Registration No.

199401030666 (316347-D)

J.P. MORGAN CHASE BANK BERHAD

(Incorporated in Malaysia)

BASEL 2 PILLAR 3 DISCLOSURES

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020

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1 OVERVIEW

The Pillar 3 Disclosures is governed under the Bank Negara Malaysia ("BNM")'s revised Risk-Weighted Capital Adequacy Framework ("RWCAF") – Pillar 3, which aims to enhance transparency of financial institution activities and risks by setting minimum disclosure standards on risk exposures, risk management practices and capital adequacy.

2 SCOPE OF APPLICATION

The Pillar 3 Disclosures attached herewith relates to J.P. Morgan Chase Bank Berhad ("the Bank") only.

The capital adequacy ratios of the Bank are computed in accordance with BNM's revised RWCAF – Basel II. The Bank has adopted the Standardised Approach for credit risk and market risk, and Basic Indicator Approach for operational risk.

During the financial year, the Bank did not experience any restrictions or impediments in the transfer of funds or regulatory capital and did not report any capital deficiencies.

3 CAPITAL MANAGEMENT

Internal Capital Adequacy Assessment Process ("ICAAP")

Board and senior management oversight

The ICAAP is designed to ensure the Bank maintains adequate capital on an ongoing basis to support its business operations beyond minimum regulatory capital requirements under Pillar I, addressing the risks not fully captured under Pillar I and risk types not covered by Pillar I. An ICAAP should assess the overall capital adequacy of the Bank in relation to its risk profile and encompass a strategy for maintaining appropriate capital levels.

The ICAAP is submitted to Board for approval on annual basis, which outline the Board and senior management oversight, comprehensive risk assessment, sound capital management, risk management, capital planning, capital monitoring and strategic forecasting.
Board and Senior Management Oversight

There are various committees which are set up to manage the overall risk framework of the Bank, at the Board and management level. These include the Board of Directors ("BOD"), Board Risk Management Committee ("BRMC"), Location Management Committee ("LMC"), Risk/Asset & Liability Committee ("RALCO"), Location Operating Committee ("LOC") and Location Outsourcing/Off-shoring Governance Committee ("LOGC"). In addition, each risk is managed by the regional / local delegates, within the firm-wide risk management framework, who also addresses local regulatory requirements. The risk champions have been appointed to "own" the relevant risks, and their responsibilities are to complete the risk assessment templates which will support the overall ICAAP for the Bank. These risk assessment templates will document the rationale for the conclusion whether the Bank is well-capitalized for that risk.

3 CAPITAL MANAGEMENT (CONTINUED)

Internal Capital Adequacy Assessment Process ("ICAAP") (continued)

Comprehensive risk assessment

Material risk identification is an ongoing process to capture existing and emerging risks from the activities of the Firm and the Bank. These risks include core risks (e.g. credit risk, market risk, operational risk, etc.) as well as illiquid trading risk and other low-probability but plausible and material, idiosyncratic risks. The Bank adheres to the Firm's Risk Identification Governance Policy, which establishes the Material Risk Identification governance and oversight, standards and controls over the risk identification process.

Capital Management

The Firm has a Capital Management Oversight function whose primary objective is to provide independent assessment, measuring, monitoring and control of capital risk across the Firm.

Capital Management Oversight's responsibilities include:

- Defining, monitoring and reporting capital risk metrics;
- Establishing, calibrating and monitoring capital risk limits and indicators, including capital risk appetite;
- Developing a process to classify, monitor and report limit breaches; and
- Performing an independent assessment of the Firm's capital management activities, including changes made to the contingency capital plan.

The primary objectives of effective capital management are to:

- Maintain sufficient capital to continue to build and invest in its businesses through the cycle and in stressed environments;
- Retain flexibility to take advantage of future investment opportunities;
- Promote the ability to serve as a source of strength to subsidiaries;
- Ensure the Firm operates above the minimum regulatory capital ratios as well as maintain "well-capitalized" status for the Firm and its insured depository institution subsidiaries at all times under applicable regulatory capital requirements;
- Meet capital distribution objectives; and
- Maintain sufficient capital resources to operate throughout a resolution period in accordance with the Firm's preferred resolution strategy.

These objectives are addressed through establishing internal minimum capital requirements and a strong capital management governance framework, both in business as usual conditions and in the event of stress. Capital risk management is intended to be flexible in order to react to a range of potential events. In its management of capital, the Firm takes into consideration economic risk and all applicable regulatory capital requirements to determine the level of capital needed.

The Firm considers regulatory capital requirements as well as an internal assessment of capital adequacy in normal economic cycles and in stress events, when setting its minimum capital levels. The capital governance framework requires regular monitoring of the Firm's capital positions, stress testing and defining escalation protocols, both at the Firm and material legal entity levels.

3 CAPITAL MANAGEMENT (CONTINUED)

Internal Capital Adequacy Assessment Process (“ICAAP”) (continued)

Capital Planning

The Capital planning exercise covers the below elements to execute the future growth plans:

- Review current financial statements
- Review macro-economic indicators and challenges
- Identify the Bank’s overall business plans for the next 3 years
- Forecast revenues and key assets and liabilities for next 3 years
- Review of sufficiency of capital funds
- Documents assumptions made in forecasting revenues and balance sheet

Capital Monitoring

Effective capital monitoring is fundamental to the sustainability of the Bank. As such, the Bank proactively monitor’s its capital position to ensure that the regulatory requirements and risk appetite are met. This includes establishing Internal Capital Target (“ICT”) and review the appropriateness of ICT as a sound trigger.

Capital Structure and Adequacy

The Bank aims to maintain appropriate capital levels relative to regulatory minimum requirements and to maintain an adequate buffer to accommodate future business growth plans. The capital adequacy position, together with the results of the stress testing on material risks, are reviewed on a monthly basis and tabled to the Risk/Asset & Liability Committee for deliberation.

The Bank’s regulatory capital is determined under BNM’s revised RWCAF – Basel II and the capital adequacy ratios were higher than BNM’s minimum requirements.

The following table presents the capital adequacy ratio and risk-weighted assets as at 31 December 2020.

3 CAPITAL MANAGEMENT (CONTINUED)

Capital Structure and Adequacy (continued)

The capital adequacy ratios of the Bank are computed in accordance with Bank Negara Malaysia's revised Risk-Weighted Capital Adequacy Framework: Standardised Approach for Credit and Market Risk, and Basic Indicator Approach for Operational Risk (Basel II).

The capital adequacy ratios of the Bank are as follows:

	31.12.2020 RM'000	31.12.2019 RM'000
Common Equity Tier 1/ Tier 1 capital		
Paid-up share capital	437,500	437,500
Retained earnings	1,286,237	1,089,820
Fair value reserve through other comprehensive income	1,010	101
Option reserve	11,953	11,953
	1,736,700	1,539,374
Deferred tax assets	(4,374)	(3,051)
Financial Assets at fair value through other comprehensive income	(555)	(56)
Total Common Equity Tier 1/ Tier 1 capital	1,731,771	1,536,267
Tier-2 capital		
Regulatory reserve	973	5,105
ECL not credit impaired	8,164	780
Total Tier 2 capital	9,137	5,885
Total capital	1,740,908	1,542,152
Common Equity Tier 1 capital ratio	25.238%	35.328%
Tier 1 capital ratio	25.238%	35.328%
Total capital ratio	25.371%	35.464%

3 CAPITAL MANAGEMENT (CONTINUED)

Capital Structure and Adequacy (continued)

Total risk weighted assets and capital requirements as at 31 December 2020:

Exposure Class		Gross exposures RM'000	Net exposures RM'000	Risk weighted assets RM'000	Capital requirements RM'000
(a)	Credit Risk				
	On-balance sheet exposures				
	Sovereigns/central banks	3,347,139	3,347,139	200,900	16,072
	Banks	3,084,994	3,084,994	617,031	49,360
	Insurance companies, securities firms and fund managers	357,588	357,588	98,995	7,920
	Corporates	260,845	260,845	260,845	20,868
	Regulatory retail	453	453	453	36
	Residential mortgages	456	456	159	13
	Higher risk assets	4	4	6	1
	Other assets	60,784	60,784	110,019	8,802
	Defaulted exposures	67	67	33	3
	Total on-balance sheet exposures	7,112,330	7,112,330	1,288,441	103,075
	Off-balance sheet exposures				
	Over-the-counter ('OTC') derivatives	3,656,338	3,656,338	1,486,799	118,944
	Off balance sheet exposures other than OTC derivatives	129,123	129,123	120,558	9,645
	Total off-balance sheet exposures	3,785,461	3,785,461	1,607,357	128,589
	Total on and off-balance sheet exposures	10,897,791	10,897,791	2,895,798	231,664
		Long position	Short position		
(b)	Market risk				
	Interest rate risk	116,183,228	113,935,586	3,137,272	250,982
	Foreign currency risk	2,676	52,629	52,629	4,210
	Option risk			134,513	10,761
(c)	Operational risk			641,638	51,331
	Total risk weighted assets and capital requirements			6,861,850	548,948

3 CAPITAL MANAGEMENT (CONTINUED)

Capital Structure and Adequacy (continued)

Total risk weighted assets and capital requirements as at 31 December 2019:

Exposure Class	Gross exposures RM'000	Net exposures RM'000	Risk weighted assets RM'000	Capital requirements RM'000
(a) Credit Risk				
On-balance sheet exposures				
Sovereigns/central banks	5,781,829	5,781,829	81,863	6,549
Banks	1,862,069	1,862,069	372,550	29,804
Insurance companies, securities firms and fund managers	259,050	259,050	129,829	10,386
Corporates	264,944	264,944	264,944	21,196
Residential mortgages	1,054	1,054	369	30
Higher risk assets	4	4	6	1
Other assets	32,520	32,520	32,009	2,561
Defaulted exposures	68	68	34	3
Total on-balance sheet exposures	8,201,538	8,201,538	881,604	70,530
Off-balance sheet exposures				
Over-the-counter ('OTC') derivatives	2,568,067	2,568,067	932,265	74,581
Off balance sheet exposures other than OTC derivatives	303,351	303,351	275,386	22,031
Total off-balance sheet exposures	2,871,418	2,871,418	1,207,651	96,612
Total on and off-balance sheet exposures	11,072,956	11,072,956	2,089,255	167,142
	Long position	Short position		
(b) Market risk				
Interest rate risk	112,328,805	111,562,393	1,468,018	117,442
Foreign currency risk	9,786	-	9,786	783
Option risk			263,112	21,049
(c) Operational risk			518,381	41,470
Total risk weighted assets and capital requirements			4,348,552	347,886

4 RISK MANAGEMENT

Risk Management Framework

Risk is an inherent part of JPMorgan Chase & Co. ("JPMC")'s business activities and the overall risk tolerance is established in the context of the earnings power, capital, and diversified business model. JPMC and the Bank's risk management framework and governance structure are intended to provide comprehensive controls and an ongoing management of the major risks inherent in its business activities. It is also intended to create a culture of risk awareness and personal responsibility throughout Bank. The Bank's ability to properly identify, to measure, to monitor and to report risk is critical to both its soundness and profitability.

Risk Governance

The Board of Directors ("BOD") is ultimately responsible for the operations, conduct and the financial soundness of the Bank through competent management, reviewing and monitoring the objectives, strategies and business plans of the Bank, ensuring that proper controls are in place and that the business of the Bank is carried out with a high standard of integrity.

The Board Risk Management Committee ("BRMC") is responsible for oversight of the management's responsibility to assess and manage the Bank's credit risk, market risk, interest rate risk, liquidity risk, operational risk, country and regulatory/ compliance risk.

At management level, the Location Management Committee ("LMC") is the governing management body for Malaysia operations, which comprises of SCO as the chairman of the committee as well as the heads of lines of business and control functions as its members. LMC provides holistic oversight for any business conducted in Malaysia or booked into local entities and branches. The LMC compliments the existing global, regional and legal entity governance framework in place for relevant local legal entities and businesses..

The Risk/Asset & Liability Committee ("RALCO") is delegated by the BOD to be responsible for the overall risk management for the Bank. The RALCO is co-chaired by the CRO of the Bank, together with the SCO, the members comprise of senior members from risk, treasury, finance, country governance and other relevant functions and businesses in Malaysia. RALCO's responsibilities include establishing, reviewing, monitoring and implementing policies and procedures and limits with regard to market risk, liquidity risk, credit risk, and generally the management of risk relating to the Bank. The RALCO also ensures a consistent approach to risk management and ensures appropriate procedures exist for the identification of risks and that suitable mechanisms exist to ensure risks are controlled and reported to management, BRMC and BOD on a timely basis.

4 RISK MANAGEMENT (CONTINUED)

Risk Governance (continued)

The Malaysia LOC is chaired by the Senior Country Business Manager (SCBM). It is comprised of senior members from operating governance, risk, country governance and other relevant functions in Malaysia. The Malaysia LOC is directly accountable to the Malaysia LMC for executing JPMorgan's country operational strategy and is the primary oversight and escalation point for key functional initiatives in the country across all lines of business. The Malaysia LOC provides oversight to ensure operational risk policies are adhered to, appropriate controls to manage and mitigate operational and compliance risks are in place across the country, and timely and appropriate escalation of related issues to the Malaysia LMC and Asia Pacific Operating Committee (APOC).

The Audit Committee, supported by the Internal Audit Department, is responsible for oversight of guidelines and policies that govern the process by which risk assessment and management is undertaken. In addition, the Audit Committee reviews with management the system of internal controls and financial reporting that is relied upon to provide reasonable assurance of compliance with the Bank's operational risk management processes.

Risk Measurement

The Bank measures risk using a variety of methodologies, including calculating probable loss, unexpected loss and value-at-risk, and by conducting stress tests and making comparisons to external benchmarks. Measurement models and related assumptions are routinely reviewed with the goal of ensuring that the Bank's risk estimates are reasonable and reflect underlying positions.

Risk Reporting and Monitoring

Risk reporting and monitoring is executed on both a line of business and a consolidated basis. This information is reported to management on a regular basis. RALCO reviews and monitors any significant risk issues and reports to the BRMC.

5 CREDIT RISK

Expected credit loss measurement

Impact of COVID-19 pandemic

The COVID-19 pandemic has stressed MEVs to degrees not experienced in recent history, which creates additional challenges in the use of modelled credit loss estimates and increases the reliance on management judgement. The estimated impact of COVID-19 is incorporated into ECL through MEVs and forward-looking scenarios, which generally resulted in more loans exhibiting significant increase in credit risk since initial recognition, and as a result classified as Stage 2. As Stage 2 loans have ECL based on a probability of default ("PD") over the lifetime of the loan (as opposed to 12 months in Stage 1), the Bank's overall ECL increased.

In 2020, the Bank enhanced its statistical model methodology used for collective assessment to better estimate expected credit losses. Key model enhancements included:

- Expansion of forecasting during the reasonable and supportable period from using three forward looking scenarios (central, adverse and upside) to five forward looking scenarios (central, relative upside, extreme upside, relative adverse and extreme adverse).

- Introduction of large loan uncertainty ("LLU"), captures the variation in loan sizes across the portfolio by taking into consideration the risk of large exposures defaulting due to the nonhomogeneous nature of the portfolio.

Approach to measuring expected credit losses

The Bank estimates credit impairment through an allowance for expected credit losses ("ECLs"). ECLs are recognised for financial assets that are measured at amortised cost or fair value through other comprehensive income (FVOCI) and for specified lending-related commitments, such as loan commitments and financial guarantee contracts. The measurement of ECLs must reflect:

(a) An unbiased and probability weighted amount that is determined by evaluating a range of possible outcomes

(b) The time value of money; and

(c) Reasonable and supportable information about past events, current economic conditions, and forecasts of future economic conditions.

The measurement of ECL also reflects how the Bank manages the financial instruments it uses for credit risk purposes such as Traditional Credit Products ("TCP"), debt securities measured at FVOCI, and non-traditional credit products ("Non-TCP"). TCP are wholesale loans and lending-related commitments from extensions of credit to borrowers; debt securities which are debt instruments such as government bonds; whereas Non-TCP are all other debt financial assets measured at amortised cost which include, but are not limited, to reverse repurchase agreements, margin loans, fee receivables, and inter-company receivables or loans.

5 CREDIT RISK (CONTINUED)

Expected credit loss measurement (continued)

Impact of staging on measuring expected credit losses

ECLs are measured using a three stage model based on changes in credit quality of the financial instrument since it was initially recognised (“initial recognition”):

- Stage 1 – performing financial instruments that have not had a significant increase in credit risk since initial recognition;
- Stage 2 – performing financial instruments that have experienced a significant increase in credit risk; and
- Stage 3 – non-performing financial instruments that have been determined to be credit-impaired.

Stage 1 - Unimpaired and without significant increase in credit risk

Financial instruments that have not had a SICR since initial recognition are included in Stage 1 unless they are purchased or originated credit impaired (“POCI”). For Stage 1 instruments, ECL is calculated by considering the probability of default within 12 months after the reporting date on a collective basis and interest revenue is calculated on the gross carrying amount of the asset (that is, without deduction for the credit loss allowance).

Stage 2 - Significant increase in credit risk

Financial instruments that have experienced a significant increase in credit risk (“SICR”) since initial recognition for which there is no objective evidence of impairment are included in Stage 2. For Stage 2 instruments, ECL is calculated considering the probability of default over the remaining life of the instrument on a collective basis and interest revenue is calculated on the gross carrying amount of the asset (that is, without deduction for the credit loss allowance).

The Bank assesses for evidence of a SICR by considering whether there has been a change in the risk of a default occurring since the financial instrument was initially recognised.

For TCP, the Bank considers a financial instrument to have experienced a SICR when any of the following quantitative or qualitative criteria have been met:

- Quantitative criteria

  The Bank determines whether the probability of a default (“PD”) occurring has changed between a financial instruments initial recognition and the reporting date. If the change in PD exceeds certain thresholds, the instrument has experienced a SICR. The assessment of the PD takes into account reasonable and supportable information, including information about past events, current and future economic conditions.

  - Default grade 1 to 4+ at initial recognition: 3 notch downgrade (minimum) unless the rating after downgrade remains 3- or better;
  - Default grade 4 to 5- at initial recognition: 2 notch downgrade; and
  - Default grade 6+ to 8 at initial recognition: 1 notch downgrade.

5 CREDIT RISK (CONTINUED)

Expected credit loss measurement (continued)

Impact of staging on measuring expected credit losses (continued)

Stage 2 - Significant increase in credit risk (continued)

- Qualitative criteria

  The Bank monitors borrowers that may become impaired by including them on its watch list. Obligors that are on the watch list are considered to have experienced a SICR. The Bank also monitors changes in internal credit risk ratings and delinquency triggers to determine if a borrower has experienced a SICR.

  The Bank's TCP portfolio is mostly comprised of large, international, wholesale borrowers. For these borrowers, short-term delinquencies alone are not considered to be a meaningful credit quality indicator as the Bank's experience has shown that other internal credit quality indicators generally identifies increases in credit risk well before delinquency. As such, the Bank has determined that using the quantitative and qualitative criteria described above are most appropriate for capturing SICR for TCP.

  Financial instruments that are in Stage 2 are moved to Stage 1 as described below in the period that the quantitative and qualitative criteria for a SICR no longer exist.

  The approach for determining whether there has been a SICR for Non-TCP portfolios depends on the type of instrument. The Bank presumes non-TCP financial assets that are 30 days past due have experienced a SICR and are included in Stage 2. Finally, the remainder of the Bank's Non-TCP are mostly short-term and generally no SICR has arisen prior to the maturity of that instrument.

Stage 3 - Default and credit-impairment

Financial instruments are included in Stage 3 when there is objective evidence of impairment at the reporting date. For Stage 3 instruments, ECL is calculated considering the probability of default over the remaining life of each instrument ("lifetime ECL") on an individual asset basis and interest income is calculated on the net carrying amount (that is, net of the allowance for expected credit losses). All financial assets, regardless of their category as TCP, Non-TCP or debt security, are considered to be credit-impaired and included in Stage 3 when one or more of the following events that has a detrimental impact on the estimated future cash flows of that financial asset has occurred:

(a) Significant financial difficulty of the issuer or the borrower;
(b) A default or past due event;
(c) The Bank has granted a concession to the borrower for economic or contractual reasons relating to the borrower's financial difficulty;
(d) It has become probable the borrower will enter bankruptcy or other financial reorganisation;
(e) An active market for that financial asset no longer exists because of the borrower's financial difficulties; or
(f) A financial asset is purchased or originated at a deep discount that reflects a credit loss has been incurred.

The criteria above are consistent with how the Bank defines 'default' for internal credit risk management purposes.

5 CREDIT RISK (CONTINUED)

Expected credit loss measurement (continued)

Impact of staging on measuring expected credit losses (continued)

Stage 3 - Default and credit-impairment (continued)

A financial asset is considered to no longer be in default (i.e. the default has been cured) when the borrower has made payments for a minimum of six months and there is other objective evidence of credit improvement. However, for assets that were considered to be Stage 3 as a result of a restructuring where the borrower experiencing difficulty was granted a financial concession, there is no cure period and the asset will remain in Stage 3.

ECL measurement for TCP Portfolios

Key Inputs

ECL for stage 1 and stage 2 assets is determined using a collective assessment model that estimates losses expected on the portfolio from possible defaults in the next 12 months or lifetime depending on whether the instrument is included in stage 1 or 2. The 12-month ECL are calculated by multiplying the 12-month Probability of Default, Exposure at Default and Loss Given Default. Lifetime ECL are calculated using the lifetime PD instead. These inputs are collectively known as the modeled estimate and are described in further detail below:

Probability of Default ("PD"): The PD model estimates the probability of a borrower defaulting given certain macroeconomic scenarios and the probability of a borrower moving from one risk rating to another during the reasonable and supportable period. The 12-month and lifetime PDs represent the probability of default occurring over the next 12 months and the remaining maturity of the instrument respectively.

Exposure at Default ("EAD"): Exposure at Default represents the gross exposure of the Bank upon the Obligor's default and is characterized, as follows:

- Term Loans - EAD is 100% of exposure, net of amortization.
- Revolving commitments - EAD is a model-based estimate that considers the expectation of future utilization at the facility level in the case of a default under a given macroeconomic environment. After the reasonableness and supportable ("R&S") forecast period, a long run EAD is determined based on the facility's risk characteristics.
- All other unfunded committed facilities - EAD is determined judgmentally and where appropriate, empirically, based on the type of credit facility, line of business, underlying risk characteristics, and utilization.

Loss Given Default ("LGD"): LGD, also known as loss severity, represents the amount of loss, expressed as a percentage, in the event the facility defaults under a given forecasted macroeconomic environment during the reasonable and supportable period. Beyond the reasonable and supportable period long run historical average LGD is used based on the Loan's risk characteristics (e.g., secured type, region, line of business). The modeled estimate is subsequently adjusted for Large Loan Uncertainty (LLU).

5 CREDIT RISK (CONTINUED)

ECL measurement for TCP Portfolios (continued)

Forward-looking information

ECL estimates are derived from historical experience and future forecasted economic conditions. To incorporate forward-looking information into the ECL calculation, the Bank develops forecasted economics scenarios. The Bank moved from three forward looking scenario (base, upside and downside cases) to five forward looking scenarios (base, relative upside, extreme upside, relative downside and extreme downside) during the year. Each of these scenarios contains a set of MEVs that reflect forward-looking economic and financial conditions. MEVs include, but are not limited to FX rates, inflation and GDP per country or country block. MEVs for each scenario are projected over a reasonable and supportable forecast period of two years. After the forecast period, the losses revert to historical averages over a one-year transition period.

On a quarterly basis, the five economic scenarios are updated and probability weighted. Judgement is involved to develop the scenarios and assign probability weightings. The most likely economic scenario in management's view is the base case which would generally be expected to be weighted more heavily than the other four scenarios.

The PD, LGD and EAD models are designed to forecast the credit quality and performance of a TCP portfolio based on industry, geography, rating and size of obligors, among other attributes of the portfolio. PD, LGD and EAD models are calibrated based on historical MEVs and use forecasted macroeconomic scenarios for projecting PD, LGD and EAD values.

ECL calculation

ECL calculation is based on the forward-looking PD, LGD, and EAD values for each of the scenarios to produce the scenario credit losses ("SCLs"). The modelled ECL estimate is a probability-weighted calculation of the five SCLs discounted using the original effective interest rate or an approximation thereof.

The modelled ECL results are reviewed by management and adjustments ('management overlays') are considered to ensure final results reflect the Bank's best estimate of ECLs on its exposures. Management overlays are only applied if necessary to account for significant idiosyncratic risks which are not yet reflected in underlying risk ratings, LGD, exposure profile or scenario weights used and which are expected to have a high probability of occurrence.

The Bank follows the policies and practices established by JPMC's Credit Risk Policy Group and BNM's Best Practices for the Management of Credit Risk and the Assessment of the Allowance for Credit Losses, to preserve the independence and integrity of the approval and decision-making process.

For Multinational Corporations ('MNC') exposures which are not supported by legally enforceable guarantee, management makes judgement based of local standalone risk grading for ECL measurement.

There have not been any significant changes in estimation techniques or assumptions made during the reporting period.

5 CREDIT RISK (CONTINUED)

ECL measurement for TCP Portfolios (continued)

Stage 3 portfolio estimation techniques

In estimating ECL for Stage 3 Loans using an individual discounted cash flow assessment, broad economic conditions affecting a borrower are less relevant as they may not have a direct impact on the specific borrower and its ability to service its debts. Consequently, the Bank believes that borrower specific scenarios are the most relevant in estimating expected credit losses in an individual discounted cash flow assessment. When applying the discounted cash flow methodology, the Bank projects cash flows under three borrower-specific forecast scenarios that are reviewed, adjusted and ultimately blended into one-probability weighted calculation of ECL.

ECL measurement for Non-TCP portfolio

The Bank's approach to measuring ECLs for Non-TCP portfolios depends on the type of instrument.

Fee receivables

For fee receivables arising from contracts with customers (e.g. brokerage fee receivables), the Bank applies a provision matrix as a practical expedient for calculating expected credit losses. The matrix provides that in the case of institutional customers, a receivable is considered to have had a SICR (i.e. Stage 2) if it is 90 days past due and credit-impaired (i.e. Stage 3) if it is 180 days past due at which point an ECL for 100% of the amount owned is recognised. In the case of non-institutional customers, a receivable is considered to have had a SICR (i.e. Stage 2) if it is 30 days past due and credit-impaired (i.e. Stage 3) if it is 90 days past due at which point an ECL for 100% of the amount owned is recognised. The Bank has not had significant losses on its fee receivable portfolios and is considered to be immaterial.

Other non-TCP

The Bank has determined that ECLs on all other non-TCP portfolios are immaterial due to: the existence of credit risk mitigants such as the existence of the collateral; the credit quality of the borrower (e.g. investment-grade); and/or the short-term nature of the instrument. Similarly, the Bank has determined that these non-TCP portfolios are without SICR (i.e Stage 1) due to the credit quality of the borrower and/or the short-term nature of the instrument.

For inter-company loans and receivables, the Bank evaluates the counterparty based on the consolidated Firm's resolution and recovery plan, tenor of the loan/receivable, and any collateral received. The Bank has not experienced any losses on inter-company loans and receivables.

The Bank continues to monitor its Non-TCP portfolios to ensure the described framework is appropriate and its exposure to credit risk and ECLs on these portfolios is adequately reflected in the allowance for credit losses.

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures

(i) Geographical Distribution

Credit risk exposure analysed by country in respect of the Bank's financial assets, including off-balance sheet financial instruments, are set out in the following table.

The country exposure analysis is based on the residency of the borrowers and counterparties. In respect of derivatives financial instruments, the amount subject to, and hence disclosed as, credit risk is limited to the current fair value of the instruments that are favourable to the Bank (i.e. assets).

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures (continued)

(i) Geographical Distribution (continued)

31.12.2020

	Short-term funds and placements with financial institutions	Securities purchased under resale agreement	Financial assets held at fair value through profit and loss	Derivative financial instruments	Financial assets held at other comprehensive income	Loans and advances	Amount due from related parties	Other assets*	On balance sheet total	Commitments and contingencies
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Malaysia	3,005,566	2,873,109	739,050	1,186,360	251,574	252,734	7,310	18,236	8,333,939	2,951,520
United Kingdom	-	-	-	123,576	-	-	286,746	-	410,322	416,637
USA	-	-	-	69,460	-	4,264	237,436	-	311,160	141,113
Hong Kong	-	-	-	7,125	-	-	2,104	-	9,229	25,326
Singapore	6,978	-	-	79,055	-	248	349	75,609	162,239	223,540
Others	5,559	-	-	13,427	-	4,602	2,420	-	26,008	27,325
	3,018,103	2,873,109	739,050	1,479,003	251,574	261,848	536,365	93,845	9,252,897	3,785,461
Assets not subject to credit risk	396	-	-	-	-	(8,187)	-	65,053	57,262	-
	3,018,499	2,873,109	739,050	1,479,003	251,574	253,661	536,365	158,898	9,310,159	3,785,461

*Other assets include statutory deposits with Bank Negara Malaysia, tax recoverable, deferred tax assets, right-of-use assets, fixed assets and other assets.

Risk concentrations for commitments and contingencies are based on the credit equivalent balances.

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures (continued)

(i) Geographical Distribution (continued)

31.12.2019

	Short-term funds and placements with financial institutions	Securities purchased under resale agreement	Financial assets held at fair value through profit and loss	Derivative financial instruments	Financial assets held at other comprehensive income	Loans and advances	Amount due from related parties	Other assets*	On balance sheet total	Commitments and contingencies
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Malaysia	4,785,906	1,814,557	408,409	477,329	843,453	261,615	95,590	734	8,687,593	2,311,285
United Kingdom	-	-	-	48,569	-	-	1,739	-	50,308	292,093
USA	-	-	-	34,878	-	-	49,814	35	84,727	133,613
Hong Kong	-	-	-	3,303	-	-	4,888	2	8,193	24,950
Singapore	4,213	-	-	20,611	-	365	322	258,443	283,954	98,637
Others	8,541	-	-	2,672	-	4,115	796	-	16,124	10,840
	4,798,660	1,814,557	408,409	587,362	843,453	266,095	153,149	259,214	9,130,899	2,871,418
Assets not subject to credit risk	512	-	-	-	-	(804)	-	59,208	58,916	-
	4,799,172	1,814,557	408,409	587,362	843,453	265,291	153,149	318,422	9,189,815	2,871,418

*Other assets include statutory deposits with Bank Negara Malaysia, tax recoverable, deferred tax assets, right-of-use assets, fixed assets and other assets.

Risk concentrations for commitments and contingencies are based on the credit equivalent balances.

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures (continued)

(ii) Industry Distribution

Credit risk exposure analysed by industry sectors in respect of the Bank's financial assets, including off-balance sheet financial instruments, are set out in the following table.

The industry sector exposure analysis is based on the industry sector of the borrowers and counterparties. In respect of derivatives financial instruments, the amount subject to, and hence disclosed as, credit risk is limited to the current fair value of the instruments that are favourable to the Bank (i.e. assets).

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures (continued)

(ii) Industry Distribution (continued)

										31.12.2020
	Short-term funds and placements with financial institutions	Securities purchased under resale agreement	Financial assets held at fair value through profit and loss	Derivative financial instruments	Financial assets held at other comprehensive income	Loans and advances	Amount due from related parties	Other assets**	On balance sheet total	Commitments and contingencies
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Manufacturing	-	-	-	38,493	-	170,145	-	16	208,654	205,031
Wholesale and retail	-	-	-	14,447	-	161	-	-	14,608	30,107
Finance, insurance and business services	79,280	2,737,692	6,490	1,405,020	-	84,801	536,365	86,669	4,936,317	3,366,837
Government and Government Agencies	2,938,823	135,417	732,560	13,144	251,574	-	-	-	4,071,518	105,216
Electricity, gas and water	-	-	-	-	-	-	-	1	1	1,522
Transport, storage and communication	-	-	-	121	-	5,738	-	-	5,859	6,503

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures (continued)

(ii) Industry Distribution (continued)

31.12.2020

	Short-term funds and placements with financial institutions RM'000	Securities purchased under resale agreement RM'000	Financial assets held at fair value through profit and loss RM'000	Derivative financial instruments RM'000	Financial assets held at other comprehensive income RM'000	Loans and advances RM'000	Amount due from related parties RM'000	Other assets** RM'000	On balance sheet total RM'000	Commitments and contingencies RM'000
Individual/Purchase of landed property - residential	-	-	-	-	-	1,003	-	-	1,003	151
Others	-	-	-	7,778	-	-	-	7,159	14,937	70,094
	3,018,103	2,873,109	739,050	1,479,003	251,574	261,848	536,365	93,845	9,252,897	3,785,461
Assets not subject to credit risk	396	-	-	-	-	(8,187)		65,053	57,262	-
	3,018,499	2,873,109	739,050	1,479,003	251,574	253,661	536,365	158,898	9,310,159	3,785,461

** Other assets include tax recoverable, deferred tax assets, fixed assets, right-of-use assets, statutory deposits with Bank Negara Malaysia and other assets.

Risk concentrations for commitments and contingencies are based on the credit equivalent balances.

5 CREDIT RISK (CONTINUED)

(ii) Industry Distribution (continued)

31.12.2019	Short-term funds and placements with financial institutions	Securities purchased under resale agreement	Financial assets held at fair value through profit and loss	Derivative financial instruments	Financial assets held at other comprehensive income	Loans and advances	Amount due from related parties	Other assets**	On balance sheet total	Commitments and contingencies
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Manufacturing	-	-	-	30,796	-	183,365	-	140	214,301	245,216
Wholesale and retail	-	-	-	5,347	-	-	-	4	5,351	16,885
Finance, insurance and business services	68,780	1,640,748	6,302	541,443	-	39,907	153,149	258,471	2,708,800	2,425,383
Government and Government Agencies	4,729,880	173,809	402,107	6,556	843,453	-	-	94	6,155,899	35,203
Electricity, gas and water	-	-	-	1,129	-	-	-	64	1,193	2,247
Transport, storage and communication	-	-	-	4	-	4,105	-	49	4,158	82,477

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures (continued)

(ii) Industry Distribution (continued)

31.12.2019	Short-term funds and placements with financial institutions RM'000	Securities purchased under resale agreement RM'000	Financial assets held at fair value through profit and loss RM'000	Derivative financial instruments RM'000	Financial assets held at other comprehensive income RM'000	Loans and advances RM'000	Amount due from related parties RM'000	Other assets** RM'000	On balance sheet total RM'000	Commitments and contingencies RM'000
Individual/Purchase of landed property - residential	-	-	-	-	-	1,151	-	-	1,151	155
Others	-	-	-	2,087	-	37,567	-	392	40,046	63,852
	4,798,660	1,814,557	408,409	587,362	843,453	266,095	153,149	259,214	9,130,899	2,871,418
Assets not subject to credit risk	512	-	-	-	-	(804)	-	59,208	58,916	-
	4,799,172	1,814,557	408,409	587,362	843,453	265,291	153,149	318,422	9,189,815	2,871,418

** Other assets include tax recoverable, deferred tax assets, fixed assets, right-of-use assets, statutory deposits with Bank Negara Malaysia and other assets.

Risk concentrations for commitments and contingencies are based on the credit equivalent balances.

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures (continued)

(iii) Residual Contractual Maturity

Credit risk exposure analysed by residual contractual maturity in respect of the Bank's financial assets, including off-balance sheet financial instruments, are set out in the following table.

	Less than 1 year RM'000	1 – 5 years RM'000	Over 5 years RM'000	Total RM'000
31.12.2020				
On-balance sheet exposures				
Cash and short-term funds	3,018,499			3,018,499
Securities purchased under resale agreement	2,873,109	-	-	2,873,109
Financial assets held at fair value through profit and loss ("FVTPL")	187,622	143,629	407,799	739,050
Derivative financial instruments	724,797	644,348	109,858	1,479,003
Financial assets held at fair value through other comprehensive income ("FVOCI")	198,642	52,932	-	251,574
Loans and advances	252,695	381	585	253,661
Amount due from related parties	536,365	-	-	536,365
Total on-balance sheet exposures	7,791,729	841,290	518,242	9,151,261
Off-balance sheet exposures				
Over-the-counter ('OTC') derivatives	1,489,213	1,867,344	299,781	3,656,338
Off balance sheet exposures other than OTC derivatives	75,730	53,393	-	129,123
Total off-balance sheet exposures	1,564,943	1,920,737	299,781	3,785,461
Total on and off-balance sheet exposures	9,356,672	2,762,027	818,023	12,936,722

5 CREDIT RISK (CONTINUED)

5.1 Distribution of Credit Exposures (continued)

(iii) Residual Contractual Maturity (continued)

	Less than 1 year RM'000	1 – 5 years RM'000	Over 5 years RM'000	Total RM'000
31.12.2019				
On-balance sheet exposures				
Cash and short-term funds	4,799,172	-	-	4,799,172
Securities purchased under resale agreement	1,814,557	-	-	1,814,557
Financial assets held at fair value through profit and loss ("FVTPL")	42,229	218,234	147,946	408,409
Derivative financial instruments	281,557	271,449	34,356	587,362
Financial assets held at fair value through other comprehensive income ("FVOCI")	843,453	-	-	843,453
Loans and advances	264,303	313	675	265,291
Amount due from related parties	153,149	-	-	153,149
Total on-balance sheet exposures	8,198,420	489,996	182,977	8,871,393
Off-balance sheet exposures				
Over-the-counter ('OTC') derivatives	885,444	1,472,860	209,763	2,568,067
Off balance sheet exposures other than OTC derivatives	169,225	134,126	-	303,351
Total off-balance sheet exposures	1,054,669	1,606,986	209,763	2,871,418
Total on and off-balance sheet exposures	9,253,089	2,096,982	392,740	11,742,811

5 CREDIT RISK (CONTINUED)

5.2 Past Due and Impaired Loans and Advances

(i) Industry Distribution

The sectoral analysis of past due and impaired loans and advances and the ECL allowance by sectors are set out in the following table:

31 Dec 2020	Stage 2 credit not impaired loans and advances RM'000	Stage 3 credit impaired loans and advances RM'000	ECL credit impaired allowance RM'000	ECL not credit impaired allowance RM'000	ECL credit impaired allowance during the year RM'000	Write offs during the year RM'000
Individual/Purchase of landed property - residential	-	90	23	-	(1)	-
	-	90	23	-	(1)	-

31 Dec 2019	Stage 2 credit not impaired loans and advances RM'000	Stage 3 credit impaired loans and advances RM'000	ECL credit impaired allowance RM'000	ECL not credit impaired allowance RM'000	ECL credit impaired allowance during the year RM'000	Write offs during the year RM'000
Individual/Purchase of landed property - residential	-	92	24	-	1	-
	-	92	24	-	1	-

5 CREDIT RISK (CONTINUED)

5.2 Past Due and Impaired Loans and Advances (continued)

(ii) Geographical Distribution

The geographical analysis of past due and impaired loans and advances and the ECL allowance are set out in the following table:

31 Dec 2020	Stage 2 credit not impaired loans and advances RM'000	Stage 3 credit impaired loans and advances RM'000	ECL credit impaired allowance RM'000	ECL not credit impaired allowance RM'000
Malaysia	-	90	23	-

31 Dec 2019	Stage 2 credit not impaired loans and advances RM'000	Stage 3 credit impaired loans and advances RM'000	ECL credit impaired allowance RM'000	ECL not credit impaired allowance RM'000
Malaysia	-	92	24	-

5 CREDIT RISK (CONTINUED)

5.2 Past Due and Impaired Loans and Advances (continued)

(iii) Movement in expected credit losses for loans and advances

	Stage 1	Stage 2	Stage 3	
	12 months ECL	Lifetime ECL not credit impaired	Lifetime ECL credit impaired	Total
	RM'000	RM'000	RM'000	RM'000
As at 1 January 2020	105	675	24	804
Loans derecognised or repaid	(14)	-	-	(14)
New originated	35	-	-	35
Changes due to change in credit risk	285	4,443	(1)	4,727
Transfers:				
Transfer from Stage 1 to Stage 2	(2)	21	-	19
Transfer from Stage 2 to Stage 1	128	(330)	-	(202)
Changes in model	2,809	9	-	2,818
As at 31 December 2020	3,346	4,818	23	8,187

	Stage 1	Stage 2	Stage 3	
	12 months ECL	Lifetime ECL not credit impaired	Lifetime ECL credit impaired	Total
	RM'000	RM'000	RM'000	RM'000
As at 1 January 2019	138	43	23	204
Loans derecognised or repaid	(13)	(3)	-	(16)
New originated	13	-	-	13
Changes due to change in credit risk	(33)	635	1	603
As at 31 December 2019	105	675	24	804

5 CREDIT RISK (CONTINUED)

5.3 Credit Risk Exposures under Standardised Approach

The Bank applies external ratings assigned by recognised External Credit Assessment Institutions (“ECAIs”) in determining risk weight for credit exposure classes and are recognised by BNM in RWCAF. The Bank uses ratings assigned by Standard & Poor’s (“S&P”), Moody’s Investors Service (“Moody’s”) and Fitch Ratings (“Fitch”).

The following tables set out the credit exposures by risk weights and after credit risk mitigation:

Risk weight as at 31 December 2020 for credit risk exposures:

Weighted	Sovereigns & Central bank	PSE	Banks	Insurance companies, securities firms and funds managers	Corporates	Regulatory Retail	Residential mortgages	Higher risk assets	Other assets	Total exposures after netting and credit risk	Total risk weighted assets
	RM’000	RM’000	RM’000	RM’000	RM’000	RM’000	RM’000	RM’000	RM’000	RM’000	RM’000
0%	2,945,339	-	-	-	-	-	-	-	396	2,945,735	-
20%	-	69,378	4,630,386	270,987	-	-	-	-	6,403	4,977,154	995,431
35%	-	-	-	-	-	-	455	-	-	455	159
50%	437,638	-	1,614,915	205,370	-	-	67	-	-	2,257,990	1,128,995
100%	-	-	-	82,914	579,101	453	-	-	49,224	711,692	711,692
150%	-	-	-	-	-	-	-	4	-	4	6
1250%	-	-	-	-	-	-	-	-	4,761	4,761	59,515
Total	3,382,977	69,378	6,245,301	559,271	579,101	453	522	4	60,784	10,897,791	2,895,798

5 CREDIT RISK (CONTINUED)

5.3 Credit Risk Exposures under Standardised Approach (continued)

Risk weight as at 31 December 2019 for credit risk exposures:

Weighted	Sovereigns & Central bank	PSE	Banks	Insurance companies, securities firms and funds managers	Corporates	Residential mortgages	Higher risk assets	Other assets	Total exposures after netting and credit risk	Total risk weighted assets
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
0%	5,372,512	-	-	-	-	-	-	512	5,373,024	-
20%	409,317	35,203	3,433,294	-	-	-	-	-	3,877,814	775,563
35%	-	-	-	-	-	1,054	-	-	1,054	369
50%	-	-	606,921	408,498	-	68	-	-	1,015,487	507,744
100%	-	-	-	91,194	682,372	-	-	32,007	805,573	805,573
150%	-	-	-	-	-	-	4	-	4	6
Total	5,781,829	35,203	4,040,215	499,692	682,372	1,122	4	32,519	11,072,956	2,089,255

5 CREDIT RISK (CONTINUED)

5.3 Credit Risk Exposures under Standardised Approach (continued)

The following tables set out the rated exposures according to rating by ECAIs:

(i) Ratings of corporate by approved ECAIs

	Moody	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated
	S & P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	RAM	AAA to AA3	A1 to A-	BBB1 to BB3	B to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
Exposure class		RM'000	RM'000	RM'000	RM'000	RM'000
31.12.2020						
On and Off: Balance Sheet Exposures						
Public Sector Entities		-	69,378	-	-	-
Insurance companies, securities firms and fund managers		-	502,657	56,614	-	-
Corporates		-	67,999	260,614	250,488	-
		-	640,034	317,228	250,488	-
31.12.2019						
On and Off: Balance Sheet Exposures						
Public Sector Entities		-	35,203	-	-	-
Insurance companies, securities firms and fund managers		-	430,036	69,657	-	-
Corporates		-	98,709	289,115	294,547	-
		-	563,948	358,772	294,547	-

5 CREDIT RISK (CONTINUED)

5.3 Credit Risk Exposures under Standardised Approach (continued)

(ii) Ratings of Sovereigns/Central Banks and Banking Institutions by approved ECAIs

	Moody	Aaa to Aa3	A1 to A3	Baa1 to Ba3	B1 to C	Unrated
	S & P	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	Fitch	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
	RAM	AAA to AA3	A1 to A-	BBB1 to BB3	B to D	Unrated
	MARC	AAA to AA-	A+ to A-	BBB+ to BB-	B+ to D	Unrated
Exposure class		RM'000	RM'000	RM'000	RM'000	RM'000
31.12.2020						
On and Off: Balance Sheet Exposures						
Sovereigns/Central Banks		-	3,382,977	-	-	-
Banks		9,278	4,287,017	1,948,905	101	-
		9,278	7,669,994	1,948,905	101	-
31.12.2019						
On and Off: Balance Sheet Exposures						
Sovereigns/Central Banks		-	5,729,362	-	-	-
Banks		5,790	3,915,894	118,439	92	-
		5,790	9,645,256	118,439	92	-

5.4 Credit Risk Mitigation ("CRM")

Management of the Bank's exposure is accomplished through a number of means including: loan syndication and participations, loan sales, use of master netting agreements and collaterals.

(a) Collateral

The Bank takes collateral as a secondary recourse to the borrower. Collaterals include cash, securities and guarantees. The Bank may also take fixed and floating charges on assets of borrowers. It has put in place policies which governs the determination of eligibility of various collaterals to be considered for credit risk mitigation which includes the minimum operational requirements that are required for the specific collateral to be considered as effective risk mitigants. The collateral is revalued periodically depending on the type of collateral. The Bank generally considers the collateral assets to be diversified.

5 CREDIT RISK (CONTINUED)

5.4 Credit Risk Mitigation ("CRM") (continued)

(b) Master netting arrangements

Master netting agreement is an agreement between two counterparties who have multiple derivative contracts with each other that provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default on or termination of any one contract. It does not generally result in an offset of balance sheet assets and liabilities, as transactions are usually settled on a gross basis. The Bank's overall exposure to credit risk on derivative instruments subject to master netting arrangements can change substantially within a short year, as it is affected by each transaction subject to the arrangement.

The Bank participates in the Derivative Credit Risk Master Insurance Policy where it pays a credit charge to its Head Office as a credit insurance protection for its derivative transactions. The head office credit portfolio management process includes entering into hedges using Credit Default Swaps ("CDS"), CDS Indices, Foreign Exchange, Interest Rate Swaps and through loan sales.

The following tables set out the credit exposures that are covered by eligible guarantees and collaterals as allowed under the RWCAF.

31.12.2020	Exposures before CRM	Exposures covered by guarantees/ credit derivatives	Exposures covered by eligible financial collateral
	RM'000	RM'000	RM'000
Exposure Class			
On-balance sheet exposures			
Sovereigns/central banks	3,347,139	-	137,575
Banks	3,084,994	-	2,771,279
Insurance companies, securities firms and fund managers	357,588	-	273,649
Corporates	260,845	-	-
Regulatory retail	453	-	-
Residential mortgages	456	-	-
Higher risk assets	4	-	-
Other assets	60,784	-	-
Defaulted exposures	67	-	-
Total on-balance sheet exposures	7,112,330	-	3,182,503
Off-balance sheet exposures			
Over-the-counter ('OTC') derivatives	3,656,338	66,588	288,221
Off balance sheet exposures other than OTC derivatives	129,123	-	-
Total off-balance sheet exposures	3,785,461	66,588	288,221
Total on and off-balance sheet exposures	10,897,791	66,588	3,470,724

5 CREDIT RISK (CONTINUED)

5.4 Credit Risk Mitigation ("CRM") (continued)

31.12.2019	Exposures before CRM	Exposures covered by guarantees/ credit derivatives	Exposures covered by eligible financial collateral
	RM'000	RM'000	RM'000
Exposure Class			
On-balance sheet exposures			
Sovereigns/central banks	5,781,829	-	177,404
Banks	1,862,069	-	1,665,414
Insurance companies, securities firms and fund managers	259,050	-	-
Corporates	264,944	-	-
Residential mortgages	1,054	-	-
Higher risk assets	4	-	-
Other assets	32,520	-	-
Defaulted exposures	68	-	-
Total on-balance sheet exposures	8,201,538	-	1,842,818
Off-balance sheet exposures			
Over-the-counter ('OTC') derivatives	2,568,067	65,723	111,895
Off balance sheet exposures other than OTC derivatives	303,351	-	-
Total off-balance sheet exposures	2,871,418	65,723	111,895
Total on and off-balance sheet exposures	11,072,956	65,723	1,954,713

5 CREDIT RISK (CONTINUED)

5.5 Off-Balance Sheet Exposures and Counterparty Credit Risk

Counterparty Credit Risk ("CCR") is the risk that the counterparty to a transaction involving financial instruments such as foreign exchange and derivatives, could default before the final settlement of the transaction's cash flows.

For derivatives, the Bank is not exposed to credit risk for the full face value of the contracts. The CCR is limited to the potential cost of replacing the cash-flow if the counterparty defaults. As such, the credit equivalent amount will depend on the maturity of the contract and on the volatility of the rates underlying that type of instrument.

Counterparty limits for the Bank are established at the individual counterparty level and are set based on the counterparty's credit rating, tenor and size.

To mitigate the counterparty risk for derivative transactions, the Bank participates in the Derivative Credit Risk Master Insurance Policy where it pays a credit charge to its Head Office as a credit insurance protection for its derivative transactions. The head office credit portfolio management process includes entering into hedges using CDS, CDS Indices, Foreign Exchange, Interest Rate Swaps and through loan sales.

The counterparty risk is further mitigated via master netting agreements. Master netting agreement is an agreement between two counterparties who have multiple derivative contracts with each other that provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default on or termination of any one contract. It does not generally result in an offset of balance sheet assets and liabilities, as transactions are usually settled on a gross basis. The Bank's overall exposure to credit risk on derivative instruments subject to master netting arrangements can change substantially within a short year, as it is affected by each transaction subject to the arrangement.

5 CREDIT RISK (CONTINUED)

5.5 Off-Balance Sheet Exposures and Counterparty Credit Risk (continued)

The following tables set out the off-balance sheet exposures and counterparty credit risk.

31.12.2020	Principal amount RM'000	Positive fair value of derivative contracts RM'000	Credit equivalent amount* RM'000	Risk weighted amount RM'000
Direct credit substitutes	110,081	-	110,081	105,177
Transaction-related contingent items	31,974	-	15,987	12,326
Short-term self-liquidating trade related contingencies	14,522	-	2,904	2,904
Foreign exchange related contracts:				
- less than one year	41,345,468	595,983	1,221,827	579,427
- one year to less than five years	2,527,005	92,205	277,461	98,510
- more than five years	120,540	3,835	21,914	7,095
Interest rate related contracts:				
- less than one year	23,423,274	71,675	118,206	42,630
- one year to less than five years	43,323,128	530,417	1,471,298	548,244
- more than five years	2,962,352	106,023	277,867	84,631
Equity related contracts				
- less than one year	1,271,273	57,139	149,180	78,486
- one year to less than five years	313,302	11,674	51,997	23,360
Credit related contracts				
- one year to less than five years	352,650	10,052	66,588	24,416
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	302	-	151	151
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 borrower's creditworthiness	1,672,725	-	-	-
	117,468,596	1,479,003	3,785,461	1,607,357

* The credit equivalent amount is arrived at using the credit conversion factors as per Bank Negara Malaysia guidelines.

5 CREDIT RISK (CONTINUED)

5.5 Off-Balance Sheet Exposures and Counterparty Credit Risk (continued)

31.12.2019	Principal amount RM'000	Positive fair value of derivative contracts RM'000	Credit equivalent amount* RM'000	Risk weighted amount RM'000
Direct credit substitutes	177,275	-	177,275	153,588
Transaction-related contingent items	74,006	-	37,003	32,724
Short-term self-liquidating trade related contingencies	14,826	-	2,965	2,965
Foreign exchange related contracts:				
- less than one year	31,745,761	238,707	699,788	297,717
- one year to less than five years	3,558,501	60,006	350,243	119,476
- more than five years	122,790	1,785	22,660	6,619
Interest rate related contracts:				
- less than one year	9,624,026	18,029	36,969	11,494
- one year to less than five years	34,587,526	177,570	927,672	271,892
- more than five years	2,325,772	32,571	187,103	50,925
Equity related contracts				
- less than one year	1,556,590	24,821	145,572	76,804
- one year to less than five years	799,146	26,733	132,337	71,732
Credit related contracts				
- less than one year	31,150	7,140	3,115	623
- one year to less than five years	321,429	-	62,608	24,984
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	172,217	-	86,108	86,108
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 borrower's creditworthiness	1,615,098	-	-	-
	86,726,113	587,362	2,871,418	1,207,651

* The credit equivalent amount is arrived at using the credit conversion factors as per Bank Negara Malaysia guidelines.

5 CREDIT RISK (CONTINUED)

5.5 Off-Balance Sheet Exposures and Counterparty Credit Risk (continued)

The table below shows the credit derivative contracts for client intermediation activities:

31.12.2020	Principal amount RM'000	Credit equivalent amount RM'000	Risk weighted assets RM'000
Credit related contracts			
Credit default swap			
- Protection bought	150,650	29,592	5,918
- Protection sold	202,000	36,996	18,498
	352,650	66,588	24,416

31.12.2019	Principal amount RM'000	Credit equivalent amount RM'000	Risk weighted assets RM'000
Credit related contracts			
Credit default swap			
- Protection bought	151,600	24,180	4,836
- Protection sold	200,979	41,543	20,771
	352,579	65,723	25,607

6 MARKET RISK

Market risk is the risk associated with the effect of changes in market factors such as interest and foreign exchange rates, equity and commodity prices, credit spreads or implied volatilities, on the value of assets and liabilities held for both the short and long term.

Market Risk Management monitors market risks throughout the Bank and defines market risk policies, procedures and frameworks. The Market Risk Management function seeks to manage risk, facilitate risk/return decisions, reduce volatility in operating performance and provide transparency into the Bank's market risk profile.

Risk Governance & Policy Framework

The Bank's approach to market risk governance mirrors the Firmwide approach and is outlined in the Bank's Market Risk Management Framework ('Framework'), which includes the following:

- Responsibilities of the CRO and Market Risk Officer ("MRO")
- Market Risk measures utilised such as Value-at-Risk ("VaR"), Stress and non-statistical measures
- Controls such as the Bank's market risk limit framework (limit levels, limit signatories, limit reviews and escalation)

The Bank's Board of Directors approves substantive changes to the Framework and approves this Framework annually.

Risk Measurement

There is no single measure to capture market risk and therefore the Bank uses various metrics both statistical and non-statistical to assess risk. The appropriate set of risk measures utilized for a given business activity is tailored based on business mandate, risk horizon, materiality, market volatility and other factors.

VaR

The Bank utilises Value at Risk ("VaR"), a statistical risk measure, to estimate the potential loss from adverse market moves in the current market environment.

The VaR framework is employed across the Firm using historical simulation based on data for the previous 12 months.

VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 99% confidence level.

The table below shows the result of the Bank's VaR

	2020 RM'000	2019 RM'000
99% VaR	8,169	1,056

The Bank's market risk profile is driven by Credit, Equities, Foreign Exchange, interest rate market related exposures.

6 MARKET RISK (CONTINUED)

Stress Testing

Along with VaR, stress testing is an important tool to assess risk. While VaR reflects the risk of loss due to adverse changes in markets using recent historical market behavior, stress testing reflects the risk of loss from hypothetical changes in the value of market risk sensitive positions applied simultaneously. The Bank runs weekly stress tests on market-related risks across the lines of business using multiple scenarios that assume significant changes in risk factors such as credit spreads, equity prices, interest rates, currency rates or commodity prices.

The Bank uses a number of standard scenarios that capture different risk factors across asset classes including geographical factors, specific idiosyncratic factors and extreme tail events. The stress testing framework calculates multiple magnitudes of potential stress for both market rallies and market sell-offs for each risk factor and combines them in multiple ways to capture different market scenarios. The flexibility of the stress testing framework allows risk managers to construct new, specific scenarios that can be used to form decisions about future possible stress events.

Stress testing complements VaR by allowing risk managers to shock current market prices to more extreme levels relative to those historically realized, and to stress test the relationships between market prices under extreme scenarios.

Stress-test results, trends and qualitative explanations based on current market risk positions are reported to the Bank's RALCO to allow them to better understand the sensitivity of positions to certain defined events and to enable them to manage their risks with more transparency. In addition, results are reported to the Board of Directors.

Stress scenarios are defined and reviewed by Market Risk, and significant changes are reviewed by the relevant line of business's risk committees and may be redefined on a periodic basis to reflect current market conditions.

Non-Statistical Risk Measures

Measures such as, but not limited to, credit spread sensitivities, option sensitivities, net open positions, basis point values are utilized within specific market context and aggregated across businesses.

Limits

Market risk limits are employed as the primary control to align the Bank's market risk with certain quantitative parameters within the Bank's Risk Appetite framework.

Market Risk sets market risk limits and these are subject to the RALCO approval who confirms compliance with local regulatory requirements.

As part of its holistic analysis of the Bank's market risk, Market Risk must review market risk limits for the Bank at least semi-annually. Limit reviews must consider the underlying trading, investing and hedging strategies of the business as well as capital or regulatory requirements where applicable.

Business units should not exceed their market risk limits unless expressly authorized by a Temporary Limit Approval ("TLA"). A market risk valid limit breach requires that the business take immediate steps to reduce exposure so as to be within limit, unless a temporary limit approval is granted. Market risk limits may be kept at levels close to full utilizations which may cause brief periods of market risk limit breaches among a small proportion of the total number of limits.

6 MARKET RISK (CONTINUED)

Risk Monitoring and Control

Limit utilizations and notifications of valid market risk limit breaches are sent to appropriate Bank's limit signatories, the RALCO, the business and Global LE MR Head daily.

Aged or significant market risk limit breaches are escalated by Market Risk and LERM if not already included as a signatory, Global LE MR Head, Firmwide Risk Executive – Market Risk (FRE MR) and APAC Risk Committee.

Risk Reporting

The Firm and the Bank have their own set of regular market risk reports, which include daily notifications of limit utilisations and limit breaches and where applicable, granular market risk metrics which provide transparency into potential risk concentrations.

COVID-19 Pandemic

Market Risk Management is actively monitoring the impact of the COVID-19 pandemic on market risk exposures by leveraging existing risk measures and controls.

Models used to measure market risk are inherently imprecise and may be limited in their ability to measure certain risks or to predict losses. This imprecision may be heightened when sudden or severe shifts in market conditions occur, such as those observed at the onset of the COVID-19 pandemic.

Market Risk Management periodically reviews the Bank's existing market risk measures to identify opportunities for enhancement, and to the extent appropriate, will calibrate those measures accordingly over time. This is increasingly important in periods of sustained, heightened market volatility.

31.12.2020	Long position	Short position	Risk weighted assets RM'000	Capital requirements RM'000
Interest rate risk	115,776,893	113,935,586	3,137,272	250,982
Foreign currency risk	2,676	52,629	52,629	4,210
Option risk			134,513	10,761
			3,324,414	265,953
31.12.2019				
Interest rate risk	112,328,805	111,562,393	1,468,018	117,442
Foreign currency risk	9,786	-	9,786	783
Option risk			263,112	21,049
			1,740,916	139,274

7 EQUITY EXPOSURES

The following tables present the equity exposures, stated at fair value, in the banking book and the gains and losses on equity exposures in the banking book of the Bank. There is no exposure to quoted equity as at 31 December 2020.

(a) Equity Exposures in the Banking Book

	Gross Credit Exposure RM'000	Risk weighted Asset RM'000
2020		
Privately Held		
For socio-economic purpose	6,490	1,368
2019		
Privately Held		
For socio-economic purpose	6,302	1,329

(b) Gains and Losses on Equity Exposures in the Banking Book

	2020 RM'000	2019 RM'000
Realised gain recognised in profit or loss	-	325
Unrealised gain recognised in profit or loss	188	382
	188	707

8 OPERATIONAL RISK

Operational risk is the risk associated with an adverse outcome resulting from inadequate or failed internal processes or systems; human factors; or external events impacting the Bank's processes or systems; it includes compliance, conduct, legal, and estimations and model risk. Operational risk is inherent in the Bank's activities and can manifest itself in various ways, including fraudulent acts, business interruptions, cybersecurity attacks, inappropriate employee behavior, failure to comply with applicable laws and regulations or failure of vendors to perform in accordance with their agreements. Operational Risk Management attempts to manage operational risk at appropriate levels in light of the Bank's financial position, the characteristics of its businesses, and the markets and regulatory environment in which it operates.

The Firm's Compliance, Conduct, and Operational Risk ("CCOR") Management Framework is designed to enable the Firm and the Bank to govern, identify, measure, monitor and test, manage and report on the Firm's and the Bank's operational risk.

Operational Risk Governance

The lines of business (LOB) and corporate functions hold ownership, responsibility and accountability for the management of operational risk. The Firmwide Control Management Organization, which consists of control managers within each LOB and corporate functions, is responsible for the day-to-day execution of the CCOR Framework. LOBs and corporate functions control committees and the Location Operating committees (LOC) are responsible for reviewing data that indicates the quality and stability of processes, addressing key operational risk issues, focusing on processes with control concerns, and overseeing control remediation.

The Bank maintains a system of comprehensive policies and control framework designed to provide a sound and well-controlled operational environment. Primary responsibility for managing operating risk rests with the business managers. These individuals, with the support of their staff, are responsible for establishing and maintaining internal control procedures that are appropriate for their operating environments. To this end, the objectives of each business activities are identified and the risks associated with those objectives are assessed. The business managers institute a series of standards and procedures to manage these risks and to comply with the Bank's operational risk related policies, considering their nature and magnitude.

Internal Audit conducts for managing operating risk rests with the business managers. These individuals, with the support of their staff, are responsible for establishing and maintaining internal control procedures that are appropriate for their operating environments. To this end, the objectives of each business activities are identified and the risks associated with those objectives are assessed. The business managers institute a series of standards and procedures to manage these risks and to comply with the Bank's operational risk related policies, considering their nature and magnitude.

Operational Risk Identification

The Firm utilizes a structured risk and control self-assessment process that is executed by the LOBs and corporate functions. As part of this process, the LOBs and corporate functions evaluate the effectiveness of their control environment to assess where controls have failed, and to determine where remediation efforts may be required. CCOR Management provides oversight of these activities and may also perform independent assessments of significant operational risk events and area of concentrated or emerging risk.

8 OPERATIONAL RISK (CONTINUE)

Measurement

In addition to the level of actual operational risk losses, operational risk measurement includes operational risk based capital which is aligned with Basel requirements. The Bank's operational risk capital requirements continues to be calculated based on the Basic Indicator Approach (BIA).

Operational Risk Monitoring and Testing

The results of risk assessments performed by CCOR Management are leveraged as one of the key criteria in the independent monitoring and testing of the LOBs and corporate functions' compliance with laws and regulation. Through monitoring and testing, CCOR Management independently identifies areas of operational risk and tests the effectiveness of controls within the LOBs and corporate functions.

Management of Operational Risk

The operational risk areas or issues identified through monitoring and testing are escalated to the LOBs and corporate functions to be remediated through action plans, as needed, to mitigate operational risk. CCOR Management may advise the LOBs and corporate functions in the development and implementation of action plans.

Reporting

Each Line of Business and corporate function should report and escalate the operational risk topics to their respective control committees, including losses, risk assessment, control breaches and respective action plans. CCOR Management has established standards to ensure that consistent operational risk reporting and operational risk reports are produced on a Firmwide basis as well as by LOBs and corporate functions. The standards reinforce escalation protocols to senior management and to the Board of Directors.

9 INTEREST RATE RISK/RATE OF RETURN RISK IN THE BANKING BOOK

Interest Rate Risk in the Banking Book (IRRBB) is defined as interest rate risk resulting from the Bank's traditional banking activities as a result of movements in interest rates. IRRBB can occur due to a variety of factors, including but not limited to:

- Differences between the timing of rate changes and the timing of cash flows (repricing risk);
- Changing rate relationships among yield curves that affect bank activities (basis risk);
- Changing rate relationships across the spectrum of maturities (yield curve risk); and
- Interest-rate-related options embedded in banking products (option risk).

Treasury and Chief Investment Office (T/CIO) manages IRRBB exposure on behalf of the Bank by identifying, measuring, modelling, and monitoring IRR across the Bank's balance sheet. T/CIO works with the Lines of Businesses in defining methodologies for measuring IRRBB. T/CIO identifies and understands material balance sheet impact of new initiatives and products, and executes market transactions to manage IRRBB.

9 INTEREST RATE RISK/RATE OF RETURN RISK IN THE BANKING BOOK (CONTINUED)

The Bank's IRRBB exposure originates from the traditional banking activities that include the extension of loans, taking client deposits. T/CIO is managing the exposure through placements/takings, and the purchase of securities under T/CIO investment portfolio. The majority of the Bank's deposits are Non-Maturity Deposits (NMD) that is modelled as longer dated liabilities by considering deposits run-off profile and analyzing deposits' sensitivity to rate changes. Loans, Placements, Term Deposits, Placements, and Investment Securities under T/CIO investment portfolio are assumed to have contractual maturity with fixed or adjustable rate.

IRRBB is evaluated using two primary metrics, impact to the Bank's earnings through Earnings at Risk (EaR) metric, and impact to the Bank's equity through Economic Value Sensitivity (EVS) metric:

- EaR measures the extent to which changes in interest rates will affect the bank's net interest income (NII) over the following 12 months period under four parallel shift scenarios in interest rate curve.
- EVS determines changes in Economic Value of Equity (EVE) due to changes in interest rates under two parallel and four non-parallel shift scenarios in interest rate curve.

The IRRBB metrics are regularly monitored, reported on a regular basis and presented in the Bank's RALCO meeting.

The sensitivity of the Bank's positions in banking book to interest rate changes are set out in the following table:

	BCBS Parallel*	
31.12.2020	Up	Down
	RM'000	RM'000
Impact in Earnings		
MYR	81,740	(101,991)
USD	55,258	(25,599)
Other	1,884	(894)
	138,882	(128,484)

	BCBS Parallel*	
31.12.2019	Up	Down
	RM'000	RM'000
Impact in Earnings		
MYR	61,655	(61,419)
USD	4,941	(13,730)
Other	1,362	(1,163)
	67,958	(76,312)

9 INTEREST RATE RISK/RATE OF RETURN RISK IN THE BANKING BOOK (CONTINUED)

The sensitivity of the Bank's positions in banking book to interest rate changes are set out in the following table (continued):

31.12.2020	BCBS Parallel*	
	Up	Down
	RM'000	RM'000
Impact in Economic Value		
MYR	75,677	(75,563)
USD	(10,973)	24,393
Other	(671)	733
	64,033	(50,437)

31.12.2019	BCBS Parallel*	
	Up	Down
	RM'000	RM'000
Impact in Economic Value		
MYR	106,530	(131,617)
USD	34,526	(65,027)
Other	1,873	(1,242)
	142,929	(197,886)

* *Under BCBS Parallel Up and Down scenario, the Bank is applying 200 bps shock for USD and 300 bps shock for MYR as prescribed in BCBS Standards*