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MALAYSIAN RATING CORPORATION BERHAD (364803-V)

Fixed Income Research

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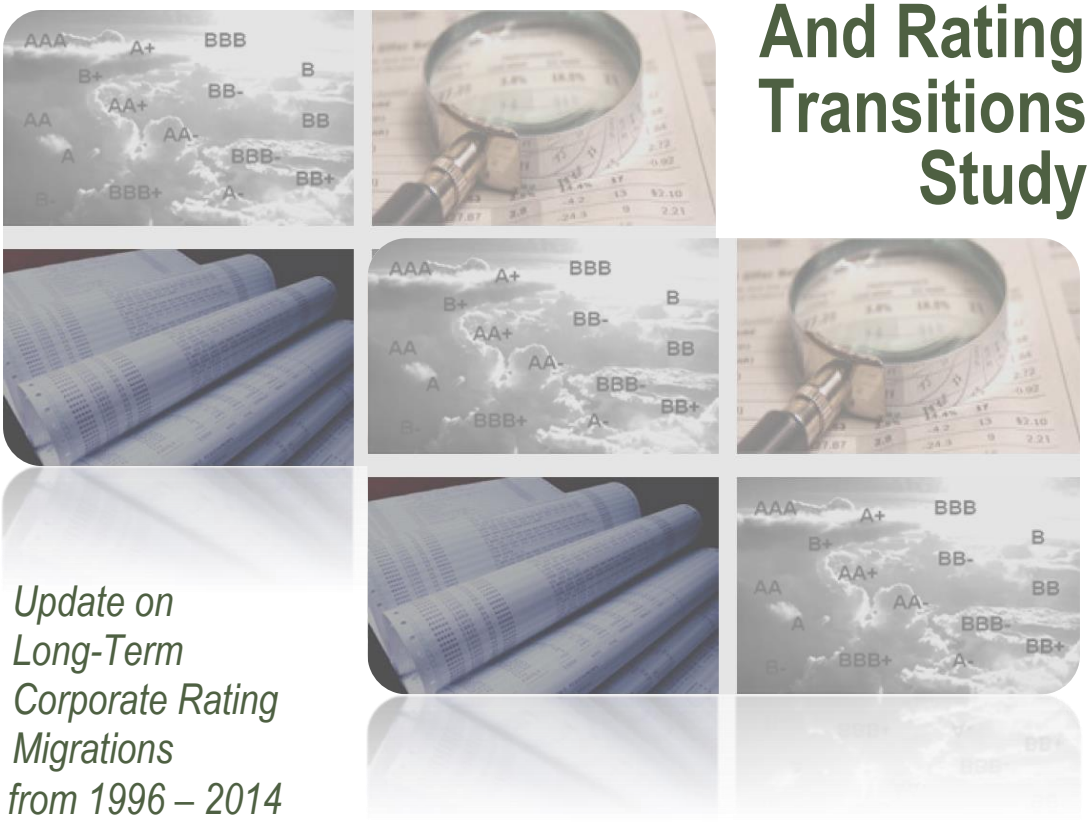
2014 Annual Corporate Default And Rating Transitions Study



Update on Long-Term Corporate Rating Migrations from 1996 – 2014

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Executive Summary

Ringgit Corporate Bond Market Review and Outlook

- ***Total issuance of corporate bonds moderated in 2014.*** Total gross issuance in the corporate debt market came in slightly lower at RM85.9 billion in 2014 compared with RM86.2 billion raised in 2013, dragged down by smaller issuances in the unrated private placements and Cagamas segments. Meanwhile, the rated corporate bonds and unrated quasi-government segments registered higher issuances of RM52.7 billion and RM21.9 billion, up from RM52.4 billion and RM13.6 billion in 2013, respectively.
- ***We view the current trend of rising corporate leverage as negative for the corporate bonds sector.*** Using a sample of Bursa-listed corporations (excluding financial sector), the aggregate leverage position for corporations based on median debt-to-earnings before interest and tax (debt-to-EBIT) has remained stable and stood below the pre-crisis level. However, the relatively high levels of average and total debt-weighted debt-to-EBIT compared to their median statistics imply that a large proportion of debt is concentrated in a few big and highly leveraged corporations.
- ***Against this backdrop, we anticipate corporate bond yields to trend higher and the credit spread to widen in 2015.*** This is in view of the relatively weak ringgit which would increase financing costs among borrowers with debts denominated in foreign currencies, subsequently weakening issuers' credit strength and causing investors to demand higher yields to compensate for higher credit risks. In addition, issuers' bottom lines could be hit by the moderation in domestic investment activity on the back of lower global oil prices, especially if the latter stays low for a considerable period.
- ***We see total gross corporate bond issuances to be in the region of RM80-90 billion in 2015, almost the same as the RM85.9 billion recorded in 2014.*** We also envisage rising issuances from the private placement segment which is becoming more popular, driven by lower regulatory costs as well as the Securities Commission's (SC) decision to allow the trading of unrated bonds. In addition, we also expect higher issuances from the unrated quasi-government segment in view of the ongoing mega infrastructure-related projects initiated by the government, including the construction of the Second Mass Rapid Transit (MRT) Line and the Light Rapid Transit (LRT) 3 Project.

MARC's Corporate Default and Rating Transitions Study 2014

- ***Fewer rating changes; all negative actions.*** In 2014, MARC recorded only five rating changes - four downgrades and one default - the least rating migration observed since 2002. Although the downgrade rate fell slightly to 6.7% in 2014 (2013: 7.8%) and stood close to the long-term average of 6.6%, there was no upgrade action by MARC for a second consecutive year.
- ***Negative rating actions continued to be concentrated in the industrial sector.*** As in the past, the industrial product sector continued to suffer the highest downgrade rate followed by the trading & services sector and property sector. Meanwhile, the finance sector demonstrated the strongest rating upside, registering the highest average upgrade rate of 14.0% compared with the industry average of 5.8%.
- ***Notwithstanding this, the default rate remained low in 2014.*** Similar to 2013, there was one defaulted issuer in 2014, resulting in an annual default rate of 1.7% (2013: 1.6%). The marginally higher default rate was merely due to the smaller sample size at the beginning of 2014. Meanwhile, the long-term annual corporate default rate stood at 2.4% in 2014 with high-grade and high-yield[1] default rates of 1.0% and 10.2%, respectively.
- ***2014's rating stability rate was the highest since 2002.*** As a result of lower rating migration, MARC's rating stability climbed to 91.7% in 2014 (2013: 90.6%), the highest since 2002 and above its historical average of 83.9% since 2000. MARC's corporate ratings demonstrated a positive relationship between credit rating and rating stability over the long term (1998 – 2014). For instance, after adjusting for withdrawn issuers, high-grade issuers displayed a relatively higher level of rating stability of 93.5% compared with the high-yield category (77.4%).
- ***Improved accuracy ratio in 2014 reflects single default from C rating band.*** Over the long term, MARC's corporate ratings have a one-year accuracy ratio of 66.2%, indicating that MARC's ratings have demonstrated a satisfactory ability to discriminate between good and bad credit risks on a one-year time horizon. Over a shorter horizon, however, the one-year accuracy ratio is greatly influenced by defaulters at the lowest rating categories. This can be seen from the significant improvement in MARC's one-year accuracy ratio to 98.3% in 2014 (2013: 63.5%), due to a single issuer default which occurred in the lowest rating category, the C-rated category.

[1] *'High-grade' is defined as issuers rated A- or higher; 'high-yield' is defined as issuers rated BBB+ or lower.*

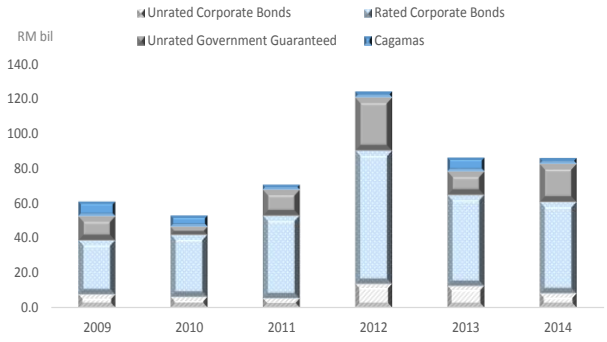
Ringgit Corporate Bond Market

For the year 2014, the gross issuance in the corporate debt market came in slightly lower at RM85.9 billion compared with RM86.2 billion raised in 2013, dragged down by smaller issuances in the unrated private placements and Cagamas segments. Meanwhile, the rated corporate bonds and unrated quasi-government segments registered higher issuances of RM52.7 billion and RM21.9 billion, up from RM52.4 billion and RM13.6 billion in 2013, respectively. The unrated quasi-government segment was primarily supported by Danainfra's collective issuances amounting to RM7.5 billion from its RM21.0 billion guaranteed Islamic commercial paper and Islamic medium-term notes programme for development of the Klang Valley MRT project.

As in the past, the financial services and infrastructure & utilities sectors remained as major drivers, contributing 40.7% and 24.0%, respectively, to the total amount raised from the rated corporate bond segment. Notably, banks' issuances increased significantly in 2014 following new issuances of Basel III-compliant Tier-2 bonds in order to meet capital requirements under Basel III's new guidelines.

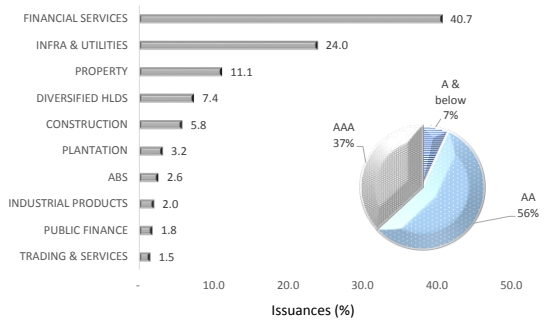
On rating distribution, primary market activities continued to be dominated by issuers rated AA and above (2014: 93.0%; 2013: 98.2%). After falling 31% per annum (p.a.) on a compounded annual growth rate (CAGR) basis between 2007 (during the Global Financial Crisis, or GFC) and 2013, issuances rated A and below have increased nearly fourfold to RM3.9 billion in 2014 from RM1.1 billion in 2013, driven by increasing demand from yield-hungry investors. Having said that, we believe that it will still be a bumpy road for lower-rated issuers to tap the bond market as recent adverse market developments could increase risk aversion among investors.

Exhibit 1: Corporate bond issuance trends



Source: BPAM, MARC Fixed Income Research

Exhibit 2: Corporate bond issuances: Industry and rating distribution



Source: BPAM, MARC Fixed Income Research

Using a sample of Bursa-listed corporations (excluding financial sector), we observe that the aggregate leverage position of corporations based on median debt-to-EBIT has remained stable and stood below the pre-crisis level (2013: 2.2x; 2006: 2.9x). However, although the ratio seems stable, the relatively high levels of average and total debt-weighted debt-to-EBIT compared to their median statistics imply that a large proportion of corporate debt is concentrated in a few big and highly leveraged corporations. Furthermore, between 2009 and 2013, the private sector's total external borrowings (excluding financial sector) grew at a CAGR pace of 9.2% p.a. compared with government external borrowings of 5.0% p.a. After taking into account the public sector and financial companies, the debt-service ratio has risen to 10.4% in 2013 from 6.5% in 2009, with the increase mainly driven by higher borrowings from the private sector. This has an implication on the bond market as increasing external borrowings would make local corporations more vulnerable to external shocks.

Against this backdrop, we anticipate corporate bond yields to trend higher and the credit spread to widen. This is further magnified by the relatively weak ringgit which would increase financing costs among borrowers with debts denominated in foreign currencies, subsequently weakening issuers' credit strength and causing investors to demand higher yields to compensate for higher credit risks. In addition, issuers' bottom lines could be hit by the moderation in domestic investment activity on the back of lower global oil prices, especially if the latter stays low for a considerable period.

In the primary market, we envisage total gross corporate bond issuances to be in the region of RM80-90 billion in 2015, almost the same as the issuance of RM85.9 billion in 2014. We also envisage rising issuances from the private placement segment which is becoming more popular, driven by lower regulatory costs as well as the SC's decision to gradually allow the trading of unrated bonds from now until full liberalisation effective January 1, 2017. In addition, we also expect higher issuances from the unrated quasi-government segment in view of the ongoing mega infrastructure-related projects initiated by the government, including the construction of the Second MRT Line and the LRT 3 Project.

Introduction to MARC's Corporate Default Study

This report presents updates on default statistics and the rating transition experience of corporate bond issuers in 2014 as well as historical findings since 1996. This 10th annual update of MARC's corporate default study, which was initially published in 2006, encapsulates the history of corporate ratings assigned from inception in 1996 to December 31, 2014. As in the past studies, in order to address the problem of shrinking sample size which became more apparent post-GFC due to the concentration of issuance in a smaller number of individual issues and issuers, we have included in our rating universe implied senior unsecured debt ratings or public information ratings of corporates and financial institutions acting in the capacity of credit enhancement provider, and standalone ratings of underlying issuers with a Danajamin Nasional Berhad (Danajamin) credit wrap. To dispel any doubts, MARC maintains full rating surveillance on all these unpublished issuers. The structured finance universe and short-term ratings, on the other hand, remain excluded.

The assessment of corporate credit risk and default probability is captured by an entity's individual credit rating. Default rates are expected to be lower for higher-rated debt, and should increase as we move lower down the credit rating scale. Similarly, higher credit ratings stability is expected at higher rating bands.

An element of statistical bias may occur as a result of sample size limitations owing to the small number of issuers studied in our corporate bond ratings universe. Therefore, some of the statistics reported may be inconclusive. Furthermore, data enhancement efforts which are being continuously carried out to ensure a certain degree of transparency and integrity may limit comparability with earlier default and rating transition studies. This study is self-contained and it supersedes previous studies.

To summarise rating migrations for the year 2014, there were four rating downgrades, one default and no upgrades against the five downgrades, one default and zero upgrades recorded in 2013. Among the downgrades, industrial products and property sectors each experienced one rating downgrade, respectively. The remaining two downgrades were from the trading & services sector. Meanwhile, the only default for 2014 occurred in the industrial products sector.

Exhibit 3: Distribution of outstanding issuers by rating band - Majority of outstanding issuers belong to the high-grade rating category in MARC's corporate rating universe

Year	AAA	AA	A	BBB	BB	B	C	High Grade	High Yield
1998	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
1999	33.3%	16.7%	16.7%	33.3%	0.0%	0.0%	0.0%	66.7%	33.3%
2000	30.0%	30.0%	10.0%	30.0%	0.0%	0.0%	0.0%	70.0%	30.0%
2001	17.4%	21.7%	47.8%	8.7%	4.3%	0.0%	0.0%	87.0%	13.0%
2002	11.9%	16.7%	61.9%	7.1%	2.4%	0.0%	0.0%	90.5%	9.5%
2003	12.0%	18.0%	62.0%	6.0%	2.0%	0.0%	0.0%	92.0%	8.0%
2004	10.5%	15.8%	59.6%	10.5%	1.8%	1.8%	0.0%	86.0%	14.0%
2005	10.3%	17.9%	64.1%	6.4%	0.0%	1.3%	0.0%	92.3%	7.7%
2006	11.0%	18.7%	64.8%	3.3%	1.1%	1.1%	0.0%	94.5%	5.5%
2007	10.2%	21.4%	62.2%	3.1%	1.0%	2.0%	0.0%	93.9%	6.1%
2008	12.2%	21.4%	58.2%	4.1%	3.1%	1.0%	0.0%	91.8%	8.2%
2009	14.3%	28.6%	48.0%	3.1%	4.1%	2.0%	0.0%	90.8%	9.2%
2010	18.3%	29.3%	41.5%	3.7%	3.7%	3.7%	0.0%	89.0%	11.0%
2011	23.1%	29.5%	37.2%	5.1%	1.3%	3.8%	0.0%	89.7%	10.3%
2012	26.7%	28.0%	26.7%	12.0%	4.0%	2.7%	0.0%	81.3%	18.7%
2013	31.3%	32.8%	21.9%	6.3%	3.1%	4.7%	0.0%	85.9%	14.1%
2014	30.0%	41.7%	13.3%	6.7%	5.0%	1.7%	1.7%	85.0%	15.0%

Source: MARC Fixed Income Research

Summary of 2014 Experience

Fewer rating changes and all from negative rating actions

There were 60 issuers (excluding structured finance and short-term paper issuers) in MARC's rating universe at the beginning of 2014 with 51 issuers rated in the high-grade segment while the remaining nine were categorized as high-yield issuers. Based on the distribution of issuers by sector, infrastructure and utilities remained the largest contributor to MARC's rating universe (2014: 35.0%; 2013: 27.3%), followed by the finance sector (2014: 21.7%; 2013: 21.2%) and property sector (2014: 18.3%; 2013: 16.7%). Overall, the number of issuers either decreased or remained unchanged for all sectors in 2014 compared with the previous year except for the infrastructure and utilities sector (2014: 21 issuers; 2013: 18 issuers).

In 2014, MARC recorded only five rating changes - four downgrades and one default - the least rating migration observed since 2002. Although the downgrade rate fell slightly to 6.7% in 2014 (2013: 7.8%) and stood close to the long-term average of 6.6%, there was no upgrade action by MARC for a second consecutive year. One important reason for the absence of issuers being upgraded is the increasing corporate leverage, which is partly explained by the massive amount of liquidity available following the implementation of Quantitative Easing (QE) by the US Federal Reserve post-GFC. Furthermore, the residual impact of GFC has continued to weigh on the business operating environment which led to more downgrades than upgrades since 2009. As in the past, the industrial products sector continued to suffer the highest downgrade rate followed by the trading & services sector and property sector. Meanwhile, the finance sector demonstrated the greatest rating upside, registering the highest average upgrade rate of 14.0% compared with the industry average of 5.8%.

Default rate remained low in 2014

Similar to 2013, MARC experienced only one defaulted issuer in 2014, resulting in an annual default rate of 1.7% (2013: 1.6%). The marginally higher default rate was merely due to a smaller sample size at the beginning of 2014. Meanwhile, the long-term annual corporate default rate stood at 2.4% in 2014 (2013: 2.5%) with high-grade and high-yield default rates of 1.0% and 10.2%, respectively. By sector, the industrial products sector has the highest default risk of 7.3% compared with the industry average of 2.2%.

Highest rating stability since 2002

Due to lower rating migration activities, MARC's rating stability improved to 91.7% in 2014 (2013: 90.6%), the highest level since 2002 and higher than its historical average of 83.9% since 2000. MARC's corporate rating demonstrated a positive relationship between the rating and its stability over the long term (1998 – 2014). For instance, after adjusting for withdrawn issuers, high-grade issuers displayed a higher level of rating stability of 93.5% compared with the high-yield category (77.4%). Furthermore, the AAA-rated category continued to display a very high level of rating stability of 98.8%, followed by the AA-rated category at 93.0%, indicating the relative stability of these rating categories.

Improved accuracy ratio in 2014

Over the long term, MARC's corporate rating has a one-year accuracy ratio of 66.2%, indicating that MARC's ratings have demonstrated a satisfactory ability to discriminate between good and bad credit risks on a one-year time horizon. Over a shorter horizon, however, the one-year accuracy ratio is greatly influenced by defaulters at the lowest rating categories. This can be seen from the significant improvement in MARC's one-year accuracy ratio to 98.3% in 2014 (2013: 63.5%), due to a single issuer default which occurred in the lowest rating category, the C-rated category.

Exhibit 4: Summary of annual rating actions

Year	Issuers as of 1st January	Upgrades	Downgrades	Default	Withdrawn	Migrating	Stable	Margin of Downgrade to Upgrade
2000	10	30.0%	0.0%	10.0%	0.0%	40.0%	60.0%	0 : 3
2001	23	0.0%	0.0%	4.3%	4.3%	4.3%	95.7%	0 : 0
2002	42	7.1%	7.1%	0.0%	2.4%	14.3%	85.7%	3 : 3
2003	50	8.0%	4.0%	0.0%	10.0%	12.0%	88.0%	2 : 4
2004	57	19.3%	0.0%	0.0%	10.5%	19.3%	80.7%	0 : 11
2005	78	9.0%	2.6%	2.6%	9.0%	14.1%	85.9%	2 : 7
2006	91	8.8%	11.0%	1.1%	9.9%	20.9%	79.1%	10 : 8
2007	98	5.1%	11.2%	4.1%	11.2%	20.4%	79.6%	11 : 5
2008	98	8.2%	7.1%	1.0%	8.2%	16.3%	83.7%	7 : 8
2009	98	1.0%	5.1%	5.1%	23.5%	11.2%	88.8%	5 : 1
2010	82	6.1%	12.2%	1.2%	24.4%	19.5%	80.5%	10 : 5
2011	78	2.6%	10.3%	2.6%	20.5%	15.4%	84.6%	8 : 2
2012	75	1.3%	13.3%	1.3%	21.3%	16.0%	84.0%	10 : 1
2013	64	0.0%	7.8%	1.6%	15.6%	9.4%	90.6%	5 : 0
2014	60	0.0%	6.7%	1.7%	6.7%	8.3%	91.7%	4 : 0
Arithmetic Mean	**n.a**	**7.1%**	**6.6%**	**2.4%**	**11.8%**	**16.1%**	**83.9%**	**n.a.**

Source: MARC Fixed Income Research

Exhibit 5: Corporate default summary by number of issuers

Year	Issuers as of 1st January	Default count (High Grade)	Default count (High Yield)	High Grade Default Rate	High Yield Default Rate	All Corporate Default Rate
2000	10	0	1	0.0%	25.0%	10.0%
2001	23	0	1	0.0%	33.3%	4.3%
2002	42	0	0	0.0%	0.0%	0.0%
2003	50	0	0	0.0%	0.0%	0.0%
2004	57	0	0	0.0%	0.0%	0.0%
2005	78	2	0	2.8%	0.0%	2.6%
2006	91	1	0	1.2%	0.0%	1.1%
2007	98	2	2	2.2%	33.3%	4.1%
2008	98	1	0	1.1%	0.0%	1.0%
2009	98	3	2	3.4%	22.2%	5.1%
2010	82	1	0	1.4%	0.0%	1.2%
2011	78	1	1	1.4%	12.5%	2.6%
2012	75	0	1	0.0%	7.1%	1.3%
2013	64	1	0	1.8%	0.0%	1.6%
2014	60	0	1	0.0%	11.1%	1.7%
Arithmetic Mean	**n.a.**	**n.a.**	**n.a.**	**1.0%**	**9.6%**	**2.4%**

Source: MARC Fixed Income Research

Exhibit 6: 2014 defaulting pool

Principle	Category	Main Sector	Issuer	Initial Date	Default Date	Initial Rating	Rating 1-year Prior to Default	Last Rating Prior to Default	Issue Size (RM mil)
Islamic	Corporate Debt	Industrial Product	Kinsteel Bhd	23-Aug-06	11-Mar-14	A	A-	C	100

Source: MARC Fixed Income Research

Exhibit 7: Annual corporate default rates by rating band

Year	AAA	AA	A	BBB	BB	B	C	High Grade	High Yield	All Corporate
2000	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	33.3%	10.0%
2001	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	33.3%	4.3%
2002	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2003	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2004	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2005	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	2.6%
2006	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	1.1%
2007	0.0%	0.0%	3.3%	33.3%	0.0%	50.0%	0.0%	2.2%	33.3%	4.1%
2008	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	1.0%
2009	0.0%	0.0%	6.4%	33.3%	0.0%	50.0%	0.0%	3.4%	22.2%	5.1%
2010	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	1.2%
2011	0.0%	0.0%	3.4%	0.0%	0.0%	33.3%	0.0%	1.4%	12.5%	2.6%
2012	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	7.1%	1.3%
2013	0.0%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	1.6%
2014	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	11.1%	1.7%
Arithmetic Mean	0.0%	0.0%	2.0%	10.7%	0.0%	8.9%	6.7%	1.0%	10.2%	2.4%
Standard Deviation	0.0%	0.0%	2.4%	17.4%	0.0%	18.8%	25.8%	1.1%	13.6%	2.6%
Coefficient of Variation	0.0%	0.0%	118.8%	161.8%	0.0%	211.0%	387.3%	112.4%	133.6%	107.6%

Source: MARC Fixed Income Research

Exhibit 8: Annual corporate default rates by industry

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Wtd. Average
Construction	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Consumer Products	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%
Finance	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%
Hotels	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%
Industrial Products	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	0.0%	8.0%	4.3%	14.3%	0.0%	7.7%	11.1%	25.0%	50.0%	7.3%
Infrastructure & Utilities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
Insurance Company	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.	n.a.
Plantation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Property	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	8.3%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%
Technology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%
Trading/Services	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	7.1%	8.3%	0.0%	0.0%	0.0%	2.0%
Quasi Sovereign	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All Corporate	**10.0%**	**4.3%**	**0.0%**	**0.0%**	**0.0%**	**2.6%**	**1.1%**	**4.1%**	**1.0%**	**5.1%**	**1.2%**	**2.6%**	**1.3%**	**1.6%**	**3.3%**	**2.2%**

Source: MARC Fixed Income Research

Exhibit 9: History of issuers downgraded to D

Year Announced	Issuers	First Rating	Rating 1-year Prior to Default	Last Rating Prior to Default
2000	MOCCIS Trading Sdn Bhd	BBB	BBB	BBB
2001	Johor City Development Sdn Bhd*	AA-	AA-	AA-
2005	ABI Malaysia Sdn Bhd	A	A	A-
2005	Pesaka Astana (M) Sdn Bhd	A+	A+	A+
2006	Maxisegar Sdn Bhd	A	A	BB
2007	Paradym Resources Industries Sdn Bhd	A-	A	BB
2007	Sistem-Lingkaran Lebuhraya Kajang Sdn Bhd	A	B-	B-
2007	ACE Polymers (M) Sdn Bhd	A	A-	BBB-
2007	Peremba Jaya Holdings Sdn Bhd	A	BBB-	C
2008	Evermaster Group Bhd	A	A-	BB-
2009	Tracoma Holdings Bhd	A	B	C
2009	Englotechs Holdings Bhd	A	BBB-	BB
2009	Ingress Sukuk Bhd	A+	A	C
2009	Oilcorp Bhd	A	A-	C
2009	Malaysia International Tuna Port Sdn Bhd	A+	A	C
2010	Malaysia Merchant Marine Bhd	A+	A+	BB+
2011	Dawama Sdn Bhd	A	A-	C
2011	Mithrill Bhd	BBB	B+	B
2012	Maxtral Industry Bhd	A	BBB-	BB
2013	Perwaja Steel Sdn Bhd	A	A-	C
2014	Kinsteel Bhd	A	A-	C

**The unpublished standalone rating is not shown in this report*

Source: MARC Fixed Income Research

Exhibit 10: Corporate upgrade rates by rating band

Year	AAA	AA	A	BBB	BB	B	C	High Grade	High Yield	All Corporate
2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2001	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2002	0.0%	14.3%	3.8%	0.0%	100.0%	0.0%	0.0%	5.3%	25.0%	7.1%
2003	0.0%	0.0%	6.5%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	4.0%
2004	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2005	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	2.6%
2006	0.0%	5.9%	11.9%	33.3%	100.0%	0.0%	0.0%	9.3%	40.0%	11.0%
2007	0.0%	9.5%	13.1%	33.3%	0.0%	0.0%	0.0%	10.9%	16.7%	11.2%
2008	0.0%	0.0%	5.3%	100.0%	0.0%	0.0%	0.0%	3.3%	50.0%	7.1%
2009	0.0%	3.6%	4.3%	33.3%	25.0%	0.0%	0.0%	3.4%	22.2%	5.1%
2010	0.0%	12.5%	14.7%	0.0%	33.3%	33.3%	0.0%	11.0%	22.2%	12.2%
2011	0.0%	13.0%	17.2%	0.0%	0.0%	0.0%	0.0%	11.4%	0.0%	10.3%
2012	0.0%	9.5%	20.0%	22.2%	33.3%	50.0%	0.0%	9.8%	28.6%	13.3%
2013	5.0%	4.8%	21.4%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%	7.8%
2014	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.
Arithmetic Mean	0.3%	4.9%	8.1%	14.8%	19.4%	5.6%	0.0%	5.4%	13.6%	6.6%
Standard Deviation	1.3%	5.5%	7.6%	27.4%	35.0%	15.0%	0.0%	4.5%	16.9%	4.7%
Coefficient of Variation	387.3%	113.2%	93.3%	185.2%	180.1%	269.9%	n.a.	83.1%	124.1%	71.9%

Source: MARC Fixed Income Research

Exhibit 11: Corporate upgrade rates by industry

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Wtd. Average
Construction	0.0%	0.0%	0.0%	20.0%	40.0%	20.0%	0.0%	25.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%
Consumer Products	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Finance	50.0%	0.0%	16.7%	28.6%	25.0%	12.5%	50.0%	12.5%	50.0%	0.0%	21.4%	0.0%	0.0%	0.0%	0.0%	14.0%
Hotels	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial Products	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	4.5%	0.0%	0.0%	0.0%	6.7%	7.7%	0.0%	0.0%	0.0%	2.4%
Infrastructure & Utilities	25.0%	0.0%	0.0%	0.0%	15.4%	14.3%	11.1%	9.1%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	4.0%
Insurance Company	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.
Plantation	0.0%	0.0%	0.0%	0.0%	16.7%	16.7%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%
Property	0.0%	0.0%	12.5%	11.1%	22.2%	0.0%	8.3%	7.7%	9.1%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	5.9%
Technology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Trading/Services	0.0%	0.0%	33.3%	0.0%	14.3%	9.1%	0.0%	0.0%	0.0%	5.6%	7.1%	0.0%	0.0%	0.0%	0.0%	3.4%
Quasi Sovereign	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%
Wtd. Average	**30.0%**	**0.0%**	**7.1%**	**8.0%**	**19.3%**	**9.0%**	**8.8%**	**5.1%**	**8.2%**	**1.0%**	**6.1%**	**2.6%**	**1.3%**	**0.0%**	**0.0%**	**5.8%**

Source: MARC Fixed Income Research

Exhibit 12: Corporate downgrade rates by rating band

Year	AAA	AA	A	BBB	BB	B	C	High Grade	High Yield	All Corporate
2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2001	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2002	0.0%	14.3%	3.8%	0.0%	100.0%	0.0%	0.0%	5.3%	25.0%	7.1%
2003	0.0%	0.0%	6.5%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	4.0%
2004	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2005	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	2.6%
2006	0.0%	5.9%	11.9%	33.3%	100.0%	0.0%	0.0%	9.3%	40.0%	11.0%
2007	0.0%	9.5%	13.1%	33.3%	0.0%	0.0%	0.0%	10.9%	16.7%	11.2%
2008	0.0%	0.0%	5.3%	100.0%	0.0%	0.0%	0.0%	3.3%	50.0%	7.1%
2009	0.0%	3.6%	4.3%	33.3%	25.0%	0.0%	0.0%	3.4%	22.2%	5.1%
2010	0.0%	12.5%	14.7%	0.0%	33.3%	33.3%	0.0%	11.0%	22.2%	12.2%
2011	0.0%	13.0%	17.2%	0.0%	0.0%	0.0%	0.0%	11.4%	0.0%	10.3%
2012	0.0%	9.5%	20.0%	22.2%	33.3%	50.0%	0.0%	9.8%	28.6%	13.3%
2013	5.0%	4.8%	21.4%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%	7.8%
2014	0.0%	4.0%	25.0%	25.0%	0.0%	0.0%	0.0%	5.9%	11.1%	6.7%
Arithmetic Mean	0.3%	5.1%	9.8%	16.5%	19.4%	5.6%	0.0%	5.8%	14.4%	6.6%
Standard Deviation	1.3%	5.4%	8.4%	27.2%	35.0%	15.0%	0.0%	4.2%	16.5%	4.5%
Coefficient of Variation	387.3%	104.2%	85.5%	165.2%	180.1%	269.9%	n.a.	73.0%	114.9%	69.2%

Source: MARC Fixed Income Research

Exhibit 13: Corporate downgrade rates by industry

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Wtd. Average
Construction	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%
Consumer Products	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	33.3%	0.0%	0.0%	0.0%	100.0%	0.0%	16.7%
Finance	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	7.1%	0.0%	0.0%	0.0%	1.4%
Hotels	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%
Industrial Products	0.0%	0.0%	50.0%	0.0%	0.0%	5.3%	18.2%	20.0%	17.4%	9.5%	6.7%	7.7%	33.3%	50.0%	50.0%	15.2%
Infrastructure & Utilities	0.0%	0.0%	0.0%	7.7%	0.0%	7.1%	5.6%	0.0%	0.0%	0.0%	25.0%	23.8%	14.3%	11.1%	0.0%	7.3%
Insurance Company	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.
Plantation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	1.7%
Property	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	15.4%	18.2%	11.1%	0.0%	0.0%	30.0%	0.0%	9.1%	8.8%
Technology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Trading/Services	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	6.7%	20.0%	5.6%	0.0%	21.4%	8.3%	10.0%	0.0%	25.0%	8.8%
Quasi Sovereign	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wtd. Average	**0.0%**	**0.0%**	**7.1%**	**4.0%**	**0.0%**	**2.6%**	**11.0%**	**11.2%**	**7.1%**	**5.1%**	**12.2%**	**10.3%**	**13.3%**	**7.8%**	**6.7%**	**7.7%**

Source: MARC Fixed Income Research

Rating Transition: The Highest Rating Stability Since 2002

MARC assigns ratings based on a default probability model which is a combination of both qualitative and quantitative assessments. The rating summarises the ability of issuers to meet the obligation fully and timely, both in terms of interest payments and principal repayments. In addition, MARC also factors in the rating through a cyclical element in its rating when assessing the credit profile of issuers, and relevant industry risks are also analysed from both short-term and long-term perspectives. However, rating movement may also be impacted by other structural developments, which most of the time are due to idiosyncratic developments affecting a specific issuer.

Like the methodology used to calculate annual default rates, the calculation of rating transition rates also compares the ratings of issuers at the beginning of the time period (1st January) with ratings at the end of the time period (31st December); therefore, multiple rating migrations within this period will not be taken into consideration. Multiple counts of an issuer, however, are possible, i.e. an issuer that stays in the rating universe for more than one year will continue to be captured year-in, year-out as long as it has not been withdrawn from the rating universe. For example, if MARC began rating one issuer in 1997 and if its issue had not been withdrawn from the universe until 2014, then this issuer would appear in 17 consecutive 1-year transition tables from 1998 to 2014.

At the beginning of 2014, there were only 60 outstanding issuers in MARC's corporate rating universe, of which only nine were in the high-yield segment. Given the significant sample constraints in the MARC rating universe, in particular the high-yield segment, caution should be exercised in interpreting the statistics.

An examination of the 1-year rating transition as depicted in Exhibit 14 to 19 was done at the broad rating category, i.e. from AA to A, as opposed to the transitions at the modifier level, i.e. AA+ to AA. The vertical axis shows the ratings at the beginning of the year and the horizontal axis summarises the 1-year migration behaviour. Nevertheless, for transparency purposes, MARC has also computed the transition matrices at the modifier level which are attached in Appendix III.

The following outcomes are observed in MARC's corporate rating universe:

- Due to lower rating migration activities, MARC's rating stability improved to 91.7% in 2014 (2013: 90.6%), the highest since 2002 and better than its historical average at 83.9%. MARC's corporate ratings continued to demonstrate a positive relationship between the credit rating and its stability over the long term. For instance, from the one-year cumulative rating transition matrix (1998-2014) after adjusting for withdrawn issuers, 98.8% of AAA-rated issuers at the beginning of 2014 were still rated AAA at the end of the year, whereas B-rated issuers showed a relatively lower rating stability of 81.3%. On average, high-grade issuers displayed a higher level of rating stability of 93.5% compared with high-yield issuers (77.4%).

- In 2014, MARC experienced only one defaulted issuer, resulting in an annual default rate of 1.7% (2013: 1.6%). The marginally higher default rate was merely due to smaller sample size at the beginning of 2014. Over the long-term, the annual corporate default rate stood at 2.4% in 2014 (2013: 2.5%) with the high-grade and high-yield default rates of 1.0% and 10.2%, respectively. Notably, referring to the one-year cumulative rating transition matrix, the default rate for C-rated issuers surged to 100% in 2014 from 0.0% in 2013, due to a default which came from the only issuer rated at "C" in MARC's entire rated universe.

Exhibit 14: 1-year cumulative rating transition matrix: 1998 – 2014

1998-2014	AAA	AA	A	BBB	BB	B	C	NR	Default
AAA	**94.2%**	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	0.0%
AA	2.0%	**85.5%**	4.4%	0.0%	0.0%	0.0%	0.0%	8.0%	0.0%
A	0.0%	2.7%	**77.1%**	3.7%	0.6%	0.0%	0.2%	13.2%	2.5%
BBB	0.0%	0.0%	6.6%	**60.7%**	4.9%	1.6%	0.0%	18.0%	8.2%
BB	0.0%	0.0%	0.0%	0.0%	**72.0%**	16.0%	0.0%	12.0%	0.0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	**65.0%**	0.0%	20.0%	15.0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%

Source: MARC Fixed Income Research

Exhibit 15: 1-year cumulative rating transition matrix: 1998 – 2014 (NR Adjusted)

1998-2014	AAA	AA	A	BBB	BB	B	C	Default
AAA	**98.8%**	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AA	2.2%	**93.0%**	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%
A	0.0%	3.1%	**88.8%**	4.3%	0.7%	0.0%	0.2%	2.9%
BBB	0.0%	0.0%	8.0%	**74.0%**	6.0%	2.0%	0.0%	10.0%
BB	0.0%	0.0%	0.0%	0.0%	**81.8%**	18.2%	0.0%	0.0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	**81.3%**	0.0%	18.8%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%

Source: MARC Fixed Income Research

Exhibit 16: 2-year cumulative rating transition matrix: 1998 – 2014 (NR Adjusted)

1998-2014	AAA	AA	A	BBB	BB	B	C	Default
AAA	**97.6%**	2.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
AA	4.2%	**86.7%**	8.7%	0.2%	0.0%	0.0%	0.0%	0.1%
A	0.1%	5.6%	**79.4%**	7.0%	1.5%	0.2%	0.2%	3.2%
BBB	0.0%	0.2%	13.0%	**55.1%**	9.4%	4.2%	0.0%	8.0%
BB	0.0%	0.0%	0.0%	0.0%	**66.9%**	29.6%	0.0%	3.4%
B	0.0%	0.0%	0.0%	0.0%	0.0%	**66.0%**	0.0%	15.2%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%

Source: MARC Fixed Income Research

Exhibit 17: 3-year cumulative rating transition matrix: 1998 – 2014 (NR Adjusted)

1998-2014	AAA	AA	A	BBB	BB	B	C	Default
AAA	**96.5%**	3.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
AA	6.0%	**81.0%**	11.9%	0.5%	0.1%	0.0%	0.0%	0.3%
A	0.2%	7.7%	**71.4%**	8.5%	2.2%	0.6%	0.2%	3.2%
BBB	0.0%	0.6%	16.0%	**41.3%**	11.1%	6.2%	0.0%	6.7%
BB	0.0%	0.0%	0.0%	0.0%	**54.8%**	36.3%	0.0%	5.6%
B	0.0%	0.0%	0.0%	0.0%	0.0%	**53.6%**	0.0%	12.4%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%

Source: MARC Fixed Income Research

Exhibit 18: 4-year cumulative rating transition matrix: 1998 – 2014 (NR Adjusted)

1998-2014	AAA	AA	A	BBB	BB	B	C	Default
AAA	**95.4%**	4.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
AA	7.7%	**75.7%**	14.5%	0.9%	0.2%	0.0%	0.0%	0.4%
A	0.4%	9.3%	**64.5%**	9.4%	2.8%	1.0%	0.2%	3.2%
BBB	0.0%	1.1%	17.5%	**31.3%**	11.7%	7.9%	0.0%	5.8%
BB	0.0%	0.0%	0.0%	0.0%	**44.8%**	39.4%	0.0%	6.8%
B	0.0%	0.0%	0.0%	0.0%	0.0%	**43.6%**	0.0%	10.1%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%

Source: MARC Fixed Income Research

Exhibit 19: 5-year cumulative rating transition matrix: 1998 – 2014 (NR Adjusted)

1998-2014	AAA	AA	A	BBB	BB	B	C	Default
AAA	**94.3%**	5.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
AA	9.3%	**71.0%**	16.6%	1.3%	0.3%	0.1%	0.0%	0.5%
A	0.6%	10.7%	**58.5%**	9.7%	3.3%	1.5%	0.2%	3.1%
BBB	0.0%	1.5%	18.1%	**23.9%**	11.6%	9.2%	0.0%	5.1%
BB	0.0%	0.0%	0.0%	0.0%	**36.7%**	40.2%	0.0%	7.4%
B	0.0%	0.0%	0.0%	0.0%	0.0%	**35.4%**	0.0%	8.2%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%

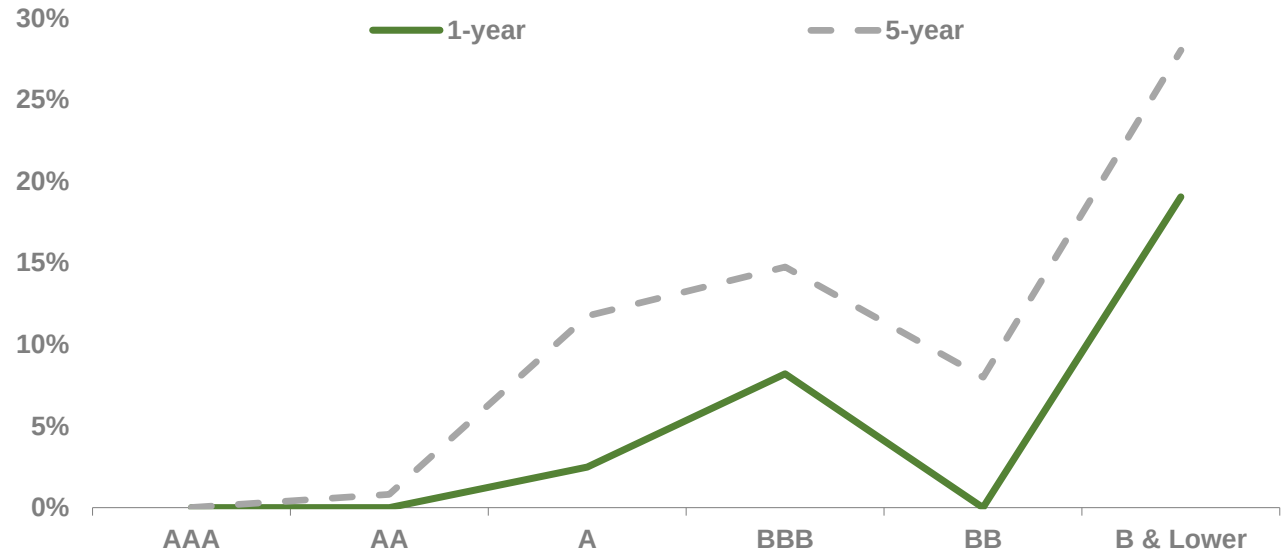
Source: MARC Fixed Income Research

Exhibit 20: Cumulative default rates by rating band

Rating band	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
AAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AA	0.0%	0.0%	0.0%	0.4%	0.8%	1.2%	1.6%	1.6%
A	2.5%	5.4%	8.2%	10.1%	11.8%	12.6%	13.0%	13.2%
BBB	8.2%	11.5%	11.5%	13.1%	14.8%	18.0%	19.7%	19.7%
BB	0.0%	4.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
B & Lower	19.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
High Grade	1.3%	2.9%	4.4%	5.5%	6.5%	7.1%	7.4%	7.5%
High Yield	8.4%	13.1%	14.0%	15.0%	15.9%	17.8%	18.7%	18.7%
All Corporate	2.1%	3.9%	5.4%	6.5%	7.5%	8.2%	8.6%	8.7%

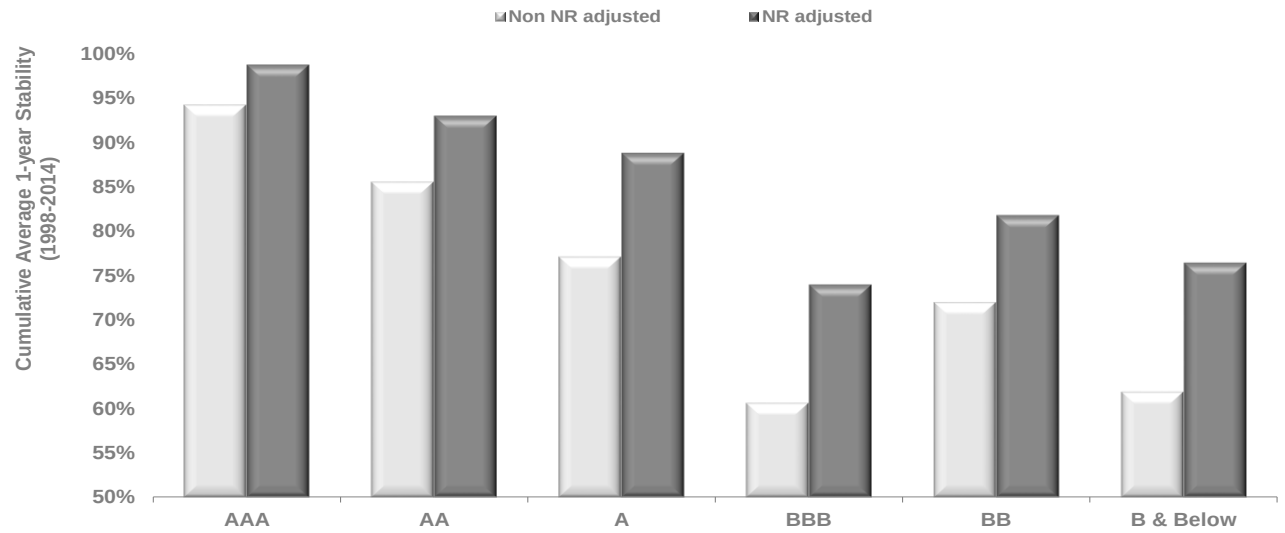
Source: MARC Fixed Income Research

Exhibit 21: Effectiveness of MARC's corporate ratings as default predictor (1998 – 2014)



Source: MARC Fixed Income Research

Exhibit 22: 1-year rating stability by rating band (1998 – 2014)



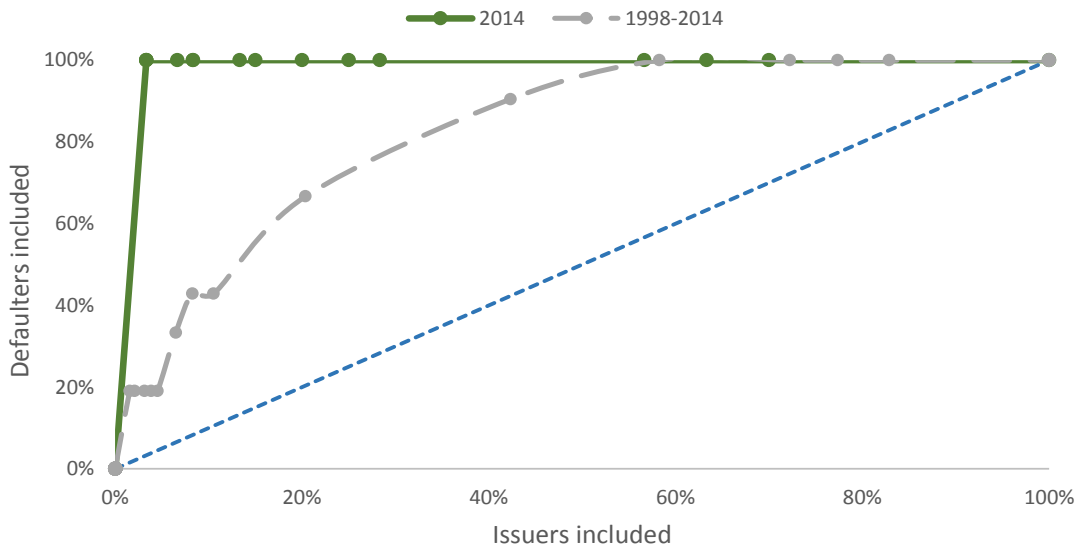
Source: MARC Fixed Income Research

Cumulative Accuracy Profile (CAP) and Accuracy Ratio

MARC uses CAP and the accuracy ratio to measure rating performances. To construct the CAP graph, we start by arranging the rating and default data from the lowest rating category (B & below) to the highest category (AAA). We then plot the cumulative share of defaulters against the cumulative share of issuers by rating until all issuers and defaulters are included (AAA & below) (Please refer to Appendix I for details of the methodology).

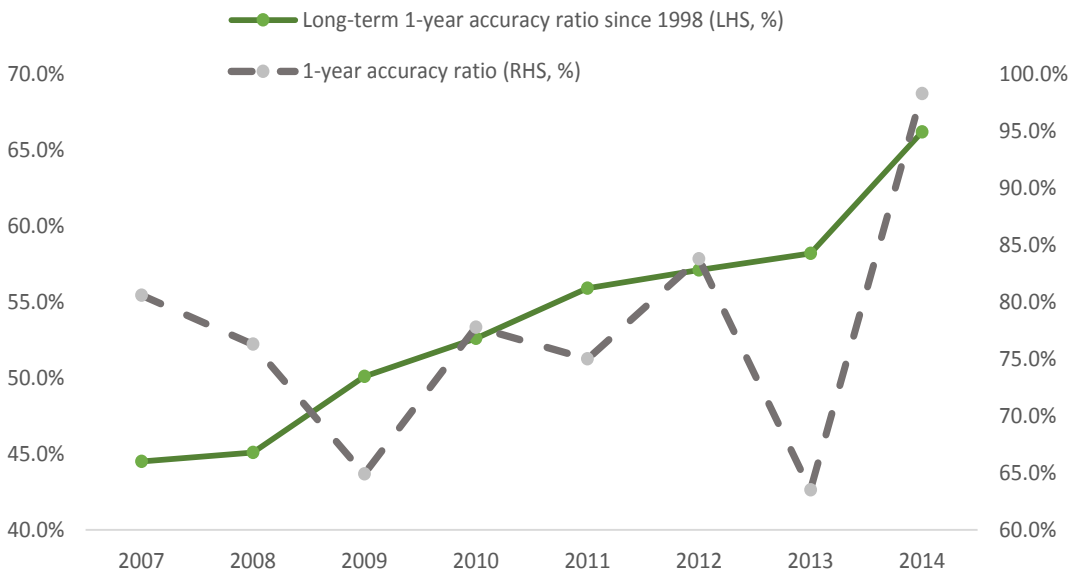
Over the long term (1998 – 2014), MARC's corporate rating has a one-year accuracy ratio of 66.2%, indicating that MARC's ratings have demonstrated a satisfactory ability to discriminate between good and bad credit risks on a one-year time horizon. Over a shorter horizon, however, the one-year accuracy ratio is greatly influenced by defaulters at the lowest rating categories. This can be seen from the significant improvement in MARC's one-year accuracy ratio to 98.3% in 2014 (2013: 63.5%), due to default of an issuer belonging to the lowest rating category, the C-rated category. Going forward, a small defaulted pool and a shrinking rated universe will likely present a challenge to MARC in measuring its rating performance as a sufficient number of defaults is required to derive a conclusive accuracy ratio.

Exhibit 23: 1-year CAP curve: 2014 vs. 1998-2014



Source: MARC Fixed Income Research

Exhibit 24: Historical 1-year accuracy ratio



Source: MARC Fixed Income Research

Path To Default from Original Rating and Last Rating

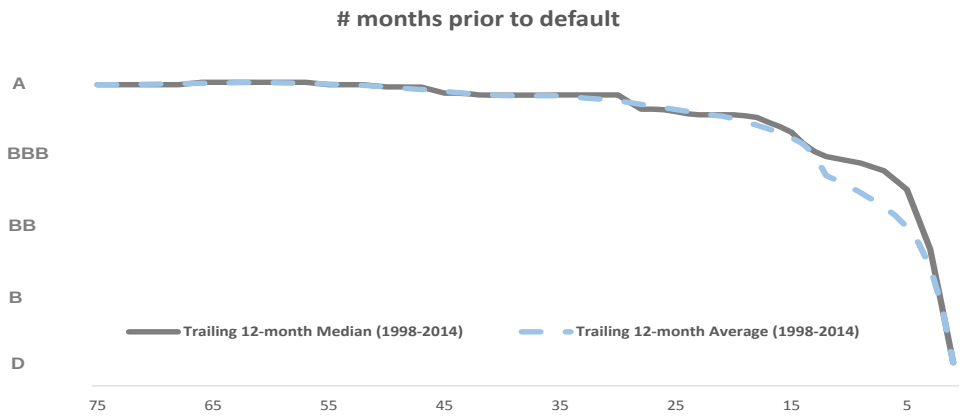
The only defaulted issuer in 2014 – Kinsteel Bhd – took more than seven years to default from its initial rating of A. It is also the issuer with the longest time to default in MARC's history. For all issuers that defaulted since 2000, the average time to default from original rating was 4.2 years, with a median of 3.4 years. For defaulters in the high-grade category, it took an average 4.3 years to default from their initial rating, with a median of 3.7 years. As expected, high-yield issuers took a shorter time to default, with an average and median of 3.3 years and 1.5 years, respectively.

When examining the average time to default from prior rating bands, MARC's ratings have again proven to be effective in predicting defaults. This can be seen when comparing the time to default between high-grade issuers and high-yield issuers, where it took an average 1.8 years for the former category to default while the latter defaulted in only 0.4 years. This also indicates that most defaulters were downgraded by MARC to the high-yield category prior to default.

Exhibit 25: Average time to default and default rating path (number of months)

Original Band	Defaulted Issuers	Average Months from Original Rating	Median Months from Original Rating
AAA	0	n.a.	n.a.
AA	1	78	78
A	17	50	43
BBB	3	40	18
BB	0	n.a.	n.a.
B	0	n.a.	n.a.
C	0	n.a.	n.a.
High Grade	**18**	**51**	**45**
High Yield	**3**	**40**	**18**
All Corporate	**21**	**50**	**41**

Band Prior to Default	Defaulted Issuers	Average Months from Last Rating	Median Months from Last Rating
AAA	0	n.a.	n.a.
AA	0	n.a.	n.a.
A	2	22	22
BBB	4	9.75	10
BB	5	1	1
B	2	16	16
C	8	2	1
High Grade	**2**	**22**	**22**
High Yield	**19**	**5**	**4**
All Corporate	**21**	**7**	**6**



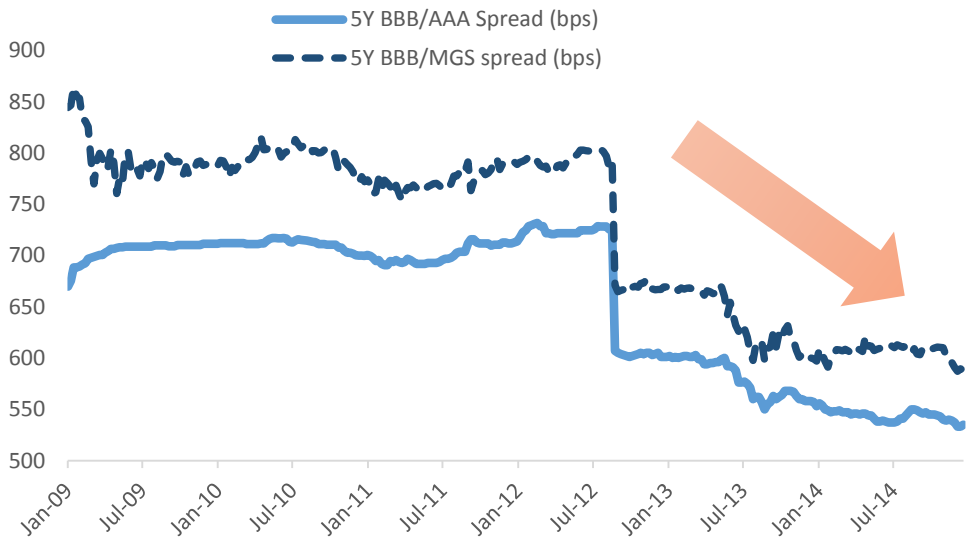
Source: MARC Fixed Income Research

Defaults Are Expected to Remain Low in 2015

In 2015, we expect corporate defaults to remain low. Notwithstanding this, we continue to envisage negative rating activities to outpace the positive ones in view of rising leverage among corporations, in particular those with substantial debt denominated in foreign currency. Other factors include the weaker prospects of the ringgit and potentially higher financing costs that could weaken corporate credit strength. As such, we do not rule out the possibility of rating drift – defined as the upgrade rate minus the downgrade rate and default rate – staying negative in tandem with a lower real GDP growth forecast for 2015.

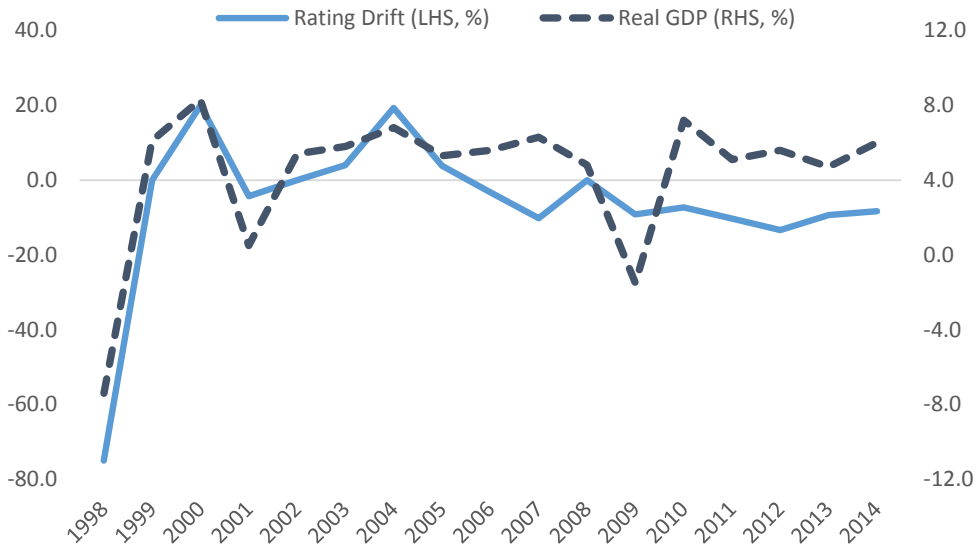
Meanwhile, we maintain a cautious outlook on (1) corporates that are mainly involved in commodities, particularly in the crude palm oil and oil & gas segments, given the unfavourable outlook on commodity prices over the near term, and (2) property and construction companies as we expect the overall property market to slow down amid a less sanguine economic outlook as well as compressed margins due to the implementation of the Goods and Services Tax.

Exhibit 26: Narrowing high-yield spread



Source: BPAM, MARC Fixed Income Research

Exhibit 27: Rating drift vs. real GDP



Source: BNM, MARC Fixed Income Research

Appendix I: Data and Methodologies

This long-term corporate default and rating transition study uses MARC's database of local currency issuer credit ratings which reflect MARC's independent opinion of an issuer's ability to meet its debt obligations. The likelihood of default is indicated by the rating migration assigned to the affected issuers, the rating outlook attached as well as the watchlist assigned. To truly reflect an issuer's standalone credit rating, issuing subsidiaries and affiliates were removed where their ratings have a direct relation to their parent company ratings and are being rated on par with the parent's. Issuers with multiple debt lines were consolidated to only one rating; moreover, senior unsecured long-term ratings or, in the absence of this, the highest-rated security lines were used. This study excludes short-term ratings and all structured finance issuers. Meanwhile, issuers which are domiciled in foreign countries are also eliminated in our study due to the constraints of using a local rating scale. In addition, issuers with bank or corporate guarantees are also excluded as this study aims to analyse the standalone corporate default risk.

This study analyses the rating histories of 240 corporate issuers that were rated by MARC between 1996 and 2014. In the previous default studies, MARC conducted its annual default study based on the number of issuers in line with international practice. Due to sample size constraints, each study reported all statistics beginning December 1997, hence ensuring consistency in the statistical reporting. Data enhancement efforts which are being continuously carried out to ensure a certain degree of transparency and integrity may lead to different outcomes from one report to another. This study is self-contained and should supersede previous ones. A major challenge to this study is the extremely small sample size, particularly in high-yield ratings; as a result, some of the statistics could not be divided for high-grade and high-yield analysis as the small number of observations would be statistically inconclusive.

MARC's long-term rating scale has a single 'C' rating level between 'B-' and 'D', compared to global rating agencies which typically have three intermediate categories i.e. 'CCC', 'CC' and 'C'. Also, within the three categories, the practice is to append modifiers (+/-) or 1, 2, and 3 to each generic rating.

Default Definition

(Specifically prescribed for MARC's Default and Rating Transition Study: 1996-2014)

- Issuers will be rated 'D' upon default. Distressed obligations typically are rated along the continuum of 'B' to 'C' rating categories. In situations where analysis indicates that an instrument is irrevocably impaired where the issuer is not expected to meet payments of interest and/or principal in full in accordance with the terms of the obligation's documentation during the life of the transaction, but where no payment default in accordance with the terms of the documentation is imminent, the obligation may be rated in the 'B' or 'C' categories.

- MARC will assign default ratings where it has reasonably determined that payment has not been made on a material obligation in accordance with the requirements of the obligation's documentation, or where it believes that a default rating consistent with MARC's published definition of default is the most appropriate rating to assign.

- Default is defined as one of the following:

  - ✓ Failure of an issuer/obligor to make timely payment of principal and/or interest under the contractual terms of the rated financial obligation (first dollar missed payment basis);

  - ✓ Bankruptcy filings, administration, receivership, liquidation, winding-up or cessation of business of an issuer/obligor; or

  - ✓ Distressed or other coercive exchange of a rated financial obligation, where creditors were offered securities with diminished structural or economic terms compared with the existing financial obligation of the issuer/obligor.

Default Rate Calculation

- The default rate calculation used in MARC's Corporate Default Study is given by the following formula:

$$d_t = x_t / (n_{t-1} - w_{t-1})$$

Where x_t is the number of defaulted issuers in year t, w_{t-1} is the number of rating withdrawals in the preceding year and n_{t-1} is the number of outstanding ratings at the end of preceding year and adjusted for previous defaults.

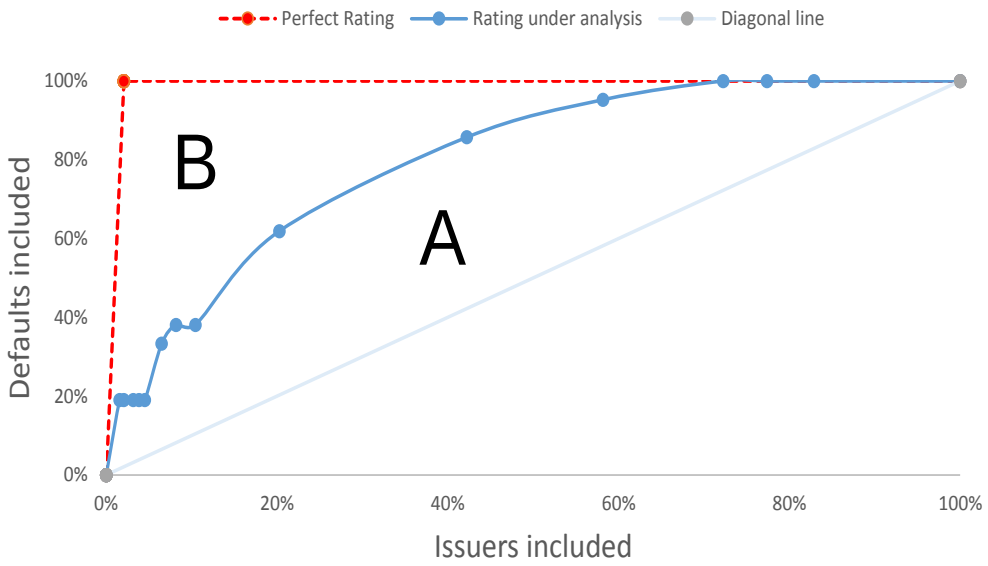
- The denominator reflects issuers whose ratings were withdrawn and therefore not at risk of default over the measurement period. Hence, there are three possible scenarios that need to be modelled to predict the default rate under the scope of MARC's Corporate Default Study: survival to the next time period, rating withdrawal and defaulted issuer.

CAP and accuracy ratio

To construct the CAP graph, the rating and default data are arranged from the lower rating category (B & below) to the highest category (AAA). Subsequently, the fraction of all defaulters that occurred among borrowers rated B & below are plotted against the fraction of all issuers that are rated B & below. This gives us the first point of the curve. Similarly, the second point of the curve is obtained by plotting the fraction of all defaulters that occurred among borrowers rated B+ & below against the fraction of all issuers that are rated B+ & below. Then, the cumulative share of defaulters are plotted again against the cumulative share of issuers by rating until all issuers and defaulters are included (AAA & below).

If MARC's rating methodology does not differentiate credit risk profile at all, then the CAP curve would lie along the diagonal line (45-degree straight line). In this case, its accuracy ratio, which summarises the statistical information in the CAP curve, would be 0%. In contrast, if MARC's rating methodology perfectly ranks issuers according to default risk, all default cases would only occur among the worst rating category. In this case, the CAP would capture all areas above the diagonal line and the accuracy ratio would be equal to 100%. We compute the accuracy ratios by dividing the area A (MARC's rating under analysis) over area A + B (perfect rating model).

Exhibit 28: CAP curve



Appendix II: Details on 2014 Rating Migrations

Principle	Main Sector	Issuer	Date Announced	Rating Action	Rating Outlook	Long-Term Rating		Short-Term Rating		Issue Size (MYR mil)	Credit Enhancement
						Before	After	Before	After		
Conventional	Trading/Services	Tesco Stores (M) Sdn Bhd	15-Jan-14	DOWNGRADED	STA	AAA	AA+	MARC-1	MARC-1	3500	cg
Islamic	Industrial Products	Kinsteel Bhd	11-Mar-14	DOWNGRADED		C	D			100	
Islamic	Industrial Products	Kinsteel Bhd	11-Mar-14	DEFAULT		C	D			100	
Conventional	Trading/Services	Tesco Stores (Malaysia) Sdn Bhd	26-Nov-14	DOWNGRADED	NEG	AA+	AA	MARC-1	MARC-1	3500	cg

The rating migration of MARC's unpublished ratings are excluded
Source: MARC Fixed Income Research

Appendix III: 1-year Rating Migrations at Modifier Level

2014	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	C	NR	Default
AAA	**100.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AA+	0.0%	**50.0%**	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%
AA	0.0%	0.0%	**100.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AA-	0.0%	0.0%	0.0%	**88.2%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%	0.0%
A+	0.0%	0.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
A	0.0%	0.0%	0.0%	0.0%	0.0%	**66.7%**	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
A-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**66.7%**	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBB+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**66.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%
BBB-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BB+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BB-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
B+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%
B-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	0.0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%

1998-2014	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	C	NR	Default
AAA	**94.2%**	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	0.0%
AA+	8.9%	**82.1%**	1.8%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	0.0%
AA	0.0%	5.8%	**75.0%**	3.8%	1.9%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.5%	0.0%
AA-	0.0%	0.0%	4.3%	**81.6%**	5.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.8%	0.0%
A+	0.0%	0.0%	0.6%	6.8%	**66.7%**	5.6%	2.5%	0.6%	1.2%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	14.2%	1.2%
A	0.0%	0.0%	0.0%	0.4%	6.7%	**71.7%**	4.9%	0.9%	0.0%	1.8%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	10.8%	2.2%
A-	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	**59.0%**	6.0%	1.0%	2.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	17.0%	5.0%
BBB+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.4%	**47.8%**	13.0%	4.3%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	13.0%	0.0%
BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	**44.4%**	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.8%	11.1%
BBB-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	5.0%	**45.0%**	10.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.0%	15.0%
BB+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**71.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.6%	0.0%
BB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**71.4%**	14.3%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%
BB-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**63.6%**	9.1%	9.1%	9.1%	0.0%	9.1%	0.0%
B+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**40.0%**	20.0%	20.0%	0.0%	20.0%	0.0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**28.6%**	0.0%	0.0%	42.9%	28.6%
B-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	**75.0%**	0.0%	0.0%	12.5%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%

Source: MARC Fixed Income Research

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