under the IRB Approach by PD range

PD range of retail exposures	0.00% to	1.01% to	2.01% to	SD to
	1.00%	2.00%	99.99%	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				
<u>(%)</u>				
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 Islamic Banking Window using the respective internal rating scale for the models applicable to the asset classes as at 31 December 2022:

Exposures under the IRB Approach by Risk Grade

CPP hand of non rotall exposures	1-9	10-16	17-20
CRR band of non-retail exposures	1-9	10-10	(Default)
	RM'000	RM'000	RM'000
Non-retail exposures (EAD)			
Large corporate, SMEs and specialised lending (IPRE)	1,782,826	974,634	113,843
Bank	215,891	-	-
Insurance Cos, securities firm and fund managers	1,002,226	-	-
Total non-retail exposures	3,000,943	974,634	113,843
<u>Undrawn commitments</u>			
Large corporate, SMEs and specialised lending (IPRE)	19,546	44,609	750
Bank	-	-	-
Insurance Cos, securities firm and fund managers	-	-	-
Total undrawn commitments	19,546	44,609	750
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending (IPRE)	45%	41%	39%
Bank	45%	-	-
Insurance Cos, securities firm and fund managers	45%	-	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending (IPRE)	94%	156%	0%
Bank	10%	-	-
Insurance Cos, securities firm and fund managers	15%	-	-

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	-	-	1,942	490,187	-	-	-
Risk Weighted Assets	-	-	1,359	441,169	-	-	-

Exposures under the IRB Approach by PD range

PD range of retail exposures	0.00% to	1.01% to	2.01% to	SD to
rb range of retail exposures	1.00%	2.00%	99.99%	default
	RM'000	RM'000	RM'000	RM'000
Retail exposures (EAD)				
Residential mortgages	3,052,122	102,107	464,231	91,671
Other retail	705,116	565,215	136,819	35,675
Total retail exposures	3,757,238	667,322	601,050	127,346
Undrawn commitments				
Residential mortgages	279,057	36,143	6,888	-
Other retail	52,715	56,246	2,153	-
Total undrawn commitments	331,770	92,389	9,042	-
Exposure weighted average LGD (%)				
Residential mortgages	14.79%	14.71%	15.62%	15.48%
Other retail	21.47%	27.05%	25.91%	32.67%
Exposure weighted average risk weight				
<u>(%)</u>				
Residential mortgages	11.49%	22.49%	55.66%	8.44%
Other retail	18.17%	29.92%	39.02%	180.07%

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 as at 31 December 2021:

Exposures under the IRB Approach by Risk Grade

CDD hand of non-retail expensions	1-9	10-16	17-20
CRR band of non-retail exposures	1-5	10-16	(Default)
	RM'000	RM'000	RM'000
Non-retail exposures (EAD)			
Large corporate, SMEs and specialised lending (IPRE)	1,749,935	1,094,553	96,961
Bank	203,623	216	-
Insurance Cos, securities firm and fund managers	1,001,490	-	-
Total non-retail exposures	2,955,048	1,094,770	96,961
<u>Undrawn commitments</u>			
Large corporate, SMEs and specialised lending (IPRE)	30,643	11,464	750
Bank	-	-	-
Insurance Cos, securities firm and fund managers	-	-	-
Total undrawn commitments	30,643	11,464	750
Exposure weighted average LGD (%)			
Large corporate, SMEs and specialised lending (IPRE)	44%	41%	45%
Bank	45%	45%	-
Insurance Cos, securities firm and fund managers	45%	-	-
Exposure weighted average risk weight (%)			
Large corporate, SMEs and specialised lending (IPRE)	110%	146%	0%
Bank	10%	43%	-
Insurance Cos, securities firm and fund managers	24%	-	-

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	-	-	5,457	454,850	-	-	-
Risk Weighted Assets	-	-	3,820	409,365	-	-	-

Exposures under the IRB Approach by PD range

PD range of retail exposures	0.00% to	1.01% to	2.01% to	SD to
rb range of retail exposures	1.00%	2.00%	99.99%	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				
<u>(%)</u>				
Residential mortgages	11.08%	22.72%	49.74%	7.75%
Other retail	19.09%	29.98%	42.49%	177.24%

Retail exposures of the Bank under the IRB Approach by expected loss (EL) range as at 31 December 2022:

El 9/ range of rateil eveneures	0.0% to	1.0% to	5.0% to	10.0% to	30.0% to
EL% range of retail exposures	1.0%	5.0%	10.0%	30.0%	100.0%
	RM'000	RM'000	RM'000	RM'000	RM'000
Retail exposures (EAD)					
Residential mortgages	37,796,612	967,982	135,366	566,500	-
Qualifying revolving retail	4,753,643	1,348,693	210,336	340,558	55,324
Other retail	16,759,243	658,264	77,328	241,337	94,366
Total retail exposures	59,309,498	2,974,939	423,030	1,148,395	149,690
Undrawn commitments					
Residential mortgages	2,703,358	11,085	1,902	-	-
Qualifying revolving retail	3,164,059	728,578	64,976	141,862	8,036
Other retail	2,677,184	32,696	3,897	622	1
Total undrawn commitments	8,544,601	772,359	70,775	142,484	8,037
Exposure weighted average risk					
weight (%)					
Residential mortgages	10.23%	68.86%	92.30%	0.00%	-
Qualifying revolving retail	8.56%	44.88%	106.15%	127.00%	48.29%
Other retail	15.06%	55.00%	102.01%	54.22%	8.11%

Retail exposures of the Bank under the IRB Approach by expected loss (EL) range as at 31 December 2021:

EL% range of retail exposures	0.0% to	1.0% to	5.0% to	10.0% to	30.0% to
EL /6 range of retail exposures	1.0%	5.0%	10.0%	30.0%	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 Islamic Banking Window under the IRB Approach by expected loss (EL) range as at 31 December 2022:

EL% range of retail exposures	0.0% to	1.0% to	5.0% to	10.0% to	30.0% to
EL% range of retail exposures	1.0%	5.0%	10.0%	30.0%	100.0%
	RM'000	RM'000	RM'000	RM'000	RM'000
Retail exposures (EAD)					
Residential mortgages	3,491,698	98,293	35,623	84,517	-
Other retail	1,352,788	58,066	9,293	11,984	10,694
Total retail exposures	4,844,486	156,359	44,916	96,501	10,694
Undrawn commitments					
Residential mortgages	319,989	1,605	494	-	-
Other retail	110,251	863	-	-	-
Total undrawn commitments	430,240	2,468	494	-	1
Exposure weighted average risk					
weight (%)					
Residential mortgages	15.18%	78.25%	91.34%	0.00%	0.00%
Other retail	24.70%	62.81%	297.17%	113.86%	27.61%

Retail exposures of the Islamic Banking Window under the IRB Approach by expected loss (EL) range as at 31 December 2021:

EL% range of retail exposures	0.0% to	1.0% to	5.0% to	10.0% to	30.0% to
EL % range of retail exposures	1.0%	5.0%	10.0%	30.0%	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%

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 2022.

Comparison of actual loss and expected loss by asset class

Bank

	Actual loss	Expected loss	Actual loss	Expected loss
	(FYE 31	(as at 31	(FYE 31	(as at 31
Asset class	December 2022)	December 2021)	December 2021)	December 2020)
	RM'000	RM'000	RM'000	RM'000
Corporate	125,512	1,197,492	144,610	1,018,671
Bank	-	2,845	-	3,201
Retail	142,121	409,712	190,944	365,635
Total	267,633	1,610,050	335,554	1,387,507

The actual loss in 2022 was lower than the expected loss computed as at 31 December 2021. 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 2021 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

	Actual loss	Expected loss	Actual loss	Expected loss
	(FYE 31	(as at 31	(FYE 31	(as at 31
Asset class	December 2022)	December 2021)	December 2021)	December 2020)
	RM'000	RM'000	RM'000	RM'000
Corporate	14,729	89,998	81,290	39,197
Bank	-	34	-	16
Retail	15,036	33,163	11,884	27,994
Total	29,765	123,195	93,174	67,207

Movements in the allowance for ECL and write-off on loans, advances and financing:

	Stage 1	Stage 2	Stage 3	
Bank 2022	12 Months ECL RM'000	Lifetime ECL non credit- impaired RM'000	Lifetime ECL credit- impaired RM'000	Total ECL RM'000
At 1 January	312,573	1,298,483	713,309	2,324,365
Transfer from business acquisition	99,966	66,416	62,307	228,689
Transferred to Stage 1	62,709	(223,574)	(19,417)	(180,282)
Transferred to Stage 2	(8,413)	94,469	(12,330)	73,726
Transferred to Stage 3	(2,077)	(23,460)	275,164	249,627
Allowances made for	259,612	182,633	99,605	541,850
the financial year				
Maturity/settlement/repayment	(168,144)	(222,779)	(49,810)	(440,733)
Exchange differences	(2,664)	1,455	-	(1,209)
Net total	141,023	(191,256)	293,212	242,979
Amounts written off	-	- 1	(227,341)	(227,341)
Other movements	-	-	1,717	1,717
At 31 December	553,562	1,173,643	843,204	2,570,409

	Stage 1	Stage 2	Stage 3	
Bank 2021	12 Months ECL RM'000	Lifetime ECL non credit- impaired RM'000	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	-	-	57,883	57,883
At 31 December	312,573	1,298,483	713,309	2,324,365

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

	Stage 1	Stage 2	Stage 3	
Islamic Banking Window 2022	12 Months ECL RM'000	Lifetime ECL not credit impaired RM'000	Lifetime ECL credit impaired RM'000	Total ECL RM'000
At 1 January	16,663	38,497	108,844	164,004
Transfer from business acquisition	93	531	660	1,284
Transferred to Stage 1	6,889	(21,418)	(2,988)	(17,517)
Transferred to Stage 2	(1,064)	12,198	(850)	10,284
Transferred to Stage 3	(417)	(2,491)	27,529	24,621
Allowances made for	10,044	40	9,191	19,275
the financial year				
Maturity/settlement/ repayment	(14,422)	(4,605)	(3,717)	(22,744)
Net total	1,030	(16,276)	29,165	13,919
Amounts written off	-	- -	(5,963)	(5,963)
At 31 December	17,786	22,752	132,706	173,244

	Stage 1	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	
Islamic Banking Window 2021	12 Months ECL RM'000	not credit impaired RM'000	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	-	-	1,963	1,963
At 31 December	16,663	38,497	108,844	164,004

Credit Risk Mitigation

Potential credit losses are mitigated through a variety of instruments such as collateral, derivatives, guarantees and netting arrangement. 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 form of properties, cash and marketable securities. 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, quality, volatility and liquidity of the collaterals 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 is owed 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.

Credit Risk Mitigation (cont'd.)

The following table presents the total exposures of the Bank which are covered by eligible credit risk mitigants as at 31 December 2022:

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	27,260,129	-	-	-
Public Sector Entities	658,203	658,203	-	-
Banks, DFIs and MDBs	5,377,974	-	-	-
Insurances cos, securities firms and fund managers	1,100,543	-	27,156	-
Corporates	39,696,964	3,190,232	2,186,306	2,577,790
Regulatory retail	23,882,162	-	-	-
Residential mortgages	42,475,627	-	-	-
Higher Risk Assets	4,683	-	-	-
Other assets	2,111,802	-	-	-
Securitisation exposure	120,026	120,026	-	-
Equity exposures	153,681	-	-	-
Defaulted exposures*	2,095,440	4,577	7,380	37,849
Total on-balance sheet exposures	144,937,234	3,973,038	2,220,842	2,615,639
Off-balance sheet exposures				
OTC derivatives	3,407,295	1,029	2,982	-
Off-balance sheet exposures other than	24,161,027	259,780	6,415,761	235,618
OTC derivatives or credit derivatives				
Defaulted exposures*	32,988	151	982	1,607
Total off-balance sheet exposures	27,601,310	260,960	6,419,725	237,225
Total on and off-balance sheet				
exposures	172,538,544	4,233,998	8,640,567	2,852,864

^{*}Defaulted exposure is net off specific provision.

Credit Risk Mitigation (cont'd.)

The following table presents the total exposures of the Bank which are covered by eligible credit risk mitigants as at 31 December 2021:

Exposure class		Exposures covered by guarantees/	Exposures covered by eligible	Exposures covered by other
Exposure class	Exposures	credit	financial	eligible
	before CRM	derivatives	collateral	collateral
	RM'000	RM'000	RM'000	RM'000
Credit risk	1(1) 000	IXIII 000	IXIVI OOO	IXIVI OOO
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	1,100,929	-	10,018	-
fund managers				
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	18,093,749	256,968	1,389,609	188,337
OTC derivatives or credit derivatives				
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.

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 as at 31 December 2022:

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	4,194,758	-	-	-
Banks, DFIs and MDBs	215,891	-	-	-
Insurances cos, securities firms and fund managers	1,002,226	-	-	-
Corporates	2,792,136	58,289	83,979	44,284
Regulatory retail	1,296,036	-	-	-
Residential mortgages	3,386,147	-	-	-
Other assets	22,273	-	-	-
Defaulted exposures*	118,260	-	6,893	-
Total on-balance sheet exposures	13,027,727	58,289	90,872	44,284
Off-balance sheet exposures	45.000			
OTC derivatives	15,060	-	-	-
Off-balance sheet exposures other than	887,638	2,658	10,848	366
OTC derivatives or credit derivatives				
Defaulted exposures*	- 000 000	- 0.050	-	-
Total off-balance sheet exposures	902,698	2,658	10,848	366
Total on and off-balance sheet	40.000.405	00.047	404 700	44.050
exposures	13,930,425	60,947	101,720	44,650

^{*}Defaulted exposure is net off specific provision.

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 as at 31 December 2021:

Exposure class	-	Exposures covered by guarantees/	Exposures covered by eligible	Exposures covered by other
	Exposures	credit	financial	eligible
	before CRM	derivatives	collateral	collateral
- W. I. I	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	1,001,490	-	-	-
fund managers				
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	960,668	2,743	10,974	1,745
OTC derivatives or credit derivatives				
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.

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 and an 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 transaction and is used for limit setting and internal risk management.

The Bank has also established policies and procedures to manage wrong-way risk, i.e., where the counterparty credit exposure is positively correlated with its default risk. Transactions that exhibit such characteristics are identified and reported to Senior Management regularly. Separately, transactions with specific wrong-way risk are 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.

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 as at 31 December 2022:

		Docitive Fair		
	Principal	Positive Fair Value of	Credit	
Description	Amount	Derivative	Equivalent	RWA
		Contracts	Amount	
	RM'000	RM'000	RM'000	RM'000
Direct credit substitutes	4,444,105		4,325,833	2,603,485
Transaction related contingent items	6,494,369		3,223,817	2,157,317
Short Term Self Liquidating trade	494,007		94,954	50,785
related contingencies	404,007		04,004	00,700
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	5,919,105		398,295	1,582
lending/borrowing transactions), and				
commitment to buy-back Islamic				
securities under Sell and Buy Back				
Agreement transactions.				
Foreign exchange related contracts				
One year or less	79,993,510	885,840	1,982,711	292,423
Over one year to five years	993,533	14,477	79,272	46,275
Over five years	141,067	-	14,768	17,401
Interest/Profit rate related contracts	,		Ĺ	ŕ
One year or less	30,970,334	235,579	465,608	71,312
Over one year to five years	36,907,880	442,306	1,524,240	422,064
Over five years	1,487,906	31,293	158.040	78,114
Equity related contracts	, , , , , , , , , , , , , , , , , , , ,	, , ,		- ,
One year or less	21,343	19	-	-
Over one year to five years	1,000	-	_	-
Over five years	_	-	_	-
Commodity contracts				
One year or less	266,506	13,998	28,373	12,325
Over one year to five years	5,169	22		-
Over five years	_	-	_	-
Other commitments, such as formal				
standby facilities and credit lines, with	7,161,591		4,809,176	2,685,427
an original maturity of over one year				
Other commitments, such as formal				
standby facilities and credit lines, with	22,427,479		1,197,119	319,627
an original maturity of up to one year				
Any commitments that are				
unconditionally cancelled at any time				
by the bank without prior notice or that	16,652,405		5,703,623	810,603
effectively provide for automatic	. 5,552, 100		3,. 33,320	3.3,300
cancellation due to deterioration in a				
borrower's creditworthiness Unutilised credit card lines	18,167,501		3,633,500	2,730,559
Off-balance sheet for securitisation	10, 107, 501		3,033,300	2,130,009
	222 549 040	1 602 504	27 620 220	12 200 200
Total	232,548,810	1,623,534	27,639,329	12,299,299

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 as at 31 December 2021:

		Positive Fair	Credit	
Description	Principal	Value of	Equivalent	RWA
Description	Amount	Derivative	Amount	IWA
	DMIOOO	Contracts		DMIOOO
	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	0,030,043		, ,	2,039,921
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	563,417		16,649	723
repurchase and securities	303,417		10,043	120
lending/borrowing transactions), and				
commitment to buy-back Islamic				
securities under Sell and Buy Back				
Agreement transactions.				
Foreign exchange related contracts	40.700.000	470.000	700 744	400.577
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	6,644,725		4,577,876	2,845,756
an original maturity of over one year				
Other commitments, such as formal	40.050.400		040 707	400 450
standby facilities and credit lines, with	19,253,186		913,737	168,450
an original maturity of up to one year Any commitments that are				
Any commitments that are unconditionally cancelled at any time				
by the bank without prior notice or that				
effectively provide for automatic	15,372,716		5,598,135	673,025
cancellation due to deterioration in a				
borrower's creditworthiness				
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

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

<u>Credit Exposures from Foreign Exchange and Derivatives (cont'd.)</u>

The off-balance sheet exposures and their related counterparty credit risk of the Islamic Banking Window as at 31 December 2022:

Description	Principal amount	Positive fair value of derivative contracts	Credit equivalent amount	RWA
	RM'000	RM'000	RM'000	RM'000
Direct credit substitutes	137,779		137,779	261,648
Transaction related contingent items	201,412		101,196	163,942
Short-term self-liquidating trade-	3,150		2,052	486
related contigencies				
Foreign exchange related contracts				
with an original maturity up to one				
One year or less	834,445	33,716	12,836	9,746
Over one year to five years	4,757	45	283	198
Over five years	-	-	-	-
Interest/Profit rate related contracts				
One year or less	376,500	-	941	659
Over one year to five years	100,000	6,942	1,000	263
Over five years	-	-	-	-
Other commitments, such as formal				
standby facilities and credit lines, with				
an original maturity of over one year	897,965		635,262	280,510
Other commitments, such as formal				
standby facilities and credit lines, with				
an original maturity of up to one year	315,820		12,099	4,232
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				
	1,098,770		-	-
Total	3,970,598	40,703	903,448	721,684

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

<u>Credit Exposures from Foreign Exchange and Derivatives (cont'd.)</u>

The off-balance sheet exposures and their related counterparty credit risk of the Islamic Banking Window as at 31 December 2021:

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-	1,564		313	178
related contigencies				
Foreign exchange related contracts				
with an original maturity up to one				
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

6. Securitisation Exposure

The Bank presently has exposure to securitisation transactions. Any decision for such transactions is subject to independent risk assessment and approval. The special purpose entities involved in these transactions are established and managed by third parties and are not controlled by the Bank. Our securitisation positions are recognised as financial assets.

Risk weights for securitisation exposures in the banking book are computed based on the BNM Capital Adequacy Framework (Basel II – Risk-Weighted Assets).

The table below represents the disclosure on securitisation exposure of the Bank under Standardised Approach (SA) as at 31 December 2022:

RM'000

	Exposure				Distribution	of Expos	sures afte	er CRM a	ccording to Ap	plicable Risk	
Evenesure alone	Value of	Fligible	Exposure	Exposures	Rated S	Securitisa	tion Expo	sures	Unrated (Lo	ok Through)	Risk
Exposure class 2022	Positions	Eligible CRM	after	subject to					A		Weighted
2022	Purchased	CKIVI	CRM	deduction	20%	50%	100%	1250%	Average	Exposure	Assets
	or Retained								Risk Weight	Amount	
TRADITIONAL SECURITISATION											
(Banking book)											
Non-Originating Banking Institution											
On-Balance Sheet											
Most Senior	120,000	120,026	120,026	-	120,026	-	-	-	ı	ı	24,005
Total Exposures	120,000	120,026	120,026	-	120,026	-	-	-	ı	-	24,005

7. 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 is in place to ensure 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 are set based on expected 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, equities and equity options, 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.

7. MARKET RISK (Cont'd.)

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. Backtesting results were within acceptable tolerance level in the year under review.

The Bank's daily ES as at 31 December 2022 was RM9.577 million.

	Year End RM'000	High RM'000	Low RM'000	Average RM'000
2022				
Interest rate	4,327	5,391	1,364	2,454
Foreign exchange	206	13,232	91	502
Commodities	100	520	3	62
Option Volatility	319	356	1	180
Equities	24	151	4	18
Total diversified ES	9,577	10,452	3,464	5,976
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	-	85
Equities	13	76	-	6
Total diversified ES	5,281	18,095	4,274	8,829

8. 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.

8. 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-22	Increase/		Increase/	
	(Decrease)	Sensitivity	(Decrease)	Sensitivity
	in basis points	of EVE	in basis points	of EVE
Currency		RM'000		RM'000
Total	+200/(200)	(944,014)/ 1,314,991	+100/(100)	(511,752)/ 603,927
MYR	+200/(200) 1	1,021,009)/ 1,396,566	+100/(100)	(550,806)/ 644,125
USD	+200/(200)	76,995/ (81,575)	+100/(100)	39,054/ (40,198)
31-Dec-21	Increase/		Increase/	
	(Decrease)	Sensitivity	(Decrease)	Sensitivity
	in basis points	of EVE	in basis points	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)

Net Interest/Profit Income (NII/NPI)

Increase/		Increase/	
(Decrease)	Sensitivity	(Decrease)	Sensitivity
in basis points	of NII/NPI	in basis points	of NII/NPI
	RM'000		RM'000
+200/(200)	303,515/ (435,057)	+100/(100)	151,757/ (193,502)
+200/(200)	335,068/ (465,669)	+100/(100)	167,533/ (209,259)
+200/(200)	(31,553)/ 30,612	+100/(100)	(15,776)/ 15,757
Increase/		Increase/	
(Decrease)	Sensitivity	(Decrease)	Sensitivity
in basis points	of NII/NPI	in basis points	of NII/NPI
	RM'000		RM'000
+200/(200)	451,685/ (657,880)	+100/(100)	225,843/ (296,834)
+200/(200)	487,278/ (653,648)	+100/(100)	243,639/ (292,605)
+200/(200)	(35,593)/ (4,232)	+100/(100)	(17,796)/ (4,229)
	(Decrease) in basis points +200/(200) +200/(200) +200/(200) Increase/ (Decrease) in basis points +200/(200) +200/(200)	(Decrease) sensitivity of NII/NPI RM'000 +200/(200) 303,515/ (435,057) +200/(200) 335,068/ (465,669) +200/(200) (31,553)/ 30,612 Increase/ (Decrease) Sensitivity of NII/NPI RM'000 +200/(200) 451,685/ (657,880) +200/(200) 487,278/ (653,648)	(Decrease) sensitivity (Decrease) in basis points of NII/NPI in basis points RM'000 +200/(200) 303,515/ (435,057) +100/(100) +200/(200) 335,068/ (465,669) +100/(100) +200/(200) (31,553)/ 30,612 +100/(100) Increase/ (Decrease) Sensitivity (Decrease) in basis points of NII/NPI in basis points RM'000 +200/(200) 451,685/ (657,880) +100/(100) +200/(200) 487,278/ (653,648) +100/(100)

9. 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 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.

10. 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, third party non-outsourcing risk and conduct risk.

The Bank's primary objective is to foster a sound reputation and operating environment. 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 operational risk incidents, key risk and control self-assessment results, outsourcing and third party non-outsourcing matters, key operational risk indicator breaches, product and service programme matters and operational risks self-identified by the First Line. Any material risks are then reported to the ORMC and the Board to ensure they are promptly escalated and addressed.

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.

The subject-specific key risks that we focus on include but not limited to the risks discussed below.

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, which 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 resiliency and service continuity aspects of business continuity management, cybersecurity management and information security management.

10. OPERATIONAL RISK (Cont'd.)

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, to review and to 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 financial loss, damage to reputation or franchise value of the Bank when it fails to comply with laws, regulations, rules, standards or industry codes of conduct applicable to the Bank's business activities and operations. A change in laws and regulations can also increase the cost of operations and the cost of capital for the Bank, thereby impacting the Bank's earnings or returns. 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 which sets the guiding principles for risk identification, monitoring, reporting and mitigation of risk exposure and communication with our stakeholders.

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.

Third Party Non-Outsourcing Risk

Third party non-outsourcing risk arises from arrangements where a third party provides a product or service to the Bank or our customers. This risk could result in adverse financial, operational, reputational, legal and compliance impact arising from the failure of a third party to provide the product or service, or the third party's breaches of security including data leakages. The Bank manages this risk through its Third Party Non-Outsourcing Risk Management Policy and Guidelines.

10. OPERATIONAL RISK (Cont'd.)

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) and the RMC at the Board level and primarily by the ORMC at the senior 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.

Conduct risk

Conduct risk is the risk of improper employee behaviour or action that results in unfair stakeholder outcomes, negative impact on market integrity and other issues that damage the reputation of the Bank. This includes the failure of supervising managers to reasonably manage a conduct issue or report the misconduct on a timely basis. Conduct risk is managed through a multi-faceted approach leveraging the frameworks, policies and procedures on operational risk management, fraud risk management, whistle blowing, trade surveillance, employee discipline, code of conduct, remuneration, fair dealing and anti-money laundering. The corporate governance oversight of conduct risk is provided by the ORMC, RMC and Board.

11. ESG RISK

Environmental Social and Governance (ESG) risk includes financial risks and non-financial risks, such as reputation damage, arising from ESG issues such as climate change. While a key component of ESG risk arises indirectly from the financial services we provide to our customers, it can also result directly from our own operations. Our Group Sustainability Committee identifies and reviews ESG factors material to the UOB Group, and ensures that sustainability factors are considered in all aspects of our operations (including day-to-day decision-making processes). The specific risk associated with each factor is monitored and managed in accordance with the respective frameworks, policies or guidelines.

Responsible Financing Policy

The Bank has established, since 2016, a Responsible Financing Policy which is approved by the Board. The policy is embedded within our Corporate Credit Policy so that ESG considerations are integrated into our credit evaluation and approval processes. The Credit Approval function is responsible for ensuring that ESG risks are adequately addressed and, where necessary, customers or projects with elevated ESG risks are escalated for further review prior to approval. Consistent with our overall risk management approach, ESG risks are managed through the Bank's Three Lines Model control structure.

Our Responsible Financing Policy applies to all borrowing customers of Wholesale Banking and to the Bank's capital market activities. Under the policy framework, our account officers are required to conduct due diligence on all new and existing borrowers during the onboarding process and annual credit review. Customers are assessed for material ESG risks, including adherence to the Bank's responsible financing exclusion list, as well as their capacity for, commitment to and track record in ESG risk management.

We have implemented sector-specific Credit Acceptance Guidelines and have responsible financing checklists in place to help our account officers identify, assess and review ESG risks. Borrowers that fall within the following eight ESG-sensitive industries are subject to enhanced due diligence in accordance with sector-specific quidelines developed by the Bank.

Agriculture	Forestry
 Metals and Mining 	 Defence
 Chemical 	Energy
 Infrastructure 	Waste Management

As part of our ESG risk classification approach, borrowers are classified as either 'high', 'medium' or 'low' ESG risk. This is based on the level of ESG risk inherent in their business operations and the residual ESG risk after taking into consideration their mitigation measures, as well as their ESG risk management capacity.

We notify our customers of their need to adhere to our Responsible Financing Policy and seek their representations and warranties to ensure compliance, including with the host country's ESG regulations. We also encourage them to follow established industry standards, to obtain relevant certifications and to adopt best practices pertaining to, for example, proper water and waste management, greenhouse gas emissions mitigation and occupational health and safety management. The policy references international standards and conventions such as the Roundtable on Sustainable Palm Oil, Forest Stewardship Council, World Heritage Convention, and best industry practices provided by the World Bank and the International Finance Corporation.

11. ESG RISK (Cont'd.)

Our Responsible Financing Policy prohibits our financing of companies:

- where their operations or projects threaten the outstanding universal value or special characteristics
 of UNESCO World Heritage Sites, Ramsar Wetlands, forests of high conservation value (HCV), or
 would impact critical natural habitats significantly;
- involved in animal cruelty and the trade of endangered species as defined by the Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora;
- without measures in place to manage or to mitigate the risk of air, soil and water pollution which may negatively impact terrestrial or marine ecosystems;
- involved in the exploitation of labour, including forced labour and child labour, taking reference from the International Labour Organisation (ILO) standards;
- in violation of the rights of local or indigenous communities; and
- · involved in open burning for land clearance.

These financing prohibitions are cross-cutting commitments applicable to all new and existing customers

and help to bolster our efforts in fostering sustainable development through responsible financing.

Equator Principles

To strengthen our processes and practices on environmental and social risk management further, UOB Group formally adopted the Equator Principles (EP) in 2021. The EP is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risks in projects and is primarily intended to provide a minimum standard for due diligence and monitoring.

EP requirements have been incorporated into our Responsible Financing Policy for bank-wide implementation. Dedicated EP Implementation Guidelines and toolkits have been developed to provide detailed guidance for transaction screening, categorisation, as well as environmental and social risk assessment. The In-country Credit Committee is required to review and approve high-risk projects, i.e. Category A projects, as well as appropriate Category B projects under the definition of EP.

In addition, dedicated training programmes in the form of online webinars and e-learning courses have been rolled out to relevant colleagues to strengthen the Bank's capabilities in EP.

Monitoring

We engage our borrowing customers proactively and continually work with them to improve their ESG practices and performance. In addition, we monitor our borrowers on an ongoing basis for any adverse ESG-related news. Borrowers with any known material ESG-related incidents will trigger an immediate review to ensure ESG risks will be addressed and managed promptly and appropriately. We require our borrowers to rectify any breaches of our policy within a reasonable timeframe with account officers responsible for monitoring their progress. However, if we deem our borrowers unable or unwilling to commit to adequately managing the potential adverse impact from ESG issues on their operations, we are prepared to review and to reassess the relationship, or to reject the transaction.

11. ESG RISK (Cont'd.)

Training and Capacity Building

Strengthening our internal capacity on ESG risk management remains a key focus as environmental risk becomes increasingly mainstream. All our colleagues in relevant roles are trained on our Responsible Financing Policy and processes.

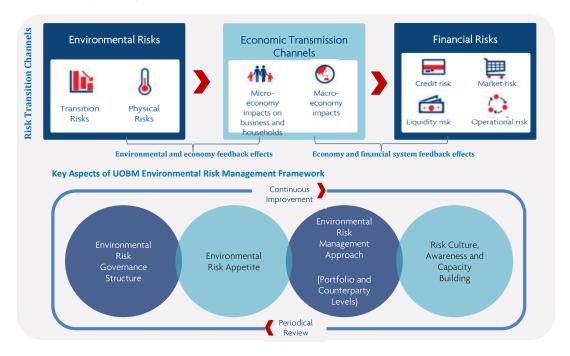
Climate Change Risks

Climate change is one of the most complex and defining issues of our time and there is a critical need for the world to reach 'net zero' by 2050 in alignment with the Paris Agreement and the 1.5°C trajectory outlined by the Intergovernmental Panel on Climate Change. As a leading financial institution in Malaysia, we are committed to strengthening our portfolio resilience and to being a positive force in the fight against climate change.

Environmental Risk Management Framework

In line with our Group, UOBM has established an Environmental Risk Management Framework, approved by the Board. This framework, with a key focus on climate risk management, covers governance, policy and control processes in relation to the management of environmental risk at both portfolio and counterparty levels in the Bank's lending and capital market underwriting activities.

The framework is also align with the principles set out in the BNM Climate Risk Management and Scenario Analysis policy.



11. ESG RISK (Cont'd.)

The Board provides oversight of environmental risk including climate change-related issues with the support from the RMC. The roles and responsibilities of the Board under the governance structure include:

- · review and approval of risk management frameworks and policies;
- review and approval of risk appetite statement; and
- review and determine climate related issues that need to be addressed through the Bank's strategies and business plans.

The EXCO supports the Board in the management of matters related to environmental risk. The EXCO will review climate change-related issues and provides strategic direction including the allocation of resources for the management of the Bank's climate-related issues.

The RCC and CMC support the EXCO in the review of frameworks, policies, risk appetite statement, stress tests and scenario analysis for the management of climate risk.

The Bank will continue to step up our efforts and capabilities in the areas of risk management, scenario analysis, stress testing and disclosure requirements. This will also include reviewing our business strategies, taking into consideration our parent bank's net zero commitment and promote a just orderly transition that continues to support economic growth of the country.

12. 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.

	Bank				
Type of Equities	31-Dec-22		31-Dec-21		
	Exposures	RWA	Exposures	RWA	
	RM'000	RM'000	RM'000	RM'000	
Publicly traded equity exposures * mainly acquired via loan restructuring activities	924	2,773	1,604	4,811	
All other equity exposures *unquoted shares which are non-traded in the stock exchange	152,757	152,757	155,420	155,420	
Total	153,681	155,530	157,024	160,231	

	Ban	Bank		
	31-Dec-22 RM'000	31-Dec-21 RM'000		
Realised (loss)/gains arising from sales and liquidation	250	6_		
Unrealised gains included in fair value reserve	141,600	144,677		

As at 31 December 2022 and 31 December 2021, there were no equity exposure under Islamic Banking Window.

13. RESTRICTED SPECIFIC INVESTMENT ACCOUNT AND SHARIAH GOVERNANCE

Restricted Specific Investment Account (RSIA)

United Overseas Bank (Malaysia) Bhd's Islamic Banking Window did not have any RSIA arrangement with third party as at 31 December 2022.

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 2022. As such, no Shariah non-compliant income had been recorded for the year.