# Standard Chartered Saadiq Berhad

# Pillar 3 Disclosures
# 31 December 2019

Incorporated in Malaysia with registered Company No. 200801022118 (823437-K)

***Registered Office and Principal Place of Businesses***

***Level 26, Equatorial Plaza***

***No. 30, Jalan Sultan Ismail 50250 Kuala Lumpur***

**Standard Chartered Saadiq Berhad**
**Pillar 3 disclosures**

## 1. Overview

This document describes Standard Chartered Saadiq Berhad ("the Bank")'s risk profile, risk management practises and capital adequacy position in accordance with the disclosure requirement as outlined in the Capital Adequacy Framework for Islamic Banks ("CAFIB") - Disclosure Requirements ("Pillar 3") issued by Bank Negara Malaysia ("BNM").

### Basel II

The Basel Committee on Banking Supervision (“BCBS”) published a framework for International Convergence of Capital Measurement and Capital Standards (commonly referred to as ‘Basel II’), which replaced the original 1988 Basel I Accord. Basel II is structured around three ‘pillars’ which are outlined below:-

- Pillar 1 sets out minimum regulatory capital requirements – the minimum amount of regulatory capital banks must hold against the risks they assume;
- Pillar 2 sets out the key principles for supervisory review of a bank’s risk management framework and its capital adequacy. It sets out specific oversight responsibilities for the Board of Directors ("the Board") and senior management, thus reinforcing principles of internal control and other corporate governance practices; and
- Pillar 3, covered in the supplementary financial information, aims to bolster market discipline through enhanced disclosure by banks.

Basel II provides three credit risk approaches of increasing sophistication, namely, the Standardised Approach (“TSA”), the Foundation Internal Ratings Based Approach (“FIRB”) and the Advanced Internal Ratings Based Approach (“AIRB”).

In Malaysia, the Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets) came into effect on 1 January 2008, last updated on 3 May 2019. The framework (previously known as Capital Adequacy Framework for Islamic Banks) sets out the approaches for the computation of Risk Weighted Asset (RWA) for Islamic banking institutions. The Framework should be read together with the Capital Adequacy Framework for Islamic Banks (Capital Components) and shall form the basis for the computation of the capital adequacy ratios.

Bank Negara Malaysia ("BNM") has formally approved Standard Chartered Saadiq Berhad ("SCSB") or ("the Bank") to use the AIRB for calculating and reporting credit risk regulatory capital in June 2010. As a result, since July 2010 regulatory capital submission, the Bank has been using AIRB for calculating and reporting the credit risk capital requirement. Formal approval was obtained from BNM in May 2013 for the use of The Standardised Approach ("TSA") for calculating and reporting operational risk. Effective September 2013, the Bank commenced the use of TSA for calculating and reporting operational risk capital requirement.

The following summarise the approaches adopted by the Bank:

| Risk Type | Approach Adopted |
|---|---|
| 1. Credit | Advanced Internal Ratings-Based Approach |
| 2. Market | The Standardised Approach |
| 2. Operational | The Standardised Approach |

## 2. Capital management

The Bank’s capital position is in line with Board-approved risk appetite. The Bank is well capitalised with loss absorbing capacity.

Details of the Bank's capital management approach are disclosed in Note 33(iii) of the Bank's financial statements, while details of regulatory capital structure of the Bank are disclosed in Note 17 and Note 36 to the financial statements. All ordinary shares in issue confer identical rights in respect of capital, dividends and voting.

## 3. Risk management

The management of risk is a key component of the Bank's business. One of the main risks we incur arises from extending credit to customers through our financing and trading operations. Beyond credit risk, we are also exposed to a range of other risk types such as country, market, capital and liquidity, operational risk including Shariah non-compliance risk, reputational, compliance, conduct, information and cyber security and financial crime risks that are inherent in our strategy and product range.

Our enterprise risk management framework and governance are disclosed in page 13 and Note 33 respectively of the Bank's financial statements.

The Shariah Committee, through the authority delegated by the Board, is responsible for assuring that all Islamic Banking products and services comply with the Shariah requirements.

## 4. Regulatory capital requirement

**Disclosure on capital adequacy under the Standardised and Internal Ratings Based ("IRB") approach**

| **31 December 2019**<br>**Exposure class** | **Gross exposures RM'000** | **Net exposures RM'000** | **Risk weighted assets RM'000** | **Risk weighted assets absorbed by Profit Sharing Investment Account ("PSIA") RM'000** | **Total risk weighted assets after effects of PSIA RM'000** | **Minimum Capital requirement at 8% RM'000** |
|---|---|---|---|---|---|---|
| **(a) Credit risk** | | | | | | |
| Exposures under the Standardised approach | | | | | | |
| On-balance sheet exposures: | | | | | | |
| Corporates | 23,587 | 23,587 | 23,587 | - | 23,587 | 1,887 |
| Regulatory retail | 40,511 | 40,511 | 33,183 | (27,249) | 5,934 | 475 |
| Home financing | 319 | 319 | 112 | - | 112 | 9 |
| Other assets | 49,456 | 49,456 | 46,643 | - | 46,643 | 3,731 |
| Defaulted exposures | 24 | 24 | 36 | - | 36 | 3 |
| Total on-balance sheet exposures | 113,897 | 113,897 | 103,561 | (27,249) | 76,312 | 6,105 |
| Off-balance sheet exposures: | | | | | | |
| Off-balance sheet exposures other than Islamic Over-The-Counter ("OTC") derivative transactions and Islamic credit derivatives | 3,447 | 564 | 529 | - | 529 | 42 |
| Defaulted exposures | | | | | | |
| Total off-balance sheet exposures | 3,447 | 564 | 529 | - | 529 | 42 |
| Total on and off-balance sheet exposures | 117,344 | 114,461 | 104,090 | (27,249) | 76,841 | 6,147 |
| Exposures under the IRB approach | | | | | | |
| On-balance sheet exposures: | | | | | | |
| Sovereigns/central banks | 2,459,175 | 2,459,175 | 485,936 | (149,404) | 336,532 | 26,923 |
| Banks, development financial institutions ("DFIs") & multilateral development banks ("MDBs") | 204,611 | 204,611 | 50,173 | - | 50,173 | 4,014 |
| Corporates | 1,451,037 | 1,451,037 | 1,333,102 | (258,980) | 1,074,122 | 85,930 |
| Home financing | 2,127,558 | 2,127,558 | 311,747 | (88,090) | 223,657 | 17,893 |
| Other retail | 659,907 | 659,907 | 327,688 | (44,486) | 283,202 | 22,656 |
| Defaulted exposures | 106,313 | 106,313 | 154,711 | (38,407) | 116,304 | 9,304 |
| Total on-balance sheet exposures | 7,008,601 | 7,008,601 | 2,663,357 | (579,367) | 2,083,990 | 166,720 |
| Off-balance sheet exposures: | | | | | | |
| OTC derivatives | 156,545 | 156,545 | 62,197 | - | 62,197 | 4,976 |
| Off-balance sheet exposures other than Islamic OTC derivative transactions and Islamic credit derivatives | 597,343 | 597,343 | 514,653 | (48,328) | 466,325 | 37,306 |
| Defaulted exposures | 1,349 | 1,349 | 3,021 | (15) | 3,006 | 240 |
| Total off-balance sheet exposures | 755,237 | 755,237 | 579,871 | (48,343) | 531,528 | 42,522 |
| Total on and off-balance sheet exposures | 7,763,838 | 7,763,838 | 3,243,228 | (627,710) | 2,615,518 | 209,242 |
| **(b) Large exposures risk requirement** | | | - | - | - | - |
| **(c) Market risk** | | | - | - | - | - |
| **(d) Operational risk (Standardised approach)** | | | 281,851 | - | 281,851 | 22,548 |
| **Total RWA and capital requirements** | | | 3,629,169 | (654,959) | 2,974,210 | 237,937 |

**Common Equity Tier ("CET") 1, Tier 1 and Total capital ratios**

| | Before effect of PSIA | After effect of PSIA |
|---|---|---|
| CET 1 capital ratio | 18.793% | 22.931% |
| Tier 1 capital ratio | 18.793% | 22.931% |
| Total capital ratio | 22.006% | 26.852% |

## 4. Regulatory capital requirement (continued)

**Disclosure on capital adequacy under the Standardised and IRB approach (continued)**

| **31 December 2018**<br>**Exposure class** | **Gross exposures RM'000** | **Net exposures RM'000** | **Risk weighted assets RM'000** | **Risk weighted assets absorbed by Profit Sharing Investment** | **Total risk weighted assets after effects of PSIA RM'000** | **Minimum Capital requirement at 8% RM'000** |
|---|---|---|---|---|---|---|
| **(a) Credit risk** | | | | | | |
| Exposures under the Standardised approach | | | | | | |
| On-balance sheet exposures: | | | | | | |
| Corporates | 24,460 | 24,460 | 24,460 | (24,457) | 3 | - |
| Regulatory retail | 45,556 | 45,556 | 37,668 | (36,675) | 993 | 79 |
| Home financing | 328 | 328 | 115 | (52) | 63 | 5 |
| Other assets | 71,736 | 71,736 | 69,002 | - | 69,002 | 5,520 |
| Defaulted exposures | 24 | 24 | 36 | - | 36 | 3 |
| Total on-balance sheet exposures | 142,104 | 142,104 | 131,281 | (61,184) | 70,097 | 5,607 |
| Off-balance sheet exposures: | | | | | | |
| Off-balance sheet exposures other than Islamic Over-The-Counter ("OTC") derivative transactions and Islamic credit derivatives | 6,199 | 3,384 | 3,384 | - | 3,384 | 271 |
| Total off-balance sheet exposures | 6,199 | 3,384 | 3,384 | - | 3,384 | 271 |
| Total on and off-balance sheet exposures | 148,303 | 145,488 | 134,665 | (61,184) | 73,481 | 5,878 |
| Exposures under the IRB approach | | | | | | |
| On-balance sheet exposures: | | | | | | |
| Sovereigns/central banks | 1,997,754 | 1,997,754 | 316,708 | (98,688) | 218,020 | 17,442 |
| Banks, development financial institutions ("DFIs") & multilateral development banks ("MDBs") | 286,935 | 286,935 | 70,393 | - | 70,393 | 5,631 |
| Corporates | 2,142,315 | 2,142,333 | 1,693,578 | (469,502) | 1,224,076 | 97,926 |
| Home financing | 2,384,727 | 2,384,727 | 354,882 | (163,321) | 191,561 | 15,325 |
| Other retail | 681,329 | 681,311 | 320,039 | (81,716) | 238,323 | 19,066 |
| Defaulted exposures | 106,774 | 106,774 | 190,913 | (69,446) | 121,467 | 9,717 |
| Total on-balance sheet exposures | 7,599,834 | 7,599,834 | 2,946,513 | (882,673) | 2,063,840 | 165,107 |
| Off-balance sheet exposures: | | | | | | |
| OTC derivatives | 289,305 | 289,305 | 170,112 | (91,644) | 78,468 | 6,277 |
| Off-balance sheet exposures other than Islamic OTC derivative transactions and Islamic credit derivatives | 456,221 | 456,221 | 295,246 | (61,065) | 234,181 | 18,734 |
| Defaulted exposures | 9 | 9 | 15 | (15) | - | - |
| Total off-balance sheet exposures | 745,535 | 745,535 | 465,373 | (152,724) | 312,649 | 25,011 |
| Total on and off-balance sheet exposures | 8,345,369 | 8,345,369 | 3,411,886 | (1,035,397) | 2,376,489 | 190,118 |
| **(b) Large exposures risk requirement** | | | - | - | - | - |
| **(c) Market risk** | | | - | - | - | - |
| **(d) Operational risk (Standardised approach)** | | | 309,136 | - | 309,136 | 24,731 |
| **Total RWA and capital requirements** | | | 3,855,687 | (1,096,581) | 2,759,106 | 220,727 |

**Common Equity Tier ("CET") 1, Tier 1 and Total capital ratios**

| | Before effect of PSIA | After effect of PSIA |
|---|---|---|
| CET 1 capital ratio | 16.810% | 23.491% |
| Tier 1 capital ratio | 16.810% | 23.491% |
| Total capital ratio | 19.812% | 27.685% |

## 5. Credit risk

Credit risk is the potential for loss due to a failure of a counterparty (both Banking and Trading Book) to meet its obligations back to the Bank. Credit risk is managed through a framework that sets out policies and procedures covering measurement and management of credit risk. Credit risk function, as a second line of defence control function, performs independent challenge, monitoring and oversight of credit risk practices of the business or functions engaged in supporting revenue generating activities that constitute first line of defence.

Our approach to credit risk can be found in Note 33(i) of the Bank's financial statements.

The Bank uses the IRB approach to manage credit risk for the majority of its portfolios. This allows the Bank to use its own internal estimates of Probability of Default ("PD"), Loss Given Default ("LGD"), Residual Maturity, Exposure at Default ("EAD") and Credit Conversion Factor ("CCF") to determine an asset risk-weighting. The Standardised Approach ("TSA") is applied to portfolios that are classified as permanently exempted from the IRB approach, and those portfolios that are currently under transition to the IRB approach or too small an exposure for IRB model built. The development, use and governance of models under the IRB approach is covered in more detail in Section 5(i).

### (i) Internal Ratings Based models

The overall governance and development process for the Bank's IRB models are consistent across all portfolios.

The table below provides the Bank's portfolio under IRB models:

| Portfolio | Exposure |
|---|---|
| Sovereign and Central Bank | Central Government, Central Government departments, Central banks, Entities owned or guaranteed by Central Government |
| Bank, DFIs and MDBs | Bank |
| Takaful Companies, Shariah Compliant Securities Firms and Fund Managers | Life/ Family Takaful, Non-life/ Non-family Takaful, Broker/dealer, Funds managers |
| Corporates | Finance & Leasing, Large Corporate, Mid Corporate, Emerging Middle Market, Commodity Traders & Buyers, Medium Enterprise, Small Business |
| Home Financing | Retail Clients Home Financing |
| Qualifying revolving retail exposures | Not applicable |
| Other retail exposures | Corporate Small Medium Enterprise ("SME") (including Business & Commercial Clients) property financing, Corporate SME (including Business & Commercial Clients) financing, Personal financing, and residential properties under construction |

Model governance

All IRB Models are developed by the Group Enterprise Risk Analytics (“ERA”). Both new and existing models, as well as changes to existing models, are subject to independent validation by the Group Model Validation (“GMV”) and are reviewed and approved by the Group Credit Model Assessment Committee (“CMAC”) and the Group Model Risk Committee (based on materiality). ERA and GMV are separate departments within the Group Risk.

The performance of existing IRB models, including actual against predicted metrics, is monitored regularly by ERA and reported to Group CMAC on a quarterly basis. In addition, existing models are subject to annual independent validation by GMV. The Group CMAC sets out internal standards for model development, validation and performance monitoring.

Group Internal Audit is responsible for carrying out independent audit reviews of IRB models development, validation, approval and monitoring.

As part of local governance, IRB model development and validation findings are subjected to local Executive Risk Committee ("ERC") and local Board Risk Committee ("BRC") review, endorsement and recommendation to the Board for adoption or approval. These decision making bodies are comprised of senior management whose role is to review model assumptions, performance, local regulatory requirements, agree on appropriate model use for local business decision making and capital reporting.

## 5. Credit risk (continued)

### (i) Internal Ratings Based models (continued)

Probability of Default

Standard Chartered PLC Group employs a variety of techniques to develop its PD models. PDs are estimated based on one of the three industry standard approaches, namely the good-bad approach where a sufficient number of internal defaults is available, the shadow-bond approach where there are not sufficient internal defaults but there are external ratings for a large number of obligors, or the constrained expert judgement approach where neither internal defaults nor external ratings are available.

In Corporate and Institutional Banking ("CIB") and Commercial Banking ("CB"), the largest portfolios are rated based on the shadow bond approach (Sovereigns, Banks, Large Corporates) or the good-bad approach (Mid-Corporates). Central governments and Central Banks are rated using the sovereign model. Non-bank financial institutions are rated using one of the six constrained expert judgement models depending on their line of business. Within CIB and CB, each client is assigned a credit grade. CIB and CB models are calibrated based on historical data that includes a full economic cycle.

For retail clients under each asset class are developed based on the good-bad approach. The same PD modelling approach is taken across key retail client product types: Home Financing and Other Retail Exposures. The approach is based on using the country and product specific application scores for new to bank clients and behaviour scores for existing clients. All retail client PD models are built and validated using internal default data.

Loss Given Default

The CIB and CB LGD models are a parameter based model reflecting the Bank's recovery and workout process, which takes into account risk drivers such as portfolio segment, product, credit grade of the obligor and collateral attached to the exposure. The model is calibrated to downturn.

LGD for retail portfolio follow two approaches:
i) LGDs for unsecured products are based on historical loss experience of defaults during a downturn; these are portfolio specific LGD estimates segmented by default status (including restructuring).
ii) LGDs for secured products are parameter-based estimates mainly driven by how the default is resolved (cure, sale or charge-off). Key LGD parameters are differentiated by segments such as financing-to-value, property type, construction status (Build under construction and Completed) and default status (including restructuring). These parameters are calibrated based on the portfolio's downturn experience.

Exposure at Default

EAD takes into consideration the potential drawdown of a commitment as an obligor moves towards default by estimating the Credit Conversion Factor ("CCF") of undrawn commitments.

The key drivers of the Corporate and Institutional EAD model are the type of facility and the level of utilisation, with the model calibrated to downturn.

EAD for retail products differs between revolving products and term products. For revolving products, EAD is computed by estimating the CCF of the undrawn commitments. For term products, EAD is set at the outstanding balance plus any undrawn portion. All the retail client EAD models are built and validated using internal data.

Model use

IRB models cover a substantial majority of the Bank's financings and are used extensively in assessing risks at customer and portfolio level, setting strategy and optimising the risk-return decisions. The bank uses of internal estimates of PD, LGD and EAD in the areas of credit approval and decision; pricing; limit setting; provisioning; economic capital calculation and risk appetite. Key inputs used in the assessment of business and market variables for setting Risk Appetite includes but not limited to consideration of risk based methodologies such as IRB parameters.

Section 5.3 provides further analysis on the Bank's credit risk exposures under the IRB approach.

## 5. Credit risk (continued)

### (i) Internal Ratings Based Models (continued)

**Corporates, Institutional and Commercial model results**

IRB have been developed from a dataset that spans at least a full business cycle. This data has been used to calibrate estimates of PD to the Bank's long run experience. Actual ('point in time') default rates will typically differ from this 'through the cycle' experience as economies move above or below cyclical norms.

IRB PD estimates are computed as of 31 December 2018 and are compared with default observations through 31 December 2019. Since the historical default experience for central governments or central banks, institutions and corporates has been minimal, the predicted PD for these asset classes has been minimal while the observed PD is NIL given there were no defaults during 2018. For Corporates, the observed PD is lower than predicted reflecting Bank's prudent and proactive credit management.

The calculation of realised versus predicted loss given default ("LGD") is affected by the fact that it may take a number of years for the workout process to be completed. To address this, our approach for corporates and institutions is based on a four-year rolling period of predicted and realised LGD, which for the current reporting year includes 2016 to 2019 defaults that have completed their workout process as at the end of 2018. However, there have been no defaulted cases during 2019 for corporates, institutions, central governments or central banks making it therefore not meaningful to compute the realised versus predicted outcomes for this period.

Exposure at default ("EAD") takes into consideration the potential disbursement of a commitment as an obligor defaults by estimating the Credit Conversion Factor of undrawn commitments. For assets which defaulted in 2019, the comparison of realised versus predicted EAD is summarised in the ratio of the EAD one year prior to default to the outstanding amount at time of default. No ratio is reportable for institutions and central governments or central banks given there was no default in 2019.

Corporate SME observed default is lower than the predicted PD. Predicted PD was computed as at 31 December 2018 and compared to the actual default observations over a one year period ended 31 December 2019. Portfolio size remained stable and default pool has been minimal, as such the observed default rate is lower than the predicted default rate. The observed LGD was calculated based on actual recoveries during the December 2016 to December 2019 period for existing non-defaults as of December 2015 where defaulted in next 12 months. The realised LGDs are lower than predicted values. The ratios for EAD models are larger than one, indicating that the predicted EAD is higher than the realised outstanding amount at default.

| | Predicted PD % | Observed PD % | Predicted LGD % | Realised LGD % | Predicted EAD/ Realised EAD |
|---|---|---|---|---|---|
| **IRB exposures** | | | | | |
| Central governments or central banks | 0.1% | N/A | N/A | N/A | N/A |
| Corporates | 2.3% | 1.8% | N/A | N/A | 3.81 |
| Institutions | 0.7% | N/A | N/A | N/A | N/A |
| SME property financing | 2.3% | 1.2% | 5.8% | 0.1% | 1.0 |
| SME financing | 5.8% | 5.0% | 79.3% | 75.3% | 1.2 |

**Retail model results**

Retail models have been developed for majority of its portfolios. Predicted PD was computed as at 31 December 2018 and compared to the actual default observation over a one year period ended 31 December 2019.

The observed default rates for all asset classes are lower than predicted.

The realised LGD is calculated based on 12 months default window, recoveries over a 24 months workout period and compared to the predicted LGD. Realised LGDs are lower than predicted values for Home Financing.

No material difference observed between predicted EAD as compared to realised EAD.

| | Predicted PD % | Observed PD % | Predicted LGD % | Realised LGD % | Predicted EAD/ Realised EAD |
|---|---|---|---|---|---|
| **IRB exposures** | | | | | |
| Home Financing | 2.3% | 1.0% | 14.7% | 11.5% | 1.1 |
| Other retail exposures | 11.5% | 11.3% | 45.2% | 23.6% | 1.1 |

## 5. Credit risk (continued)

### (ii) Actual losses

The table below shows allowances of credit losses for financial assets raised and write off during the financial year ended 31 December 2019 versus 31 December 2018 for IRB exposure classes. The actual credit losses include a point in time actual charge raised in accordance with accounting standards that require the Bank to either provide for and write-off debts when certain conditions are met. Expected Loss ("EL") represents model derived and/or regulatory prescribed estimated of future loss on potential defaults over a one-year time horizon.

| | 31 December 2019 | 31 December 2018 | 31 December 2018 | 31 December 2017 |
|---|---|---|---|---|
| | Actual losses * RM'000 | Expected losses RM'000 | Actual losses * RM'000 | Expected losses RM'000 |
| Sovereigns/Central banks | - | 449 | - | 209 |
| Banks, development financial institutions & MDBs | - | 569 | - | 160 |
| Takaful companies, Shariah compliant securities firms & fund managers | - | 7 | - | 8 |
| Corporate exposures (excluding specialised financing and firm-size adjustment) | 3,497 | 15,291 | (5,117) | 12,489 |
| Corporate exposures (with firm-size adjustment) | (6,295) | 2,370 | 5,503 | 3,027 |
| Specialised financing | - | 229 | - | 441 |
| Retail exposures | | | | |
| *Home financing* | (1,962) | 4,593 | 1,017 | 8,264 |
| *Other retail exposures* | 8,649 | 35,191 | (2,326) | 42,918 |
| | **3,889** | **58,699** | **(923)** | **67,516** |

* The amount is related to ECL charge/(release) under MFRS 9, excluding recovery during the year.

### (iii) Risk grade profile

Exposures by internal credit grading

For CIB and CB IRB portfolios, an alphanumeric credit risk-grading system is used. The grading is based on Standard Chartered PLC Group's internal estimate of PD over a one-year horizon, with customers or portfolios assessed against a range of quantitative and qualitative factors. The numeric grades run from 1 to 14 and some of the grades are further sub-classified. Numerically lower credit grades are indicative of a lower likelihood of default. Credit grades 1 to 12 are assigned to performing customers and credit grades 13 and 14 are assigned to non-performing or defaulted customers.

The Bank's credit grades in CIB and CB are not intended to replicate external credit grades, and ratings assigned by external credit assessment institutions ("ECAI") are not used in determining internal credit grades. Nonetheless, as the factors used to grade a client may be similar, a customer rated poorly by an ECAI is typically expected to be assigned a weak internal credit grade.

## 5. Credit risk (continued)

### (iii) Risk grade profile (continued)

The table below demonstrates Standard Chartered's internal ratings and mapping to external ratings.

| | Standard and Poor's Mapping | |
|---|---|---|
| Credit Grade | Corporates / Non-Bank Financial | Banks |
| 1A | AAA/AA+ | AAA/AA+ |
| 1B | AA | AA |
| 2A | AA- | AA- |
| 2B | AA-/A+ | A+ |
| 3A | A+ | A |
| 3B | A/A- | A- |
| 4A | BBB+ | BBB+ |
| 4B | BBB | BBB |
| 5A | BBB- | BBB- |
| 5B | BB+ | BB+ |
| 6A | BB | BB |
| 6B | BB/BB- | BB/BB- |
| 7A | BB- | BB- |
| 7B | BB- | BB-/B+ |
| 8A | BB-/B+ | B+ |
| 8B | B+ | B+/B |
| 9A | B+/B | B |
| 9B | B | B/B- |
| 10A | B/B- | B- |
| 10B | B- | B-/CCC |
| 11A | B- | CCC/C |
| 11B | B- | CCC/C |
| 11C | B-/CCC | CCC/C |
| 12A | CCC/C | CCC/C |
| 12B | CCC/C | CCC/C |
| 12C | CCC/C | CCC/C |

For Retail exposures, models generate individual PDs which are used to estimate RWA and an alphanumeric credit risk-grading system is used only for reporting purposes.

IRB models cover a substantial majority of the Bank's financing and are used extensively in assessing risks at customer and portfolio level, setting strategy and optimising the Bank's risk-return decisions.

The Bank makes use of internal risk estimates of PD, LGD, EL and EAD in the areas of:

- Credit Approval and Decision – The level of authority required for the sanctioning of credit requests and the decision made is based on PD, LGD, EL and EAD of the obligor with reference to the nominal exposure;
- In Retail, the initial credit approval and decision to grant a Product is based on the Application Score, which is an input to the PD model;
- Pricing – In Corporates, Institutional and Commercial clients, a pre-deal pricing calculator, which takes into consideration PD, LGD and EAD in the calculation of expected loss and risk weighted assets, is used for the proposed transactions to ensure appropriate return. Retail Clients pricing considers obligor's risk profile (as it takes into account the financing size and customer segment), pricing regulations if any, and competition in the market place;
- Limit Setting – In Retail Clients, portfolio limits are based on recession loss. In Corporates, Institutional and Commercial clients concentration limits for some portfolios, as counterparty limits are determined by PD, LGD and EAD. The limits operate on a sliding scale to ensure that the Bank does not have over concentration of low credit quality assets;
- Provisioning – Expected Credit Loss ("ECL") is computed as unbiased, point-in-time probability weighted amount which is determined by evaluating a range of reasonably possible outcomes; (multiple scenario assessment), the time value of money, and considering all relevant information as of the reporting date;
- Risk Appetite assessment – Key inputs used in the assessment of business and market variables for setting Risk Appetite includes but not limited to consideration of risk based methodologies such as IRB parameters; and
- Economic Capital – PD, LGD and EAD are key components of the model in credit risk economic capital calculation.

## 5. Credit risk (continued)

### (iv) Counterparty credit risk

Counterparty credit risk (“CCR”) is the risk that the Bank’s counterparty in a foreign exchange, profit rate, commodity, equity or credit derivative or repo contract defaults prior to maturity date of the contract and that the Bank at the time has a claim on the counterparty. CCR arises predominantly in the trading book, but also arises in the non-trading book due to hedging of external funding.

The credit risk arising from all financial derivatives is managed as part of the overall financing limits to banks and customers.

The Bank will seek to negotiate Credit Support Annexes (“CSA”) with counterparties on a case by case basis, where collateral is deemed a necessary or desirable mitigant to the exposure. The credit terms of the CSA are specific to each legal document and determined by the credit risk approval unit responsible for the counterparty. The nature of the collateral will be specified in the legal document and will typically be cash or highly liquid securities.

A daily operational process takes place to calculate the Marked-to-Market ("MTM") on all trades captured under the CSA. Additional collateral will be called from the counterparty if total uncollateralised MTM exposure exceeds the threshold and minimum transfer amount specified in the CSA to provide an extra buffer to the daily variation margin.

In line with market convention, the Bank negotiates CSA terms for certain counterparties where the thresholds related to each party are dependent on their internal rating model. Such clauses are typically mutual in nature. It is therefore recognised that a downgrade in the Bank’s rating could result in counterparties seeking additional collateral calls to cover negative MTM portfolios where thresholds are lowered.

<u>Credit reserves</u>

Using risk factors such as PD and LGD, a Regulatory Expected Loss is calculated for each counterparty across the CCR portfolio, and based on this calculation, credit reserves are set aside for traded products. The reserve is a dynamic calculation based on the EAD risk profile for each counterparty, alongside PD and LGD factors.

<u>Wrong way risk</u>

Wrong way risk occurs when an exposure increase in coupled with a decrease in the credit quality of the obligor. Specifically, as the MTM on a derivative or repo contract increases in favour of the Bank, the driver of this MTM change also reduce thte ability of the counterparty to meet its payment, margin call or collateral posting requirements. The Bank employs various policies and procedures to ensure that wrong-way risk exposures are recognised upfront, monitored, and where required, contained by limits on tenor, collateral type, collateral concentration and markets-based collateral top-up mechanisms.

<u>Exposure value calculation</u>

Exposure values for regulatory capital purposes on over the counter traded products are calculated according to the CCR MTM method. This is calculated as a sum of the current replacement cost and the potential future credit exposure. The current replacement cost is the Ringgit equivalent amount owed by the counterparty to the Bank for various financial derivative transactions. The potential future credit exposure is an add-on based on a percentage of the notional principal of each transaction. Such percentages vary according to the underlying asset class and tenor of each trade.

Section 5.6 provides further analysis on the Bank's off-balance sheet and counterparty credit risk.

## 5. Credit risk (continued)

### 5.1 Exposure values

The following tables detail the Bank's EAD before the effect of credit risk mitigation, broken down by the relevant exposure class against the relevant industry, maturity and geography. EAD is based on the current outstanding and accrued profit and fees, plus a proportion of the undrawn component of the facility. The amount of the undisbursed facility included is dependant on the product type, and for IRB exposure classes this amount is modeled internally.

### 5.1.1 Geographical analysis

The below tables provide the Bank's EAD analysed by the booking location of the exposure.

| **31 December 2019** | **Malaysia RM'000** | **Others RM'000** | **Total RM'000** |
|---|---|---|---|
| **IRB exposures** | | | |
| Sovereigns/Central banks | 2,459,175 | - | 2,459,175 |
| Banks, development financial institutions & MDBs | 254,629 | 75,344 | 329,973 |
| Takaful companies, Shariah compliant securities firms & fund managers | 7,259 | - | 7,259 |
| Corporate exposures (excluding specialised financing and firm-size adjustment) | 1,101,726 | 549,058 | 1,650,784 |
| Corporate exposures (with firm-size adjustment) | 363,196 | - | 363,196 |
| Specialised financing | 32,387 | 41,541 | 73,928 |
| Retail exposures | 2,879,523 | - | 2,879,523 |
| *Home financing* | *2,165,283* | - | *2,165,283* |
| *Other retail exposures* | *714,240* | - | *714,240* |
| Total IRB exposures | **7,097,895** | **665,943** | **7,763,838** |
| **Standardised exposures** | | | |
| Corporates | 26,898 | - | 26,898 |
| Regulatory retail | 40,671 | - | 40,671 |
| Home financing | 319 | - | 319 |
| Other assets | 49,456 | - | 49,456 |
| Total Standardised exposures | **117,344** | **-** | **117,344** |
| **Total credit risk exposures** | **7,215,239** | **665,943** | **7,881,182** |

## 5. Credit risk (continued)

### 5.1 Exposure values (continued)

### 5.1.1 Geographical analysis (continued)

| **31 December 2018** | **Malaysia RM'000** | **Others RM'000** | **Total RM'000** |
|---|---|---|---|
| **IRB exposures** | | | |
| Sovereigns/Central banks | 1,997,754 | - | 1,997,754 |
| Banks, development financial institutions & MDBs | 336,724 | 216,403 | 553,127 |
| Takaful companies, Shariah compliant securities firms & fund managers | 9,509 | - | 9,509 |
| Corporate exposures (excluding specialised financing and firm-size adjustment) | 1,556,350 | 597,565 | 2,153,915 |
| Corporate exposures (with firm-size adjustment) | 372,746 | - | 372,746 |
| Specialised financing | 67,285 | 13,609 | 80,894 |
| Retail exposures | 3,177,424 | - | 3,177,424 |
| *Home financing* | *2,429,110* | - | *2,429,110* |
| *Other retail exposures* | *748,314* | - | *748,314* |
| Total IRB exposures | **7,517,792** | **827,577** | **8,345,369** |
| **Standardised exposures** | | | |
| Corporates | 30,660 | - | 30,660 |
| Regulatory retail | 45,580 | - | 45,580 |
| Home financing | 328 | - | 328 |
| Other assets | 71,735 | - | 71,735 |
| Total Standardised exposures | **148,303** | **-** | **148,303** |
| **Total credit risk exposures** | **7,666,095** | **827,577** | **8,493,672** |

## 5. Credit risk (continued)

### 5.1 Exposure values (continued)

### 5.1.2 Sector or economic purpose analysis

The below tables provide the Bank's EAD analysed by sector or economic purpose of the exposure.

| 31 December 2019 | Agricultural, hunting, forestry and fishing RM'000 | Mining quarrying RM'000 | Manufacturing RM'000 | Electricity, gas and water RM'000 | Construction RM'000 | Wholesale & retail trade and restaurants & hotels RM'000 | Transportation, storage and communication RM'000 | Finance, insurance/ takaful and services RM'000 | Real estate RM'000 | Household RM'000 | Others RM'000 | Total RM'000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **IRB exposures** | | | | | | | | | | | | |
| Sovereigns/Central banks | - | - | - | - | - | - | - | 2,459,175 | - | - | - | 2,459,175 |
| Banks, development financial institutions & MDBs | - | - | - | - | - | - | - | 329,973 | - | - | - | 329,973 |
| Takaful companies, Shariah compliant securities firms & fund managers | - | - | - | - | - | - | - | 7,259 | - | - | - | 7,259 |
| Corporate exposures (excluding specialised financing and firm-size adjustment) | 96,349 | - | 379,782 | 9,890 | 78,701 | 341,488 | 571,056 | 75,355 | 20,437 | - | 77,726 | 1,650,784 |
| Corporate exposures (with firm-size adjustment) | 1,305 | 2,315 | 23,515 | - | 29,419 | 63,788 | 22,352 | 45,775 | 90,648 | - | 84,079 | 363,196 |
| Specialised financing | - | - | 19,692 | - | - | 32,387 | - | - | - | - | 21,849 | 73,928 |
| Retail exposures | 1,897 | 898 | 51,646 | 1,372 | 70,574 | 105,311 | 25,094 | 71,945 | 90,511 | 2,343,527 | 116,748 | 2,879,523 |
| *Home financing* | - | - | - | - | - | - | - | - | - | 2,165,283 | - | 2,165,283 |
| *Other retail exposures* | 1,897 | 898 | 51,646 | 1,372 | 70,574 | 105,311 | 25,094 | 71,945 | 90,511 | 178,244 | 116,748 | 714,240 |
| Total IRB exposures | **99,551** | **3,213** | **474,635** | **11,262** | **178,694** | **542,974** | **618,502** | **2,989,482** | **201,596** | **2,343,527** | **300,402** | **7,763,838** |
| **Standardised exposures** | | | | | | | | | | | | |
| Corporates | - | - | - | - | 3,311 | - | - | - | 5,564 | - | 18,023 | 26,898 |
| Regulatory retail | - | - | - | - | - | - | - | - | - | 40,671 | - | 40,671 |
| Home financing | - | - | - | - | - | - | - | - | - | 319 | - | 319 |
| Other assets | - | - | - | - | - | - | - | - | - | - | 49,456 | 49,456 |
| Total Standardised exposures | **-** | **-** | **-** | **-** | **3,311** | **-** | **-** | **-** | **5,564** | **40,990** | **67,479** | **117,344** |
| **Total credit risk exposures** | **99,551** | **3,213** | **474,635** | **11,262** | **182,005** | **542,974** | **618,502** | **2,989,482** | **207,160** | **2,384,517** | **367,881** | **7,881,182** |

## 5. Credit risk (continued)

### 5.1 Exposure values (continued)

#### 5.1.2 Sector or economic purpose analysis (continued)

| 31 December 2018 | Agricultural, hunting, forestry and fishing RM'000 | Mining and quarrying RM'000 | Manufacturing RM'000 | Electricity, gas and water RM'000 | Construction RM'000 | Wholesale & retail trade and restaurants & hotels RM'000 | Transportation, storage and communication RM'000 | Finance, insurance/ takaful and services RM'000 | Real estate RM'000 | Household RM'000 | Others RM'000 | Total RM'000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **IRB exposures** | | | | | | | | | | | | |
| Sovereigns/Central banks | - | - | - | - | - | - | - | 1,997,754 | - | - | - | 1,997,754 |
| Banks, development financial institutions & MDBs | - | - | - | - | - | - | - | 553,127 | - | - | - | 553,127 |
| Takaful companies, Shariah compliant securities firms & fund managers | - | - | - | - | - | - | - | 9,509 | - | - | - | 9,509 |
| Corporate exposures (excluding specialised financing and firm-size adjustment) | 187,455 | - | 596,382 | - | 102,429 | 392,515 | 537,641 | 143,279 | 132,781 | - | 61,433 | 2,153,915 |
| Corporate exposures (with firm-size adjustment) | 2,129 | 5,572 | 26,838 | - | 16,339 | 59,379 | 34,019 | 60,915 | 89,736 | - | 77,819 | 372,746 |
| Qualifying Corporate Purchased Receivables | | | | | | | | | | | | |
| Specialised financing | - | - | - | - | - | 67,285 | - | - | - | - | 13,609 | 80,894 |
| Retail exposures | 751 | 567 | 42,721 | 934 | 46,316 | 91,062 | 19,834 | 59,576 | 106,602 | 2,673,729 | 135,332 | 3,177,424 |
| *Home financing* | - | - | - | - | - | - | - | - | - | 2,429,110 | - | 2,429,110 |
| *Other retail exposures* | 751 | 567 | 42,721 | 934 | 46,316 | 91,062 | 19,834 | 59,576 | 106,602 | 244,619 | 135,332 | 748,314 |
| Total IRB exposures | **190,335** | **6,139** | **665,941** | **934** | **165,084** | **610,241** | **591,494** | **2,824,160** | **329,119** | **2,673,729** | **288,193** | **8,345,369** |
| **Standardised exposures** | | | | | | | | | | | | |
| Corporates | - | - | - | - | 6,200 | - | - | - | 5,764 | - | 18,696 | 30,660 |
| Regulatory retail | - | - | - | - | - | - | - | - | - | 45,580 | - | 45,580 |
| Home financing | - | - | - | - | - | - | - | - | - | 328 | - | 328 |
| Other assets | - | - | - | - | - | - | - | - | - | - | 71,735 | 71,735 |
| Total Standardised exposures | **-** | **-** | **-** | **-** | **6,200** | **-** | **-** | **-** | **5,764** | **45,908** | **90,431** | **148,303** |
| **Total credit risk exposures** | **190,335** | **6,139** | **665,941** | **934** | **171,284** | **610,241** | **591,494** | **2,824,160** | **334,883** | **2,719,637** | **378,624** | **8,493,672** |

## 5. Credit risk (continued)

### 5.1 Exposure values (continued)

#### 5.1.3 Residual contractual maturity analysis

The following tables show the Bank's residual maturity of EAD by each principal category of exposure class.

| 31 December 2019 | Up to 1 year RM'000 | > 1 - 5 years RM'000 | Over 5 years RM'000 | Total RM'000 |
|---|---|---|---|---|
| **IRB exposures** | | | | |
| Sovereigns/Central banks | 1,784,426 | 674,749 | - | 2,459,175 |
| Banks, development financial institutions & MDBs | 311,723 | 18,250 | - | 329,973 |
| Takaful companies, securities firms & Shariah compliant fund managers | 7,129 | 130 | - | 7,259 |
| Corporate exposures (excluding specialised financing and firm-size adjustment) | 790,508 | 771,384 | 88,892 | 1,650,784 |
| Corporate exposures (with firm-size adjustment) | 27,527 | 65,688 | 269,981 | 363,196 |
| Specialised financing | 58,314 | 15,614 | - | 73,928 |
| Retail exposures | 27,676 | 252,022 | 2,599,825 | 2,879,523 |
| *Home financing* | *9,618* | *20,258* | *2,135,407* | *2,165,283* |
| *Other retail exposures* | *18,058* | *231,764* | *464,418* | *714,240* |
| Total IRB exposures | **3,007,303** | **1,797,837** | **2,958,698** | **7,763,838** |
| **Standardised exposures** | | | | |
| Corporates | 3,311 | - | 23,587 | 26,898 |
| Regulatory retail | 39 | 504 | 40,128 | 40,671 |
| Home financing | - | - | 319 | 319 |
| Other assets | 49,456 | - | - | 49,456 |
| Total Standardised exposures | **52,806** | **504** | **64,034** | **117,344** |
| **Total credit risk exposures** | **3,060,109** | **1,798,341** | **3,022,732** | **7,881,182** |

*Note: The above table shows that exposures with residual contractual maturity more than 5 years, of which 85% are collateralized.*

## 5. Credit risk (continued)

### 5.1 Exposure values (continued)

#### 5.1.3 Residual contractual maturity analysis (continued)

| 31 December 2018 | Up to 1 year RM'000 | > 1 - 5 years RM'000 | Over 5 years RM'000 | Total RM'000 |
|---|---|---|---|---|
| **IRB exposures** | | | | |
| Sovereigns/Central banks | 1,896,141 | 101,613 | - | 1,997,754 |
| Banks, development financial institutions & MDBs | 424,524 | 128,603 | - | 553,127 |
| Takaful companies, securities firms & Shariah compliant fund managers | 9,378 | 131 | - | 9,509 |
| Corporate exposures (excluding specialised financing and firm-size adjustment) | 1,262,918 | 819,871 | 71,126 | 2,153,915 |
| Corporate exposures (with firm-size adjustment) | 54,945 | 66,038 | 251,763 | 372,746 |
| Specialised financing | 66,895 | 13,999 | - | 80,894 |
| Retail exposures | 37,282 | 222,227 | 2,917,915 | 3,177,424 |
| *Home financing* | *13,235* | *17,225* | *2,398,650* | *2,429,110* |
| *Other retail exposures* | *24,047* | *205,002* | *519,265* | *748,314* |
| Total IRB exposures | **3,752,083** | **1,352,482** | **3,240,804** | **8,345,369** |
| **Standardised exposures** | | | | |
| Corporates | 4,638 | 1,565 | 24,457 | 30,660 |
| Regulatory retail | - | 250 | 45,330 | 45,580 |
| Home financing | - | - | 328 | 328 |
| Other assets | 71,735 | - | - | 71,735 |
| Total Standardised exposures | **76,373** | **1,815** | **70,115** | **148,303** |
| **Total credit risk exposures** | **3,828,456** | **1,354,297** | **3,310,919** | **8,493,672** |

*Note: The above table shows that exposures with residual contractual maturity more than 5 years, of which 87% are collateralized.*

## 5. Credit risk (continued)

### 5.2 Credit risk mitigation

The Bank's approach to credit risk mitigation are disclosed in disclosed in Note 33(i)(b) of the Bank's financial statements.

The following tables disclose the total exposure before the effect of Credit Risk Mitigation ("CRM") and the exposures covered by guarantees/credit derivatives, eligible financial collateral and other eligible collateral, shown by exposure class.

| 31 December 2019 | Exposures before CRM RM'000 | Exposures covered by guarantees or credit derivatives RM'000 | Exposures covered by eligible financial collateral RM'000 | Exposures covered by other eligible collateral RM'000 |
|---|---|---|---|---|
| **On-balance sheet exposures** | | | | |
| Sovereigns/Central banks | 2,459,175 | - | - | - |
| Banks, development financial institutions & MDBs | 204,611 | - | - | - |
| Corporates | 1,440,848 | 759 | 35,336 | 199,428 |
| Regulatory retail | 700,418 | - | - | 259,466 |
| Home financing | 2,127,877 | - | - | 2,122,176 |
| Other assets | 49,456 | - | - | - |
| Specialised financing | 33,776 | - | - | 5,526 |
| Defaulted exposures | 106,337 | - | - | 40,323 |
| Total on-balance sheet exposures | **7,122,498** | **759** | **35,336** | **2,626,919** |
| **Off-balance sheet exposures** | | | | |
| OTC derivatives | 156,545 | - | 31,881 | 2,332 |
| Off balance sheet exposures other than Islamic OTC derivatives or Islamic credit derivatives | 600,790 | - | 42,304 | 10,138 |
| Defaulted exposures | 1,349 | - | - | - |
| Total off-balance sheet exposures | **758,684** | **-** | **74,185** | **12,470** |
| **Total on and off-balance sheet exposures** | **7,881,182** | **759** | **109,521** | **2,639,389** |

## 5. Credit risk (continued)

### 5.2 Credit risk mitigation (continued)

| 31 December 2018 | Exposures before CRM RM'000 | Exposures covered by guarantees or credit derivatives RM'000 | Exposures covered by eligible financial collateral RM'000 | Exposures covered by other eligible collateral RM'000 |
|---|---|---|---|---|
| **On-balance sheet exposures** | | | | |
| Sovereigns/Central banks | 1,997,754 | - | - | - |
| Public Sector Entities | | | | |
| Banks, development financial institutions & MDBs | 286,935 | - | - | - |
| Corporates | 2,112,781 | 3,420 | 83,264 | 314,762 |
| Regulatory retail | 726,885 | 18 | 660 | 311,525 |
| Home financing | 2,385,055 | - | - | 2,379,013 |
| Other assets | 71,736 | - | - | - |
| Specialised financing | 53,994 | - | - | - |
| Defaulted exposures | 106,798 | - | - | 24,811 |
| Total on-balance sheet exposures | **7,741,938** | **3,438** | **83,924** | **3,030,111** |
| **Off-balance sheet exposures** | | | | |
| OTC derivatives | 289,305 | - | 39,012 | 3,029 |
| Off balance sheet exposures other than Islamic OTC derivatives or Islamic credit derivatives | 462,420 | 12,590 | 26,175 | 14,924 |
| Defaulted exposures | 9 | - | - | - |
| Total off-balance sheet exposures | **751,734** | **12,590** | **65,187** | **17,953** |
| **Total on and off-balance sheet exposures** | **8,493,672** | **16,028** | **149,111** | **3,048,064** |

## 5. Credit risk (continued)

### 5.3 Exposures under IRB approach

#### 5.3.1 Exposures under the IRB approach by risk grade or PD band for non-retail exposures

The below tables analyse the Bank's PD range or internal risk grading for non-retail exposures.

| 31 December 2019 | 0-0.04% RM'000 | 0.04-0.17% RM'000 | 0.17-0.59% RM'000 | 0.59-3.05% RM'000 | 3.05-12.00% RM'000 | 12.00-100% RM'000 | Default or 100% RM'000 |
|---|---|---|---|---|---|---|---|
| **Non-retail exposures (EAD)** | | | | | | | |
| **On-balance sheet exposures** | | | | | | | |
| Sovereign | - | 2,459,175 | - | - | - | - | - |
| Banks | - | 203,373 | 1,238 | - | - | - | - |
| Corporate | 759 | 560,834 | 184,594 | 375,199 | 320,296 | 9,355 | 23,660 |
| Total on-balance sheet exposures | **759** | **3,223,382** | **185,832** | **375,199** | **320,296** | **9,355** | **23,660** |
| **Undrawn commitments** | | | | | | | |
| Corporate | - | 25,589 | 174,396 | 112,646 | 65,175 | 2 | - |
| Total undrawn commitments | **-** | **25,589** | **174,396** | **112,646** | **65,175** | **2** | **-** |
| **Derivatives** | | | | | | | |
| Banks | - | 51,722 | - | 73,640 | - | - | - |
| Corporate | - | 26,453 | 17 | 4,713 | - | - | - |
| Total derivatives | **-** | **78,175** | **17** | **78,353** | **-** | **-** | **-** |
| **Contingent** | | | | | | | |
| Corporate | - | - | 45,070 | 140,523 | 24,546 | - | 1,340 |
| Total contingent | **-** | **-** | **45,070** | **140,523** | **24,546** | **-** | **1,340** |
| **Exposure weighted average LGD (%)** | | | | | | | |
| Sovereign | 0.00% | 46.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Banks | 0.00% | 46.16% | 71.90% | 45.56% | 0.00% | 0.00% | 0.00% |
| Corporate | 96.54% | 50.65% | 45.59% | 47.80% | 54.92% | 50.40% | 33.58% |
| **Exposure weighted average risk weight (%)** | | | | | | | |
| Sovereign | 0.00% | 19.76% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Banks | 0.00% | 26.58% | 54.11% | 48.10% | 0.00% | 0.00% | 0.00% |
| Corporate | 31.12% | 25.99% | 62.19% | 100.16% | 194.25% | 136.78% | 215.21% |

## 5. Credit risk (continued)

### 5.3 Exposures under IRB approach (continued)

#### 5.3.1 Exposures under the IRB approach by risk grade or PD band for non-retail exposures (continued)

| 31 December 2018 | 0-0.04% RM'000 | 0.04-0.17% RM'000 | 0.17-0.59% RM'000 | 0.59-3.05% RM'000 | 3.05-12.00% RM'000 | 12.00-100% RM'000 | Default or 100% RM'000 |
|---|---|---|---|---|---|---|---|
| **Non-retail exposures (EAD)** | | | | | | | |
| **On-balance sheet exposures** | | | | | | | |
| Sovereign | - | 1,997,754 | - | - | - | - | - |
| Banks | - | 285,244 | 1,691 | - | - | - | - |
| Corporate | - | 556,561 | 491,766 | 717,277 | 347,856 | 28,855 | 8,694 |
| Total on-balance sheet exposures | **-** | **2,839,559** | **493,457** | **717,277** | **347,856** | **28,855** | **8,694** |
| **Undrawn commitments** | | | | | | | |
| Corporate | - | 130 | 153,966 | 108,522 | 19,218 | 1,219 | - |
| Total undrawn commitments | **-** | **130** | **153,966** | **108,522** | **19,218** | **1,219** | **-** |
| **Derivatives** | | | | | | | |
| Banks | - | 51,346 | - | 214,846 | - | - | - |
| Corporate | - | 21,616 | 124 | 1,372 | - | 1 | - |
| Total derivatives | **-** | **72,962** | **124** | **216,218** | **-** | **1** | **-** |
| **Contingent** | | | | | | | |
| Corporate | - | - | 47,543 | 92,598 | 13,572 | 6,174 | - |
| Total contingent | **-** | **-** | **47,543** | **92,598** | **13,572** | **6,174** | **-** |
| **Exposure weighted average LGD (%)** | | | | | | | |
| Sovereign | 0.00% | 46.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Banks | 0.00% | 46.17% | 71.90% | 45.81% | 0.00% | 0.00% | 0.00% |
| Corporate | 0.00% | 51.44% | 39.43% | 46.06% | 48.93% | 40.61% | 77.64% |
| **Exposure weighted average risk weight (%)** | | | | | | | |
| Sovereign | 0.00% | 15.85% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Banks | 0.00% | 24.71% | 54.11% | 70.27% | 0.00% | 0.00% | 0.00% |
| Corporate | 0.00% | 32.21% | 41.86% | 88.74% | 165.51% | 189.31% | 907.78% |

## 5. Credit risk (continued)

### 5.3 Exposures under IRB approach (continued)

### 5.3.2 Exposures under the IRB approach by risk grade or PD band for retail exposures

The below tables analyse the Bank's PD range for retail exposures.

| 31 December 2019 | 0-0.11% RM'000 | 0.11-0.30% RM'000 | 0.30-0.43% RM'000 | 0.43-3.05% RM'000 | 3.05-9.20% RM'000 | 9.20-100% RM'000 | Default or 100% RM'000 |
|---|---|---|---|---|---|---|---|
| **Retail exposures (EAD)** | | | | | | | |
| **On-balance sheet exposures** | | | | | | | |
| Home financing | 13,861 | 515,140 | 285,914 | 1,128,478 | 115,378 | 68,787 | 28,704 |
| Other retail | 43,879 | 90,376 | 3,906 | 281,031 | 172,669 | 68,046 | 53,949 |
| Total on-balance sheet exposures | **57,740** | **605,516** | **289,820** | **1,409,509** | **288,047** | **136,833** | **82,653** |
| **Undrawn commitments** | | | | | | | |
| Home financing | - | 16 | - | 8,996 | - | - | 9 |
| Other retail | - | - | - | 77 | 307 | - | - |
| Total undrawn commitments | **-** | **16** | **-** | **9,073** | **307** | **-** | **9** |
| **Exposure weighted average LGD (%)** | | | | | | | |
| Home financing | 12.26% | 12.45% | 12.32% | 12.34% | 12.58% | 12.99% | 19.02% |
| Other retail | 24.70% | 22.76% | 30.28% | 46.39% | 34.83% | 37.52% | 43.54% |
| **Exposure weighted average risk weight (%)** | | | | | | | |
| Home financing | 3.04% | 5.27% | 8.08% | 14.74% | 42.78% | 66.53% | 104.03% |
| Other retail | 4.20% | 8.61% | 18.89% | 60.51% | 54.30% | 78.74% | 137.28% |

## 5. Credit risk (continued)

### 5.3 Exposures under IRB approach (continued)

#### 5.3.2 Exposures under the IRB approach by risk grade or PD band for retail exposures (continued)

| 31 December 2018 | 0-0.11% RM'000 | 0.11-0.30% RM'000 | 0.30-0.43% RM'000 | 0.43-3.05% RM'000 | 3.05-9.20% RM'000 | 9.20-100% RM'000 | Default or 100% RM'000 |
|---|---|---|---|---|---|---|---|
| **Retail exposures (EAD)** | | | | | | | |
| **On-balance sheet exposures** | | | | | | | |
| Home financing | 2,219 | 610,438 | 313,992 | 1,254,709 | 120,287 | 83,082 | 31,584 |
| Other retail | 64,545 | 184,739 | 10,923 | 254,828 | 111,232 | 55,062 | 66,496 |
| Total on-balance sheet exposures | **66,764** | **795,177** | **324,915** | **1,509,537** | **231,519** | **138,144** | **98,080** |
| **Undrawn commitments** | | | | | | | |
| Home financing | - | - | 16 | 12,774 | - | - | 9 |
| Other retail | - | - | - | 204 | 285 | - | - |
| Total undrawn commitments | **-** | **-** | **16** | **12,978** | **285** | **-** | **9** |
| **Exposure weighted average LGD (%)** | | | | | | | |
| Home financing | 13.39% | 12.48% | 12.33% | 12.31% | 12.44% | 12.90% | 18.68% |
| Other retail | 24.42% | 20.35% | 18.69% | 45.28% | 45.12% | 48.97% | 45.28% |
| **Exposure weighted average risk weight (%)** | | | | | | | |
| Home financing | 3.34% | 5.16% | 8.11% | 15.12% | 43.49% | 67.89% | 105.66% |
| Other retail | 3.68% | 8.92% | 11.46% | 62.43% | 73.10% | 108.09% | 118.25% |

## 5. Credit risk (continued)

### 5.3 Exposures under IRB approach (continued)

#### 5.3.3 Exposures under the IRB approach by expected loss range for retail exposures

The below tables analyse the Bank's expected loss range for retail exposures.

| 31 December 2019 | Up to 0.10% RM'000 | >0.10 to 0.20% RM'000 | >0.20 to 0.50% RM'000 | >0.50 to 1.00% RM'000 | >1.00 to 30.00% RM'000 | >30 to <100% RM'000 | 100% RM'000 |
|---|---|---|---|---|---|---|---|
| **Retail exposures (EAD)** | | | | | | | |
| **On-balance sheet exposures** | | | | | | | |
| Home financing | 1,482,814 | 359,819 | 145,741 | 57,415 | 110,473 | - | - |
| Other retail | 293,844 | 14,226 | 8,039 | 132,941 | 207,058 | 57,686 | 62 |
| Total on-balance sheet exposures | **1,776,658** | **374,045** | **153,780** | **190,356** | **317,531** | **57,686** | **62** |
| **Undrawn commitments** | | | | | | | |
| Home financing | 3,287 | 1,138 | 4,587 | - | 9 | - | - |
| Other retail | 77 | - | - | - | 307 | - | - |
| Total undrawn commitments | **3,364** | **1,138** | **4,587** | **-** | **316** | **-** | **-** |
| **Exposure weighted average risk weight (%)** | | | | | | | |
| Home financing | 8.50% | 17.45% | 30.14% | 44.27% | 75.38% | 0.00% | 0.00% |
| Other retail | 8.17% | 28.72% | 48.39% | 61.25% | 108.12% | 110.19% | 1316.21% |

## 5. Credit risk (continued)

### 5.3 Exposures under IRB approach (continued)

#### 5.3.3 Exposures under the IRB approach by expected loss range for retail exposures (continued)

| 31 December 2018 | Up to 0.10% RM'000 | >0.10 to 0.20% RM'000 | >0.20 to 0.50% RM'000 | >0.50 to 1.00% RM'000 | >1.00 to 30.00% RM'000 | >30 to <100% RM'000 | 100% RM'000 |
|---|---|---|---|---|---|---|---|
| **Retail exposures (EAD)** | | | | | | | |
| **On-balance sheet exposures** | | | | | | | |
| Home financing | 1,577,429 | 497,208 | 141,284 | 70,755 | 129,635 | - | - |
| Other retail | 331,156 | 29,996 | 16,955 | 99,804 | 197,627 | 72,239 | 48 |
| Total on-balance sheet exposures | **1,908,585** | **527,204** | **158,239** | **170,559** | **327,262** | **72,239** | **48** |
| **Undrawn commitments** | | | | | | | |
| Home financing | 3,307 | 2,698 | 6,785 | - | 9 | - | - |
| Other retail | 142 | - | - | - | 347 | - | - |
| Total undrawn commitments | **3,449** | **2,698** | **6,785** | **-** | **356** | **-** | **-** |
| **Exposure weighted average risk weight (%)** | | | | | | | |
| Home financing | 8.20% | 17.58% | 29.48% | 44.48% | 75.74% | 0.00% | 0.00% |
| Other retail | 6.84% | 31.60% | 53.27% | 63.92% | 110.68% | 103.34% | 556.98% |

## 5. Credit Risk (continued)

### 5.4 Exposures under the Standardised approach

**Risk weights under the Standardised approach**

The following tables set out analysis of risk weights under the Standardised approach for the Bank.

| | ← Exposures After Netting and Credit Risk Mitigation → | | | | **Total exposures after netting and credit risk mitigation** | **Total risk weighted assets** |
|---|---|---|---|---|---|---|
| **31 December 2019** | **Corporates* RM'000** | **Regulatory retail RM'000** | **Home financing RM'000** | **Other assets RM'000** | **RM'000** | **RM'000** |
| **Risk weights** | | | | | | |
| 0% | - | - | - | 2,812 | 2,812 | - |
| 35% | - | - | 319 | - | 319 | 112 |
| 75% | - | 29,453 | - | - | 29,453 | 22,089 |
| 100% | 24,015 | 11,195 | - | 46,643 | 81,853 | 81,853 |
| 150% | - | 24 | - | - | 24 | 36 |
| Total exposures | 24,015 | 40,672 | 319 | 49,455 | 114,461 | 104,090 |
| Risk-weighted assets by exposures | 24,015 | 33,320 | 112 | 46,643 | 104,090 | |
| Average risk weight | 100.0% | 81.9% | 35.1% | 94.3% | 90.9% | |
| Deduction from capital base | - | - | - | - | - | |

* All corporate standardised exposures are unrated.

| | ← Exposures After Netting and Credit Risk Mitigation → | | | | **Total exposures after netting and credit risk mitigation** | **Total risk weighted assets** |
|---|---|---|---|---|---|---|
| **31 December 2018** | **Corporates* RM'000** | **Regulatory retail RM'000** | **Home financing RM'000** | **Other assets RM'000** | **RM'000** | **RM'000** |
| **Risk weights** | | | | | | |
| 0% | - | - | - | 2,734 | 2,734 | - |
| 35% | - | - | 328 | - | 328 | 115 |
| 75% | - | 31,552 | - | - | 31,552 | 23,664 |
| 100% | 27,844 | 14,004 | - | 69,002 | 110,850 | 110,850 |
| 150% | - | 24 | - | - | 24 | 36 |
| Total exposures | 27,844 | 45,580 | 328 | 71,736 | 145,488 | 134,665 |
| Risk-weighted assets by exposures | 27,844 | 37,704 | 115 | 69,002 | 134,665 | |
| Average risk weight | 100.0% | 82.7% | 35.1% | 96.2% | 92.6% | |
| Deduction from capital base | - | - | - | - | - | |

* All corporate standardised exposures are unrated.

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## 5. Credit risk (continued)

### 5.5 Problem credit management and provisioning

The Bank's credit management policies and impairment measurement are disclsosed in Note 33(i)(h) of the Bank's financial statements.

The Bank's impaired financing and advances and allowance for expected credit loss by significant geographic area are disclsosed in Note 34(iii) of the Bank's financial statements.

#### 5.5.1 Impairment provisions analysed by customers' business or industry

The following tables show the Bank's allowance for credit losses by each principal category of customers' business or industry.

| | Allowances for credit losses held as at 1 January 2019 RM'000 | Net allowance credit losses charge/ (release) during the financial year RM'000 | Amounts written off or other movements during the financial year RM'000 | Allowances for credit losses provisions held as at 31 December 2019 RM'000 |
|---|---|---|---|---|
| Home financing | 14,167 | 3,102 | (3,870) | 13,399 |
| Others | 45,354 | 8,375 | (19,893) | 33,836 |
| **Retail Clients** | **59,521** | **11,477** | **(23,763)** | **47,235** |
| Agriculture | 228 | 988 | - | 1,216 |
| Mining and quarrying | 61 | 40 | - | 101 |
| Manufacturing | 5,457 | (2,467) | - | 2,990 |
| Construction | 5,171 | (5,131) | - | 40 |
| Real estate | 136 | (128) | - | 8 |
| Wholesale & retail trade and restaurants & hotels | 629 | (153) | - | 476 |
| Transportation, storage and communication | 2,875 | (519) | (2,328) | 28 |
| Finance, insurance/takaful and business services | 932 | (531) | - | 401 |
| Others | 25 | 313 | (169) | 169 |
| **Corporates, Institutional and Commercial Clients** | **15,514** | **(7,588)** | **(2,497)** | **5,429** |
| **Total Impairment Provisions** | **75,035** | **3,889** | **(26,260)** | **52,664** |

## 5. Credit risk (continued)

### 5.5 Problem credit management and provisioning (continued)

A financing is considered to be past due when the counterparty has failed to make a principal or profit payment when contractually due. Past due does not necessarily mean that a financing is impaired.

The following table analyses the Bank's financing and advances past due but not impaired, analysed by customers' business or industry.

| | 31 December 2019 RM'000 | 31 December 2018 RM'000 |
|---|---|---|
| Home financing | 242,604 | 276,717 |
| Others | 58,792 | 59,787 |
| **Retail Clients** | **301,396** | **336,504** |
| Transport, storage and communication | - | 499 |
| **Corporates, Institutional and Commercial Clients** | **-** | **499** |

The following table analyses the Bank's financing and advances past due but not impaired, analysed by significant geographical areas.

| | 31 December 2019 RM'000 | 31 December 2018 RM'000 |
|---|---|---|
| Malaysia | 301,396 | 337,003 |

## 5. Credit risk (continued)

### 5.6 Off-balance sheet and counterparty credit risk

The following table analyses the Bank's off-balance sheet and counterparty credit risk.

| **31 December 2019** | **Principal amount RM'000** | **Positive fair value of contracts RM'000** | **Negative fair value of contracts RM'000** | **Credit equivalent amount RM'000** | **Risk weighted assets RM'000** |
|---|---|---|---|---|---|
| Direct credit substitutes | 66,269 | - | - | 66,269 | 70,031 |
| Transaction related contingent items | 128,863 | - | - | 128,863 | 38,851 |
| Short term self liquidating trade related contingencies | 19,737 | - | - | 19,737 | 8,278 |
| Foreign exchange related contracts | | | | | |
| *One year or less* | 2,238,741 | 69,876 | 70,192 | 113,429 | 46,762 |
| *Over one year to five years* | - | - | - | - | - |
| Profit rate related contracts | | | | | |
| *One year or less* | 1,419,065 | 5,834 | 5,834 | 9,381 | 1,489 |
| *Over one year to five years* | 774,234 | 2,766 | 2,766 | 33,735 | 13,946 |
| Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year | 623,716 | - | - | 69,520 | 108,981 |
| Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year | 10,450 | - | - | 9,271 | 2,021 |
| Any commitments that are unconditionally cancellable at any time by the bank without prior notice or that effectively provide for automatic cancellation due to deterioration in a customer's creditworthiness | 4,549,724 | - | - | 308,479 | 290,041 |
| | 9,830,799 | 78,476 | 78,792 | 758,684 | 580,400 |

| **31 December 2018** | **Principal amount RM'000** | **Positive fair value of contracts RM'000** | **Negative fair value of contracts RM'000** | **Credit equivalent amount RM'000** | **Risk weighted assets RM'000** |
|---|---|---|---|---|---|
| Direct credit substitutes | 24,122 | - | - | 24,122 | 10,057 |
| Transaction related contingent items | 119,615 | - | - | 119,615 | 18,101 |
| Short term self liquidating trade related contingencies | 22,492 | - | - | 22,492 | 8,363 |
| Foreign exchange related contracts | | | | | |
| *One year or less* | 1,847,247 | 115,737 | 120,500 | 147,092 | 109,720 |
| *Over one year to five years* | 1,188,073 | 61,002 | 61,002 | 120,406 | 54,853 |
| Profit rate related contracts | | | | | |
| *Over one year to five years* | 1,389,619 | 7,911 | 7,911 | 21,807 | 5,539 |
| Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year | 523,718 | - | - | 42,976 | 62,710 |
| Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year | 14,398 | - | - | 12,846 | 2,663 |
| Any commitments that are unconditionally cancellable at any time by the bank without prior notice or that effectively provide for automatic cancellation due to deterioration in a customer's creditworthiness | 3,951,854 | - | - | 240,378 | 196,751 |
| | 9,081,138 | 184,650 | 189,413 | 751,734 | 468,757 |

## 6. Market risk

The Bank recognises market risk as the potential for loss of earnings or economic value due to adverse changes in financial market rates or prices.

As the Bank does not maintain a trading book, the Bank is not expose to traded market risk.

The Bank's market risk arises in the non-trading book from the holding of high quality liquid debt securities.

Our market risk management governance, measurement, valuation framework and exposure are disclosed in Note 33(ii) and 34 of the Bank's financial statements.

## 7. Operational risk

The Bank defines Operational Risk as the potential for loss resulting from inadequate or failed internal processes, and systems, human error, or from the impact of external events, including legal risks and Shariah non-compliance risk.

Our operational risk governance, approach and measurement methodology are disclosed in Note 33(iv) of the Bank's financial statements.

## 8. Shariah Governance Disclosure

Our Shariah governance are disclosed in the page 8 of the Bank's financial statements.

During the financial year, there was no (2018: one) Shariah non-compliant event being detected with no Shariah non-compliant income (2018: RM4,794).

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## Chief Executive Officer Attestation

In accordance with Bank Negara Malaysia's Capital Adequacy Framework for Islamic Banks (CAFIB) - Disclosure Requirements (Pillar 3), I hereby attest that to the best of my knowledge, the disclosures contained in Standard Chartered Saadiq Berhad's Pillar 3 Disclosures report for the financial year ended 31 December 2019 are consistent with the manner in which the Bank assesses and manages its risk, and are not misleading in any particular way.

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**Mohd Suhaimi Abdul Hamid**
**Chief Executive Officer**

Date: 24 June 2020