PILLAR 3 DISCLOSURE

1.0 OVERVIEW

The Pillar 3 Disclosure is part of Bank Negara Malaysia's (BNM's) requirements under its Risk-Weighted Capital Adequacy Framework (RWCAF) which consists of 3 Pillars:

Pillar 1 Sets out the minimum capital requirements for credit, market and operational risks.

Pillar 2 Aims to ensure that banking institutions maintain adequate capital levels consistent with their risk profile and business plan at all times.

Pillar 3 Aims to promote transparency through enhanced disclosure on risk management practices and capital adequacy.

From the regulatory standpoint, the Group is not required to comply with the Bank Negara Malaysia (BNM) Basel II Pillar 3 requirements but has chosen to adopt the disclosure requirement as a matter of best practices. The Group's Pillar 3 disclosure is governed by the approved Disclosure Policy on Risk-Weighted Capital Adequacy Framework (Basel II Pillar 3) which documents the content, materiality, frequency of disclosures and internal controls over the disclosure process.

In determining the capital requirement for credit risk, the Group has adopted the Advanced Internal Rating Based (AIRB) Approach for the Purchase Without Recourse (PWOR) portfolio and Standardised Approach for Purchase With Recourse (PWR) portfolio and investments.

For market risk, the Group adopts the Standardised Approach whilst risk-weighted capital requirement for operational risk is based on the Basic Indicator Approach which is the average of a percentage fixed by BNM of positive annual gross income over the previous three years.

Under the BNM's RWCAF Basel II Pillar 3, the information disclosed herein is not required to be audited by external auditors. However, the disclosures provided herein have been reviewed and verified by internal auditors and attested by the Chief Executive Officer. The Pillar 3 disclosure will be published annually together with the annual report which is available on the Company's website, www.cagamas.com.my.

2.0 SCOPE OF APPLICATION

The basis for consolidation is described in Note 2.2 to the financial statements. There are no significant restrictions or impediments to the transfer of funds or regulatory capital within the Group. There are no capital deficiencies in any of the subsidiary companies of the Group during the year.

For the purpose of this Pillar 3 disclosure, the scope shall be restricted to the subsidiary which is material in relation to the Group's assets i.e. Cagamas Berhad and its subsidiaries only (referred to herein as the Company). The disclosures published are for the year ended 31 December 2016 which is based on the consolidated financial statement of Cagamas Berhad. Information on subsidiaries of the Group is available in the notes to the financial statements.

3.0 CAPITAL MANAGEMENT

The Company's capital management is guided by its Capital Management Framework which sets out the minimum policies and procedures required to be put in place to ensure adequate capital is maintained to support the development of its businesses.

The framework aims to ensure that the Company reviews its capital requirements over a minimum of a 3-year period, consistent with the Company's risk profile and business plan and also to maintain an adequate capital level at all times. This involves the following key initiatives:

- Focus on measuring return on capital employed in evaluating business proposals that requires incorporating the Company's unique developmental role in the debt capital market and as a liquidity provider;
- Continuous monitoring of the robustness of its capital position and an efficient use of capital through the 3-year capital plan;
- Early planning to meet Basel III requirements, including the implementation of the ICAAP as well as ensuring that capital requirements under stressed scenarios are taken into account in capital planning.

The capital management strategy is dynamic and forward-looking, incorporates the capital needs of existing and new businesses and takes into account the business environment that impacts the needs and value of the Company.

The strategy involves the proactive management of the Company's capital structure to be effective whilst maintaining a strong and robust capital position aligned to the risk profile and supports business growth. This involves ongoing review and monitoring of the level and quality of the Company's capital by the Board of Directors, and is assessed based on the following key objectives:

- Maintaining a high level of financial strength, correlated to the overall risk profile and risk appetite;
- Preserving financial flexibility for funding internal growth;
- Be able to withstand capital demands under market shocks and stress conditions;
- Maintaining the Company's strong external credit ratings; and
- Satisfying the expectations of the various stakeholders, counterparties, debt obligors, rating agencies and shareholders.

The revised guidelines on the capital management framework which was issued by BNM on 28 November 2012 sets out the general requirements concerning regulatory capital adequacy, components of eligible regulatory capital and requirements for computing risk-weighted assets (RWA). RWA for the Company is computed in accordance with the Basel II Capital Adequacy Framework.

3.1 Capital Adequacy Ratios

The following table details the capital adequacy ratios for the Company:

	2016	**2015**
Before deducting the proposed final dividends		
Core capital ratio	**22.3%**	21.6%
Risk-weighted capital ratio	**24.1%**	23.5%
After deducting the proposed final dividends		
Core capital ratio	**22.2%**	21.5%
Risk-weighted capital ratio	**23.9%**	23.4%

3.0 CAPITAL MANAGEMENT (CONTINUED)

3.2 Capital Structure

The following table details the capital structure for the Company:

	2016 RM'000	2015 RM'000
Tier I Capital		
Paid-up share capital	**150,000**	150,000
Retained profits	**3,088,931**	2,863,895
Less: AFS reserve	**(10,529)**	(14,637)
Less: Deferred tax assets	**(8,365)**	–
Less: Regulatory Reserves	**(173,564)**	(189,647)
	3,046,473	2,809,611
Tier II Capital		
Allowance for impairment loss	**68,734**	76,625
Add: Regulatory Reserves	**173,564**	189,647
Capital Base	**3,288,771**	3,075,883

3.3 Minimum Regulatory Capital Requirement

The following table presents the minimum capital requirements to support the Company's RWA:

	2016 RM'000	2015 RM'000
Exposure Class		
Risk-weighted assets		
(i) Credit Risk	**12,935,305**	12,291,272
(ii) Market Risk	**–**	–
(iii) Operational Risk	**722,196**	786,063
Total	**13,657,501**	13,077,335
Minimum capital requirement at 8%		
(i) Credit Risk	**1,034,824**	983,302
(ii) Market Risk	–	–
(iii) Operational Risk	**57,776**	62,885
Total	**1,092,600**	1,046,187

4.0 RISK MANAGEMENT

The Group takes a holistic and enterprise-wide view in managing risk across the subsidiaries with regular evaluation of risks.

4.1 Enterprise Risk Management (ERM) Framework

ERM forms part of the Group's culture and is embedded into business, operations and decision-making processes and practices. The Board approved ERM Framework details the responsibility and accountability of the Board of Directors (Board), Board Risk Committee (BRC), Chief Executive Officer (CEO), Chief Risk Officer (CRO), Management Executive Committee (MEC), Asset Liability Committee (ALCO), Risk Management & Compliance Department (RMD), Internal Audit Department (IAD) and Cagamas employees.

The ERM Framework is geared towards achieving Group's objectives, set forth in four categories:

- Strategic – high-level goals, aligned with and supporting its mission
- Operations – effective and efficient use of its resources
- Financial – profitability and sustainability of performance
- Reporting & Compliance – reliability of reporting and compliance with applicable laws and regulations

In line with the ERM, three lines of defence in managing risks is adopted within the Group. Business units being the first line of defence have the primary responsibility of identifying, mitigating and managing risks within their lines of business. They also ensure that their day-to-day activities are carried out within established risk policies, procedures and limits.

An independent RMD plays the role of second line of defence by providing specialised resources to proactively manage risks. This includes the assessment of risk exposures and the coordination of risk management on an enterprise-wide basis. RMD is also responsible for ensuring that risk policies are implemented accordingly.

The IAD being the third line of defence is responsible for independently reviewing the adequacy and effectiveness of risk management processes, system of internal controls and compliance with internal risk policies.

4.2 Risk Governance Structure

The Board sets the overall strategic direction for the Group. It provides oversight to ensure that Management has appropriate risk management system and practices to manage risks associated with the Group's operations and activities. The Board sets the risk appetite and tolerance levels that are consistent with the Group's overall business objectives and desired risk profile. The Board also reviews and approves all significant risk management policies and risk exposures.

The BRC assists the Board by ensuring that there is effective oversight and development of strategies, policies and infrastructure to manage the Group's risks. The BRC is supported by management committees which address key risks identified.

The MEC and ALCO which comprises senior management of the Group are chaired by the CEO and undertake the oversight function for capital allocation and overall risk limits, aligning them to the risk appetite set by the Board. Management is also responsible for the implementation of policies laid down by the Board and ensuring there are adequate and effective operational procedures, internal controls and systems to support these policies.

The RMD is responsible for identifying, measuring, analysing, controlling, monitoring and reporting of risk exposures independently and coordinating the management of risks on an enterprise-wide basis. It is independent of other departments involved in risk taking activities and reports directly to the BRC.

4.0 RISK MANAGEMENT (CONTINUED)

4.3 Internal Capital Adequacy Assessment Process (ICAAP)

ICAAP primarily involves a comprehensive assessment of all material risks that the Company is exposed to, assessing the adequacy of the Company's capital in relation to its risks and set capital targets that commensurate with its risk profile and operating environment, taking into consideration the Company's business strategy and risk appetite. The following are the main components in the Company's ICAAP:

Risk Appetite

Risk Appetite is the acceptable risk tolerance for each material risk category and other related parameters in achieving the Company's business objectives. It does not seek to prevent risk taking. Instead, it ensures that the risks undertaken by the Company are aligned to its chosen business strategies.

Material Risk Assessment & Quantification

Analyse all risks that occur in the Company's business activities and recognise the risks that the Company is in or can be exposed to in the future. These include quantifiable and non-quantifiable risks. Risks are aggregated in order to determine the Company's overall risk under the ICAAP, including impact assessment of stress on internal RWCR target.

Stress Testing

A rigorous and forward-looking stress testing is an integral part of ICAAP, enabling the Company to assess the impact to its capital adequacy arising from adverse events or changes in market conditions. Further stress testing would enable the Company to assess the vulnerability of its statement of financial position and resilience of financial plans to extreme but plausible stress events.

To ensure effectiveness of stress test results, a range of scenarios is considered which includes at least an adverse economic scenario that is severe but plausible, such as a severe economic downturn and/or a system-wide shock to liquidity. The stress would be company-wide covering all relevant risk areas and material entities within the Company. Results of the stress test are deliberated by the MEC and reported to the BRC and Board.

Capital Management

Measurement of the Company's available capital and capital instruments is detailed out in the Capital Management Framework. The components considered in available capital are reviewed or enhanced when required to ensure relevance.

Independent Review

An independent review of ICAAP is performed to review the processes or systems for assessing the various risks that the Company is exposed to and for relating the risks to capital levels. The scope includes review of the appropriateness of the internal capital adequacy assessment process, the identification of material risks, the reasonableness of stress testing scenarios, the integrity, verifiability and completeness of data inputs and the assumptions used.

5.0 CREDIT RISK

Credit risk is defined as the potential for financial loss resulting from the failure of a borrower or counterparty to fulfil its financial or contractual obligations. Credit risk within the Company arises from Purchase with Recourse (PWR) and Purchase without Recourse (PWOR) business, investments and treasury hedging activities. The Company seeks to take credit risk that meets the underwriting standards while ensuring risk taken commensurates with the return.

5.0 CREDIT RISK (CONTINUED)

Credit Risk Management Oversight and Organisation

The Management Executive Committee (MEC) is the senior management committee responsible for the Company's overall credit risk exposures, taking a proactive view of risks and to position the credit portfolio. MEC which is chaired by the CEO also reviews the Company's credit risk management framework, the credit profile of material portfolios and aligns credit risk management with business strategy.

Business Units undertake thorough credit assessment prior to submission to the Credit Risk Section of the RMD. The Credit Risk Section will independently assess the credit risk of the counterparty taking into consideration the financial strength and business profile prior to recommendation to the MEC. Credit Risk Section is also responsible for formulating and developing credit risk policies and procedures for identifying, measuring, monitoring and reporting credit risk of the Company. Credit limits are approved by MEC within the risk appetite set by the Board.

Regular risk reporting which include quality of portfolio, changes in counterparties' rating and concentration risk exposures is made to the BRC and Board for an oversight function.

Credit Risk Management Approach

Credit risk management includes the establishment of credit risk policies and procedure manual wherein the credit processes, controls, approval authority, risk rating/scoring and review are documented. These standards cover credit origination, measurement and documentation as well as problem recognition, classification and remedial actions.

The Company manages its credit risk via a thorough assessment of the counterparties, stipulates prudent eligibility criteria and conducts due diligence on loans and financings to be purchased. The Company has in place an internal rating system which sets out the maximum credit limit permissible for each category of rating.

Credit limits are reviewed periodically and are determined based on the combination of external ratings, internal credit assessment and business requirement. Financing activities are also guided by internal credit policies, procedure manuals and Risk Appetite Framework that are approved by the Board.

Key areas of credit exposures:

(a) Purchase With Recourse (PWR)

Under the PWR scheme, the Company takes on counterparty risk i.e. credit risk of the selling institutions given the latter's undertaking to repurchase or replace ineligible loans. Reviews on counterparties are conducted at least once a year with updated information. The Company has strict limits on counterparty exposures based on rating and internal credit assessment. In addition, concentration risk under PWR are managed and monitored via concentration limits established based on the type of counterparty and the type of assets.

(b) Purchase Without Recourse (PWOR)

As for PWOR scheme, the Company absorbs all the credit risk of the loans and financing acquired wherein purchases are restricted to the approved sellers and assets. Purchase of these loans is managed via adherence to stringent eligibility criteria and due diligence on the portfolio prior to the purchase. To further mitigate credit risks, PWOR purchases may include loans with automated salary deduction feature. These portfolios are monitored via concentration limits based on property types and location.

(c) Investment and Derivatives Activities

The management of credit risk arising from the Company's investment of its surplus funds is primarily via the setting of counterparty credit limits. These credit limits are established following an assessment of the counterparty creditworthiness and is subject to the credit policy on investment which stipulates the minimum investment grade for debt securities and the maximum tenure. The policy is subject to regular review. Credit exposures are also controlled through independent monitoring and reporting of excesses and breaches against approved limits and risk mitigation thresholds.

The Company's exposures to Interest Rate Swap (IRS), Islamic Profit Rate Swap (IPRS), Cross Currency Swap (CCS) and Islamic Cross Currency Swap (ICCS) are for hedging purposes only.

5.0 CREDIT RISK (CONTINUED)

5.1 Credit Risk Mitigation

Generally, credit limits are not granted solely on the basis of the collateral provided as all credit limits are assigned on the basis of the counterparty's credit standing, source of repayment and debt servicing ability.

Under the PWR scheme, the Company accepts guarantee from the parent company of the corporate and institutional counterparties to mitigate credit risk subject to internal guidelines and policy. For the credit exposure which is secured by a guarantee from an eligible guarantor, the portion of the exposure is weighted according to the risk weight appropriate to the guarantor. In accordance with the BNM's RWCAF guidelines, this guarantee shall not be considered again for credit risk mitigation purposes as the rating has already taken into account the guarantee pledged by the parent of the counterparty.

The following table presents the minimum regulatory capital requirement for credit risk:

2016 Exposure Class Credit Risk	Total exposures before Credit Risk Mitigation RM'000	Total exposures after Credit Risk Mitigation RM'000	Risk weighted assets RM'000	Minimum capital requirement at 8% RM'000
On-balance sheet exposure:				
Sovereign & Central Banks	**794,651**	**794,651**	**–**	**–**
Banks, Development Financial Institutions & Multilateral Development Banks	**19,047,577**	**19,047,577**	**6,869,256**	**549,540**
Corporates & Leasing companies	**2,711,425**	**2,711,425**	**1,174,272**	**93,942**
Mortgage Assets	**12,775,951**	**12,775,951**	**3,976,384**	**318,111**
Hire Purchase Assets	**1,581**	**1,581**	**491**	**39**
Other assets	**24,454**	**24,454**	**24,452**	**1,956**
Defaulted exposures	**124,822**	**124,822**	**497,684**	**39,815**
Total	**35,480,461**	**35,480,461**	**12,542,539**	**1,003,403**
Off-balance sheet exposure:				
Derivative Financial Instruments	**1,240,382**	**1,240,382**	**392,766**	**31,421**
Total Credit Exposures	**36,720,843**	**36,720,843**	**12,935,305**	**1,034,824**

5.0 CREDIT RISK (CONTINUED)

5.1 Credit Risk Mitigation (continued)

The following table presents the minimum regulatory capital requirement for credit risk (continued):

2015 Exposure Class Credit Risk	Total exposures before Credit Risk Mitigation RM'000	Total exposures after Credit Risk Mitigation RM'000	Risk weighted assets RM'000	Minimum capital requirement at 8% RM'000
On-balance sheet exposure:				
Sovereign & Central Banks	1,044,431	1,044,431	–	–
Banks, Development Financial Institutions & Multilateral Development Banks	15,895,933	15,895,933	6,034,180	482,734
Corporates & Leasing companies	2,330,692	2,330,692	1,079,549	86,364
Mortgage Assets	13,636,526	13,636,526	4,277,371	342,190
Hire Purchase Assets	3,914	3,914	1,105	88
Other assets	18,167	18,167	18,144	1,452
Defaulted exposures	152,077	152,077	606,348	48,508
Total	33,081,740	33,081,740	12,016,697	961,336
Off-balance sheet exposure:				
Derivative Financial Instruments	848,817	848,817	274,575	21,966
Total Credit Exposures	33,930,557	33,930,557	12,291,272	983,302

5.0 CREDIT RISK (CONTINUED)

5.2 Distribution of Credit Exposures

The Company's counterparties are mainly the Government of Malaysia (GOM), financial institutions, development financial institutions and corporate companies in Malaysia. The following tables present the analysis of credit exposure of financial assets before the effect of credit risk mitigation of the Company by:

(a) Industrial analysis based on its industrial distribution;

2016	Cash and short term funds RM'000	Derivatives financial instruments RM'000	AFS investment securities RM'000	Amount due from counter parties RM'000	Islamic financing debts RM'000	Mortgage assets RM'000	Islamic mortgage assets RM'000	Islamic hire purchase assets RM'000	Other assets RM'000	Total RM'000
Government bodies	–	–	572,718	–	–	–	–	–	2,062	574,780
Financial institutions:										
– Commercial banks	319,361	887,826	442,276	13,002,576	4,355,927	–	–	–	–	19,007,966
– Investment banks	90,033	–	–	–	–	–	–	–	–	90,033
Communications, electricity, gas and water	–	–	70,528	–	–	–	–	–	–	70,528
Transportation	–	–	194,967	–	–	–	–	–	–	194,967
Leasing	–	–	–	258,746	–	–	–	–	–	258,746
Consumers	–	–	–	–	–	6,238,337	6,662,093	1,924	–	12,902,354
Corporate	–	–	–	1,034,843	951,762	–	–	–	–	1,986,605
Construction	–	–	86,051	–	–	–	–	–	–	86,051
Others	2	–	283,978	–	–	–	–	–	7,527	291,507
Total	409,396	887,826	1,650,518	14,296,165	5,307,689	6,238,337	6,662,093	1,924	9,589	35,463,537

5.0 CREDIT RISK (CONTINUED)

5.2 Distribution of Credit Exposures (continued)

(a) Industrial analysis based on its industrial distribution (continued);

2015	Cash and short term funds RM'000	Derivatives financial instruments RM'000	AFS investment securities RM'000	Amount due from counter parties RM'000	Islamic financing debts RM'000	Mortgage assets RM'000	Islamic mortgage assets RM'000	Hire purchase assets RM'000	Islamic hire purchase assets RM'000	Other assets RM'000	Total RM'000
Government bodies	–	–	759,573	–	–	–	–	–	–	2,275	761,848
Financial institutions:											
– Commercial banks	143,792	678,847	229,426	10,193,947	4,600,101	–	–	–	–	–	15,846,113
– Investment banks	100,120	–	–	–	–	–	–	–	–	–	100,120
Communications, electricity, gas and water	–	–	80,276	–	–	–	–	–	–	–	80,276
Transportation	–	–	252,782	–	–	–	–	–	–	–	252,782
Leasing	–	–	–	297,815	–	–	–	–	–	–	297,815
Consumers	–	–	–	–	–	6,781,767	7,006,642	4	4,105	–	13,792,518
Corporate	–	–	–	479,217	981,348	–	–	–	–	–	1,460,565
Construction	–	–	126,466	–	–	–	–	–	–	–	126,466
Others	–	–	345,094	–	–	–	–	–	–	7,447	352,541
Total	243,912	678,847	1,793,617	10,970,979	5,581,449	6,781,767	7,006,642	4	4,105	9,722	33,071,044

(b) Geographical location analysis is not applicable because all credit exposures comprise domestic exposures.

5.0 CREDIT RISK (CONTINUED)

5.2 Distribution of Credit Exposures (continued)

(c) Maturity analysis based on the residual contractual maturity

2016	Within one year RM'000	One to three years RM'000	Three to five years RM'000	More than five years RM'000	Non interest/ profit bearing RM'000	Total RM'000
On-balance sheet exposure:						
Cash and short-term funds	363,865	–	–	–	45,531	409,396
Derivatives financial instruments	26,682	36,684	–	5,340	819,120	887,826
AFS investment securities	284,709	285,505	154,459	925,845	–	1,650,518
Amount due from counterparties	5,154,450	8,135,868	50,824	955,023	–	14,296,165
Islamic financing debts	3,001,966	1,387,816	500,003	417,904	–	5,307,689
Mortgage assets:						
– Conventional	935,176	1,218,288	1,148,044	3,910,131	(973,302)	6,238,337^1
– Islamic	726,071	958,087	980,438	4,924,612	(927,115)	6,662,093^3
Hire purchase assets:						
– Conventional	2	–	–	–	(2)	–^2
– Islamic	2,001	153	–	–	(230)	1,924^4
Other assets	1,045	1,148	653	3,103	3,640	9,589
Total on-balance sheet exposure	10,495,967	12,023,549	2,834,421	11,141,958	(1,032,358)	35,463,537
Off-balance sheet exposure:						
IRS/IPRS	1,715	20,058	–	55,740	–	77,513
CCS/ICCS	38,842	53,364	–	–	1,072,663	1,162,869
Total	10,536,524	12,096,971	2,834,421	11,197,698	40,305	36,703,919

^1 Includes impairment losses on conventional mortgage assets of RM38,370,723.
^2 Includes impairment losses on conventional hire purchase assets of RM2,059.
^3 Includes impairment losses on Islamic mortgage assets of RM30,146,432.
^4 Includes impairment losses on Islamic hire purchase assets of RM241,714.

5.0 CREDIT RISK (CONTINUED)

5.2 Distribution of Credit Exposures (continued)

(c) Maturity analysis based on the residual contractual maturity (continued)

2015	Within one year RM'000	One to three years RM'000	Three to five years RM'000	More than five years RM'000	Non interest/ profit RM'000	Total RM'000
On-balance sheet exposure:						
Cash and short-term funds	197,004	–	–	–	46,908	243,912
Derivatives financial instruments	799	34,463	–	–	643,585	678,847
AFS investment securities	328,719	354,339	229,666	880,893	–	1,793,617
Amount due from counterparties	1,051,156	7,183,539	1,781,284	955,000	–	10,970,979
Islamic financing debts	1,237,569	3,385,075	524,092	434,713	–	5,581,449
Mortgage assets:						
– Conventional	1,012,079	1,262,218	1,202,930	4,409,314	(1,104,774)	6,781,767^1
– Islamic	711,515	901,258	918,230	5,521,613	(1,045,974)	7,006,642^3
Hire purchase assets:						
– Conventional	5	–	–	–	(1)	4^2
– Islamic	2,872	1,397	–	–	(164)	4,105^4
Other assets	2,109	1,306	667	2,481	3,159	9,722
Total on-balance sheet exposure	4,543,827	13,123,595	4,656,869	12,204,014	(1,457,261)	33,071,044
Off-balance sheet exposure:						
IRS/IPRS	–	34,162	56,100	–	–	90,262
CCS/ICCS	2,050	39,479	–	–	717,026	758,555
Total	4,545,877	13,197,236	4,712,969	12,204,014	(740,235)	33,919,861

^1 *Includes impairment losses on conventional mortgage assets of RM40,386,741.*
^2 *Includes impairment losses on conventional hire purchase assets of RM1,204.*
^3 *Includes impairment losses on Islamic mortgage assets of RM36,167,295.*
^4 *Includes impairment losses on Islamic hire purchase assets of RM70,197*

5.0 CREDIT RISK (CONTINUED)

5.3 Off-Balance Sheet Exposure and Counterparty Credit Risk (CCR)

CCR on derivative financial instruments is the risk that the Company's counterparty in a foreign exchange, interest rate, commodity, equity, and option or credit derivative contract defaults prior to maturity date of the contract and that the Company, at the relevant time has a claim on the counterparty. Derivative financial instruments restricted to interest rate and foreign exchange related contracts are entered into solely for hedging purposes.

2016	Principal Amount RM'000	Positive Fair Value of Derivatives Contracts RM'000	Credit Equivalent Amount RM'000	Risk Weighted Assets RM'000
Off-Balance Sheet Exposures				
Derivatives Financial Instruments	**7,847,543**	**887,826**	**1,240,382**	**392,766**
IRS/IPRS				
– Less than 1 year	**500,000**	**465**	**1,715**	**343**
– 1 year to less than 5 years	**1,525,000**	**4,808**	**20,058**	**4,912**
– 5 years and above	**570,000**	**5,340**	**55,740**	**13,128**
CCS/ICCS				
– Less than 1 year	**2,452,543**	**95,405**	**161,311**	**32,262**
– 1 year to less than 5 years	**2,800,000**	**781,808**	**1,001,558**	**342,121**
– 5 years and above	**–**	**–**	**–**	**–**
2015				
Derivatives Financial Instruments	6,632,294	678,847	848,817	274,575
IRS/IPRS				
– Less than 1 year	–	–	–	–
– 1 year to less than 5 years	1,675,000	5,663	34,162	6,833
– 5 years and above	570,000	–	56,100	11,220
CCS/ICCS				
– Less than 1 year	500,294	799	2,050	410
– 1 year to less than 5 years	3,887,000	672,385	756,505	256,112
– 5 years and above	–	–	–	–

5.0 CREDIT RISK (CONTINUED)

5.4 Credit Rating

5.4.1 Assignment of risk-weights under the Standardised Approach

Under the Standardised Approach, the Company uses the credit rating assigned by the credit rating agencies in its calculation of credit risk-weighted assets for PWR, investment, IRS and CCS assets in accordance with BNM RWCAF. Rating agencies or External Credit Assessment Institutions ("ECAI") recognised by BNM are as follows:

(i) Standard & Poor's Rating Services (S&P);
(ii) Moody's Investors Service (Moody's);
(iii) Fitch Ratings (Fitch);
(iv) Rating Agency Malaysia Berhad (RAM);
(v) Malaysian Rating Corporation Berhad (MARC); and
(vi) Rating & Investment Information, Inc (R&I).

In accordance with BNM's RWCAF guideline, where the exposure is rated by more than one external rating agency, risk-weight shall be determined based on the second highest rating. The counterparty shall be deemed as unrated when an exposure is not rated by the rating agency whilst exposure which is secured by an explicit guarantee issued by an eligible or rated guarantor, rating similar to that of the guarantor is assigned. For the purpose of Cagamas internal rating, the lowest rating is adopted in cases where the counterparty is rated by more than one external rating agency.

The following table presents the credit exposures of the Company after the effect of credit risk mitigation by risk-weights:

Risk-Weights	**Sovereign & Central Banks RM'000**	**FI & DFI* RM'000**	**Corporate & Leasing Companies RM'000**	**Other Assets RM'000**	**Total Risk-Weighted Assets RM'000**
2016					
0%	**794,651**	**–**	**–**	**2**	**–**
10%	**–**	**–**	**–**	**–**	**–**
20%	**–**	**9,606,527**	**604,802**	**–**	**2,042,266**
50%	**–**	**10,681,432**	**2,106,623**	**–**	**6,394,028**
100%	**–**	**–**	**–**	**24,452**	**24,452**
Total	**794,651**	**20,287,959**	**2,711,425**	**24,454**	**8,460,746**
Average Risk-Weights	**0.0%**	**35.8%**	**43.3%**	**99.9%**	**35.5%**
2015					
0%	1,044,431	–	–	23	–
10%	–	–	–	–	–
20%	–	6,878,732	478,825	–	1,471,512
50%	–	9,866,018	1,736,165	–	5,801,091
100%	–	–	115,702	18,144	133,845
Total	1,044,431	16,744,750	2,330,692	18,167	7,406,448
Average Risk-Weights	0.0%	37.7%	46.3%	99.9%	36.8%

* FI – Financial Institutions DFI – Development Financial Institutions

5.0 CREDIT RISK (CONTINUED)

5.4 Credit Rating (continued)

5.4.1 Assignment of risk weights under the Standardised Approach (continued)

The following table is a summary of the risk-weight mapping matrix and the allocation of risk-weights under the Standardised Approach:

2016	**Rating of Counterparties by Approved ECAIs**				
Moody's	**Aaa to Aa3**	**A1 to A3**	**Baa1 to Ba3**	**B1 to C**	**Unrated**
S&P	**AAA to AA–**	**A+ to A–**	**BBB+ to BB–**	**B+ to D**	**Unrated**
Fitch	**AAA to AA–**	**A+ to A–**	**BBB+ to BB–**	**B+ to D**	**Unrated**
RAM	**AAA to AA3**	**A to A3**	**BBB1 to BB3**	**B1 to C**	**Unrated**
MARC	**AAA to AA–**	**A+ to A–**	**BBB+ to BB–**	**B+ to D**	**Unrated**
R&I Inc	**AAA to AA–**	**A+ to A–**	**BBB+ to BB–**	**B+ to D**	**Unrated**
Exposure Class:	**RM'000**	**RM'000**	**RM'000**	**RM'000**	**RM'000**
On and Off-balance sheet exposure					
Public Sectors Entities	**–**	**–**	**–**	**–**	**–**
Sovereign/Central Banks #	**794,651**	**–**	**–**	**–**	**–**
FI and DFI	**9,606,527**	**7,373,580**	**3,307,852**	**–**	**–**
Corporate and Leasing Companies	**604,802**	**2,106,623**	**–**	**–**	**24,454**
Total	**11,005,980**	**9,480,203**	**3,307,852**	**–**	**24,454**
2015					
On and Off-balance sheet exposure					
Public Sectors Entities	–	–	–	–	–
Sovereign/Central Banks #	1,044,431	–	–	–	–
FI and DFI	6,878,732	5,897,819	3,968,199	–	–
Corporate and Leasing Companies	478,826	1,736,164	100,955	–	32,914
Total	8,401,989	7,633,983	4,069,154	–	32,914

Under the BNM RWCAF, exposures to and/or guaranteed by the Federal Government of Malaysia are accorded a preferential sovereign risk-weight of 0%.

5.0 CREDIT RISK (CONTINUED)

5.4 Credit Rating (continued)

5.4.2 Assignment of risk-weights under the Advanced Internal Rating Based (AIRB) Approach

The Company adopts the AIRB approach for its PWOR exposure which primarily consists of mortgage loans and hire purchase loans using 3 key parameters i.e. PD, LGD and Exposure at Default (EAD) to quantify credit risk.

The risk estimates are developed based on internal historical data wherein study on the historical behaviour of the portfolio forms the basis for the computation of PD and LGD. EAD is the exposure when default occurs.

Disclosure on exposure by PD range:-

2016	EAD RM'000	LGD %	Exposure Weighted Average RW %	RWA RM'000
Mortgage assets				
PD range: up to 0.5%	**–**	**–**	**–**	**–**
>0.5% to 3%	**14,676,368**	**32.08%**	**27.09%**	**3,976,384**
>3% to <100%	**–**	**–**	**–**	**–**
100%	**124,479**	**32.08%**	**398.71%**	**496,313**
Hire Purchase assets				
PD range: up to 0.5%	**–**	**–**	**–**	**–**
>0.5% to 3%	**1,813**	**32.08%**	**27.09%**	**491**
>3% to <100%	**–**	**–**	**–**	**–**
100%	**343**	**32.08%**	**398.71%**	**1,371**
Total	**14,803,003**			**4,474,559**
2015				
Mortgage assets				
PD range: up to 0.5%	–	–	–	–
>0.5% to 3%	15,787,274	32.08%	27.09%	4,277,371
>3% to <100%	–	–	–	–
100%	151,883	32.08%	398.71%	605,573
Hire Purchase assets				
PD range: up to 0.5%	–	–	–	–
>0.5% to 3%	4,080	32.08%	27.09%	1,105
>3% to <100%	–	–	–	–
100%	194	32.08%	398.71%	775
Total	15,943,431			4,884,824

5.0 CREDIT RISK (CONTINUED)

5.5 Past Due and Impaired Loans

The Company assesses the loan impairment rate by determining the PD and LGD for the mortgage loans purchased from the Government of Malaysia ("GOM") based on the data provided by GOM. Impairment allowance required is determined by the PD and LGD as calculated by the Company, and these are calculated based on the loan impairment methodology.

PD is calculated as the number of defaulted loans over the total number of loans from the beginning of the 12 months beginning from the date of purchase to the cut-off date.

LGD is calculated using recoveries as a percentage of the defaulted outstanding balance using the recovery data of loans which have defaulted and incorporates both cash recoveries and recoveries from the disposal of collateral. An adjustment is made to reflect the view that the Company's recovery data is not yet seasoned.

Impairment allowance is calculated on a collective, not individual basis as this reflects homogeneous nature of the assets, which allows statistical techniques to be used, rather than individual assessments.

(a) The following table is a summary of the impairment allowance by economic purposes:

2016	Neither past due nor impaired RM'000	Past due but not individually impaired RM'000	Total RM'000	Impairment allowance RM'000	Total carrying value RM'000
Purchase of mortgage assets	**30,942,356**	**124,479**	**31,066,835**	**68,517**	**30,998,318**
Purchase of motor vehicles/ equipment	**643,363**	**343**	**643,706**	**217**	**643,489**
Personal use	**864,401**	**–**	**864,401**	**–**	**864,401**
	32,450,120	**124,822**	**32,574,942**	**68,734**	**32,506,208**
2015					
Purchase of mortgage assets	26,974,138	151,833	27,126,021	76,554	27,049,467
Purchase of motor vehicles/ equipment	1,380,523	194	1,380,717	71	1,380,646
Personal use	1,914,832	–	1,914,832	–	1,914,832
	30,269,493	152,077	30,421,570	76,625	30,344,945

5.0 CREDIT RISK (CONTINUED)

5.5 Past Due and Impaired Loans (continued)

(b) The following table is a summary of the impairment allowance by product-type:

2016	Neither past due nor impaired RM'000	Past due but not individually impaired RM'000	Total RM'000	Impairment allowance RM'000	Total carrying value RM'000
Amount due from counterparties	**14,296,165**	**–**	**14,296,165**	**–**	**14,296,165**
Islamic financing assets	**5,307,689**	**–**	**5,307,689**	**–**	**5,307,689**
Mortgage assets					
– Conventional	**6,202,839**	**73,869**	**6,276,708**	**38,371**	**6,238,337**
– Islamic	**6,641,629**	**50,610**	**6,692,239**	**30,146**	**6,662,093**
Hire Purchase assets					
– Conventional	**–**	**2**	**2**	**2**	**–**
– Islamic	**1,798**	**341**	**2,139**	**215**	**1,924**
	32,450,120	**124,822**	**32,574,942**	**68,734**	**32,506,208**
2015					
Amount due from counterparties	10,970,979	–	10,970,979	–	10,970,979
Islamic financing assets	5,581,449	–	5,581,449	–	5,581,449
Mortgage assets					
– Conventional	6,738,803	83,351	6,822,154	40,387	6,781,767
– Islamic	6,974,277	68,532	7,042,809	36,167	7,006,641
Hire Purchase assets					
– Conventional	1	4	5	1	4
– Islamic	3,985	190	4,175	70	4,105
	30,269,494	152,077	30,421,571	76,625	30,344,945

6.0 MARKET & LIQUIDITY RISK

Market risk is the potential loss arising from adverse movement of market prices and rates. Market risk exposure is limited to interest rate and foreign exchange as the Company is not engaged in any equity or commodity trading activities. The Company is not exposed to interest rate and foreign exchange risk arising from trading activities as it is prohibited.

Liquidity risk arises when the Company does not have sufficient funds to meet its financial obligation when they fall due.

Market and Liquidity Risk Management Oversight and Organisation

The ALCO is the senior management committee responsible for the Company's management of market and liquidity risk activities including the setting of risk limits. The ALCO which is chaired by the CEO reviews the Company's market and liquidity risk policies, funding strategy, align market and liquidity risk management with business strategies and review performance of investment portfolio, hedged positions, risk limits/compliance and stress test results.

RMD supports ALCO at the working level and is an independent risk control unit responsible for developing the market and liquidity risk policy and ensuring adequate risk control oversight.

6.0 MARKET & LIQUIDITY RISK (CONTINUED)

Market and Liquidity Risk Management Approach

The Company manages market and liquidity risks by imposing threshold limits which are approved by management within the parameters approved by the Board based on a risk-return relationship.

Further, the Company also adheres to a strict match-funding policy where all asset purchases are funded by bonds of closely matched size as well as duration and is self-sufficient in terms of cash flow. Forward looking liquidity mechanism is in place to promote efficient and effective cash flow management while avoiding excessive concentration of funding. The Company plans its cash flow and monitors closely every business transaction to ensure that available funds are sufficient to meet business requirements at all times. Reserve liquidity which comprises marketable debt securities are also set aside to meet any unexpected shortfall in cash flow or adverse economic conditions in the financial market.

Derivatives instruments such as interest rate swaps and cross currency swaps are used to manage and hedge market risk exposures against fluctuation in interest rates and foreign exchange. Liquidity management processes involve regular monitoring against liquidity risk limits, and establishing contingency funding plans. These processes are subject to regular review. The Company also monitors liquidity based on Basel III liquidity coverage ratio and net stable funding ratio.

6.1 Management of Interest Rate Risk in the Banking Book

The interest rate risk in the banking book is monitored on a monthly basis and exposure is minimal given the match funding approach adopted by the Company for its assets and liabilities. The impact on net interest income is simulated and the following table summarises the impact arising from a 100 basis points parallel shift.

Type of Currency	Impact on Position as at 31 December 2016	
	(–100 basis points) Parallel Shift	(+100 basis points) Parallel Shift
	Increase/(Decline) in Net Interest Income RM'000	Increase/(Decline) in Net Interest Income RM'000
MYR	**(4,967)**	**4,968**

Type of Currency	Impact on Position as at 31 December 2015	
	(–100 basis points) Parallel Shift	(+100 basis points) Parallel Shift
	Increase/(Decline) in Net Interest Income RM'000	Increase/(Decline) in Net Interest Income RM'000
MYR	(2,426)	2,435

6.2 Management of Non-Traded Foreign Exchange Risk

The Company is exposed to foreign exchange risk from Treasury funding activities whose functional currencies are not in *Ringgit Malaysia*. Foreign currency risk is managed/hedged by entering into CCS/ICCS with selected counterparties at the outset and concurrent with bond issuance and asset purchase to ensure that there is no timing mismatches between cash flows from the underlying assets, obligations on the foreign currency bonds as well as the hedge instrument.

7.0 OPERATIONAL RISK

Operational risk is the potential loss resulting from inadequate or failed internal processes, people and systems or from external events. It includes reputational risk associated with the Company's business practices or market conduct. It also includes the risk of failing to comply with applicable laws and regulations.

Operational Risk Management Oversight and Organisation

It is the MEC that governs operational risk within the Company. The Committee meets at least on a quarterly basis and discusses operational risk related issues.

The RMD established the Company's Operational Risk Management (ORM) Framework which clearly defines the Company's approach to operational risk management that includes the Company Risk & Control Self-Assessment/Operational Risk Policy and Standards ("The Policy"). The operational risk section of RMD provides independent oversight of operational risk monitoring and control. Legal Risk is managed by the Legal Department and where necessary, in consultation with external legal counsel.

Operational Risk Management Approach

The Operational Risk Management policy codifies the core governing principles for operational risk management and provides a consistent, value added framework for assessing, communicating operational risk and the overall effectiveness of the internal control environment.

Business/Support Units constitute an integral part of the operational risk management framework and are primarily responsible for the day-to-day management of operational risk. These units are responsible for establishing and maintaining their respective operational manuals and ensuring that activities undertaken comply with the Group's operational risk management framework. Each business/support unit undertakes self-assessment of the risk and control environment to identify, assess and manage its operational risks. Operational risk losses and incidents are reported to senior management and BRC through RMD who provides independent assessment.

The Management places a very high value on maintaining an effective control environment to mitigate operational risk. Therefore, a number of tools have been put in place to mitigate this risk. These tools range from:

- Risk & Control Self-Assessment ("RCSA") which is a process of continual assessment of inherent operational risks and controls to identify control gaps and to develop action plans to close the gaps. It is a risk profiling tool which facilitates effective operational risk management for the Company. The RCSA is signed-off by the respective department senior management/head;
- Key risk indicators as early warning signals of increasing risk and/or control failures by flagging up given frequencies of events as a mechanism for continuous risk assessment/monitoring;
- Incident management which is a structured process and system to identify and focus attention on operational 'hotspots' and facilitates the minimisation of risk impact; and
- Operational loss reporting.

In order to ensure uninterrupted services and to safeguard human life and Cagamas' assets during disaster, Cagamas has put in place a well defined Business Continuity Management (BCM) for its various critical functions. BCM comprises of Business Continuity Plan (BCP) and Disaster Recovery (DR), in the event of business disruption/disaster and consequent BCP invocation. The resilience of these plans under different scenarios are being tested on an ongoing basis through regular DR exercises.

The Company uses Basic Indicator approach for calculating Operational Risk Capital.

8.0 SHARIAH GOVERNANCE DISCLOSURE

Cagamas consults and obtains endorsements/clearance from an independent Shariah Advisor for its Islamic products and transactions to ensure compliance with Shariah requirements. In addition, Cagamas obtains the approval of the Shariah Advisory Councils of Bank Negara Malaysia and Securities Commission Malaysia for its Islamic products, if required.

Periodic Shariah reviews/audit are performed to verify that Islamic products and operations of Cagamas are in compliance with the decisions endorsed by the independent Shariah Advisor and the Joint Shariah Advisors for any sukuk programmes, where applicable. Any incidences of Shariah non-compliance are reported to the independent Shariah Advisor, the Group Board Audit Committee, BRC and Board. Remedial actions are for the endorsement of the independent Shariah Advisor and for notification to the BRC or the Board.

During the financial period under review, there is no non-Shariah compliant event being reported.