Standard Chartered Saadiq Berhad

Pillar 3 Disclosures
31 December 2016

Incorporated in Malaysia with registered Company No. 823437K
Registered Office and Principal Place of Businesses
Level 16, Menara Standard Chartered
No. 30, Jalan Sultan Ismail 50250 Kuala Lumpur

1. Overview

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 (unaudited), 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 22 August 2016. 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 forms part of the overall Capital Adequacy Framework for Islamic banking institutions, hence should be read alongside: Capital Adequacy Framework for Islamic Banks (Capital Components) and Investment Account Guidelines.

Bank Negara Malaysia ("BNM") has formally approved Standard Chartered Saadiq Berhad ("SCSB") or ("the Bank") to use the AIRB approach 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 approach for calculating and reporting the credit risk capital requirement. Formal approval was obtained from BNM in May 2013 for the use of TSA approach for calculating and reporting operational risk. Effective September 2013, the Bank commenced the use of TSA approach for calculating and reporting operational risk capital requirement.

2. Capital management

The Bank’s capital management approach is driven by its desire to maintain a strong capital base in support of its business development, to meet regulatory capital requirements at all times.

Details of the Bank's capital management approach are disclosed in Note 36 of the Bank's financial statements, while details of regulatory capital structure of the Bank are disclosed in Note 37 to the financial statements. All ordinary shares in issue confer identical rights in respect of capital, dividends and voting.

3. Risk management

Risk management is the set of end-to-end activities through which we make risk-taking decisions and we control and optimize the risk-return profile of the Bank. It is a bank-wide activity and starts right at the front-line. The management of risk lies at the heart of the Bank’s business. Effective risk management is a central part of the financial and operational management of the Bank and fundamental to our ability to generate profits consistently and maximize the interests of shareholders and other stakeholders.

Our risk management framework, principles and governance are disclosed in Note 32 of the Bank's financial statements.

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

Standard Chartered Saadiq Berhad
Pillar 3 disclosures

4. Regulatory capital requirement

Disclosure on capital adequacy under the Standardised and IRB approach

31 December 2016 Exposure class	Gross exposures RM'000	Net exposures RM'000	Risk weighted assets RM'000	Risk weighted assets absorbed by 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	32,321	32,321	32,321	-	32,321	2,586
Regulatory retail	187,990	187,990	184,967	-	184,967	14,797
Residential mortgages	351	351	123	-	123	10
Other assets	73,945	73,945	70,559	-	70,559	5,645
Defaulted exposures	6,974	6,974	8,806	-	8,806	704
Total on-balance sheet exposures	301,581	301,581	296,776	-	296,776	23,742
Off-balance sheet exposures:-						
Off-balance sheet exposures other than Islamic OTC derivative transactions and Islamic credit derivatives	38,291	36,741	36,738	-	36,738	2,939
Total off-balance sheet exposures	38,291	36,741	36,738	-	36,738	2,939
Total on and off-balance sheet exposures	339,872	338,322	333,514	-	333,514	26,681
Exposures under the IRB approach						
On-balance sheet exposures:-						
Sovereigns/central banks	1,631,325	1,631,325	215,711	(122,208)	93,503	7,480
Banks, development financial institutions & multilateral development banks ("MDBs")	642,725	642,725	139,809	-	139,809	11,185
Takaful companies, Syariah compliant securities firms & fund managers	201,195	201,195	76,483	(27,941)	48,542	3,883
Corporates	2,521,146	2,521,190	2,328,280	(891,391)	1,436,889	114,951
Home financing	2,753,085	2,753,085	437,675	-	437,675	35,014
Other retail	854,354	854,310	335,024	-	335,024	26,802
Defaulted exposures	109,007	109,007	282,531	-	282,531	22,602
Total on-balance sheet exposures	8,712,837	8,712,837	3,815,513	(1,041,540)	2,773,973	221,917
Off-balance sheet exposures:-						
OTC derivatives	565,517	565,517	324,858	(225,619)	99,239	7,939
Off-balance sheet exposures other than Islamic OTC derivative transactions and Islamic credit derivatives	715,088	715,088	285,682	(46,547)	239,135	19,131
Defaulted exposures	227	227	232	-	232	19
Total off-balance sheet exposures	1,280,832	1,280,832	610,772	(272,166)	338,606	27,089
Total on and off-balance sheet exposures	9,993,669	9,993,669	4,426,285	(1,313,706)	3,112,579	249,006
(b) Large exposures risk requirement			-	-	-	-
(c) Market risk			-	-	-	-
(d) Operational risk (Standardised approach)			350,763	-	350,763	28,061
Total RWA and capital requirements			5,110,562	(1,313,706)	3,796,856	303,748

CET 1, Tier 1 and Total capital ratios

	Before effect of PSIA	After effect of PSIA
CET 1 capital ratio	11.743%	15.806%
Tier 1 capital ratio	11.743%	15.806%
Total capital ratio	13.922%	18.739%

4. Regulatory capital requirement (continued)

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

31 December 2015 Exposure class	Gross exposures RM'000	Net exposures RM'000	Risk weighted assets RM'000	Risk weighted assets absorbed by 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	18,306	18,306	18,306	-	18,306	1,464
Regulatory retail	1,431	1,431	1,114	-	1,114	89
Other assets	322,989	322,989	314,283	-	314,283	25,143
Defaulted exposures	25	25	37	-	37	3
Total on-balance sheet exposures	342,751	342,751	333,740	-	333,740	26,699
Off-balance sheet exposures:-						
Off-balance sheet exposures other than Islamic OTC derivative transactions and Islamic credit derivatives	51,981	50,274	50,274	-	50,274	4,022
Total off-balance sheet exposures	51,981	50,274	50,274	-	50,274	4,022
Total on and off-balance sheet exposures	394,732	393,025	384,014	-	384,014	30,721
Exposures under the IRB approach						
On-balance sheet exposures:-						
Sovereigns/central banks	2,287,356	2,287,356	151,076	(85,976)	65,100	5,208
Banks, development financial institutions & multilateral development banks ("MDBs")	2,183,775	2,183,775	194,408	-	194,408	15,553
Takaful companies, Syariah compliant securities firms & fund managers	201,178	201,178	28,643	(10,457)	18,186	1,455
Corporates	2,278,305	2,281,265	2,036,655	(1,102,099)	934,556	74,764
Home financing	2,888,241	2,888,241	843,144	-	843,144	67,452
Other retail	1,066,348	1,063,388	600,588	-	600,588	48,047
Defaulted exposures	109,533	109,533	304,882	-	304,882	24,391
Total on-balance sheet exposures	11,014,736	11,014,736	4,159,396	(1,198,532)	2,960,864	236,870
Off-balance sheet exposures:-						
OTC derivatives	670,214	670,214	398,442	(212,761)	185,681	14,854
Off-balance sheet exposures other than Islamic OTC derivative transactions and Islamic credit derivatives	1,099,122	1,099,122	561,624	(196,135)	365,489	29,239
Total off-balance sheet exposures	1,769,336	1,769,336	960,066	(408,896)	551,170	44,093
Total on and off-balance sheet exposures	12,784,072	12,784,072	5,119,462	(1,607,428)	3,512,034	280,963
(b) Large exposures risk requirement			-	-	-	-
(c) Market risk			-	-	-	-
(d) Operational risk (Standardised approach)			356,681	-	356,681	28,534
Total RWA and capital requirements			5,860,157	(1,607,428)	4,252,729	340,218

CET 1, Tier 1 and Total capital ratios

	Before effect of PSIA	After effect of PSIA
CET 1 capital ratio	9.527%	13.129%
Tier 1 capital ratio	9.527%	13.129%
Total capital ratio	11.402%	15.711%

5. Credit risk

Credit risk is the potential for loss due to the failure of a counterparty to meet its obligations to pay the bank in accordance with agreed terms. Credit exposures may arise from both the banking and trading book. Credit risk is managed through a framework which sets out policies and procedures covering the measurement and management of credit risk. There is a clear segregation of duties between transaction originators in the businesses and the approvers in the Risk function. All credit exposure limits are approved within a defined credit approval authority framework.

The Bank has adopted the Internal Ratings Based ("IRB") approach to manage credit risk for its portfolio. The Standardised approach is applied to portfolios that are classifies as permanently exempt 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(ii).

(i) Credit risk mitigation

Potential credit losses from any given account, customer or portfolio are mitigated using a range of tools such as collateral, credit takaful, credit derivatives and other guarantees. The reliance that can be placed on these mitigants is carefully assessed in light of issues such as legal certainty and enforceability, market valuation correlation and counterparty risk of the guarantor.

Risk mitigation policies determine the eligibility of collateral types. Collateral types which are eligible for risk mitigation include cash, residential, commercial and industrial properties, marketable securities, bank guarantees and letters of credit.

Where guarantees or credit derivatives are used as Credit Risk Mitigation (“CRM”) the creditworthiness of the guarantor is assessed and established using the credit approval process in addition to that of the obligor or main counterparty. The main types of guarantors include bank guarantees, takaful companies, parent companies, shareholders and Credit Guarantee Corporation ("CGC"). Credit derivatives, due to their potential impact on income volatility, are used in a controlled manner with reference to their expected volatility.

Collateral is valued in accordance with the risk mitigation policy, which prescribes the frequency of valuation for different collateral types, based on the level of price volatility of each type of collateral and the nature of the underlying product or risk exposure. Collateral held against impaired financing is maintained at fair value.

For further information regarding credit risk mitigation in the trading book see Section 5 (iv).

The credit risk mitigation policy sets out clear criteria that must be satisfied if the mitigation is to be considered effective including:-

- Excessive exposure to any particular risk mitigants or counterparties should be avoided;
- Risk mitigants should not be correlated with the underlying assets such that default would coincide with a lowering of the Forced Sale Value ("FSV") of the collateral;
- Where there is a currency mismatch, haircuts should be applied to protect against currency fluctuations;
- Legal opinions and documentation must be in place; and
- Ongoing review and controls exist where there is a maturity mismatch between the collateral and exposure.

For all credit risk mitigants that meet the policy criteria, a clear set of procedures are applied to ensure that the value of the underlying collateral is appropriately recorded and updated regularly.

Regular valuation of collateral is required in accordance with Standard Chartered PLC Group's risk mitigation policy, which prescribes the frequency of valuation for different collateral types.

Section 5.2 provides further analysis on the Bank's credit risk exposures after the effect of CRM.

5. Credit risk (continued)

Credit monitoring (continued)

(ii) 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 department, Central banks, Entities owned or guaranteed by Central Government
Bank, DFIs and MDBs	Bank, Finance & Leasing, Life/ Family Takaful, Non-life/ Non-family Takaful, Broker dealer, Funds managers
Corporates	Large Corporate, Mid Corporate, Middle Market*, Emerging Middle Market, Commodity Traders & Buyers, Medium Enterprise, Small Business
Residential Financing	Retail Clients Residential Financing
Qualifying revolving retail exposures	not applicable
Other retail exposures	Corporate SME (including Business & Commercial Clients) property financing, Corporate SME (including Business & Commercial Clients) financing, Personal financing, and residential properties under construction

* The Middle Market model is replaced by the Mid Corporate model in Q4 2016. As there are remaining exposures under the Middle Market model, the model is retained in the table for reference. With regards to the pillar 3 reporting in 2017 onwards, the Middle Market model will be removed from the table.

<u>Model governance</u>

The IRB models used by the Bank calculate Probability of Default ("PD"), Loss Given Default ("LGD") and Exposure at Default ("EAD").

Models are developed by Standard Chartered PLC Group's analytics team within the Risk Measurement function. The model development process is conducted and documented in line with specific criteria setting out the minimum standards for model development. All IRB models are validated in detail by a model validation team, which is separate from the teams that develop and maintain the models. Model validation findings are presented to the Standard Chartered PLC Group Credit Model Assessment Committee ("MAC"). The Credit MAC supports the Standard Chartered PLC Group Credit Risk Committee in ensuring risk identification and measurement capabilities are objective and consistent, so that risk control and risk origination decisions are properly informed.

These decision making bodies are comprised of divisional senior management whose role is to challenge model assumptions and performance and agree on appropriate model use for business decision making and regulatory capital requirement calculations. The Standard Chartered PLC Group Risk Committee and Board Risk Committee ("BRC") periodically review overall model performance.

As part of local governance, IRB model development and validation findings are subjected to local Executive Risk Committee ("ERC") and local 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)

Credit monitoring (continued)

(ii) Internal Ratings Based models

Model validation

The model validation process involves a qualitative and quantitative assessment of the model, data, systems and governance. This would typically include an assessment of the:-

- Model assumptions;
- Validity of the technical approach used;
- Statistical and empirical measures of performance;
- Appropriateness of intended model use;
- Model application and infrastructure;
- Data integrity and history;
- Model response to changes in internal and external environment - the extent to which the model provides point in time or through the cycle measures of risk;
- Model monitoring standards and triggers; and
- Levels of conservatism applied.

Statistical testing is used to determine a model's discriminatory power, predicted versus realised performance and stability over time with pre-defined thresholds for passing such tests.

PD model development

Standard Chartered PLC Group employs a variety of techniques to develop its PD models. In each case the appropriate approach is dictated by the availability and appropriateness of both internal and external data.

If there is a perceived weakness in the data, for example shorter histories or fewer instances of default, an appropriate amount of conservatism is applied to predicted default rates.

The general approaches fall into three categories:-

Default History Based ('Good-Bad') – where a sufficient number of defaults are available, Standard Chartered PLC Group deploys a variety of statistical methods to determine the likelihood that counterparties would default on existing exposures. These methods afford high discriminatory power by identifying counterparty characteristics that have a significant predictive ability. The majority of the Group's retail and corporate exposures are rated under such an approach.

Shadow Rating Approach – if it is determined that Standard Chartered PLC Group's internal data does not provide a sufficient default history (for example, so called 'low default portfolios'), then Standard Chartered PLC Group develops models which are designed to be comparable to the ranking of issuer ratings assigned by established ECAIs, where those agencies have access to large databases of defaults over a long time period on a variety of credit obligations.

Constrained Expert Judgement – for certain types of exposure there is little or no internal or external default history, and no reliable external ratings. In such rare cases, the Bank has quantitative frameworks to incorporate expert opinions of Standard Chartered PLC Group's credit risk management personnel into the model development process.

5. Credit risk (continued)

Credit monitoring (continued)

(ii) Internal Ratings Based Models (continued)

LGD model development

Standard Chartered PLC Group develops LGD models by assessing recoveries and the forced sale value of collateral together with the economic costs in securing these recoveries, and the timing with which such cash flows occur. All such cash flows are then measured at net present value using a suitable discount rate to derive a recovery rate. LGD is therefore the EAD less these estimated recoveries.

Recoveries are estimated based upon empirical evidence which has shown that factors such as customer segment and product have predictive content.

All LGD models are conservatively calibrated to a ‘downturn’ – with lower collateral values and lower recoveries on exposures, compared to those estimated over the long run.

EAD model development

An EAD model is developed for uncertain exposures such as lines of credit and other commitments. Based on Standard Chartered PLC Group’s experience (and supplemented by external data), EAD models assess changes to limits and the likely draw-down of undrawn committed and uncommitted limits as an exposure approaches default. The factor generated by the model and applied to the undrawn limit is referred to as the Credit Conversion Factor (CCF).

Standard Chartered PLC Group has used conservative assumptions in assessing EAD, in keeping with the expected experience in an economic downturn.

Model use

In addition to supporting credit decisions, IRB models also support risk-based pricing methodologies and measures used to assess business performance.

The use of models is governed by a suite of policies:

- The credit grading policy and procedure which defines the applicability of each model, details the procedure for use and sets the conditions and approval authority required to override model output; and

- The Standard Chartered PLC Group's Model Risk Policy specifies that models are subject to regular monitoring and review with underlying Standard Chartered PLC Group's Model Standards for IRB Credit Risk Models specifying statistical thresholds and other triggers which determine when models need to be redeveloped.

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

Corporates, Institutional and Commercial model results

Internal ratings based models ("IRB") have been developed from a dataset that spans at least a full business cycle. This data has been used to calibrate estimates of probability of default ("PD") to the Group’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 1 January 2016 and are compared with default observations through 31 December 2016. 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.

5. Credit risk (continued)

Credit monitoring (continued)

(ii) Internal Ratings Based Models (continued)

Corporates, Institutional and Commercial model results (continued)

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 2013 to 2016 defaults that have completed their workout process as at the end of 2016. However, there have been no defaulted cases since the Bank started its operations in October 2008 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 2016, 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 corporate, institutions and central governments or central banks given there was no default in 2016.

Corporate SME observed default is lower than the predicted PD. Predicted PD was computed as at 31 December 2015 and compared to the actual default observations over a one year period ended 31 December 2016. The observed LGD was calculated based on actual recoveries during the 2014 to 2016 period for existing non-defaults as of December 2012 where defaulted in 2013. This is compared to the predicted outcome of the same set of defaults. Under this approach, realised LGD values for Corporate SME are lower than predicted, primarily due to the models using “downturn” parameter settings to predict LGD. The ratios for EAD model is 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	0.0%	N/A	N/A	N/A	N/A
Institution	1.2%	N/A	N/A	N/A	N/A
Corporates	0.4%	N/A	N/A	N/A	N/A
Corporate SME	3.1%	2.7%	30.4%	0.0%	1.5

Retail model results

Retail models have been developed for majority of its portfolios. Predicted PD was computed as at 31 December 2015 and compared to the actual default observation over a one year period ending 31 December 2016.

The observed default rate for all asset classes is lower than predicted. Model recalibrations have been done (not reflected in the data-point used) to ensure predicted PD is reflective of the underlying portfolio performance.

The realized 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 the predicted values for Home Financing and Other Retail exposures.

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

	Predicted PD %	Observed PD %	Predicted LGD %	Realised LGD %	Predicted EAD/ Realised EAD
IRB exposures					
Home Financing	3.8%	1.4%	15.1%	6.8%	1.0
Other retail exposures	13.7%	9.7%	89.3%	68.9%	1.4

5. Credit risk (continued)

Credit monitoring (continued)

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Actual losses

The table below shows net individual impairment charges raised and write off during the financial year of 2016 versus 2015 for IRB exposure classes. The net individual impairment charge is a point in time actual charge raised in accordance with accounting standards that require the Bank to either provide for or write-off debts when certain conditions are met.

	31 December 2016 Net individual Actual losses RM'000	31 December 2015 Net individual Actual losses RM'000
Corporates	-	1,399
Home financing	8,809	5,274
Other Retail	65,396	59,373
	74,205	**66,046**

The higher actual loss as compared to the corresponding period was mainly due to higher retail provisions made during the period due to increase exposures.

(iii) Risk grade profile

Exposures by internal credit grading

For IRB portfolios, an alphanumeric credit risk-grading system is used in all client or product segment. 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. Lower credit grades are indicative of a lower likelihood of default. Credit grades 1 to 12 are assigned to performing customers or accounts, while credit grades 13 and 14 are assigned to non-performing or defaulted customers.

The Bank's credit grades in Corporates, Institutional and Commercial clients are not intended to replicate external credit grades, and ratings assigned by external ratings agencies are not used in determining internal credit grades. Nonetheless, as the factors used to grade a customer 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)

Credit monitoring (continued)

(iii) Risk grade profile (continued)

As a guide, the table below presents the Bank's credit grades corresponding to that of Standard and Poor's credit ratings.

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

* Represents corporates/non-bank financial institutions.

Credit grades for Retail Clients accounts covered by IRB models are based on a probability of default. These models are based on application and behavioural scorecards which make use of credit bureau information as well as Bank's internal data.

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;

5. Credit risk (continued)

Credit monitoring (continued)

(iii) Risk grade profile (continued)

Exposures by internal credit grading (continued)

- Pricing – In Corporates, Institutional and Commercial clients, a pre-deal pricing calculator is used which takes into consideration PD, LGD and EAD in the calculation of expected loss and economic capital 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 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. The Bank's concentration risk monitoring dashboard utilises IRB Model output such as credit grades, PD, LGD and EADs. In Retail Clients, portfolio limits are based on recession loss;

- Provisioning – Collective Impairment Provision ("CIP") are raised at the portfolio level and are set with reference to expected loss which is based on PD, LGD and EAD amongst other qualitative and quantitative factors;

- 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.

(iv) Counterparty credit risk in the trading book

Counterparty credit risk (“CCR”) is the risk that the Bank’s counterparty in a foreign exchange, profit rate, commodity, equity or credit derivative 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 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 process.

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.

5. Credit risk (continued)

Credit monitoring (continued)

(iv) Counterparty credit risk in the trading book (continued)

Credit reserves

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.

Wrong way risk

Wrong way risk occurs when either the EAD or LGD increases as the credit quality of an obligor decreases. For example, as the MTM on a derivative contract increases in favour of the Bank, this can correspond to a higher replacement cost (EAD), and the counterparty may increasingly be unable to meet its obligations. Furthermore the EAD may become larger as the counterparty finds it harder to meet its payment, margin call or collateral posting requirements. The Bank employs various policies and procedures to ensure that deterioration in credit grading is alerted to management.

Exposure value calculation

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

5.1 Exposure values

The following tables detail the Bank's Exposure at Default ("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.

Geographical analysis

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

31 December 2016	Malaysia RM'000	Others RM'000	Total RM'000
IRB exposures			
Sovereigns/Central banks	1,631,325	-	1,631,325
Banks, development financial institutions & MDBs	747,883	401,657	1,149,540
Takaful companies, Syariah compliant securities firms & fund managers	210,472	48,051	258,523
Corporate exposures (excluding specialised financing and firm-size adjustment)	2,249,419	244,291	2,493,710
Corporate exposures (with firm-size adjustment)	562,748	-	562,748
Retail exposures	3,897,823	-	3,897,823
Home financing	*2,887,321*	-	*2,887,321*
Other retail exposures	*1,010,502*	-	*1,010,502*
Total IRB exposures	**9,299,670**	**693,999**	**9,993,669**
Standardised exposures			
Corporates	69,124	1,475	70,599
Regulatory retail	194,977	-	194,977
Residential mortgages	351	-	351
Other assets	64,015	9,930	73,945
Total Standardised exposures	**328,467**	**11,405**	**339,872**
Total credit risk exposures	**9,628,137**	**705,404**	**10,333,541**

5. Credit risk (continued)

5.1 Exposure values (continued)

Geographical analysis (continued)

31 December 2015	Malaysia RM'000	Others RM'000	Total RM'000
IRB exposures			
Sovereigns/Central banks	2,287,356	-	2,287,356
Banks, development financial institutions & MDBs	2,377,320	396,825	2,774,145
Takaful companies, Syariah compliant securities firms & multilateral fund managers	236,771	39,690	276,461
Corporate exposures (excluding specialised financing and firm-size adjustment)	2,197,647	327,932	2,525,579
Corporate exposures (with firm-size adjustment)	580,870	-	580,870
Retail exposures	4,339,661	-	4,339,661
Home financing	*3,080,276*	-	*3,080,276*
Other retail exposures	*1,259,385*	-	*1,259,385*
Total IRB exposures	**12,019,625**	**764,447**	**12,784,072**
Standardised exposures			
Corporates	68,748	1,540	70,288
Regulatory retail	1,455	-	1,455
Other assets	309,237	13,752	322,989
Total Standardised exposures	**379,440**	**15,292**	**394,732**
Total credit risk exposures	**12,399,065**	**779,739**	**13,178,804**

5. Credit risk (continued)

5.1 Exposure values (continued)

Sector or economic purpose analysis

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

31 December 2016	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	-	-	-	-	-	-	-	1,631,325	-	-	-	1,631,325
Banks, development financial financial institutions & MDBs	-	-	-	-	-	-	-	1,149,540	-	-	-	1,149,540
Takaful companies, Syariah compliant securities firms & fund managers	-	-	-	-	-	-	-	258,523	-	-	-	258,523
Corporate exposures (excluding specialised financing and firm-size adjustment)	137,377	43,973	968,791	-	27,155	673,466	96,745	214,689	289,643	-	41,871	2,493,710
Corporate exposures (with firm-size adjustment)	-	-	17,501	-	106,846	29,063	40,657	41,532	3,338	304,947	18,864	562,748
Retail exposures	1,372	1,385	38,395	870	42,637	81,942	28,635	35,853	24	3,654,877	11,833	3,897,823
Home financing	-	-	-	-	-	-	-	-	-	2,887,321	-	2,887,321
Other retail exposures	1,372	1,385	38,395	870	42,637	81,942	28,635	35,853	24	767,556	11,833	1,010,502
Total IRB exposures	**138,749**	**45,358**	**1,024,687**	**870**	**176,638**	**784,471**	**166,037**	**3,331,462**	**293,005**	**3,959,824**	**72,568**	**9,993,669**
Standardised exposures												
Corporates	-	-	-	-	69,124	-	-	-	-	1,475	-	70,599
Regulatory retail	-	-	-	-	-	-	-	-	-	194,977	-	194,977
Residential mortgages	-	-	-	-	-	-	-	-	-	351	-	351
Other assets	-	-	-	-	-	-	-	-	-	-	73,945	73,945
Total Standardised exposures	**-**	**-**	**-**	**-**	**69,124**	**-**	**-**	**-**	**-**	**196,803**	**73,945**	**339,872**
Total credit risk exposures	**138,749**	**45,358**	**1,024,687**	**870**	**245,762**	**784,471**	**166,037**	**3,331,462**	**293,005**	**4,156,627**	**146,513**	**10,333,541**

Standard Chartered Saadiq Berhad
Pillar 3 disclosures

5. Credit risk (continued)

5.1 Exposure values (continued)

Sector or economic purpose analysis (continued)

31 December 2015	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	-	-	-	-	-	-	-	2,287,356	-	-	-	2,287,356
Banks, development financial financial institutions & MDBs	-	-	-	-	-	-	-	2,774,145	-	-	-	2,774,145
Takaful companies, Syariah compliant securities firms & fund managers	-	-	-	-	-	-	-	276,461	-	-	-	276,461
Corporate exposures (excluding specialised financing and firm-size adjustment)	131,684	19,840	1,163,510	-	4,015	559,552	128,761	184,115	281,631	-	52,471	2,525,579
Corporate exposures (with firm-size adjustment)	-	34,822	27,451	-	96,582	17,931	44,657	12,836	7,701	-	338,890	580,870
Retail exposures	1,895	2,235	52,905	1,115	48,512	99,402	29,028	45,405	156	3,330,790	728,218	4,339,661
Home financing	-	-	-	-	-	-	-	-	-	3,080,276	-	3,080,276
Other retail exposures	1,895	2,235	52,905	1,115	48,512	99,402	29,028	45,405	156	250,514	728,218	1,259,385
Total IRB exposures	**133,579**	**56,897**	**1,243,866**	**1,115**	**149,109**	**676,885**	**202,446**	**5,580,318**	**289,488**	**3,330,790**	**1,119,579**	**12,784,072**
Standardised exposures												
Corporates	-	-	-	-	68,748	-	-	-	-	-	1,540	70,288
Regulatory retail	-	-	-	-	964	-	-	-	-	-	491	1,455
Other assets	-	-	-	-	-	-	-	-	-	-	322,989	322,989
Total Standardised exposures	**-**	**-**	**-**	**-**	**69,712**	**-**	**-**	**-**	**-**	**-**	**325,020**	**394,732**
Total credit risk exposures	**133,579**	**56,897**	**1,243,866**	**1,115**	**218,821**	**676,885**	**202,446**	**5,580,318**	**289,488**	**3,330,790**	**1,444,599**	**13,178,804**

5. Credit risk (continued)

5.1 Exposure values (continued)

Residual contractual maturity analysis

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

31 December 2016	Up to 1 year RM'000	> 1 - 5 years RM'000	Over 5 years RM'000	Total RM'000
IRB exposures				
Sovereigns/Central banks	1,529,378	101,947	-	1,631,325
Banks, development financial institutions & MDBs	648,317	501,223	-	1,149,540
Takaful companies, securities firms & Syariah compliant fund managers	206,872	51,651	-	258,523
Corporate exposures (excluding specialised financing and firm-size adjustment)	1,720,908	576,551	196,251	2,493,710
Corporate exposures (with firm-size adjustment)	127,868	140,495	294,385	562,748
Retail exposures	216,222	221,129	3,460,472	3,897,823
Home financing	*90,851*	*12,312*	*2,784,158*	*2,887,321*
Other retail exposures	*125,371*	*208,817*	*676,314*	*1,010,502*
Total IRB exposures	**4,449,565**	**1,592,996**	**3,951,108**	**9,993,669**
Standardised exposures				
Corporates	9,863	59,322	1,414	70,599
Regulatory retail	1,993	188,822	4,162	194,977
Residential mortgages	-	-	351	351
Other assets	73,945	-	-	73,945
Total Standardised exposures	**85,801**	**248,144**	**5,927**	**339,872**
Total credit risk exposures	**4,535,366**	**1,841,140**	**3,957,035**	**10,333,541**

Note: The above table shows that exposures with residual contractual maturity more than 5 years, of which 71% are collateralized.

5. Credit risk (continued)

5.1 Exposure values (continued)

Residual contractual maturity analysis (continued)

31 December 2015	Up to 1 year RM'000	> 1 - 5 years RM'000	Over 5 years RM'000	Total RM'000
IRB exposures				
Sovereigns/Central banks	1,886,117	401,239	-	2,287,356
Banks, development financial institutions & MDBs	2,206,760	567,385	-	2,774,145
Takaful companies, Syariah compliant securities firms & fund managers	35,464	240,997	-	276,461
Corporate exposures (excluding specialised financing and firm-size adjustment)	1,554,973	746,207	224,399	2,525,579
Corporate exposures (with firm-size adjustment)	120,132	151,333	309,405	580,870
Retail exposures	138,799	368,983	3,831,879	4,339,661
Home financing	*1,175*	*8,364*	*3,070,737*	*3,080,276*
Other retail exposures	*137,624*	*360,619*	*761,142*	*1,259,385*
Total IRB exposures	**5,942,245**	**2,476,144**	**4,365,683**	**12,784,072**
Standardised exposures				
Corporates	7,644	61,183	1,461	70,288
Regulatory retail	22	1,374	59	1,455
Other assets	322,989	-	-	322,989
Total Standardised exposures	**330,655**	**62,557**	**1,520**	**394,732**
Total credit risk exposures	**6,272,900**	**2,538,701**	**4,367,203**	**13,178,804**

Note: The above table shows that exposures with residual contractual maturity more than 5 years, of which 69% are collateralized.

5. Credit risk (continued)

5.2 Credit risk mitigation

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 2016	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	1,631,325	-	-	-
Banks, development financial institutions & MDBs	642,725	-	-	-
Takaful companies, Syariah compliant securities firms & fund managers	201,195	-	2,741	-
Corporates	2,553,467	560	69,005	327,166
Regulatory retail	1,042,344	44	1,326	6,908
Home financing	2,753,436	-	-	2,713,280
Other assets	73,945	-	-	-
Defaulted exposures	115,981	-	-	21,068
Total on-balance sheet exposures	**9,014,418**	**604**	**73,072**	**3,068,422**
Off-balance sheet exposures				
OTC derivatives	565,517	-	-	-
Off balance sheet exposures other than Islamic OTC derivatives or Islamic credit derivatives	753,379	4,165	24,894	90,519
Defaulted exposures	227	-	-	227
Total off-balance sheet exposures	**1,319,123**	**4,165**	**24,894**	**90,746**
Total on and off-balance sheet exposures	**10,333,541**	**4,769**	**97,966**	**3,159,168**

5. Credit risk (continued)

5.2 Credit risk mitigation (continued)

31 December 2015	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	2,287,356	-	-	-
Banks, development financial institutions & MDBs	2,183,775	-	-	-
Takaful companies, Syariah compliant securities firms & fund managers	201,178	-	2,592	-
Corporates	2,296,611	1,779	50,679	209,669
Regulatory retail	1,067,779	1,643	1,084	5,374
Home financing	2,888,241	-	-	2,844,900
Other assets	322,989	-	-	-
Defaulted exposures	109,558	-	-	1,637
Total on-balance sheet exposures	**11,357,487**	**3,422**	**54,355**	**3,061,580**
Off-balance sheet exposures				
OTC derivatives	670,214	-	-	-
Off balance sheet exposures other than Islamic OTC derivatives or Islamic credit derivatives	1,151,103	3,390	14,514	158,621
Total off-balance sheet exposures	**1,821,317**	**3,390**	**14,514**	**158,621**
Total on and off-balance sheet exposures	**13,178,804**	**6,812**	**68,869**	**3,220,201**

5. Credit risk (continued)

5.3 Exposures under IRB approach

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 2016	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	-	1,631,325	-	-	-	-	-
Banks	-	642,725	-	-	-	-	-
Corporate	-	218,913	711,102	1,529,425	253,686	9,215	418
Total on-balance sheet exposures	**-**	**2,492,963**	**711,102**	**1,529,425**	**253,686**	**9,215**	**418**
Undrawn commitments							
Corporate	-	71,525	117,382	65,791	30,869	79	-
Total undrawn commitments	**-**	**71,525**	**117,382**	**65,791**	**30,869**	**79**	**-**
Derivatives							
Banks	-	105,120	89,921	311,736	-	-	-
Corporate	-	52,995	-	5,736	6	3	-
Total derivatives	**-**	**158,115**	**89,921**	**317,472**	**6**	**3**	**-**
Contingent							
Banks	-	38	-	-	-	-	-
Corporate	-	88,842	1,436	144,441	12,905	212	-
Total contingent	**-**	**88,880**	**1,436**	**144,441**	**12,905**	**212**	**-**
Exposure weighted average LGD (%)							
Sovereign	-	46.20%	-	-	-	-	-
Banks	-	41.17%	41.20%	41.20%	-	-	-
Corporate	-	35.24%	49.83%	44.04%	38.65%	69.66%	95.81%
Exposure weighted average risk weight (%)							
Sovereign	-	13.22%	-	-	-	-	-
Banks	-	23.99%	33.52%	79.40%	-	-	-
Corporate	-	18.79%	53.91%	97.20%	134.58%	322.36%	937.48%

5. Credit risk (continued)

5.3 Exposures under IRB approach (continued)

31 December 2015	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	-	2,287,356	-	-	-	-	-
Banks	-	2,183,775	-	-	-	-	-
Corporate	-	421,614	350,024	1,549,488	155,162	3,195	909
Total on-balance sheet exposures	**-**	**4,892,745**	**350,024**	**1,549,488**	**155,162**	**3,195**	**909**
Undrawn commitments							
Corporate	-	79,681	255,386	159,573	20,349	-	-
Total undrawn commitments	**-**	**79,681**	**255,386**	**159,573**	**20,349**	**-**	**-**
Derivatives							
Banks	24,850	193,506	80,763	291,213	-	-	-
Corporate	-	72,098	1,070	6,709	-	5	-
Total derivatives	**24,850**	**265,604**	**81,833**	**297,922**	**-**	**5**	**-**
Contingent							
Bank	-	38	-	-	-	-	-
Corporate	-	102,671	2,023	193,336	9,584	33	-
Total contingent	**-**	**102,709**	**2,023**	**193,336**	**9,584**	**33**	**-**
Exposure weighted average LGD (%)							
Sovereign	-	26.20%	-	-	-	-	-
Banks	26.20%	26.20%	41.20%	41.20%	-	-	-
Corporate	-	42.08%	47.22%	44.99%	34.91%	50.63%	83.21%
Exposure weighted average risk weight (%)							
Sovereign	-	6.60%	-	-	-	-	-
Banks	9.24%	9.74%	91.27%	91.19%	-	-	-
Corporate	-	20.35%	69.40%	93.11%	121.43%	74.70%	715.74%

5. Credit risk (continued)

5.3 Exposures under IRB approach (continued)

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 2016	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	2,610	638,460	293,462	1,577,152	160,471	80,930	22,072
Other retail	100,150	124,962	115,241	355,303	94,756	63,942	86,517
Total on-balance sheet exposures	**102,760**	**763,422**	**408,703**	**1,932,455**	**255,227**	**144,872**	**108,589**
Undrawn commitments							
Home financing	949	7,271	2,836	99,924	648	309	227
Other retail	404	-	382	68,315	530	-	-
Total undrawn commitments	**1,353**	**7,271**	**3,218**	**168,239**	**1,178**	**309**	**227**
Exposure weighted average LGD (%)							
Home financing	16.36%	12.49%	12.41%	12.48%	12.49%	12.94%	16.47%
Other retail	15.04%	15.90%	18.51%	36.87%	44.84%	56.31%	76.63%
Exposure weighted average risk weight (%)							
Home financing	3.79%	5.35%	8.15%	16.45%	44.52%	68.56%	103.58%
Other retail	3.00%	8.52%	11.18%	43.60%	69.61%	117.11%	295.61%

5. Credit risk (continued)

5.3 Exposures under IRB approach (continued)

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

31 December 2015	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	6,144	189,559	239,608	1,968,413	362,185	122,332	1,583
Other retail	84,839	76,237	136,761	483,907	176,073	108,531	107,041
Total on-balance sheet exposures	**90,983**	**265,796**	**376,369**	**2,452,320**	**538,258**	**230,863**	**108,624**
Undrawn commitments							
Home financing	-	-	117	186,180	3,764	391	-
Other retail	531	143	78	84,789	454	1	-
Total undrawn commitments	**531**	**143**	**195**	**270,969**	**4,218**	**392**	**-**
Exposure weighted average LGD (%)							
Home financing	12.29%	12.04%	12.01%	12.08%	12.23%	12.57%	14.85%
Other retail	15.01%	17.86%	20.29%	37.21%	70.88%	64.76%	82.21%
Exposure weighted average risk weight (%)							
Home financing	9.80%	14.68%	16.30%	25.53%	50.85%	78.70%	93.43%
Other retail	2.85%	9.70%	12.52%	44.53%	110.09%	139.05%	277.37%

5. Credit risk (continued)

5.3 Exposures under IRB approach (continued)

Retail 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 2016	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	1,721,978	529,233	298,252	92,000	133,694	-	-
Other retail	422,141	93,317	20,971	135,719	182,170	86,553	-
Total on-balance sheet exposures	**2,144,119**	**622,550**	**319,223**	**227,719**	**315,864**	**86,553**	**-**
Undrawn commitments							
Home financing	21,684	16,855	72,441	275	909	-	-
Other retail	1,389	-	67,605	358	279	-	-
Total undrawn commitments	**23,073**	**16,855**	**140,046**	**633**	**1,188**	**-**	**-**
Exposure weighted average risk weight (%)							
Home financing	8.45%	17.80%	27.99%	44.35%	71.34%	-	-
Other retail	13.78%	14.46%	26.92%	50.95%	114.17%	271.41%	-

5. Credit risk (continued)

5.3 Exposures under IRB approach (continued)

Retail exposures under the IRB approach by expected loss range for retail exposures (continued)

31 December 2015	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	101,104	69,776	1,392,255	1,091,703	234,986	-	-
Other retail	301,382	219,294	56,512	115,603	358,718	121,880	-
Total on-balance sheet exposures	**402,486**	**289,070**	**1,448,767**	**1,207,306**	**593,704**	**121,880**	**-**
Undrawn commitments							
Home financing	169	-	11,851	176,387	2,045	-	-
Other retail	878	740	84,066	-	312	-	-
Total undrawn commitments	**1,047**	**740**	**95,917**	**176,387**	**2,357**	**-**	**-**
Exposure weighted average risk weight (%)							
Home financing	9.45%	18.07%	20.45%	33.63%	70.03%	-	-
Other retail	8.51%	15.46%	27.95%	58.85%	119.28%	268.31%	-

Standard Chartered Saadiq Berhad
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5. Credit Risk (continued)

5.4 Exposures under Standardised approach

Risk weights under the Standardised approach

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

31 December 2016	← Exposures After Netting and Credit Risk Mitigation → Corporates* RM'000	Regulatory retail RM'000	Home financing RM'000	Other assets RM'000	Total exposures after netting and credit risk mitigation RM'000	Total risk weighted assets RM'000
Risk weights						
0%	-	-	-	3,386	3,386	-
35%	-	-	351	-	351	123
50%	-	407	-	-	407	204
75%	-	12,105	-	-	12,105	9,079
100%	69,049	178,395	-	70,559	318,003	318,003
150%	-	4,070	-	-	4,070	6,105
Total exposures	69,049	194,977	351	73,945	338,322	333,514
Risk-weighted assets by exposures	69,049	193,783	123	70,559	333,514	
Average risk weight	100.0%	99.4%	35.0%	95.4%	98.6%	
Deduction from capital base	-	-	-	-	-	

31 December 2015	← Exposures After Netting and Credit Risk Mitigation → Corporates* RM'000	Regulatory retail RM'000	Home financing RM'000	Other assets RM'000	Total exposures after netting and credit risk mitigation RM'000	Total risk weighted assets RM'000
Risk weights						
0%	-	-	-	8,706	8,706	-
35%	-	-	-	-	-	-
50%	-	-	-	-	-	-
75%	-	1,269	-	-	1,269	952
100%	68,581	161	-	314,283	383,025	383,025
150%	-	25	-	-	25	37
Total exposures	68,581	1,455	-	322,989	393,025	384,014
Risk-weighted assets by exposures	68,581	1,150	-	314,283	384,014	
Average risk weight	100.0%	79.0%	-	97.3%	97.7%	
Deduction from capital base	-	-	-	-	-	

* All corporate standardised exposures are unrated.

5. Credit risk (continued)

5.5 Problem credit management and provisioning

Impairment provisions analysed by customers' business or industry

The following tables show the Bank's collective impairment provisions and movement in individual impairment provisions by each principal category of customers' business or industry.

31 December 2016	Collective impairment provisions as at 31 December 2016 RM'000	Individual impairment provisions held as at 1 January 2016 RM'000	Net individual impairment charge during the financial year RM'000	Amounts written off or other movements during the financial year RM'000	Individual impairment provisions held as at 31 December 2016 RM'000
Home financing	7,018	3,410	8,809	(7,570)	4,649
Others	50,307	24,027	65,396	(69,095)	20,328
Retail Clients	**57,325**	**27,437**	**74,205**	**(76,665)**	**24,977**
Agriculture	3,797	-	-	-	-
Mining and quarrying	644	-	-	-	-
Manufacturing	7,884	1,185	-	-	1,185
Construction	1,363	-	-	-	-
Real estate	657	-	-	-	-
Wholesale & retail trade and restaurants & hotels	5,203	-	-	-	-
Transportation, storage and communication	689	-	-	-	-
Finance, insurance/takaful and business services	2,823	-	-	-	-
Others	279	-	-	-	-
Corporates, Institutional and Commercial Clients	**23,339**	**1,185**	**-**	**-**	**1,185**
Total Impairment Provisions	**80,664**	**28,622**	**74,205**	**(76,665)**	**26,162**

5. Credit risk (continued)

5.5 Problem credit management and provisioning (continued)

Impairment provisions analysed by customers' business or industry (continued)

31 December 2015	Collective impairment provisions as at 31 December 2015 RM'000	Individual impairment provisions held as at 1 January 2015 RM'000	Net individual impairment charge during the financial year RM'000	Amounts written off or other movements during the financial year RM'000	Individual impairment provisions held as at 31 December 2015 RM'000
Home financing	9,469	521	5,274	(2,385)	3,410
Others	76,274	22,549	59,373	(57,895)	24,027
Retail Clients	**85,743**	**23,070**	**64,647**	**(60,280)**	**27,437**
Agriculture	-	-	-	-	-
Mining and quarrying	78	-	-	-	-
Manufacturing	4,002	720	473	(8)	1,185
Construction	155	-	-	-	-
Real estate	609	-	-	-	-
Wholesale & retail trade and restaurants & hotels	1,941	-	-	-	-
Transportation, storage and communication	27	-	-	-	-
Finance, insurance/takaful and business services	781	-	-	-	-
Others	14	-	-	-	-
Corporates, Institutional and Commercial Clients	**7,607**	**720**	**473**	**(8)**	**1,185**
Total Impairment Provisions	**93,350**	**23,790**	**65,120**	**(60,288)**	**28,622**

5. Credit risk (continued)

5.5 Problem credit management and provisioning (continued)

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

	31 December 2016 RM'000	31 December 2015 RM'000
Home financing	314,864	309,878
Others	106,833	124,297
Retail Clients	**421,697**	**434,175**

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

	31 December 2016 RM'000	31 December 2015 RM'000
Malaysia	421,697	434,175

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 2016	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	2,817	-	-	2,817	1,206
Transaction related contingent items	212,675	-	-	212,675	35,960
Short term self liquidating trade related contingencies	41,190	-	-	41,190	10,136
Foreign exchange related contracts					
One year or less	610,656	7,183	7,178	12,108	5,844
Over one year to five years	2,335,014	260,564	271,979	481,323	306,296
Profit rate related contracts					
Over one year to five years	1,503,293	27,153	29,176	72,086	12,718
Commodity contracts					
One year or less	-	-	-	-	-
Over one year to five years	-	-	-	-	-
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	404,986	-	-	93,936	80,683
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	184,041	-	-	182,838	46,728
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	3,071,121	-	-	220,150	147,939
	8,365,793	294,900	308,333	1,319,123	647,510

5. Credit risk (continued)

5.6 Off-balance sheet and counterparty credit risk (continued)

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

31 December 2015	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	1,344	-	-	1,344	301
Transaction related contingent items	193,481	-	-	193,481	43,703
Short term self liquidating trade related contingencies	125,059	-	-	125,059	38,424
Foreign exchange related contracts					
One year or less	1,891,965	29,838	29,736	62,244	8,802
Over one year to five years	2,146,412	270,872	270,872	454,703	356,553
Profit rate related contracts					
Over one year to five years	3,385,365	33,924	36,762	152,650	33,023
Commodity contracts					
One year or less	-	58	58	58	5
Over one year to five years	33,397	559	559	559	59
Other commitments, such as formal standby facilities and credit lines, with an original maturity of over one year	859,118	-	-	338,737	328,604
Other commitments, such as formal standby facilities and credit lines, with an original maturity of up to one year	263,402	-	-	247,183	72,956
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	2,763,331	-	-	245,299	127,910
	11,662,874	335,251	337,987	1,821,317	1,010,340

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. The Bank is exposed to market risk arising principally from customer-driven transactions. The objective of the Bank's market risk policies and processes is to obtain the best balance of risk and return while meeting customers' requirements.

The primary categories of market risk for the Bank are:-
- Profit rate risk: arising from changes in yield curves, credit spreads and implied volatilities on interest rate options which influence profit rate options; and
- Currency exchange rate risk: arising from changes in exchange rates and implied volatilities on foreign exchange options.

Our market risk management governance, measurement, valuation framework and exposure are disclosed in Note 32(c) and 33 of the Bank's financial statements.

7. Operational risk

Operational risk is the potential for loss from inadequate or failed internal processes, people, and systems or from the impact of external events, including legals risks. Syariah risk is an integral part of the

Our operational risk governance, approach and measurement methodology are disclosed in Note 32(a) of the Bank's financial statements.

8. Shariah non-compliant events and income

During the financial period, there were five (2015: eight) syariah non-compliant events being detected. Total syariah non-compliant income for 2016 was RM347,009 comprising of one event in 2016 amounting to RM339,509 and one event detected in 2015 which was classified syariah non-compliant income in 2016 amounting to RM7,500 (2015: RM111,848).

The RM339,509 was refunded to the customer and the remaining has been channelled to a non-profit organization as part of channelling the syariah non-compliant income for charity purposes.

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 2016 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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Adhha Abdullah
Chief Executive Officer

Date: 13 April 2017