Company No: 14389-U

Affin Hwang Investment Bank Berhad

(Incorporated in Malaysia)

PILLAR 3 DISCLOSURES

for the financial year ended 31 December 2018

Glossary

Terms	Descriptions
AFS	Available-for-Sale
ALCO	Asset and Liability Committee
Basel II	Basel II Capital Accord
Basel III	Basel III Capital Accord
BCRC	Board Credit Review Committee
BNM	Bank Negara Malaysia
Board	Board of Directors
BRMC	Board Risk Management Committee
CCRIS	Central Credit Reference Information System
CET 1	Common Equity Tier 1
CIS	Collective Investment Scheme
CMD	Credit Management Department
CRC	Credit Resolution Committee
CROC	Compliance and Risk Oversight Committee
CSA	Credit Support Annex
DFIs	Development Financial Institutions
EAD	Exposure At Default
ECAIs	External Credit Assessment Institutions
ECL	Expected Credit Loss
Fitch	Fitch Ratings
FVOCI	Fair Value through Other Comprehensive Income
FVTPL	Fair Value through Profit or Loss
GMCC	Group Management Credit Committee
GORMC	Group Operational Risk Management Committee
ICAAP	Internal Capital Adequacy Assessment Process
IRRBB	Interest Rate Risk in Banking Book
ISDA	International Swap and Derivative Association
KCS	Key Control Standard
KRI	Key Risk Indicator
LGD	Loss Given Default
LED	Loss Event Database
MARC	Malaysian Rating Corporation Berhad
MDBs	Multilateral Development Banks
MFRS	Malaysian Financial Reporting Standards
Moody's	Moody's Investors Service
ORM	Operational Risk Management
ORMU	Operational Risk Management Unit
OTC	Over-the-Counter
PD	Probability of Default
R&I	Rating and Investment Information, Inc.
RAM	RAM Rating Services Berhad
RCSA	Risk and Control Self Assessment
RMD	Risk Management Department
RWA	Risk-Weighted Asset
RWCAF	Risk-Weighted Capital Adequacy Framework
S&P	Standard & Poor's Rating Services
VaR	Value-at-Risk

PILLAR 3 DISCLOSURES

OVERVIEW

Bank Negara Malaysia ("BNM")'s Risk-Weighted Capital Adequacy Framework ("RWCAF") (Basel II) – Disclosure Requirements (Pillar 3) aims to improve the transparency of financial institution activities and risks, which is a key element of an effectively supervised financial system.

Pillar 3 Disclosures is governed by Bank Negara Malaysia Risk-Weighted Capital Adequacy Framework - Pillar 3 and Capital Adequacy Framework (Capital Components) issued by BNM, which spells out the guidelines in determining the contents (including materiality, appropriateness and confidentiality), frequency, medium, location of public disclosures, as well as internal controls over the disclosure verification process.

The following disclosure information is based on 31 December 2018 financial year end data and has been independently reviewed by the Internal Audit Department. However, where the disclosure is reliant upon the disclosure in the Bank's audited financial statements, the disclosure in the audited financial statements has been subjected to the formal review and verification process by the external auditor.

The Pillar 3 Disclosures is published on the Bank's corporate website at http://www.affinhwang.com.

1 SCOPE OF APPLICATION

The Pillar 3 Disclosures attached herewith relates to the Bank and its subsidiaries (“the Group”). This Pillar 3 Disclosures is published for the financial year ended 31 December 2018, with comparative information for both the Bank and the Group for the financial year ended 31 December 2017.

For financial reporting purposes, the basis for consolidation of the Group financial statements is in accordance to the Malaysian Financial Reporting Standards.

The basis for accounting consolidation is as disclosed in Note B 'Summary of significant accounting policies for the financial year ended 31 December 2018' of the financial statements of the Bank. Further information on the Bank’s consolidated entities can be referenced to Note 15 of the Bank’s financial statements.

The principal activities of the Bank are in investment banking, stockbroking activities, dealing in options and futures and related financial services.

The principal activities of the subsidiaries are asset management, management of unit trust funds and private retirement schemes, Islamic fund management, trustee services and nominee services.

During the financial year, the Group did not encounter any restriction or impediment in the distribution of dividends, transfer of funds or regulatory capital.

2 CAPITAL MANAGEMENT

The Group and the Bank's objectives when managing capital are to comply with:

i) The minimum capital requirement of 9.875% (2017: 9.25%) under BNM’s Risk-Weighted Capital Adequacy Framework ("RWCAF");

ii) The Board-approved Internal Capital Adequacy Assessment Process ("ICAAP"), which amongst others:

- To safeguard the Bank's ability to continue as a going concern so that it can continue to provide returns to the shareholders and benefits for other stakeholders; and
- To maintain a strong capital base to support the development of its business.

2.1 Capital Adequacy Ratios

The capital adequacy ratios of the Group consist of total capital and risk-weighted assets derived from the consolidated financials of the Bank and its subsidiary companies.

The Group and the Bank have adopted the following approaches to assess its regulatory capital requirements under BNM RWCAF Pillar 1:

- Credit risk (Standardised Approach)
- Market risk (Standardised Approach)
- Operational risk (Basic Indicator Approach)

With effect from 1 January 2018, the total capital and capital adequacy ratios of the Group and the Bank are computed in accordance with BNM's revised Capital Adequacy Framework (Capital Components) dated 2 February 2018.

The Group and the Bank are currently adopting Standardised Approach for Credit Risk and Market Risk and the Basic Indicator Approach for Operational Risk. In line with the transitional arrangements under the BNM's Capital Adequacy Framework (Capital Components), the minimum capital adequacy requirement for Common Equity Tier 1 Capital Ratio ('CET 1') and Tier 1 Capital Ratio are 6.375% (2017: 5.75%) and 7.875% (2017: 7.25%) respectively for financial year ended 31 December 2018. The minimum regulatory capital adequacy requirement for total capital ratio is at 9.875% (2017: 9.25%).

The following table depicts the risk weighted assets ("RWA") and the corresponding regulatory capital requirements:

Table 1: Risk-Weighted Assets and Capital Requirements
The Group

As at 31 December 2018	**Gross exposures**	**Net exposures**	**Risk Weighted Assets**	**Capital requirements**
(i) Credit risk	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Exposure Class				
On-Balance Sheet Exposures				
Sovereigns/Central Banks	3,388,898	3,388,898	4,030	322
Banks, Development Financial Institutions ("DFIs") & Multilateral Development Banks ("MDBs")	665,686	665,686	135,108	10,809
Corporates	2,830,285	2,830,285	1,660,576	132,846
Regulatory Retail	342,135	5,492	4,119	330
Other Assets	263,629	263,628	231,397	18,512
Defaulted Exposures	89,659	89,659	133,437	10,675
Total for on-balance sheet exposures	**7,580,292**	**7,243,648**	**2,168,667**	**173,494**
Off-Balance Sheet Exposures				
Over-the-counter ("OTC") derivatives	147,938	147,938	66,794	5,344
Non-OTC Derivatives	101,761	101,761	101,761	8,141
Total for off-balance sheet exposures	**249,699**	**249,699**	**168,555**	**13,485**
Total credit risk exposures	**7,829,991**	**7,493,347**	**2,337,222**	**186,979**
(ii) Large exposures risk requirements	-	-	-	-

(iii) Market risk	**Gross exposures**		**Net exposures**	**Risk Weighted Assets**	**Capital requirements**
	RM'000		**RM'000**	**RM'000**	**RM'000**
	Long Position RM'000	**Short Position RM'000**			
Interest rate risk	5,537,983	5,485,421	52,562	143,981	11,518
Foreign currency risk	2,225,461	2,152,273	73,187	144,650	11,572
Equity risk	21,153	52	21,101	58,170	4,654
Option risk	-	-	27,000	37,125	2,970
Total market risk exposures	**7,784,597**	**7,637,746**	**173,850**	**383,926**	**30,714**

(iv) Operational risk	**Risk Weighted Assets**	**Capital requirements**
	RM'000	**RM'000**
Operational risk	878,448	70,276
Total risk-weighted assets and capital requirements	**3,599,596**	**287,969**

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Table 1: Risk-Weighted Assets and Capital Requirements (Continued)
The Bank

As at 31 December 2018	Gross exposures	Net exposures	Risk Weighted Assets	Capital requirements
(i) Credit risk	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Exposure Class				
On-Balance Sheet Exposures				
Sovereigns/Central Banks	3,388,898	3,388,898	4,030	322
Banks, Development Financial Institutions ("DFIs") & Multilateral Development Banks ("MDBs")	238,707	238,707	47,742	3,819
Corporates	2,785,350	2,785,351	1,618,610	129,489
Regulatory Retail	342,135	5,492	4,119	330
Other Assets	151,411	151,411	119,256	9,540
Defaulted Exposures	89,659	89,659	133,437	10,675
Total for on-balance sheet exposures	**6,996,160**	**6,659,518**	**1,927,194**	**154,175**
Off-Balance Sheet Exposures				
Over-the-counter ("OTC") derivatives	147,938	147,938	66,794	5,344
Non-OTC Derivatives	101,761	101,761	101,761	8,141
Total for off-balance sheet exposures	**249,699**	**249,699**	**168,555**	**13,485**
Total credit risk exposures	**7,245,859**	**6,909,217**	**2,095,749**	**167,660**
(ii) Large exposures risk requirements	-	-	-	-

(iii) Market risk	Gross exposures RM'000		Net exposures RM'000	Risk Weighted Assets RM'000	Capital requirements RM'000
	Long Position RM'000	**Short Position RM'000**			
Interest rate risk	5,537,983	5,485,421	52,562	143,980	11,518
Foreign currency risk	2,125,587	2,172,913	(47,326)	50,275	4,022
Equity risk	21,153	52	21,101	58,170	4,654
Option risk	-	-	27,000	37,125	2,970
Total market risk exposures	**7,684,723**	**7,658,386**	**53,337**	**289,550**	**23,164**

(iv) Operational risk	Risk Weighted Assets	Capital requirements
	RM'000	**RM'000**
Operational risk	457,468	36,597
Total risk-weighted assets and capital requirements	**2,842,767**	**227,421**

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Table 1: Risk-Weighted Assets and Capital Requirements (Continued)

The Group

As at 31 December 2017	**Gross exposures**	**Net exposures**	**Risk Weighted Assets**	**Capital requirements**
(i) Credit risk	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Exposure Class				
On-Balance Sheet Exposures				
Sovereigns/Central Banks	2,776,977	2,776,977	4,090	327
Banks, Development Financial Institutions ("DFIs") & Multilateral Development Banks ("MDBs")	775,828	775,828	160,053	12,804
Corporates	2,830,309	2,830,309	1,621,699	129,736
Regulatory Retail	362,396	5,215	3,911	313
Other Assets	350,481	350,481	283,818	22,705
Defaulted Exposures	65,900	65,900	98,849	7,908
Total for on-balance sheet exposures	**7,161,891**	**6,804,710**	**2,172,420**	**173,793**
Off-Balance Sheet Exposures				
Over-the-counter ("OTC") derivatives	169,080	169,080	69,944	5,596
Non-OTC Derivatives	116,835	116,835	116,835	9,347
Total for off-balance sheet exposures	**285,915**	**285,915**	**186,779**	**14,943**
Total credit risk exposures	**7,447,806**	**7,090,625**	**2,359,199**	**188,736**
(ii) Large exposures risk requirements	-	-	-	-

(iii) Market risk	**Gross exposures**		**Net exposures**	**Risk Weighted Assets**	**Capital requirements**
	RM'000		**RM'000**	**RM'000**	**RM'000**
	Long Position RM'000	**Short Position RM'000**			
Interest rate risk	4,069,333	4,071,838	(2,505)	175,238	14,019
Foreign currency risk	3,220,431	3,098,386	122,045	139,400	11,152
Equity risk	47,544	-	47,544	125,607	10,049
Option risk	-	-	-	-	-
Total market risk exposures	**7,337,308**	**7,170,224**	**167,084**	**440,245**	**35,220**

(iv) Operational risk	**Risk Weighted Assets**	**Capital requirements**
	RM'000	**RM'000**
Operational risk	777,901	62,232
Total risk-weighted assets and capital requirements	**3,577,345**	**286,188**

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Table 1: Risk-Weighted Assets and Capital Requirements (Continued)
The Bank

As at 31 December 2017	**Gross exposures**	**Net exposures**	**Risk Weighted Assets**	**Capital requirements**
(i) Credit risk	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Exposure Class				
On-Balance Sheet Exposures				
Sovereigns/Central Banks	2,776,977	2,776,977	4,090	327
Banks, Development Financial Institutions ("DFIs") & Multilateral Development Banks ("MDBs")	402,271	402,271	85,320	6,826
Corporates	2,799,684	2,799,684	1,591,866	127,349
Regulatory Retail	362,396	5,215	3,911	313
Other Assets	227,727	227,727	161,065	12,885
Defaulted Exposures	65,900	65,900	98,849	7,908
Total for on-balance sheet exposures	**6,634,955**	**6,277,774**	**1,945,101**	**155,608**
Off-Balance Sheet Exposures				
Over-the-counter ("OTC") derivatives	169,080	169,080	69,944	5,596
Non-OTC Derivatives	116,835	116,835	116,835	9,347
Total for off-balance sheet exposures	**285,915**	**285,915**	**186,779**	**14,943**
Total credit risk exposures	**6,920,870**	**6,563,689**	**2,131,880**	**170,551**
(ii) Large exposures risk requirements	-	-	-	-

(iii) Market risk	**Gross exposures RM'000**		**Net exposures RM'000**	**Risk Weighted Assets RM'000**	**Capital requirements RM'000**
	Long Position RM'000	**Short Position RM'000**			
Interest rate risk	4,050,531	4,071,838	(21,307)	159,253	12,740
Foreign currency risk	3,069,917	3,098,386	(28,469)	33,967	2,717
Equity risk	40,565	-	40,565	106,415	8,513
Option risk	-	-	-	-	-
Total market risk exposures	**7,161,013**	**7,170,224**	**(9,211)**	**299,635**	**23,970**

(iv) Operational risk	**Risk Weighted Assets RM'000**	**Capital requirements RM'000**
Operational risk	410,291	32,823
Total risk-weighted assets and capital requirements	**2,841,806**	**227,344**

2.2 Capital Structure

For regulatory purposes, capital is categorised into Common Equity Tier 1 ("CET 1") Capital, Additional Tier 1 Capital and Tier 2 Capital which are described below:

CET 1 Capital
CET 1 Capital /Tier I Capital (Basel III) comprises ordinary paid-up share capital, share premium, statutory reserve, audited retained profits, other disclosed reserves, unrealised gains on FVOCI/AFS instruments and net of regulatory adjustments namely goodwill, intangible assets, 55% of unrealised gains on FVOCI/AFS instruments, deferred tax assets and investment in subsidiaries.

Share capital is the issued and fully paid share capital and there is no obligation to pay a coupon or dividend to the shareholders. Retained profits and statutory reserve are accumulated resources included in Total Equity in the Statement of Financial Position.

Additional Tier 1 Capital
The Bank's Additional Tier 1 capital comprises of qualifying non-controlling interest.

Tier 2 Capital
The Bank's Tier 2 capital comprises of collective allowance and certain regulatory deductions, including investment in subsidiaries.

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Table 2: Constituents of Eligible Capital and Capital Adequacy Ratios

	The Group		The Bank	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
	RM'000	RM'000	RM'000	RM'000
Common Equity Tier (CET) 1 Capital :				
Share capital	999,800	999,800	999,800	999,800
Foreign exchange translation reserve	593	-	-	-
Retained profit	478,948	617,401	460,221	621,003
Unrealised gains on FVOCI instruments/AFS instruments	3,968	(14,466)	3,913	(14,762)
	1,483,309	1,602,735	1,463,934	1,606,041
Less : Regulatory adjustment				
Goodwill and other Intangible assets	(323,102)	(323,801)	(315,963)	(316,969)
Investment in subsidiaries	-	-	(131,384)	(114,235)
Regulatory reserve	(28,357)	(11,790)	(28,357)	(11,790)
Deferred tax assets	(26,597)	(22,165)	(14,506)	(10,817)
Total CET 1 Capital	1,103,070	1,244,979	971,572	1,152,230
Additional Tier 1 Capital				
Qualifying non-controlling interests	19,783	9,213	-	-
Tier 1 Capital	1,122,853	1,254,192	971,572	1,152,230
Tier 2 capital				
Expected Credit Loss/Collective allowance	29,215	13,549	26,197	13,549
Less : Regulatory adjustment				
Investment in subsidiaries	-	-	-	(13,549)
Total Tier 2 capital	29,215	13,549	26,197	-
Total Capital	1,152,068	1,267,741	997,769	1,152,230
Proposed dividends	-	88,000	-	88,000
Capital Ratio				
CET 1 capital ratio	30.644%	34.802%	34.177%	40.546%
Tier 1 capital ratio	31.194%	35.059%	34.177%	40.546%
Total capital ratio	32.005%	35.438%	35.099%	40.546%
CET 1 capital ratio (net of proposed dividends)	30.644%	32.342%	34.177%	37.449%
Tier 1 capital ratio (net of proposed dividends)	31.194%	32.599%	34.177%	37.449%
Total capital ratio (net of proposed dividends)	32.005%	32.978%	35.099%	37.449%
Credit risk	2,337,222	2,359,199	2,095,749	2,131,880
Market risk	383,926	440,245	289,550	299,635
Operational risk	878,448	777,901	457,468	410,291
Total RWA	3,599,596	3,577,345	2,842,767	2,841,806

3 RISK MANAGEMENT

As a full-fledged investment bank, the Bank has established robust and comprehensive risk management policies and framework, supported by Group Risk Management Framework and Policies based on best practices, to ensure that the salient risk elements in the operations of the Bank are adequately managed and mitigated. The Bank's framework for the management of financial risks is congruent with the primary corporate objective of creating and enhancing shareholders' value, guided by a prudent and robust framework of risk management methodologies and policies.

The Bank's risk management policies and framework are reviewed periodically to ensure that they are comprehensive in addressing the multi-faceted risks associated with the investment banking sector.

The Risk Management Department ("RMD") is primarily responsible for the development and maintenance of the risk management policies and framework of the Bank and supports the functions of the Asset and Liability Committee ("ALCO"), Compliance and Risk Oversight Committee ("CROC"), Board Risk Management Committee ("BRMC") as well as Group committees of the Affin Banking Group.

Risk Governance

Appropriate risk governance structure is cascaded throughout all levels of the Bank which comprise of Board of Directors ("Board"), relevant committees, business units and support units.

The Board is ultimately responsible for assuming the risks inherent in the Bank's business activities and defining the policies for governing those activities. BRMC is responsible to support the Board in the oversight of the Bank's risk management framework and policies.

BRMC is authorised by the Board in overseeing all risk-taking activities in the Bank. Its key responsibilities involve reviewing and recommending risk management strategies, risk tolerance, new products, capital allocation process; and assessing the adequacy of risk management policies, framework, infrastructure and resources for implementation of risk strategies. For monitoring purpose, BRMC reviews periodic reports on risk exposures, risk portfolio composition and risk management activities. These reports, prepared by RMD cover credit, market, liquidity and operational risks.

At management level, CROC and ALCO assist the BRMC and the Board in their supervisory roles in the management of credit, market, liquidity, and operational risks as well as assets and liabilities management of the Bank. These two committees provide an executive forum for discussions and decisions on all aspects of credit, market, liquidity and operational risks; and assets and liabilities management matters.

Under the Credit Authority Framework approved by the Board, Group Management Credit Committee ("GMCC") and Board Credit Review Committee ("BCRC") is authorised to review and approve, reject or modify proposals for credit and underwriting applications. Impaired credits are independently managed by Credit Resolution Committee ("CRC").

Internal Audit provides reasonable assurance on the adequacy and effectiveness of internal control systems of the business and support units, examine adherence to policies and procedures and assess compliance with external laws and regulations.

RMD acts as an independent and neutral party in providing comprehensive and independent views of Bank-wide risks.

Risk Measurement

The risk measurement tools employed by the Bank are commonly used in market practices and commensurate with the size and complexity of the Bank's business operations.

Stress Testing

The Bank has deployed stress testing in assessing the impact of stressed market conditions on its capital, profit, liquidity and asset quality in accordance with the Group Stress Test Framework and Methodology.

Stress testing results are periodically reported to ALCO and BRMC to enable them to consider the implications on the Bank's overall business strategy, capital management, risk profile and to consider appropriate corrective measures when necessary. The stress testing is also performed periodically to meet both internal and regulatory external reporting requirements.

Internal Audit acts as an independent party in performing an annual review of the Bank's stress testing policy, procedures and processes including the stress scenarios used to ensure the quality and effectiveness of the programme.

The stress testing methodology covers a range of risks and business areas and there are two types of stress testing currently in use:

- Sensitivity Analysis, which moves a single risk factor by a magnitude of shock. This method can be processed relatively quickly and can be used to form a first approximation and assessment of the impact.

- Scenario Analysis, which contains simultaneous moves in a number of market risk factors (e.g. equity prices, interest rates, foreign exchange rates and etc.). A stress test scenario analysis can be based on historical scenario, hypothetical scenario, forward looking scenario and second round/spill-over effect. Scenario analysis can be performed on a portfolio-driven approach or event-driven approach.

Risk Reporting and Monitoring

The Bank's risk appetite (i.e. risk tolerance) and business plans determine the amount of risk capital set aside (i.e. risk capacity) to support its operational and market activities as well as capital allocation to respective business units. This forms a basis in setting risk limits for business units.

RMD is responsible for the monitoring and timely reporting of risk exposures against the established risk limits. Any breaches in risk limits are subject to the exception escalation procedures that aim to rectify any excesses within a reasonable time frame and within the specified authority level. There is a formal process for risk reporting to the Group Managing Director, business units, relevant management/ board committees to facilitate the making of informed decisions and strategies. BRMC reviews and monitors any significant risk issues and reports to the Board.

Risk limits are reviewed on an annual basis or as and when required, to ensure their relevance with regards to the risk taking activities of the Bank and current banking regulations.

4 CREDIT RISK

Credit risk refers to the potential risk of financial loss arising from defaults by counterparties in meeting their obligations. The Bank's exposure to credit risks arises primarily from share trading, share margin financing, corporate/inter-bank lending activities, bonds investment, foreign exchange trading, equity and debt underwriting as well as from participation in securities settlements and payment transactions.

Risk Governance

The management of credit risk is governed by a set of approved credit policies, guidelines, circulars and procedures to ensure that the overall lending objectives achieved are in compliance with the internal and regulatory requirements. The policies are subject to review by the BRMC, a sub-committee of the Board that reviews the adequacy of the Bank's risk policies and framework.

The Bank's credit risk framework is further strengthened with an established credit authority framework for the approval of new, restructured and review of loans, bond investments, debt and equity underwriting proposals. The approving authorities are Group Managing Director, Investment and Underwriting Committee, GMCC, BCRC and other authorised officers.

GMCC is established at Affin Banking Group to approve lending/financing and credit commitments whilst workout proposals for impaired credit facilities are approved by CRC. BCRC is established to assist the Board in respect of its inherent authority over the credit and underwriting proposals which are considered by the GMCC. BCRC reviews proposals that exceed specified limits and criteria and to consider whether to affirm or reject the proposal or modify the terms of the proposal.

Credit Risk Identification and Measurement

(a) <u>Corporate Credit and Financing</u>

Credit evaluation is the process of analysing the creditworthiness of the prospective customer against the Bank's underwriting criteria and the ability of the Bank to make a return commensurate to the level of risk undertaken. All corporate loans, underwritings and share margin financing applications above specified limits are evaluated by Credit Management Department ("CMD") and forwarded to the relevant approving authorities based on the Credit Authority Framework approved by Board.

A critical element in the evaluation process is the assignment of a credit risk grade to the counterparty. This assists in the risk assessment and decision making process. The Bank adopts internal rating models to support the assessment and quantification of credit risk as guided by the internal Credit Risk Grading Model. A number of relevant risk factors such as competitive position, operating performance, cash flow strength and management strength are taken into consideration when identifying and analysing counterparty credit risk.

The corporate credits and financing accounts are reviewed by the Business Units on periodic basis and independently commented by CMD to complement the risk identification, early warnings detection as well as in ensuring creditability and financial performance of the corporates where applicable to protect the Bank's position in debt recovery. Remedial action is taken where evidence of deterioration exists.

(b) Stockbroking

For stockbroking brokerage business, daily management and monitoring of credit risk associated with securities brokerage is undertaken by Credit Control team to ensure compliance with approved policies and procedures of the Bank and regulatory requirements.

In addition, RMD reviews the overall stockbroking credit exposures and CMD assess/approve trading limit proposals that exceed specified limits. The assessment is based on clients and/or dealer's representatives risk profiles, creditworthiness, past trading records and pledged collaterals.

(c) Share Margin

For share margin financing, all new margin applications as well as applications for increase in facility limits are subject to credit review by the Margin Operations. It will be forwarded to CMD for independent credit evaluation if the proposals exceed specified limits before recommending to the Approving Authorities. Credit risk exposures associated with share-margin trading are reviewed and monitored closely on daily basis by designated staff from Margin Operations, Credit Management and independently by RMD, who will review amongst others, credit limit utilization, exposure to single security or client/ group of counterparty and equity positions against collateral.

Credit Risk Limit Control

Credit risk exposures are mitigated via preventive risk management measures in limiting the exposure in accordance with the Bank's risk appetite as well as regular monitoring of credit exposures.

The Bank establishes internal limits and related lending guidelines to manage large exposures and avoid undue concentration of credit risk in its credit portfolio. The limits include single counterparty's groupings, connected parties, broad property sector, geographical and industry segments. These risks are monitored regularly and the limits reviewed annually to best reflect the bank portfolio strategy and market environment.

The credit risk exposure for derivative and loan books is managed as part of the overall lending limits with customers together with potential exposure from market movements.

Risk Reporting and Monitoring

Internal risk management reports are produced on a regular basis, providing information on credit related issues to CROC and BRMC for risk monitoring and appropriate level of management decision making.

Expected Credit Losses ('ECL')

Significant increase in credit risk

When determining whether the risk of default on a financial instrument has increased significantly since initial recognition, the Bank considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Bank’s historical experience and expert credit assessment and including forward-looking information.

The objective of the assessment is to identify whether a significant increase in credit risk has occurred for an exposure by comparing:

- the remaining lifetime probability of default (PD) as at the reporting date; with
- the remaining lifetime PD for this point in time that was estimated at the time of initial recognition of the exposure (adjusted where relevant for changes in prepayment expectations).

Credit risk grades

The Bank allocates each exposure to a credit risk grade based on a variety of data that is determined to be predictive of the risk of default and applying experienced credit judgement. Credit risk grades are defined using qualitative and quantitative factors that are indicative of risk of default. These factors vary depending on the nature of the exposure and the type of borrower.

Credit risk grades are defined and calibrated such that the risk of default occurring increases exponentially as the credit risk deteriorates so, for example, the difference in risk of default between credit risk grades 1 and 2 is smaller than the difference between credit risk grades 2 and 3.

Each exposure is allocated to a credit risk grade at initial recognition based on available information about the borrower. Exposures are subject to ongoing monitoring, which may result in an exposure being moved to a different credit risk grade. The monitoring typically takes into consideration a number of relevant factors when identifying and analysing of counterparty credit risk. These factors determines the credit rating under the Credit Risk Grading Policy, which considers factors such as competitive position, operating performance, cash flow strength and management strength.

The Bank’s internal rating scale and mapping of external ratings are set out below:

Group rating	PD range as %	Definition	Description of the grade
1	0.000 - 0.030	Highest safety	Investment grade
2	0.031 - 0.052	Very high safety	
3	0.053 - 0.089	High safety	
4	0.090 - 0.154	High safety	
5	0.155 - 0.265	High safety	
6	0.266 - 0.458	Adequate safety	Standard monitoring
7	0.459 - 0.794	Adequate safety	
8	0.795 - 1.375	Moderate safety	
9	1.376 - 2.380	Marginal safety	
10	2.381 - 4.122	Inadequate safety	
11	4.123 - 7.327	Inadequate safety	
12	7.328 - 13.024	High risk	
13	13.025 - 23.151	Higher risk	
14	23.152 - 41.142	Substantial risk	Special monitoring
15	100	Default	Default
16	100	Default	
17	100	Default	

Credit risk grades (continued)

The Bank's internal rating scale and mapping of external ratings are set out below: (continued)

Group rating	External rating scale					Description of the grade
	S&P	**Moody's**	**Fitch**	**RAM**	**MARC**	
1	AAA AA+ AA AA- A+ A	Aaa Aa1 Aa2 Aa3 A1 A2	AAA AA+ AA AA- A+ A	AAA AA1 AA2 AA3 A1 A2	AAA AA+ AA AA- A+ A	Investment
2	A-	A3	A-	A3	A1	
3	BBB+	Baa1	BBB+	BBB1	BBB+	
4	BBB	Baa2	BBB	BBB1	BBB+	
5	BBB-	Baa3	BBB-	BBB3	BBB-	
6	BB+	Ba1	BB+	BB1	BB+	Standard monitoring
7	BB	Ba2	BB	BB2	BB	
8	BB-	Ba3	BB-	BB3	BB-	
9	B+	B1	B+	B1	B+	
10	B	B2	B	B2	B	
11	B-	B3	B-	B3	B-	
12	CCC+	Caa1	CCC+	C1	C3	
13	CCC+	Caa2	CCC+	C2		
14	CCC- CC C	Caa3 Ca	CCC- CC C	C3	C3	Special monitoring
15 16 17	D	C	D	D	D	Default

Generating the term structure of PD

Credit risk grades are a primary input into the determination of the term structure of PD for exposures. The Bank collects performance and default information about its credit risk exposures analysed by jurisdiction or region and by type of product and borrower as well as by credit risk grading. For some portfolios, information from external credit reference agencies are also used.

The Bank employs statistical models to analyse the data collected and generate estimates of the remaining lifetime PD of exposures and how these are expected to change as a result of the passage of time.

This analysis includes the identification and calibration of relationships between changes in default rates and changes in key macro-economic factors as well as in-depth analysis of the impact of certain other factors (e.g. forbearance experience) on the risk of default. For most exposures, key macro-economic indicators include GDP growth, benchmark interest rates and unemployment. For exposures to specific industries and/or regions, the analysis may extend to relevant commodity and/or real estate prices.

The Group formulates a 'base case' view of the future direction of relevant economic variables as well as a representative range of other possible forecast scenarios (see discussion below on incorporation of forward-looking information). The Group then uses these forecasts to adjust its estimates of PDs.

Determining whether credit risk has increased significantly

The criteria for determining whether credit risk has increased significantly vary by portfolio and include quantitative changes in PDs and qualitative factors, including a backstop based on delinquency.

The credit risk of a particular exposure is deemed to have increased significantly since initial recognition if, based on the Bank's quantitative modelling, the remaining lifetime PD is determined to have increased by more than a predetermined percentage/range.

Using its expert credit judgement and, where possible, relevant historical experience, the Bank may determine that an exposure has undergone a significant increase in credit risk based on particular qualitative indicators that it considers are indicative of such and whose effect may not otherwise be fully reflected in its quantitative analysis on a timely basis.

Modified financial assets

The contractual terms of a loan/financing may be modified for a number of reasons, including changing market conditions, customer retention and other factors not related to a current or potential credit deterioration of the customer. An existing loan/financing whose terms have been modified may be derecognised and the renegotiated loan/financing recognised as a new loan/financing at fair value.

When the terms of a financial asset are modified and the modification does not result in derecognition, the determination of whether the asset's credit risk has increased significantly reflects comparison of:

- its remaining lifetime PD at the reporting date based on the modified terms; with
- the remaining lifetime PD estimated based on data at initial recognition and the original contractual terms.

The Bank renegotiates loans/financing to customers in financial difficulties to maximise collection opportunities and minimise the risk of default. Loan/financing forbearance is granted on a selective basis if the debtor is currently in default on its debt or if there is a high risk of default, there is evidence that the debtor made all reasonable efforts to pay under the original contractual terms and the debtor is expected to be able to meet the revised terms.

The revised terms usually include extending the maturity, changing the timing of interest payments and amending the terms of loan/financing covenants.

For financial assets modified, the estimate of PD reflects whether the modification has improved or restored the Bank's ability to collect interest and principal and the Bank's previous experience of similar forbearance action. As part of this process, the Bank evaluates the borrower's payment performance against the modified contractual terms and considers various behavioural indicators.

Generally, forbearance is a qualitative indicator of a significant increase in credit risk and an expectation of forbearance may constitute evidence that an exposure is credit-impaired. A customer needs to demonstrate consistently good payment behaviour over a period of time before the exposure is no longer considered to be credit-impaired/ in default or the PD is considered to have decreased such that the loss allowance reverts to being measured at an amount equal to 12-month ECL.

Definition of default

The Bank considers a financial asset to be in default when:

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

Definition of default (continued)

The Bank In assessing whether a borrower is in default, the Bank considers indicators that are:

- qualitative - e.g. breaches of covenant;
- quantitative - e.g. overdue status and non-payment on another obligation of the same issuer to the Bank; and
- based on data developed internally and obtained from external sources.

Inputs into the assessment of whether a financial instrument is in default and their significance may vary over time to reflect changes in circumstances.

Incorporation of forward-looking information

The Bank incorporates forward-looking information into both its assessment of whether the credit risk of an instrument has increased significantly since its initial recognition and its measurement of ECL. The Bank formulates a ‘base case’ view of the future direction of relevant economic variables as well as a representative range of other possible forecast scenarios.

This process involves developing two or more additional economic scenarios and considering the relative probabilities of each outcome. External information includes economic data and forecasts published by governmental bodies and monetary authorities in the countries where the Bank operates.

The base case represents a most-likely outcome and is aligned with information used by the Bank for other purposes such as strategic planning and budgeting. The other scenarios represent more optimistic and more pessimistic outcomes. Periodically, the Bank carries out stress testing of more extreme shocks to calibrate its determination of these other representative scenarios.

The Bank has identified and documented key drivers of credit risk and credit losses for each portfolio of financial instruments and, using an analysis of historical data, has estimated relationships between macro-economic variables and credit risk and credit losses.

Predicted relationships between the key indicators and default and loss rates on various portfolios of financial assets have been developed based on analysing historical data over the past 10 to 15 years.

Measurement of expected credit losses ('ECL')

- probability of default ('PD');
- loss given default ('LGD'); and
- exposure at default ('EAD').

These parameters are generally derived from internally developed statistical models and other historical data. They are adjusted to reflect forward-looking information as described above.

PD estimates are estimates at a certain date, which are calculated based on statistical rating models, and assessed using rating tools tailored to the various categories of counterparties and exposures. These statistical models are based on internally compiled data comprising both quantitative and qualitative factors. If a counterparty or exposure migrates between rating classes, then this will lead to a change in the estimate of the associated PD. PDs are estimated considering the contractual maturities of exposures and estimated prepayment rates.

Expected Credit Losses ('ECL') (continued)

Measurement of expected credit losses ('ECL') (continued)

LGD is the magnitude of the likely loss if there is a default. The Bank estimates LGD parameters based on the history of recovery rates of claims against defaulted counterparties. The LGD models consider the structure, collateral, seniority of the claim, counterparty industry and recovery costs of any collateral that is integral to the financial asset. LGD estimates are recalibrated for different economic scenarios. They are calculated on a discounted cash flow basis using the effective interest rate as the discounting factor.

EAD represents the expected exposure in the event of a default. The Bank derives the EAD from the current exposure to the counterparty and potential changes to the current amount allowed under the contract including amortisation. The EAD of a financial asset is its gross carrying amount. For lending commitments and financial guarantees, the EAD includes the amount drawn, as well as potential future amounts that may be drawn under the contract, which are estimated based on historical observations and forward-looking forecasts. For some financial assets, EAD is determined by modelling the range of possible exposure outcomes at various points in time using scenario and statistical techniques.

As described above, and subject to using a maximum of a 12-month PD for financial assets for which credit risk has not significantly increased, the Bank measures ECL considering the risk of default over the maximum contractual period (including any borrower’s extension options) over which it is exposed to credit risk, even if, for risk management purposes, the Bank considers a longer period. The maximum contractual period extends to the date at which the Bank has the right to require repayment of an advance or terminate a loan/financing commitment or guarantee.

Where modelling of a parameter is carried out on a collective basis, the financial instruments are grouped on the basis of shared risk characteristics that include:

- product/instrument type;
- credit risk grading;
- collateral type;
- date of initial recognition;
- remaining term to maturity;
- industry; and
- geographic location of the borrower.

The groupings are subject to regular review to ensure that exposures within a particular group remain appropriately homogeneous.

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4.1 Distribution of Credit Exposures

(i) The following table depicts the geographical distribution of the Bank's gross credit exposures, based on the country of incorporation or residence:

Table 3: Gross Credit Exposures by Geographical Distribution

The Group **As at 31 December 2018** **Exposure Class**	**Malaysia** **RM'000**	**Other Countries** **RM'000**	**Total** **RM'000**
On-Balance Sheet Exposures			
Sovereign / Central Banks	3,388,898	-	**3,388,898**
Banks, DFIs & MDBs	659,931	5,755	**665,686**
Corporates	2,750,595	79,690	**2,830,285**
Regulatory Retail	342,135	-	**342,135**
Other assets	263,629	-	**263,629**
Defaulted Exposures	75,277	14,382	**89,659**
Total On-Balance Sheet Exposures	**7,480,465**	**99,827**	**7,580,292**
Off-Balance Sheet Exposures			
OTC Derivatives	147,938	-	**147,938**
Non-OTC Derivatives	101,761	-	**101,761**
Total Off-Balance Sheet Exposures	**249,699**	**-**	**249,699**
Total Gross Credit Exposures	**7,730,164**	**99,827**	**7,829,991**

The Bank **As at 31 December 2018** **Exposure Class**	**Malaysia** **RM'000**	**Other Countries** **RM'000**	**Total** **RM'000**
On-Balance Sheet Exposures			
Sovereign / Central Banks	3,388,898	-	**3,388,898**
Banks, DFIs & MDBs	238,707	-	**238,707**
Corporates	2,714,562	70,788	**2,785,350**
Regulatory Retail	342,135	-	**342,135**
Other assets	151,411	-	**151,411**
Defaulted Exposures	75,277	14,382	**89,659**
Total On-Balance Sheet Exposures	**6,910,990**	**85,170**	**6,996,160**
Off-Balance Sheet Exposures			
OTC Derivatives	147,938	-	**147,938**
Non-OTC Derivatives	101,761	-	**101,761**
Total Off-Balance Sheet Exposures	**249,699**	**-**	**249,699**
Total Gross Credit Exposures	**7,160,689**	**85,170**	**7,245,859**

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Table 3: Gross Credit Exposures by Geographical Distribution (Continued)

The Group

As at 31 December 2017 **Exposure Class**	**Malaysia** **RM'000**	**Other Countries** **RM'000**	**Total** **RM'000**
On-Balance Sheet Exposures			
Sovereign / Central Banks	2,776,977	-	**2,776,977**
Banks, DFIs & MDBs	759,611	16,217	**775,828**
Corporates	2,757,893	72,416	**2,830,309**
Regulatory Retail	362,396	-	**362,396**
Other assets	350,481	-	**350,481**
Defaulted Exposures	65,900	-	**65,900**
Total On-Balance Sheet Exposures	**7,073,258**	**88,633**	**7,161,891**
Off-Balance Sheet Exposures			
OTC Derivatives	169,080	-	**169,080**
Non-OTC Derivatives	116,835	-	**116,835**
Total Off-Balance Sheet Exposures	**285,915**	**-**	**285,915**
Total Gross Credit Exposures	**7,359,173**	**88,633**	**7,447,806**

The Bank

As at 31 December 2017 **Exposure Class**	**Malaysia** **RM'000**	**Other Countries** **RM'000**	**Total** **RM'000**
On-Balance Sheet Exposures			
Sovereign / Central Banks	2,776,977	-	**2,776,977**
Banks, DFIs & MDBs	386,054	16,217	**402,271**
Corporates	2,727,268	72,416	**2,799,684**
Regulatory Retail	362,396	-	**362,396**
Other assets	227,727	-	**227,727**
Defaulted Exposures	65,900	-	**65,900**
Total On-Balance Sheet Exposures	**6,546,322**	**88,633**	**6,634,955**
Off-Balance Sheet Exposures			
OTC Derivatives	169,080	-	**169,080**
Non-OTC Derivatives	116,835	-	**116,835**
Total Off-Balance Sheet Exposures	**285,915**	**-**	**285,915**
Total Gross Credit Exposures	**6,832,237**	**88,633**	**6,920,870**

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(ii) The following table depicts the Bank's gross credit exposures by sector analysis or industrial distribution:

Table 4: Gross Credit Exposures by Sectorial Analysis or Industrial Distribution

The Group **As at 31 December 2018**	**Primary Agriculture**	**Mining and Quarrying**	**Manufacturing (including Agro-based)**	**Electricity, Gas and Water Supply**	**Construction**	**Wholesale, Retail Trade, Restaurants and Hotels**	**Transport, Storage and Communication**	**Finance, Insurance, Real Estate and Business Activities**	**Education, Health and Others**	**Household**	**Others**	**Total**
Exposure class	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
On-Balance Sheet Exposures												
Sovereign/Central Banks	-	-	-	235,665	522,055	-	245,046	1,163,437	999,963	-	222,732	**3,388,898**
Banks, DFIs & MDBs	-	-	-	-	-	-	-	665,686	-	-	-	**665,686**
Corporates	111,745	13,213	320,626	382,311	339,873	158,346	176,833	1,093,767	179,092	54,479	-	**2,830,285**
Regulatory Retail	634	-	11,421	-	9,471	29,543	31,728	126,859	-	132,479	-	**342,135**
Other assets	-	-	-	-	-	-	-	-	-	-	263,629	**263,629**
Defaulted Exposures	-	1,051	14,382	-	36,545	94	-	20,502	17,085	-	-	**89,659**
Total On-Balance Sheet Exposures	**112,379**	**14,264**	**346,429**	**617,976**	**907,944**	**187,983**	**453,607**	**3,070,251**	**1,196,140**	**186,958**	**486,361**	**7,580,292**
Off Balance Sheet Exposures												
OTC Derivatives	-	-	-	314	-	-	-	147,624	-	-	-	**147,938**
Non-OTC Derivatives	-	600	20,000	55,578	24,750	-	-	-	-	833	-	**101,761**
Total Off-Balance Sheet Exposures	**-**	**600**	**20,000**	**55,892**	**24,750**	**-**	**-**	**147,624**	**-**	**833**	**-**	**249,699**
Total Gross Credit Exposures	**112,379**	**14,864**	**366,429**	**673,868**	**932,694**	**187,983**	**453,607**	**3,217,875**	**1,196,140**	**187,791**	**486,361**	**7,829,991**

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Table 4: Gross Credit Exposures by Sectorial Analysis or Industrial Distribution (Continued)

The Bank As at 31 December 2018	Primary Agriculture	Mining and Quarrying	Manufacturing (including Agro-based)	Electricity, Gas and Water Supply	Construction	Wholesale, Retail Trade, Restaurants and Hotels	Transport, Storage and Communication	Finance, Insurance, Real Estate and Business Activities	Education, Health and Others	Household	Others	Total
Exposure class	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
On-Balance Sheet Exposures												
Sovereign/Central Banks	-	-	-	235,665	522,055	-	245,046	1,163,437	999,963	-	222,732	**3,388,898**
Banks, DFIs & MDBs	-	-	-	-	-	-	-	238,707	-	-	-	**238,707**
Corporates	111,745	12,402	318,237	381,279	339,873	158,346	176,014	1,053,883	179,092	54,479	-	**2,785,350**
Regulatory Retail	634	-	11,421	-	9,471	29,543	31,728	126,859	-	132,479	-	**342,135**
Other assets	-	-	-	-	-	-	-	-	-	-	151,411	**151,411**
Defaulted Exposures	-	1,051	14,382	-	36,545	94	-	20,502	17,085	-	-	**89,659**
Total On-Balance Sheet Exposures	**112,379**	**13,453**	**344,040**	**616,944**	**907,944**	**187,983**	**452,788**	**2,603,388**	**1,196,140**	**186,958**	**374,143**	**6,996,160**
Off Balance Sheet Exposures												
OTC Derivatives	-	-	-	314	-	-	-	147,624	-	-	-	**147,938**
Non-OTC Derivatives	-	600	20,000	55,578	24,750	-	-	-	-	833	-	**101,761**
Total Off-Balance Sheet Exposures	**-**	**600**	**20,000**	**55,892**	**24,750**	**-**	**-**	**147,624**	**-**	**833**	**-**	**249,699**
Total Gross Credit Exposures	**112,379**	**14,053**	**364,040**	**672,836**	**932,694**	**187,983**	**452,788**	**2,751,012**	**1,196,140**	**187,791**	**374,143**	**7,245,859**

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Table 4: Gross Credit Exposures by Sectorial Analysis or Industrial Distribution (Continued)

The Group **As at 31 December 2017**	**Primary Agriculture**	**Mining and Quarrying**	**Manufacturing (including Agro-based)**	**Electricity, Gas and Water Supply**	**Construction**	**Wholesale, Retail Trade, Restaurants and Hotels**	**Transport, Storage and Communication**	**Finance, Insurance, Real Estate and Business Activities**	**Education, Health and Others**	**Household**	**Others**	**Total**
Exposure class	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
On-Balance Sheet Exposures												
Sovereign/Central Banks	-	-	-	301,516	422,323	-	141,733	328,759	1,413,383	-	169,263	**2,776,977**
Banks, DFIs & MDBs	-	-	-	-	-	-	-	775,828	-	-	-	**775,828**
Corporates	81,465	18,821	116,699	400,847	348,097	176,474	223,657	1,142,413	196,691	125,145	-	**2,830,309**
Regulatory Retail	1,461	-	11,301	-	4,962	29,815	26,860	68,087	34,820	185,090	-	**362,396**
Other assets	-	-	-	-	-	-	-	-	-	-	350,481	**350,481**
Defaulted Exposures	-	-	-	-	36,545	153	-	29,202	-	-	-	**65,900**
Total On-Balance Sheet Exposures	**82,926**	**18,821**	**128,000**	**702,363**	**811,927**	**206,442**	**392,250**	**2,344,289**	**1,644,894**	**310,235**	**519,744**	**7,161,891**
Off Balance Sheet Exposures												
OTC Derivatives	-	-	-	-	-	-	-	169,080	-	-	-	**169,080**
Non-OTC Derivatives	-	600	65,000	15,177	31,441	-	-	2,269	2,000	348	-	**116,835**
Total Off-Balance Sheet Exposures	**-**	**600**	**65,000**	**15,177**	**31,441**	**-**	**-**	**171,349**	**2,000**	**348**	**-**	**285,915**
Total Gross Credit Exposures	**82,926**	**19,421**	**193,000**	**717,540**	**843,368**	**206,442**	**392,250**	**2,515,638**	**1,646,894**	**310,583**	**519,744**	**7,447,806**

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Table 4: Gross Credit Exposures by Sectorial Analysis or Industrial Distribution (Continued)

The Bank As at 31 December 2017	Primary Agriculture	Mining and Quarrying	Manufacturing (including Agro-based)	Electricity, Gas and Water Supply	Construction	Wholesale, Retail Trade, Restaurants and Hotels	Transport, Storage and Communication	Finance, Insurance, Real Estate and Business Activities	Education, Health and Others	Household	Others	Total
Exposure class	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
<u>On-Balance Sheet Exposures</u>												
Sovereign/Central Banks	-	-	-	301,516	422,323	-	141,733	328,759	1,413,383	-	169,263	**2,776,977**
Banks, DFIs & MDBs	-	-	-	-	-	-	-	402,271	-	-	-	**402,271**
Corporates	81,465	18,821	116,699	400,847	348,097	176,474	223,657	1,111,788	196,691	125,145	-	**2,799,684**
Regulatory Retail	1,461	-	11,301	-	4,962	29,815	26,860	68,087	34,820	185,090	-	**362,396**
Other assets	-	-	-	-	-	-	-	-	-	-	227,727	**227,727**
Defaulted Exposures	-	-	-	-	36,545	153	-	29,202	-	-	-	**65,900**
Total On-Balance Sheet Exposures	**82,926**	**18,821**	**128,000**	**702,363**	**811,927**	**206,442**	**392,250**	**1,940,107**	**1,644,894**	**310,235**	**396,990**	**6,634,955**
<u>Off Balance Sheet Exposures</u>												
OTC Derivatives	-	-	-	-	-	-	-	169,080	-	-	-	**169,080**
Non-OTC Derivatives	-	600	65,000	15,177	31,441	-	-	2,269	2,000	348	-	**116,835**
Total Off-Balance Sheet Exposures	**-**	**600**	**65,000**	**15,177**	**31,441**	**-**	**-**	**171,349**	**2,000**	**348**	**-**	**285,915**
Total Gross Credit Exposures	**82,926**	**19,421**	**193,000**	**717,540**	**843,368**	**206,442**	**392,250**	**2,111,456**	**1,646,894**	**310,583**	**396,990**	**6,920,870**

(iii) The following table depicts the Bank’s gross credit exposures analysed by residual contractual maturity analysis:

Table 5: Gross Credit Exposures by Residual Contractual Maturity Analysis

The Group

As at 31 December 2018 **Exposure class**	**< 1 year** **RM'000**	**> 1 - 5 years** **RM'000**	**Over 5 years** **RM'000**	**No specific maturity** **RM'000**	**Total** **RM'000**
On-Balance Sheet Exposures					
Sovereign/Central Banks	-	903,083	2,263,083	222,732	**3,388,898**
Banks, DFIs & MDBs	618,798	19,115	27,773	-	**665,686**
Corporates	516,572	1,589,094	522,750	201,869	**2,830,285**
Regulatory Retail	336,953	2,608	2,574	-	**342,135**
Other assets	-	-	-	263,629	**263,629**
Defaulted Exposures	94	59,470	30,095	-	**89,659**
Total On-Balance Sheet Exposures	**1,472,417**	**2,573,370**	**2,846,275**	**688,230**	**7,580,292**
Off Balance Sheet Exposures					
OTC Derivatives	62,635	85,303	-	-	**147,938**
Non-OTC Derivatives	101,468	293	-	-	**101,761**
Total Off-Balance Sheet Exposures	**164,103**	**85,596**	**-**	**-**	**249,699**
Total Gross Credit Exposures	**1,636,520**	**2,658,966**	**2,846,275**	**688,230**	**7,829,991**

The Bank

As at 31 December 2018 **Exposure class**	**< 1 year** **RM'000**	**> 1 - 5 years** **RM'000**	**Over 5 years** **RM'000**	**No specific maturity** **RM'000**	**Total** **RM'000**
On-Balance Sheet Exposures					
Sovereign/Central Banks	-	903,083	2,263,083	222,732	**3,388,898**
Banks, DFIs & MDBs	198,344	15,034	25,329	-	**238,707**
Corporates	516,572	1,585,669	512,054	171,055	**2,785,350**
Regulatory Retail	336,953	2,608	2,574	-	**342,135**
Other assets	-	-	-	151,411	**151,411**
Defaulted Exposures	94	59,470	30,095	-	**89,659**
Total On-Balance Sheet Exposures	**1,051,963**	**2,565,864**	**2,833,135**	**545,198**	**6,996,160**
Off Balance Sheet Exposures					
OTC Derivatives	62,635	85,303	-	-	**147,938**
Non-OTC Derivatives	101,468	293	-	-	**101,761**
Total Off-Balance Sheet Exposures	**164,103**	**85,596**	**-**	**-**	**249,699**
Total Gross Credit Exposures	**1,216,066**	**2,651,460**	**2,833,135**	**545,198**	**7,245,859**

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Table 5: Gross Credit Exposures by Residual Contractual Maturity Analysis (Continued)

The Group

As at 31 December 2017 Exposure class	< 1 year RM'000	> 1 - 5 years RM'000	Over 5 years RM'000	No specific maturity RM'000	Total RM'000
On-Balance Sheet Exposures					
Sovereign/Central Banks	13,789	513,976	2,079,949	169,263	**2,776,977**
Banks, DFIs & MDBs	679,760	80,825	15,243	-	**775,828**
Corporates	384,309	1,488,688	703,048	254,264	**2,830,309**
Regulatory Retail	357,455	2,446	2,495	-	**362,396**
Other assets	-	-	-	350,481	**350,481**
Defaulted Exposures	14,417	36,545	14,938	-	**65,900**
Total On-Balance Sheet Exposures	**1,449,730**	**2,122,480**	**2,815,673**	**774,008**	**7,161,891**
Off Balance Sheet Exposures					
OTC Derivatives	107,678	61,402	-	-	**169,080**
Non-OTC Derivatives	116,595	240	-	-	**116,835**
Total Off-Balance Sheet Exposures	**224,273**	**61,642**	**-**	**-**	**285,915**
Total Gross Credit Exposures	**1,674,003**	**2,184,122**	**2,815,673**	**774,008**	**7,447,806**

The Bank

As at 31 December 2017 Exposure class	< 1 year RM'000	> 1 - 5 years RM'000	Over 5 years RM'000	No specific maturity RM'000	Total RM'000
On-Balance Sheet Exposures					
Sovereign/Central Banks	13,789	513,976	2,079,949	169,263	**2,776,977**
Banks, DFIs & MDBs	306,203	80,825	15,243	-	**402,271**
Corporates	384,309	1,487,698	703,048	224,629	**2,799,684**
Regulatory Retail	357,455	2,446	2,495	-	**362,396**
Other assets	-	-	-	227,727	**227,727**
Defaulted Exposures	14,417	36,545	14,938	-	**65,900**
Total On-Balance Sheet Exposures	**1,076,173**	**2,121,490**	**2,815,673**	**621,619**	**6,634,955**
Off Balance Sheet Exposures					
OTC Derivatives	107,678	61,402	-	-	**169,080**
Non-OTC Derivatives	116,595	240	-	-	**116,835**
Total Off-Balance Sheet Exposures	**224,273**	**61,642**	**-**	**-**	**285,915**
Total Gross Credit Exposures	**1,300,446**	**2,183,132**	**2,815,673**	**621,619**	**6,920,870**

4.2 Past Due And Impaired Loans, Advances And Financing

As per MFRS 9 applied from 1 January 2018

The Group and the Bank define a loan, advances and financing as default, which is fully aligned with the definition of credit-impaired, when it meets one or more of the mandatory and/or judgmental indicators, which include amongst others, the following criteria:

(i) Mandatory indicators

- failure to make contractual payment within 90 days or 3 months of when they fall due;
- bankruptcy or winding up order issued;
- account turns fraud;
- rescheduled and/or restructured due to credit deterioration or weakness in repayment capacity of borrower;
- internal rating deteriorated to default credit grade or worse;
- financial cashflow problems, classify as stressed company with evidence of business failure by Bursa;
- collateral coverage ratio falls below 100% (for share margin financing).

(ii) Judgemental indicators

- evidence of three or more judgmental events;
- account is past due or in excess of approved limit but less than or equal to 30 days;
- non compliance with financial covenants imposed and evidence of misuse and diversion of funds or monies;
- weakened financial statements with sign of over-leveraging, erosion in capital base, deterioration in profitability and cash flow;
- credit deterioration such as adverse change in payment pattern and default in other related accounts;
- legal proceedings that have negative impact to the credit profile;
- financial statements issue or external auditor's concerns;
- sign of operational weakness or distributions arising from change in company's operations and management activities;
- company/director/management involved in fraudulent activities;
- consistently require margin call or unable to meet margin call (for share margin financing).

The Group and the Bank assess on a forward looking basis the ECL associated with loans, advances and financing. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

ECL represent a probability-weighted estimate of the difference between present value of cash flows according to contract and present value of cash flows the Group and the Bank expect to receive, over the remaining life of the loan, advance and financing.

As per MFRS 9 applied from 1 January 2018 (continued)

The measurement of ECL reflects:

- an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;
- the time value of money; and
- reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

At each reporting date, the Group and the Bank measure ECL through loss allowance at an amount equal to 12 month ECL if credit risk on the loan, advance and financing has not increased significantly since initial recognition. The Group and the Bank apply 3-stage approach on loans, advances and financing.

The measurement details of ECL is as documented under Section 4 'Credit Risk' of this report.

As per MFRS 139 applied until 31 December 2017

Loans, advances and financing are considered as past due once contractually agreed payments are due from the borrowers and not settled. Impairment means the Group and the Bank considers it probable that it will suffer a loss on a financial asset as a result of issuers'/borrowers' inability to meet their commitments according to the contractual terms and the absence of any alternative means of repayment or recovery.

The Group and the Bank assess at the end of the reporting period whether there is objective evidence that loans, advances and financing are impaired. Loans, advances and financing are impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the loans, advances and financing that can be reliably estimated.

Evidence of impairment may include indications that the loans, advances and financing are experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation, and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

The criteria that the Group and the Bank use to determine that there is objective evidence of an impairment loss include among others as follows:

(i) Loans

For individual impairment assessment, impairment loss is measured as the difference between the asset's carrying amount and its present values of estimated future cash flows discounted at the asset's original effective interest rate. The amount of impairment loss shall be recognised in the income statement. For collateralised loans, the Bank will estimate future cash flows from the collateral or/and other sources of repayment.

(ii) Share Margin Financing

For individual impairment assessment, impairment loss is recognised when the equity ratio (collateral to outstanding amounts) of the margin account falls below the threshold set by the Bank. Impairment loss is measured as the difference between the asset's carrying amount (net of collateral and interest-in-suspense) and its present values of estimated future cash flows discounted at the asset's original effective interest rate. The amount of impairment loss shall be recognised in the income statement.

As per MFRS 139 applied until 31 December 2017 (continued)

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the reversal of the previously recognised impairment loss is recognised in profit or loss.

For the purposes of a collective evaluation of impairment, loans, advances and financing are grouped on the basis of similar credit risk characteristics. Those characteristics are relevant to the estimation of future cash flows for groups of such loans, advances and financing by being indicative of the borrowers' ability to pay all amounts due according to the contractual terms of the loans being evaluated.

Future cash flows in a group of loans that are collectively evaluated for impairment are estimated on the basis of the contractual cash flows of the loans in the Bank and historical loss experience for loans with credit risk characteristics similar to those in the Bank. Historical loss experience is adjusted on the basis of current observable data to reflect the effects of current conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not currently exist.

Regulatory reserve requirements

Pursuant to BNM letter dated 1 November 2017, effective from 1 January 2018, the Bank shall maintain, in aggregate, Stage 1 and Stage 2 provisions and regulatory reserves of no less than 1% of all credit exposures (on and off balance sheet that are subject to MFRS 9 impairment requirement, excluding exposures to and with an explicit guarantee from Malaysian Government) net of Stage 3 provision.

Prior to MFRS 9 implementation, the Bank was required to maintain in aggregate collective impairment allowances and regulatory reserves of no less than 1.2% of the total outstanding loans, advances and financing, net of individual impairment allowances.

(i) The sectorial analysis of past due and impaired loans, advances and financing and the individual and collective impairment loan provisions by sectors are depicted below:

Table 6: Past Due and Impaired Loans, Advances and Financing by Sectorial Analysis

Past Due And Impaired Loans, Advances And Financing

The Group and The Bank As at 31 December 2018 By Sector	12 Month ECL Stage 1 RM'000	Lifetime ECL non Credit Impaired Stage 2 RM'000	Lifetime ECL Credit Impaired Stage 3 RM'000	Total* RM'000
Primary Agriculture	-	-	-	**-**
Mining and Quarrying	-	-	2,581	**2,581**
Manufacturing (including Agro-based)	-	-	-	**-**
Electricity, Gas and Water Supply	-	-	-	**-**
Construction	-	-	36,545	**36,545**
Wholesale, Retail Trade, Restaurants and Hotels	-	-	94	**94**
Transport, Storage and Communication	-	13,541	-	**13,541**
Finance, Insurance, Real Estate and Business Activities	-	-	20,502	**20,502**
Education, Health and Others	-	-	21,125	**21,125**
Household	-	-	4	**4**
Others	-	-	-	**-**
Total	**-**	**13,541**	**80,851**	**94,392**

* Impaired and past due loans, advances and financing form a subset of gross credit exposures.

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Table 6: Past Due and Impaired Loans, Advances and Financing by Sectorial Analysis (Continued)

Expected Credit Losses (ECL)

The Group and The Bank **As at 31 December 2018**	**12 Month ECL Stage 1**	**Lifetime ECL non Credit Impaired Stage 2**	**Lifetime ECL Credit Impaired Stage 3**	**Total**
By Sector	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Primary Agriculture	205	-	-	**205**
Mining and Quarrying	-	-	1,530	**1,530**
Manufacturing (including Agro-based)	868	-	-	**868**
Electricity, Gas and Water Supply	81	-	-	**81**
Construction	279	-	-	**279**
Real Estate	1,008	-	-	**1,008**
Wholesale and Retail Trade	228	-	-	**228**
Restaurants and Hotels	-	-	-	**-**
Transport, Storage and Communication	1,076	223	-	**1,299**
Finance, Insurance and Business Activities	15	-	-	**15**
Education, Health and Others	-	-	4,039	**4,039**
Household	305	-	4	**309**
Others	-	-	-	**-**
Total	**4,065**	**223**	**5,573**	**9,861**

(i) The sectorial analysis of past due and impaired loans, advances and financing and the individual and collective impairment loan provisions by sectors are depicted below:

Table 6: Past Due Loans, Advances and Financing by Sectorial Analysis

The Group and The Bank **As at 31 December 2017** **By Sector**	**Impaired loans, advances and financing*** **RM'000**	**Individual assessment allowance** **RM'000**	**Collective assessment allowance** **RM'000**	**Total Impairment Allowance for Loans, Advances and Financing** **RM'000**
Primary Agriculture	-	-	-	**-**
Mining and Quarrying	-	-	15	**15**
Manufacturing (including Agro-based)	36,545	-	734	**734**
Electricity, Gas and Water Supply	-	-	-	**-**
Construction	-	-	140	**140**
Wholesale, Retail Trade, Restaurants and Hotels	153	-	75	**75**
Transport, Storage and Communication	-	-	219	**219**
Finance, Insurance, Real Estate and Business Activities	29,202	-	1,094	**1,094**
Education, Health and Others	-	-	164	**164**
Household	10	10	305	**315**
Others	-	-	-	**-**
Total	**65,910**	**10**	**2,746**	**2,756**

* Impaired and past due loans, advances and financing form a subset of gross credit exposures.

(ii) The geographic analysis of past due and impaired loans, advances and financing and the individual and collective impairment loan allowances by geographical distribution can be analysed as follows:

Table 7: Past Due And Impaired Loans, Advances And Financing By Geographical Distribution

Past Due And Impaired Loans, Advances And Financing

The Group and The Bank As at 31 December 2018	12 Month ECL Stage 1	Lifetime ECL non Credit Impaired Stage 2	Lifetime ECL Credit Impaired Stage 3	Total
By Geographical Distribution	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Malaysia	-	13,541	80,851	**94,392**
Other Countries	-	-	-	**-**
Total	**-**	**13,541**	**80,851**	**94,392**

Expected Credit Losses (ECL)

The Group and The Bank As at 31 December 2018	12 Month ECL Stage 1	Lifetime ECL non Credit Impaired Stage 2	Lifetime ECL Credit Impaired Stage 3	Total
By Geographical Distribution	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Malaysia	4,065	223	5,573	**5,796**
Other Countries	-	-	-	**-**
Total	**4,065**	**223**	**5,573**	**5,796**

The Group and the Bank As at 31 December 2017	Past due loans, advances and financing*	Impaired loans, advances and financing*	Individual assessment allowance on impaired loans, advances and financing	Collective assessment allowance	Total Impairment Allowance for Loans, Advances and Financing
By Geographical Distribution	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Malaysia	-	65,910	10	2,746	**2,756**
Other Countries	-	-	-	-	**-**
Total	**-**	**65,910**	**10**	**2,746**	**2,756**

* Impaired and past due loans, advances and financing form a subset of gross credit exposures.

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(iii) The table below depicts the movement of impairment allowances:

Table 8: Reconciliation of Changes In Loan Impairment Allowances

	The Group and the Bank	
	31.12.2018 RM'000	31.12.2017 RM'000
Individual Allowance		
As at beginning of the financial period	10	18,176
Effect of adoption of MFRS 9	(10)	-
At beginning of the financial period, as restated	-	18,176
Allowance made during the financial year	-	13
Amount written off	-	(18,176)
Amount written-back	-	(3)
At end of financial period	-	10
Collective Allowance		
As at beginning of the financial year	2,746	3,323
Effect of adoption of MFRS 9	(2,746)	-
At beginning of the financial period, as restated	-	3,323
Allowance made during the financial period	-	542
Amount written back	-	(1,119)
At end of financial period	-	2,746
Direct Income Statement Impacts		
Direct write offs	-	-
Direct recoveries	-	1,122

The Group and the Bank

	Total 31.12.2018 RM'000	12 months ECL Stage 1 31.12.2018 RM'000	Lifetime ECL non Credit Impaired Stage 2 31.12.2018 RM'000	Lifetime ECL Credit Impaired Stage 3 31.12.2018 RM'000
Expected credit loss				
At beginning of the financial year, on adoption of MFRS 9	**6,541**	5,756	775	10
Total transfer between stages	**-**	(758)	(3,461)	4,219
Loans/Financing derecognised during the financial year (other than write-offs)	**(2,327)**	(1,889)	(438)	-
New loans/financing originated or purchased	**2,168**	2,168	-	-
Changes due to change in credit risk	**3,462**	(1,229)	3,347	1,344
Other adjustments				
- Foreign exchange and other adjustments	**17**	17	-	-
At the end of the financial year	**9,861**	**4,065**	**223**	**5,573**

4.3 Credit Risk Assessment Under Standardised Approach

In the assessment of credit risk under the Standardised Approach, the Bank is guided by BNM's pre-determined risk weights for certain classes of exposure that uses external ratings issued by an ECAI recognised by BNM.

The ECAIs recognised by BNM are as follows:

- Standard & Poor’s Rating Services (“S&P”)
- Moody’s Investors Service (“Moody’s”)
- Fitch Ratings (“Fitch”)
- Rating and Investment Information, Inc. (R&I)
- RAM Rating Services Berhad (“RAM”)
- Malaysian Rating Corporation Berhad (“MARC”)

The ratings of the above ECAIs are used in the credit risk assessment for the following classes of exposure:

- Sovereigns and Central Banks
- Banking Institutions
- Corporates
- Insurance Companies, Securities Firms and Fund Managers

If more than one rating is available for a specific exposure, the selection criteria as set out under the Single and Multiple Assessment in BNM RWCAF is applied in determining the relevant risk weight for the capital calculation. An exposure cannot be assigned with a risk weight that is lower than that of the sovereign risk of the country in which the asset is located. Where a rating is not available, the Bank follows the provisions stipulated under BNM RWCAF and deems the exposure as unrated.

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4.3 Credit Risk Assessment Under Standardised Approach

(i) Credit Exposure By Risk Weights

The following table depicts the credit risk exposure of the Bank by risk weight:

Table 9: Credit Risk Exposure by Risk Weight

Exposure after netting and credit risk mitigation

The Group As at 31 December 2018	Sovereign / Central Banks	Banks, DFIs & MDBs	Corporates	Regulatory Retail	Other Assets	Default (On Balance Sheet)	OTC Derivatives	Non-OTC Derivatives	Total Exposures after Netting & Credit Risk Mitigation	Total Risk Weighted Assets
Risk Weights	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
0%	3,368,746	-	-	-	119	-	-	-	3,368,865	-
20%	20,152	659,118	1,439,218	-	40,142	-	97,648	-	2,256,278	451,256
50%	-	6,568	36,669	-	-	1,051	6,051	-	50,339	25,170
75%	-	-	-	5,492	-	-	-	-	5,492	4,119
100%	-	-	1,354,398	-	223,367	-	44,239	101,761	1,723,765	1,723,765
150%	-	-	-	-	-	88,608	-	-	88,608	132,912
Total	**3,388,898**	**665,686**	**2,830,285**	**5,492**	**263,628**	**89,659**	**147,938**	**101,761**	**7,493,347**	**2,337,222**
Deduction from total capital	-	-	-	-	-	-	-	-	-	-
Average risk weight										**31.19%**

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Table 9: Credit Risk Exposure by Risk Weight (Continued)

Exposure after netting and credit risk mitigation

The Bank As at 31 December 2018 Risk Weights	Sovereign / Central Banks RM'000	Banks, DFIs & MDBs RM'000	Corporates RM'000	Regulatory Retail RM'000	Other Assets RM'000	Default (On Balance Sheet) RM'000	OTC Derivatives RM'000	Non-OTC Derivatives RM'000	Total Exposures after Netting & Credit Risk Mitigation RM'000	Total Risk Weighted Assets RM'000
0%	3,368,746	-	-	-	42	-	-	-	3,368,788	-
20%	20,152	238,707	1,438,019	-	40,142	-	97,648	-	1,834,668	366,934
50%	-	-	32,652	-	-	1,051	6,051	-	39,754	19,877
75%	-	-	-	5,492	-	-	-	-	5,492	4,119
100%	-	-	1,314,680	-	111,227	-	44,239	101,761	1,571,907	1,571,907
150%	-	-	-	-	-	88,608	-	-	88,608	132,912
Total	**3,388,898**	**238,707**	**2,785,351**	**5,492**	**151,411**	**89,659**	**147,938**	**101,761**	**6,909,217**	**2,095,749**
Deduction from total capital	-	-	-	-	131,384	-	-	-	131,384	-
Average risk weight										**30.33%**

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Table 9: Credit Risk Exposure by Risk Weight (Continued)

Exposure after netting and credit risk mitigation

The Group As at 31 December 2017	Sovereign / Central Banks	Banks, DFIs & MDBs	Corporates	Regulatory Retail	Other Assets	Default (On Balance Sheet)	OTC Derivatives	Non-OTC Derivatives	Total Exposures after Netting & Credit Risk Mitigation	Total Risk Weighted Assets
Risk Weights	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
0%	2,756,528	-	-	-	39	-	-	-	2,756,567	-
20%	20,449	759,537	1,495,317	-	83,281	-	121,171	-	2,479,755	495,951
50%	-	16,291	24,712	-	-	-	4,400	-	45,403	22,702
75%	-	-	-	5,215	-	-	-	-	5,215	3,911
100%	-	-	1,310,280	-	267,161	-	43,509	116,835	1,737,785	1,737,785
150%	-	-	-	-	-	65,900	-	-	65,900	98,850
Total	**2,776,977**	**775,828**	**2,830,309**	**5,215**	**350,481**	**65,900**	**169,080**	**116,835**	**7,090,625**	**2,359,199**
Deduction from total capital	-	-	-	-	-	-	-	-	-	-
Average risk weight										**33.27%**

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Table 9: Credit Risk Exposure by Risk Weight (Continued)

Exposure after netting and credit risk mitigation

The Bank As at 31 December 2017 Risk Weights	Sovereign / Central Banks RM'000	Banks, DFIs & MDBs RM'000	Corporates RM'000	Regulatory Retail RM'000	Other Assets RM'000	Default (On Balance Sheet) RM'000	OTC Derivatives RM'000	Non-OTC Derivatives RM'000	Total Exposures after Netting & Credit Risk Mitigation RM'000	Total Risk Weighted Assets RM'000
0%	2,756,528	-	-	-	37	-	-	-	2,756,565	-
20%	20,449	386,054	1,494,327	-	83,281	-	121,171	-	2,105,282	421,056
50%	-	16,217	24,712	-	-	-	4,400	-	45,329	22,665
75%	-	-	-	5,215	-	-	-	-	5,215	3,911
100%	-	-	1,280,645	-	144,409	-	43,509	116,835	1,585,398	1,585,398
150%	-	-	-	-	-	65,900	-	-	65,900	98,850
Total	**2,776,977**	**402,271**	**2,799,684**	**5,215**	**227,727**	**65,900**	**169,080**	**116,835**	**6,563,689**	**2,131,880**
Deduction from total capital	-	-	-	-	127,784	-	-	-	127,784	-
Average risk weight										**32.48%**

(ii) Credit Exposure By Risk Weight (Long Term Rating)

The following is a summary of the prescribed rules governing the Standardised Approach for rated, unrated and preferential / special risk weight of the exposures..

Table 10A: Long Term Credit Rating Category by External Credit Assessment Institution under Standardised Approach

Rating Category	External Credit Assessment Institutions (ECAIs)					
	S&P	Moody's	Fitch	R&I	RAM	MARC
1	AAA to AA-	Aaa to Aa3	AAA to AA-	AAA to AA-	AAA to AA3	AAA to AA-
2	A+ to A-	A1 to A3	A+ to A-	A+ to A-	A1 to A3	A+ to A-
3	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-	BBB+ to BBB-	BBB1 to BBB3	BBB+ to BBB-
4	BB+ to B-	Ba1 to B3	BB+ to B-	BB+ to B-	BB1 to B3	BB+ to B-
5	CCC+ to D	Caa1 to C	CCC+ to D	CCC+ to C	C1 to D	C+ to D
Unrated	Unrated					

Table 10B: Long term Credit Rating Risk Weight Category by External Credit Assessment Institution under Standardised Approach for Banking Institution, Corporate and Sovereign & Central Bank

Rating Category	Risk weights based on Credit Ratings of the Counterparty Exposure Class		
	Banking Institutions	Corporate	Sovereign & Central Bank
1	20%	20%	0%
2	50%	50%	20%
3	50%	100%	50%
4	100%	150%	100%
5	150%	150%	150%
Unrated	50%	100%	100%

Table 11: Preferential / Special Risk Weight Allocation under Standardised Approach (for Long Term & Short Term)

	Exposure Category	**Risk Weight**
1	Exposures including debts securities issued by or guaranteed by Federal Government of Malaysia and/or Bank Negara Malaysia denominated and funded in Ringgit Malaysia	0%
2	Cash & Gold	0%
3	Investment in the ABF Malaysia Bond Index Fund	0%
4	Exposure on Bank for International Settlements, International Monetary Fund, European Central Bank & European	0%
5	Exposure to Multilateral Development Banks specified by Basel Committee of Banking Supervision	0%
6	Exposures including debts securities issued by or guaranteed by Federal Government and/or Central Bank denominated and funded in foreign currency	20%
7	Exposure to local Stock Exchange & Clearing House	20%
8	Unit Trust & Property Trust Fund	100%
9	Publicly Traded Equity Investment in Banking Book	100%
10	Equity held for socio-economic purpose	100%
11	Investment in Subsidiaries (other commercial entities)	1250%

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The following table shows rated and unrated exposure to Banking Institution, Corporate and Sovereign and Central Banks using of long term ratings by the external credit assessment institutions (ECAIs) and Preferential Risk Weight.

Table 12: Gross Credit Risk Exposure (Long Term)

The Group						**Risk Weighted Allocation**								
As at 31 December 2018	**Rated**					**Preferential / Special Risk Weight**			**Unrated**					
Risk Weights	**0%**	**20%**	**50%**	**100%**	**150%**	**0%**	**20%**	**100%**	**20%**	**50%**	**75%**	**100%**	**150%**	**Total**
	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**	**RM'000**
Categories of Exposure														
On and Off Balance-Sheet Exposures														
Sovereign and Central Banks	-	20,152	-	-	-	3,368,746	-	-	-	-	-	-	-	**3,388,898**
Banks, DFIs and MDBs	-	746,719	22,666	-	-	-	-	-	-	-	-	-	-	**769,385**
Credit Exposures (using Corporate Risk Weights)														
Insurance Companies, Securities Firms & Fund Managers	-	-	-	-	-	-	-	-	-	-	-	3,592	-	**3,592**
Corporates	-	1,439,222	36,669	8,084	-	-	z	-	-	-	-	1,488,718	-	**2,972,693**
Regulatory Retail	-	-	-	-	-	-	-	-	-	-	342,135	-	-	**342,135**
Other Assets	-	-	-	-	-	42	-	-	40,142	-	-	223,445	-	**263,629**
Defaulted Exposures	-	-	-	-	-	-	-	-	-	1,051	-	-	88,608	**89,659**
Total	**-**	**2,206,093**	**59,335**	**8,084**	**-**	**3,368,788**	**-**	**-**	**40,142**	**1,051**	**342,135**	**1,715,755**	**88,608**	**7,829,991**

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Table 12: Gross Credit Risk Exposure (Long Term) (Continued)

The Bank						**Risk Weighted Allocation**								
As at 31 December 2018	**Rated**					**Preferential / Special Risk Weight**			**Unrated**					
Risk Weights	**0%**	**20%**	**50%**	**100%**	**150%**	**0%**	**20%**	**100%**	**20%**	**50%**	**75%**	**100%**	**150%**	**Total**
	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**	**RM'000**
Categories of Exposure														
On and Off Balance-Sheet Exposures														
Sovereign and Central Banks	-	20,152	-	-	-	3,368,746	-	-	-	-	-	-	-	**3,388,898**
Banks, DFIs and MDBs	-	326,308	16,098	-	-	-	-	-	-	-	-	-	-	**342,406**
Credit Exposures (using Corporate Risk Weights)														
Insurance Companies, Securities Firms & Fund Managers	-	-	-	-	-	-	-	-	-	-	-	3,592	-	**3,592**
Corporates	-	1,438,018	32,652	-	-	-	-	-	-	-	-	1,457,088	-	**2,927,758**
Regulatory Retail	-	-	-	-	-	-	-	-	-	-	342,135	-	-	**342,135**
Other Assets	-	-	-	-	-	42	-	-	40,142	-	-	111,227	-	**151,411**
Defaulted Exposures	-	-	-	-	-	-	-	-	-	1,051	-	-	88,608	**89,659**
Total	**-**	**1,784,478**	**48,750**	**-**	**-**	**3,368,788**	**-**	**-**	**40,142**	**1,051**	**342,135**	**1,571,907**	**88,608**	**7,245,859**

Table 12: Gross Credit Risk Exposure (Long Term) (Continued)

The Group	Risk Weighted Allocation													
As at 31 December 2017	**Rated**					**Preferential / Special Risk Weight**			**Unrated**					
Risk Weights	**0%**	**20%**	**50%**	**100%**	**150%**	**0%**	**20%**	**100%**	**20%**	**50%**	**75%**	**100%**	**150%**	**Total**
	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**	**RM'000**
Categories of Exposure														
On and Off Balance-Sheet Exposures														
Sovereign and Central Banks	-	-	-	-	-	2,756,528	20,449	-	-	-	-	-	-	**2,776,977**
Banks, DFIs and MDBs	-	880,709	20,690	-	-	-	-	-	-	-	-	-	-	**901,399**
Credit Exposures (using Corporate Risk Weights)														
Insurance Companies, Securities Firms & Fund Managers	-	-	-	-	-	-	-	-	-	-	-	6,465	-	**6,465**
Corporates	-	1,495,317	24,712	101,642	-	-	-	-	-	-	-	1,362,517	-	**2,984,188**
Regulatory Retail	-	-	-	-	-	-	-	-	-	-	362,396	-	-	**362,396**
Other Assets	-	-	-	-	-	37	-	-	-	-	-	350,444	-	**350,481**
Defaulted Exposures	-	-	-	-	-	-	-	-	-	-	-	-	65,900	**65,900**
Total	**-**	**2,376,026**	**45,402**	**101,642**	**-**	**2,756,565**	**20,449**	**-**	**-**	**-**	**362,396**	**1,719,426**	**65,900**	**7,447,806**

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Table 12: Gross Credit Risk Exposure (Long Term) (Continued)

The Bank						**Risk Weighted Allocation**								
As at 31 December 2017			**Rated**			**Preferential / Special Risk Weight**					**Unrated**			
Risk Weights	**0%**	**20%**	**50%**	**100%**	**150%**	**0%**	**20%**	**100%**	**20%**	**50%**	**75%**	**100%**	**150%**	**Total**
	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**	**RM'000**
Categories of Exposure														
On and Off Balance-Sheet Exposures														
Sovereign and Central Banks	-	-	-	-	-	2,756,528	20,449	-	-	-	-	-	-	**2,776,977**
Banks, DFIs and MDBs	-	507,225	20,617	-	-	-	-	-	-	-	-	-	-	**527,842**
Credit Exposures (using Corporate Risk Weights)														
Insurance Companies, Securities Firms & Fund Managers	-	-	-	-	-	-	-	-	-	-	-	6,465	-	**6,465**
Corporates	-	1,494,327	24,712	101,642	-	-	-	-	-	-	-	1,332,882	-	**2,953,563**
Regulatory Retail	-	-	-	-	-	-	-	-	-	-	362,396	-	-	**362,396**
Other Assets	-	-	-	-	-	37	-	-	-	-	-	227,690	-	**227,727**
Defaulted Exposures	-	-	-	-	-	-	-	-	-	-	-	-	65,900	**65,900**
Total	**-**	**2,001,552**	**45,329**	**101,642**	**-**	**2,756,565**	**20,449**	**-**	**-**	**-**	**362,396**	**1,567,037**	**65,900**	**6,920,870**

(iii) Credit Exposure By Risk Weight (Short Term Rating)

The following is summary of the prescribed rules governing the Standardised Approach for rated, unrated and preferential risk weight of the exposures.

Table 13: Short term Credit Rating Category by External Credit Assessment Institution under Standardised Approach

Rating Category	External Credit Assessment Institutions (ECAIs)					
	S&P	**Moody's**	**Fitch**	**R&I**	**RAM**	**MARC**
1	A-1	P-1	F1+. F1	a-1+, a-1	P-1	MARC-1
2	A-2	P-2	F2	a-2	P-2	MARC-2
3	A-3	P-3	F3	a-3	P-3	MARC-3
4	Others	Others	B to D	b, c	NP	MARC-4

Table 14: Short term Credit Rating Risk Weight Category by ECAIs under Standardised Approach for Banking Institution and Corporate

Rating Category	Risk weights based on Credit Ratings of the Counterparty Exposure Class	
	Banking Institutions	**Corporate**
1	20%	20%
2	50%	50%
3	100%	100%
4	150%	150%

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The following table shows rated and unrated exposure to Banking Institution, Corporate and Sovereign and Central Banks using of short term ratings by the external credit assessment institutions (ECAIs) and Preferential Risk Weight / Special Risk Weight.

Table 15: Rated and Unrated Gross Credit Risk Exposure (Short Term Rating)

The Group and the Bank	**Risk Weighted Allocation**										
As at 31 December 2018	**Rated**					**Preferential / Special Risk Weight**			**Unrated**		
Risk Weights	**0%**	**20%**	**50%**	**100%**	**150%**	**0%**	**20%**	**100%**	**50%**	**100%**	**Total**
	RM'000	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Categories of Exposure											
On and Off Balance-Sheet Exposures											
Sovereign and Central Banks	-	-	-	-	-	-	-	-	-	-	-
Banks, DFIs and MDBs	-	-	-	-	-	-	-	-	-	-	-
Credit Exposures (using Corporate Risk Weights)											-
Insurance Companies, Securities Firms & Fund											-
Managers	-	-	-	-	-	-	-	-	-	-	-
Corporates	-	-	-	-	-	-	-	-	-	-	-
Regulatory Retail	-	-	-	-	-	-	-	-	-	-	-
Other Assets	-	-	-	-	-	-	-	-	-	-	-
Defaulted Exposures	-	-	-	-	-	-	-	-	-	-	-
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

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Table 15: Rated and Unrated Gross Credit Risk Exposure (Short Term Rating) (Continued)

The Group and the Bank	**Risk Weighted Allocation**										
As at 31 December 2017	**Rated**					**Preferential / Special Risk Weight**			**Unrated**		
Risk Weights	**0%**	**20%**	**50%**	**100%**	**150%**	**0%**	**20%**	**100%**	**50%**	**100%**	**Total**
	RM'000	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Categories of Exposure											
On and Off Balance-Sheet Exposures											
Sovereign and Central Banks	-	-	-	-	-	-	-	-	-	-	-
Banks, DFIs and MDBs	-	-	-	-	-	-	-	-	-	-	-
Credit Exposures (using Corporate Risk Weights)											-
Insurance Companies, Securities Firms & Fund											-
Managers	-	-	-	-	-	-	-	-	-	-	-
Corporates	-	-	-	-	-	-	-	-	-	-	-
Regulatory Retail	-	-	-	-	-	-	-	-	-	-	-
Other Assets	-	-	-	-	-	-	-	-	-	-	-
Defaulted Exposures	-	-	-	-	-	-	-	-	-	-	-
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

4.4 Credit Risk Mitigation Techniques Under Standardised Approach

The Bank uses a variety of techniques to mitigate credit risk, one of which is to evaluate and assess the creditworthiness and ability of a customer to service the debt facility without distress.

The Bank commonly obtains securities as collateral for loan and stockbroking trading portfolio. The Bank ensures that the collateral held is sufficiently liquid, legally effective, enforceable and regularly valued.

The Bank proactively manages its credit exposures and when weaknesses in exposures are detected either in individual exposures or in groups of exposures, prompt action is taken to mitigate the risks. These include steps to manage the exposure through discussion with the customers, borrowers, dealers' representatives or other relevant counterparties.

The Bank also uses legal agreements to reduce credit risk, including netting agreements which permits it to offset positive and negative balances with the same counterparties to minimise the exposure, financial guarantees and use of covenants in loan agreements.

Credit risk mitigation to address risk concentration takes several dimension, in which limits are set and monitored for individual and group counterparty level:

- Limits are set against all types of exposure to a counterparty name, in accordance with an agreed methodology for each exposure type, i.e. on and off balance sheet exposures. This includes credit risk exposure on individual derivative transactions, which incorporates potential future exposures from market movements.

- Aggregate facility levels by counterparty are set and monitored in accordance to regulatory requirement. Any limit breaches are subject to escalation procedures.

- Credit risk management includes control and review on sector exposures (for corporate loans and debt securities) to reflect the Bank’s risk appetite and managing exposures to high risk and more vulnerable sectors and unfavourable rated debt securities. Exposures are monitored to prevent excessive concentration of risk.

- The Bank has limited exposure to external country risks as most of its exposures are concentrated in Malaysia.

Collateral

The Bank maintains guidelines on the acceptability of specific classes of collateral. The principal collateral types for loans and stockbroking trading accounts are:

- cash or deposits;
- debt securities and equities; and
- land or properties.

To mitigate credit risk while dealing in derivative products, the Bank makes use of margining arrangements under International Swap and Derivative Association (“ISDA”) agreements, in which both counterparties are required to post collateral in the form of cash or liquid securities permitted under the agreements with applicable haircut as appropriate to cover outstanding trading positions if margining thresholds stated under Credit Support Annex (“CSA”) of the ISDA Agreement are breached.

4.4 Credit Risk Mitigation Techniques Under Standardised Approach (Continued)

It is the Bank's policy that collateral should be valued by an independent qualified source at inception. Collateral is reviewed on a regular basis in accordance with the credit policies applicable for Affin Banking Group, which will vary according to the type of exposures and collateral involved.

Tracking and controls over receipt and withdrawal of collaterals are maintained by a department independent from the business unit. For the collaterals in the form of securities, these are safeguarded by the custodian appointed by the Bank.

In order to minimise the credit loss, the Bank may seek additional collateral from the counterparty as soon as impairment indicators are identified for the relevant individual loans or when dealers' representatives have deficit cash collateral due to the deduction of cash collaterals against clients' overdue contra losses and interests under stockbroking trading accounts.

Guarantees

A guarantee is a legally binding contractual commitment made to the Bank that ensures that the guarantor is legally responsible to meet the obligations of a borrower in the event the borrower fails to pay.

The following table depicts the Bank's exposures covered by guarantees and collaterals:

Table 16: Exposures Covered by Credit Risk Mitigation

The Group **As at 31 December 2018**	**Exposures before CRM** **RM'000**	**Exposures Covered by Guarantees** **RM'000**	**Exposures Covered by Eligible Financial Collateral** **RM'000**	**Exposures Covered by Other Eligible Collateral** **RM'000**
Exposure Class				
On-Balance Sheet Exposures				
Sovereigns/Central Banks	3,388,898	-	-	-
Banks, DFIs and MDBs	665,686	-	-	-
Corporates	2,830,285	-	-	-
Regulatory Retail	342,135	-	336,643	-
Other assets	263,629	-	-	-
Defaulted exposures	89,659	-	-	-
Total On-Balance Sheet Exposures	**7,580,292**	**-**	**336,643**	**-**
Off-Balance Sheet Exposures				
Over-the-counter ("OTC") derivatives	147,938	-	-	-
Non-OTC Derivatives	101,761	-	-	-
Total Off-Balance Sheet Exposures	**249,699**	**-**	**-**	**-**
Total Gross Credit Exposures	**7,829,991**	**-**	**336,643**	**-**

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Table 16: Exposures Covered by Credit Risk Mitigation (Continued)

The Bank **As at 31 December 2018**	**Exposures before CRM**	**Exposures Covered by Guarantees**	**Exposures Covered by Eligible Financial Collateral**	**Exposures Covered by Other Eligible Collateral**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Exposure Class				
On-Balance Sheet Exposures				
Sovereigns/Central Banks	3,388,898	-	-	-
Banks, DFIs and MDBs	238,707	-	-	-
Corporates	2,785,350	-	-	-
Regulatory Retail	342,135	-	336,643	-
Other assets	151,411	-	-	-
Defaulted exposures	89,659	-	-	-
Total On-Balance Sheet Exposures	**6,996,160**	**-**	**336,643**	**-**
Off-Balance Sheet Exposures				
Over-the-counter ("OTC") derivatives	147,938	-	-	-
Non-OTC Derivatives	101,761	-	-	-
Total Off-Balance Sheet Exposures	**249,699**	**-**	**-**	**-**
Total Gross Credit Exposures	**7,245,859**	**-**	**336,643**	**-**

Table 16: Exposures Covered by Credit Risk Mitigation (Continued)

Table 16: Exposures Covered by Credit Risk Mitigation

The Group **As at 31 December 2017**	**Exposures before CRM**	**Exposures Covered by Guarantees**	**Exposures Covered by Eligible Financial Collateral**	**Exposures Covered by Other Eligible Collateral**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Exposure Class				
On-Balance Sheet Exposures				
Sovereigns/Central Banks	2,776,977	-	-	-
Banks, DFIs and MDBs	775,828	-	-	-
Corporates	2,830,309	-	-	-
Regulatory Retail	362,396	-	357,181	-
Other assets	350,481	-	-	-
Defaulted exposures	65,900	-	-	-
Total On-Balance Sheet Exposures	**7,161,891**	**-**	**357,181**	**-**
Off-Balance Sheet Exposures				
Over-the-counter ("OTC") derivatives	169,080	-	-	-
Non-OTC Derivatives	116,835	-	-	-
Total Off-Balance Sheet Exposures	**285,915**	**-**	**-**	**-**
Total Gross Credit Exposures	**7,447,806**	**-**	**357,181**	**-**

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Table 16: Exposures Covered by Credit Risk Mitigation (Continued)

The Bank **As at 31 December 2017**	**Exposures before CRM** **RM'000**	**Exposures Covered by Guarantees** **RM'000**	**Exposures Covered by Eligible Financial Collateral** **RM'000**	**Exposures Covered by Other Eligible Collateral** **RM'000**
Exposure Class				
On-Balance Sheet Exposures				
Sovereigns/Central Banks	2,776,977	-	-	-
Banks, DFIs and MDBs	402,271	-	-	-
Corporates	2,799,684	-	-	-
Regulatory Retail	362,396	-	357,181	-
Other assets	227,727	-	-	-
Defaulted exposures	65,900	-	-	-
Total On-Balance Sheet Exposures	**6,634,955**	**-**	**357,181**	**-**
Off-Balance Sheet Exposures				
Over-the-counter ("OTC") derivatives	169,080	-	-	-
Non-OTC Derivatives	116,835	-	-	-
Total Off-Balance Sheet Exposures	**285,915**	**-**	**-**	**-**
Total Gross Credit Exposures	**6,920,870**	**-**	**357,181**	**-**

4.5 Off-Balance Sheet Exposure and Counterparty Credit Risk

Counterparty Credit Risk is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. Transactions refer to contracts for financial instruments including derivative contracts and unsettled securities.

Credit risk arising from derivative transaction can be mitigated in several ways, including the use of:

- Collateral, which may be liquidated and satisfy the counterparty's obligations to the Bank upon closeout.
- Netting, which gives the Bank the right to close out and net all transactions under market standard master netting agreements such as the ISDA Master Agreement and CSA;

The above risk mitigation techniques are employed where possible and are explained as below:

Collateral

The Bank will negotiate for CSA under ISDA Master Agreement with selected counterparties on a case-by-case basis, where collateral is deemed necessary mitigator to the risk exposure. The terms of the CSA specified in each legal document are required to be approved by Compliance, Legal and Corporate Services Department. The nature of the collateral will be specified in the legal document and can be cash or selected government securities. Any non-cash collateral taken will be subject to a 'haircut' which is negotiated at time of signing of the collateral agreement and this will be largely based on liquidity and price volatility of the underlying collateral security.

A daily operational process takes place to calculate the mark-to-market on all trades and collateral captured under the CSA. Additional collateral will be called from the counterparty if total uncollateralised marked-to-market exposure exceeds the threshold and minimum transfer amount specified in the CSA. Additional collateral may be required from the counterparty to provide an extra buffer to the daily variation margin process.

4.5 Off-Balance Sheet Exposure and Counterparty Credit Risk (Continued)

Bilateral Netting Agreement

The Bank further reduces its credit exposures to counterparty by entering into contractual netting agreement which creates a single legal obligation, covering all transactions that the Bank could have either a claim to receive or obligation to pay only the net sum of the positive (amounts owed by the counterparty) and negative (amounts owed by the Bank) mark-to-market values of all transactions including individuals in the event a counterparty fails to perform due to default, bankruptcy, liquidation or similar circumstances.

ISDA Master Agreement is the Bank’s preferred agreement as it encompasses the largest number of products and thus provides the greatest cross-product netting benefits.

Credit Equivalent Limits

All credit exposures are approved either by approval of an individual facility (e.g. loan) or under a system of credit limits (e.g. derivatives, securities, stockbroking trading exposures). Credit exposure is monitored daily to ensure it does not exceed the approved credit limit. These credit limits are set either on notional exposure or pre-settlement credit exposure basis (e.g. for derivatives). Credit Equivalent Limit is an estimate of the potential exposure in the event that the counterparty default prior to settlement of the contract.

Collateral Requirement in the Event Of a Downgrade in Credit Ratings

A significant increase in the level of collateral would be required in the event of a credit ratings downgrade of the counterparties as allowable in the collateral agreements.

4.5 Off-Balance Sheet Exposure and Counterparty Credit Risk

The following table depicts disclosure of off-balance sheet and counterparty credit risk:

Table 17: Off-Balance Sheet and Counterparty Credit Risk

The Group **As at 31 December 2018** **Description**	**Principal Amount** **RM'000**	**Positive Fair Value of Derivative Contracts** **RM'000**	**Credit Equivalent Amount** **RM'000**	**Risk Weighted Assets** **RM'000**
Direct Credit Substitutes	96,674	-	96,643	96,643
Foreign exchange related contracts				
One year or less	2,920,701	19,517	61,232	35,968
Over one year to five years	304,689	6,797	28,126	17,400
Interest rate related contracts				
One year or less	695,000	44	1,403	281
Over one year to five years	1,810,000	3,267	55,145	12,739
Over five years	30,000	232	2,032	406
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	588	-	293	293
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	24,133	-	4,825	4,825
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	468,170	-	-	-
Total	**6,349,955**	**29,857**	**249,699**	**168,555**

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Table 17: Off-Balance Sheet and Counterparty Credit Risk

The Bank **As at 31 December 2018** **Description**	**Principal Amount RM'000**	**Positive Fair Value of Derivative Contracts RM'000**	**Credit Equivalent Amount RM'000**	**Risk Weighted Assets RM'000**
Direct Credit Substitutes	96,674	-	96,643	96,643
Foreign exchange related contracts				
One year or less	2,920,701	19,444	61,232	35,968
Over one year to five years	304,689	6,797	28,126	17,400
Over five years	-	-	-	-
Interest rate related contracts				
One year or less	695,000	44	1,403	281
Over one year to five years	1,810,000	3,267	55,145	12,739
Over five years	30,000	232	2,032	406
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	588	-	293	293
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	24,133	-	4,825	4,825
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	468,170	-	-	-
Total	**6,349,955**	**29,784**	**249,699**	**168,555**

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(Incorporated in Malaysia)

PILLAR 3 DISCLOSURES

Table 17: Off-Balance Sheet and Counterparty Credit Risk (Continued)

The Group and the Bank As at 31 December 2017	Principal Amount	Positive Fair Value of Derivative Contracts	Credit Equivalent Amount	Risk Weighted Assets
Description	**RM'000**	**RM'000**	**RM'000**	**RM'000**
Direct Credit Substitutes	104,927	-	104,927	104,927
Foreign exchange related contracts				
One year or less	5,084,328	43,906	107,321	47,170
Over one year to five years	283,764	9,939	26,403	14,383
Interest rate related contracts				
One year or less	250,000	-	357	71
Over one year to five years	1,515,000	1,105	34,999	8,320
Over five years	-	-	-	-
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	480	-	240	240
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	58,339	-	11,668	11,668
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	409,263	-	-	-
Total	**7,706,101**	**54,950**	**285,915**	**186,779**

5 SECURITISATION

The Group and the Bank currently do not have any securitisation activities.

6 MARKET RISK

Market risk is the risk of losses arising from changes in market prices or rates, such as interest rates, foreign exchange rates, equity prices and commodity prices, as well as their correlations and implied volatilities.

Risk Governance

The Board establishes the Bank's risk appetite for market risk. The BRMC is delegated with the oversight of the market risk management and responsible for the approval of high-level issues.

The ALCO reviews, assesses and monitors risk controls, risk limits, stress testing results, adequacy of reserves, valuation methodology and internal models.

Policies and Approaches

The market risk policy of the Bank establishes the base standards on management of market and liquidity risks within the Bank. Together with the Bank's other existing policies, detailed guidelines/ methodologies in managing market and liquidity risks are laid down to cover the following areas:

- Market risk management principles;
- Market risk measurement methodologies;
- Trading and banking book classification;
- Valuation methodology;
- Market risk limit structure and management;
- Stress testing approach; and
- Internal controls and standards on validation of valuation models and market risk models

The principal measurement methodology used by the Bank to measure and control market risk exposures arising from the trading book portfolio is Value-at-Risk ("VaR"). The VaR model measures the material risks arising from trading book, which covers interest rate and foreign exchange risks. The Bank uses a variance-covariance method based on a 1-day holding period and a 99% confidence interval as its market risk VaR methodology. The VaR model is back-tested regularly to validate its robustness.

In addition, the Bank also uses other market risk controls, such as stop loss control, which sets a threshold on the net cumulative loss of the trading book over a defined period of time; and present value basis point, an interest rate sensitivity tool.

Stress testing complements the VaR framework in measuring market risks. Specifically, stress tests capture the impact of tail-end (i.e. extreme events and shocks that can potentially lead to heavy losses) and other risks which are not reflected in the VaR model. For more detailed information, please see Stress Testing as discussed in Section 3 of this report.

Risk Reporting and Monitoring

RMD is responsible in the monitoring and tracking of market risk limits based on the frequencies as set out in the Bank's relevant risk policies. Any limit excesses are reported in accordance with the exception escalation procedures, which may be followed by the appropriate remedial processes, if necessary.

The Bank also sets trigger limits in alerting any potential limit breaches and unusual movements of certain indicators to prompt early investigative action and escalation process. This is part of the daily trading disciplines on the trading book activities. Review of the market risk limits is conducted annually.

Market risk reports are submitted on periodical basis to ALCO and BRMC in order to facilitate their effective oversight of market risk management activities through evaluation of the nature, level and trend of market risk undertaken by the Bank.

Regulatory Capital Treatment

The Bank is adopting the Standardised Approach in calculating market risk RWA. Market risk is measured for interest rate and equity risks pertaining to financial instruments in the trading book and foreign exchange risk in both the trading and banking books, as well as options risk arising from underwriting activities; as defined under BNM RWCAF for regulatory capital computation purpose.

7 OPERATIONAL RISK

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people or systems, or from external events. This includes risks such as fraud, physical damages, business disruptions, transaction failures, cyber threats, legal and regulatory breaches (including fiduciary breaches and Shariah non-compliances) as well as employee/agent (natural person) health and safety hazards. Operational risk is an unavoidable risk to the Bank as it is inherent in its business operations. Nonetheless, the Bank would manage the operational risk within an acceptable level in accordance with the Bank's Operational Risk Management Policy.

Risk Governance

The Operational Risk Management ("ORM") Governance structure warrants the Bank, Board and Business / Support Units to discharge their responsibilities in an aligned and formalised manner, thereby ensuring operational risks are being managed effectively and within the risk tolerance set by Board.

The Board is actively involved in the oversight of the operational risk management of the Bank through BRMC, which operates as a functional committee of the Board within its delegated authority by Board. The Board provides leadership, direction and oversight on the design and implementation of the Bank's ORM Policy. The Board approves the ORM policy, operational risk appetite and overall strategies that the ORM Policy is consistent with the Bank's risk tolerance level given the nature, complexity, materiality of the Bank's business operations.

BRMC reviews the ORM policy to ensure the policy is adequate and robust to address operational risk prior to recommendation to the Board for approval. BRMC also oversees and reviews reports in respect of the Bank's operational risks exposure.

CROC assists the Board and the BRMC in managing operational risk within the Bank, which includes overseeing and ensuring the effectiveness of the Bank's operational risk management infrastructure (including frameworks, policies, people, processes, information, methodologies and systems). Its key responsibilities include reviewing and deliberating on all operational risk events reported and effectiveness of the Bank's controls to manage operational risk, assessing and monitoring of significant operational risk exposures, providing direction for resolution of critical operational risk issues, evaluating vulnerabilities, threats and exposures relating to information assets and ensuring control and security measures are adequate to protect these areas, assessing overall disaster and business continuity effectiveness against the various scenarios of operational disruption and system-related breakdowns; and reviewing and ensuring compliance with all relevant laws and regulations.

The ORMU has a centralised functional role for operational risk management within the RMD and it is independent of any other functions and operations within the Bank. The ORMU, reporting directly to the Head of RMD, plays a key role in establishing the ORM Policy including identification, measurement, reporting and controls of operational risk, developing appropriate assessment and methodology to evaluate operational risk, supporting and guiding the Business/Support Units in the implementation of the Bank's ORM Framework and tools, particularly in promoting and inculcating 'risk awareness' culture across the Bank and acting as point of contact of operational risk issues with regard to interfacing with regulatory bodies.

Policies and Approaches

Affin Hwang Investment Bank Berhad's Operational Risk Management Policy, approved by the Board, governs the ORM framework and methodology used to ensure that operational risks within the Bank are identified, monitored and managed in a systematic and consistent manner.

Risk Measurement

Operational Risk Measurement Tools

The Bank has put in place comprehensive operational risk (OR) identification, assessment & measurement, control & monitoring and reporting of OR exposures through indicators and metrics such as Loss Event Database (LED), Key Risk Indicators (KRIs), Risk and Control Self Assessment (RCSA) and Key Control Standard (KCS).

The Bank also adopts the Group Product Programme which sets out the minimum standards concerning introduction of new products as well as the maintenance of Product Programs across all Business Divisions within Affin Banking Group.

Each new product or service introduced that results in a material change to the risk profile of the Bank is subject to a rigorous risk review and signoff process where all relevant risks are identified and assessed by departments independent of the risk-taking unit proposing the product. Variation that constitutes a material change in the risk profile of existing products is also subject to a similar process. RCSA complements the risk assessment on operational risk as required by the Product Programme. Thus RCSA will be performed by the department which the product or service originate or belongs to, to identify and assess the inherent operational risk related to the new product or service. The resulting risk profile will subsequently be submitted to the RMD for review and consideration prior to submission to the relevant management and/or board committee for approval.

There are other major operational risk mitigation programmes and Business Continuity Management that applies to all Business/Support units and branches in all locations.

Risk Reporting and Monitoring

RMD is responsible for the monitoring and tracking of operational risk based on the information obtained through the ORM tools. Exception reports are produced on a regular basis, highlighting material operational risk related issues to CROC and BRMC as well as Group Operational Risk Management Committee (“GORMC”) for risk monitoring and appropriate level of management decision making.

Regulatory Capital Treatment

The Bank adopts the Basic Indicator Approach in calculating the operational risk RWA as at 31 December 2018.

8 EQUITIES IN THE BANKING BOOK

The Bank's banking book equity investment consists of:

- Investments held for yield and/or long term capital gains; and
- Strategic stakes in entities held as part of growth initiatives and/or in support of business operations.

Investment in equity or Collective Investment Scheme ("CIS") investments are subject to limits which are set based on the Bank's total capital and/or notional limits.

Accounting for Equity or CIS Holdings in the Banking Book

Different equity investment positions have different accounting treatments depending on the nature of the exposures. Where the equity investment is not subject to the significant influence or joint control of the Bank, it is held as a direct investment, which is classified as either fair value through other comprehensive income ("FVOCI") or fair value through profit or loss ("FVTPL") in accordance to MFRS 9 (previously classified as AFS in accordance to MFRS 139).

FVOCI and FVTPL securities are initially stated at fair value except for investments in equity/CIS that do not have a quoted market price in an active market and whose fair value cannot be reliably measured, will be stated at cost. Consistent with the valuation of financial instruments, fair value of equity securities is initially and subsequently determined using, where available, quoted prices in active markets or valuation techniques where quoted prices in active markets are not available.

The Group and the Bank subsequently measure all equity investments at fair value. Where the Group's and the Bank's management have elected to present fair value gains and losses on equity investments in FVOCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in profit or loss as other income when the Group's and the Bank's right to receive payments is established.

Changes in the fair value of equity investments at FVTPL are recognised in "net gains and losses on financial instruments" in the income statement.

The following table depicts the fair value and risk weighted assets of and gains and losses on equity/ CIS investments under banking book:

Table 18: Equities under Banking Book

The Group and the Bank As at 31 December 2018 Type of Equity Investments	**Fair Value RM'000**	**Risk Weighted Assets RM'000**
Publicly traded	59,910	59,910
Privately held	21,821	21,821
Total	**81,731**	**81,731**

	RM'000
Cumulative realised gains/(losses) from sales and liquidations of equity investments	(100)
Total unrealised gains/(losses) in other comprehensive income	968

The Group and the Bank As at 31 December 2017 Type of Equity Investments	**Fair Value RM'000**	**Risk Weighted Assets RM'000**
Publicly traded	24,730	24,730
Privately held	20,611	20,611
Total	**45,341**	**45,341**

	RM'000
Cumulative realised gains/(losses) from sales and liquidations of equity investments	15,740
Total unrealised gains/(losses) in other comprehensive income	2,783

9 INTEREST RATE RISK IN THE BANKING BOOK

The Bank is exposed to interest rate risk in banking book ("IRRBB") when there are re-pricing mismatches due to differing tenors and pricing of interest-sensitive assets, liabilities and derivative financial instruments in the banking book.

Policies and Approaches

The management of IRRBB is governed under the Asset Liability Management Policy.

The objective of the management of IRRBB is to maintain an acceptable mismatch in interest-sensitive assets, liabilities and derivative financial instruments in the banking book, while achieving a desired level of earnings.

Risk Measurement

In managing IRRBB, both the earnings and economic value approaches are adopted. Interest-sensitive assets, liabilities and derivative financial instruments are grouped into time buckets based on the earlier of remaining period to maturity or next re-pricing; before a parallel interest rate shock is applied to arrive at the sensitivity shocks on earnings and economic value.

The earnings approach focuses on the impact of interest rate movement on the Bank's near term earnings. The economic value approach provides a more comprehensive view of the impact of interest rate movements on the economic value of the Bank's overall positions.

Risk Reporting and Monitoring

The impact of interest rate movements quantified using the economic value approach is subject to approved limit and monitored on daily basis. Review of the risk limit is conducted annually.

Impact on earnings and economic value are periodically reported to ALCO and BRMC to facilitate their effective oversight of interest rate risk in banking book. Any non-compliance is subject to a set of escalation procedures.

The following table depicts the sensitivity shocks on earnings and economic value of the Bank's positions in banking book, to a parallel interest rate shock of +/- 100 basis points ("bps"):

Table 19: Sensitivity of the banking book to interest rate changes

	The Group Increase / (Decrease) in RM'000		The Bank Increase / (Decrease) in RM'000	
As at 31 December 2018	**+100 bps**	**-100 bps**	**+100 bps**	**-100 bps**
***Impact on Earnings**				
MYR	(27,512)	27,512	(27,512)	27,512
USD	(895)	895	(895)	895
SGD	56	(56)	56	(56)
Others	-	-	-	-
Total	**(28,351)**	**28,351**	**(28,351)**	**28,351**
~Impact on Economic Value				
MYR	200,815	(200,815)	200,783	(200,783)
USD	1,487	(1,487)	1,487	(1,487)
SGD	2,201	(2,201)	2,201	(2,201)
Others	-	-	-	-
Total	**204,503**	**(204,503)**	**204,471**	**(204,471)**

	The Group Increase / (Decrease) in RM'000		The Bank Increase / (Decrease) in RM'000	
As at 31 December 2017	**+100 bps**	**-100 bps**	**+100 bps**	**-100 bps**
***Impact on Earnings**				
MYR	(22,935)	22,935	(22,935)	22,935
USD	(239)	239	(239)	239
SGD	23	(23)	23	(23)
Others	40	(40)	40	(40)
Total	**(23,111)**	**23,111**	**(23,111)**	**23,111**
~Impact on Economic Value				
MYR	182,408	(182,408)	182,368	(182,368)
USD	2,770	(2,770)	2,770	(2,770)
SGD	3,313	(3,313)	3,313	(3,313)
Others	78	(78)	78	(78)
Total	**188,569**	**(188,569)**	**188,529**	**(188,529)**

** The earnings approach focuses on the impact of interest rate movement on the Bank's near term earnings (within 1 year).*

~ The economic value approach provides a more comprehensive view of the impact of interest rate movement on the economic value of the Bank's overall positions.