Saudi Basic Industries Corporation

Update to credit analysis

Summary

Saudi Basic Industries Corporation’s (SABIC) A1 issuer rating reflects its strong global position in the petrochemical and fertiliser markets that it has built up over the past four decades, as well as its competitive cost position, underpinned by significant economies of scale and access to competitively priced feedstock under long-term contracts with Saudi Arabian Oil Company (Saudi Aramco, A1 stable). These advantages help mitigate the volatility of its predominantly commodity-based petrochemical, fertiliser and steel activities, and significant fluctuations in supply and demand that affect its markets through industry and economic cycles. In addition, since 2010 SABIC has emerged from a period of heavy capital spending and negative free cash flow, leading to increased profitability, reduced debt, and an improved financial profile.

Our baseline credit assessment (BCA) for SABIC is a1, the same level as its long-term issuer rating. While SABIC benefits from strong support and high dependence under our Government-Related Issuer (GRI) methodology, its debt is not guaranteed by the government and the final rating does not benefit from any uplift because the BCA is at the same level as the government of Saudi Arabia bond rating (A1 stable).

Contacts

Rehan Akbar, CFA +971.4.237.9565
VP-Sr Credit Officer rehan.akbar@moodys.com

Berta Serra +971.4.237.9541
Associate Analyst berta.serra@moodys.com

Mario Santangelo +971.4237.9533
Associate Managing Director mario.santangelo@moodys.com

Exhibit 1
Healthy EBITDA margin despite pricing pressure on products and feedstock

[2] Data from 2012-2015 is under Saudi GAAP while data from 2016 onwards is under IFRS.
Source: Moody’s Financial Metrics™

Saudi Aramco and the Public Investment Fund (PIF), one of the Saudi government’s sovereign wealth funds which own a 70% stake in SABIC, signed a share purchase agreement on 27 March 2019 whereby Saudi Aramco agreed to acquire all of PIF’s stake in SABIC for $691 billion. The transaction is currently pending regulatory approvals and we do not expect the acquisition to have any adverse impact on SABIC’s credit quality.
Credit strengths
» Strong market position and competitive low cost base
» Resilient credit profile with strong credit metrics
» Strategic focus on increasing geographic footprint and diversifying into specialty chemicals

Credit challenges
» Exposure to volatility in price of petrochemical products with the industry currently facing pricing pressure
» Geographic concentration with a significant portion of assets located in Saudi Arabia
» Higher input costs in recent years as a result of feedstock and utility price increases in Saudi Arabia. Further structural reforms in Saudi Arabia could lead to cost increases

Rating outlook
The rating outlook is stable reflecting a strong free cash flow profile and SABIC’s ability to accommodate its long-term growth strategy and bolt-on acquisitions while maintaining strong credit metrics through the cycle.

Factors that could lead to an upgrade
At A1, SABIC is already at the country ceiling for Saudi Arabia and unlikely to be rated higher. The rating incorporates the fact that a substantial portion of SABIC’s assets and cash flow generation is concentrated within Saudi Arabia. While SABIC has steadily increased its international assets and investments, we do not anticipate to see upward rating pressure on the company in the near to medium term.

Factors that could lead to a downgrade
The rating could come under pressure if SABIC’s BCA weakens as a result of a sustained markedly weaker operating performance and significantly higher investment spending (such as through large debt-funded acquisitions), leading to a more leveraged capital structure, with Net Debt to EBITDA in the area of 2.0x sustained through the cycle. A downgrade could also be the result of a rating downgrade on the government of Saudi Arabia.

Key indicators

Exhibit 2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues (USD Billion)</td>
<td>39.5</td>
<td>38.1</td>
<td>39.9</td>
<td>45.1</td>
<td>41.9</td>
<td>40.9</td>
<td>39.6</td>
</tr>
<tr>
<td>PP&amp;E (net) (USD Billion)</td>
<td>47.9</td>
<td>46.6</td>
<td>46.1</td>
<td>45.7</td>
<td>45.8</td>
<td>43.0</td>
<td>42.6</td>
</tr>
<tr>
<td>EBITDA Margin %</td>
<td>30.9%</td>
<td>32.4%</td>
<td>32.1%</td>
<td>33.2%</td>
<td>29.6%</td>
<td>24.5%</td>
<td>26.7%</td>
</tr>
<tr>
<td>ROA - EBIT / Average Assets</td>
<td>9.0%</td>
<td>9.3%</td>
<td>10.1%</td>
<td>12.1%</td>
<td>8.9%</td>
<td>6.7%</td>
<td>7.8%</td>
</tr>
<tr>
<td>Debt / EBITDA</td>
<td>2.0x</td>
<td>1.5x</td>
<td>1.4x</td>
<td>1.0x</td>
<td>1.1x</td>
<td>1.4x</td>
<td>1.2x</td>
</tr>
<tr>
<td>EBITDA / Interest Expense</td>
<td>19.9x</td>
<td>24.4x</td>
<td>21.7x</td>
<td>22.6x</td>
<td>18.7x</td>
<td>19.4x</td>
<td>20.8x</td>
</tr>
<tr>
<td>Retained Cash Flow / Debt</td>
<td>19.4%</td>
<td>29.0%</td>
<td>42.0%</td>
<td>49.2%</td>
<td>40.1%</td>
<td>20.6%</td>
<td>36.1%</td>
</tr>
</tbody>
</table>

[2] Data in 2015 is under Saudi GAAP while data from 2016 onwards is under IFRS.
Source: Moody’s Financial Metrics™

Profile
SABIC, headquartered in Riyadh, Kingdom of Saudi Arabia (KSA), is a diversified industrial conglomerate, principally active in petrochemicals, fertilisers, metals and performance plastics, with consolidated revenues of SAR157.2 billion as of last twelve months ending 30 June 2019 (LTM Q2 2019). Established by Royal Decree in 1976, SABIC is 70% owned by the government of Saudi Arabia.
through PIF while the remaining 30% is publicly traded on the Saudi stock exchange. On 27 March 2019, PIF signed a share purchase agreement with Saudi Aramco to sell its 70% stake in SABIC. The transaction is pending regulatory clearance.

Exhibit 3
Revenue split by geography for LTM Q2 2019
$41.9 Billion

Source: Company’s Information

Detailed credit considerations

Strong market position with competitive cost base
SABIC is one of the largest diversified chemical companies globally, focusing on petrochemicals, fertilisers and metals, with reported revenues of SAR157.2 billion as of LTM Q2 2019. SABIC’s global sales production was 49.1 million metric tons (MMT) in 2018 which includes basic chemicals and specialties, polymers, agri-nutrients, and metals. It operates 14 crackers globally, with 11 in KSA. SABIC enjoys leading market shares in a number of basic and intermediate products, including MTBE, ethylene glycol, polycarbonate, polyphenylene ether and methanol, as well as in polyolefins, ranking as one of the leading global producers of polyethylene and polypropylene.

SABIC benefits from a competitive cost position underpinned by the significant economies of scale afforded by its world-scale vertically integrated facilities and by access to competitively priced feedstock sourced under long-term contracts with Saudi Aramco, which has a firm commitment to satisfy SABIC’s domestic feedstock requirements. As a result, despite its primarily commodity based production and the government increase in feedstock prices in 2016, SABIC remains well equipped to withstand sector downturns. SABIC’s cost of ethane and methane in Saudi Arabia was fixed at $0.75/MMBTU up to 2015, after which ethane was increased to $1.75/MMBTU and methane to $1.25/MMBTU. Propane and butane prices are benchmarked to international market prices and constitute a significant portion of total feedstock cost.

Resilient credit profile with strong credit metrics
With almost all of its production related to commodity products (chemicals, polymers, agri-nutrients and steel), SABIC is largely a price-taker and remains highly exposed to product and industry cycles, with EBITDA generation affected by swings in supply/demand balances. The company however has demonstrated a degree of resilience through the cycle, with Moody’s adjusted EBITDA margin remaining range bound between 28%-33% from 2012 to 2018.

SABIC reported strong profitability in the second half of 2017 and 2018 due to the increase in oil prices. However, petrochemical prices have been under pressure in 2019 because of increased capacity of ethylene derivatives coming online in US and China as well as due to a weaker global growth outlook. SABIC’s adjusted EBITDA margin in H1 2019 weakened to 27% from 33% in 2018, and there are downside risks for further margin pressure.

The company’s large cash holding and overall low debt level relative to cash flow generation however provide resilience to the credit profile and afford it significant financial flexibility. Despite maintaining a relatively high dividend payout, SABIC has reduced gross debt significantly since 2010. Net Debt to EBITDA on a Moody’s adjusted basis is at a cyclical low of 0.1x in LTM Q2 2019, down from a peak of 2.1x in 2009. The low net debt leverage reflects a substantial adjusted cash position of SAR45.9 billion of which about 65% is held
at head office, compared to total adjusted debt of SAR50.9 billion (SAR48.6 billion of reported debt) as of 30 June 2019. Even with a
cyclical trough in some of the chemical products, SABIC should be able to maintain strong credit metrics.

**Strategic focus on increasing geographic footprint and diversifying into specialty chemicals**

Over the years, SABIC has diversified its operations geographically outside its core position in the Arabian peninsula, acquiring DSM’s petrochemicals business in 2002, Huntsman Petrochemicals in 2006, GE Plastics in 2007, partnering up with Sinoppec in Tianjin, China in 2009 to build a presence in China and Europe and to further advance its specialty portfolio, as well as acquiring a 24.99% stake in Clariant in 2018.

One of SABIC’s focus areas is to expand operations to support KSA’s downstream industrial diversification strategy. These efforts include (1) the $3.4 billion Saudi Elastomers project in the Al-Jubail Petrochemical Company (Kemya) facility in Jubail, which is a joint venture with Exxon Mobil that produces synthetic rubber and is now fully operational; (2) an agreement with Ma’aden and Mosaic to jointly develop a fully integrated phosphate production facility which became operational in the second half of 2017; and (3) SAMAC, a 50%/50 joint venture with Mitsubishi Rayon that built a methyl methacrylate (MMA) plant and a polymethylmethacrylate (PMMA, also known as acrylic plastic) plant in Jubail which started commercial operations in April 2018. In November 2017, SABIC announced a partnership with Saudi Aramco to conduct feasibility study on developing the world’s largest crude-oil-to-chemicals (COTC) complex in Saudi Arabia and in April 2018, the project management and front-end engineering and design (FEED) contract was awarded.

Outside of KSA, the company in the first quarter of 2017 converted its Teesside UK cracker to use low cost ethane feedstock imported from the US under a long-term contract. In high end plastics, the company is focusing on a new polycarbonate plant in China as an expansion of its joint venture with Sinoppec (SSTPC), and in October 2017 the project was awarded the Engineering Procurement and Construction contract. In July 2015, SABIC announced the establishment of SABIC SK Nexlene Company - a 50%/50 joint venture with SK Global Chemical Co. (Baa1 negative). The joint-venture company has a 230,000 tonne production capacity of high-performance polyethylene products in South Korea and will look to expand capacity further in the future.

These geographic moves are aligned with the group’s strategy to diversify into specialty products and expand along the chemical chain to reduce exposure to the volatile commodity petrochemical cycle. In addition to its production facilities, SABIC enjoys an extensive commercial and distribution infrastructure to reach a large and diverse customer base, including the growth markets of China and Asia.

**Capital expenditure to remain steady in the near-term but contemplated large scale projects could require significant funding**

SABIC completed a major five year capital spending programme in 2011, investing more than SAR115 billion ($31 billion) to commission large new production facilities, including Yansab, Sharq and Saudi Kayan, and to ensure further volume growth. We expect current near-term capital expenditure to be in line with historical levels at around 8%-10% of sales. However, capex would materially increase if the COTC project with Saudi Aramco reaches Final Investment Decision (FID) stage and would require the utilisation of both balance sheet cash and debt funding.

In May 2018, SABIC announced a new joint venture with ExxonMobil to develop a 1.8 million tonne ethane cracker in the US. All related regulatory approvals were obtained in June 2019 and the plant is expected to be operational in 2022. In September 2018, SABIC signed a memorandum of understanding with China’s Fujian provincial government to develop a world scale petrochemical complex in Fujian. While the exact costs of these projects have not been finalized, we expect that these multi-billion dollar projects are likely to be executed in a phased manner such that SABIC’s liquidity and balance sheet is not put under severe stress.

**Supportive government role in Saudi Arabia**

The government of Saudi Arabia does not explicitly guarantee SABIC’s debt, nor can the company be viewed as an agency-like arm of the government, despite fulfilling a strategically important mandate. At the same time, SABIC benefits from a supportive environment in Saudi Arabia, with five out of its nine board members (including its Chairman and Vice Chairman/CEO) directly appointed by PIF. It enjoys competitively priced feedstock and access to long-term funding from government-related agencies to support the financing of projects. It also benefits from the favourable tax treatment accorded to corporate entities in KSA, which keeps its effective tax rate low.

We assume strong government support for SABIC based on its ownership and instrumental role in supporting the diversification of KSA’s economy and job creation in the non-oil sector. High dependence takes account of the strong links between SABIC and its
majority owner. The 30% listed stake represents an effort to broaden share ownership but does not weaken government oversight of SABIC in our view.

**Environmental, social and governance considerations**

Chemicals is among 11 identified sectors with elevated credit exposure to environmental risk. For SABIC, these risks are mitigated by its good track record in environmental compliance and solid operational capabilities. The company has procedures in place to comply with regulations and monitor pollutants released into the air, water and soil during production. The company continues to invest in processes to reduce environmentally harmful substances and minimize impact on the environment.

In terms of governance, SABIC has a very conservative financial policy as evidenced by its low leverage and substantial cash balances. The government is the majority shareholder and its interests are aligned with that of the company.

**Liquidity analysis**

SABIC demonstrates an excellent liquidity profile, underpinned by a solid cash balance and a well-distributed debt maturity profile. As of 30 June 2019, SABIC reported SAR45.9 billion in cash and short-term investments while gross debt stood at SAR48.6 billion (including operating lease liability under IFRS 16). We forecast cash flow from operations to be in excess of SAR36 billion over the next twelve months.

Moreover, the company has access to a $2 billion (SAR7.5 billion) revolving credit facility at the SABIC Capital B.V. level maturing in December 2020 that was fully undrawn as of 30 June 2019. Even with a more severe downturn in the operating environment, SABIC has significant flexibility to service its financial obligations from internal cash sources. We expect capital expenditure in the near term to be in line with historical levels at around 8%-10%.

**Structural considerations**

SABIC has part of its debt secured and/or located at the level of its operating subsidiaries and affiliates. Such levels of structurally senior or secured debt would normally warrant consideration of notching down the senior unsecured obligations at the parent company. However, we take the view that all SABIC creditors ultimately benefit from the same level of credit enhancement derived from its KSA ownership and therefore do not notch the rating at this time. In addition, a material portion of SABIC’s cash balance sits at the head office, providing it ample liquidity to service corporate level debt.
## Rating methodology and scorecard factors

### Exhibit 4

<table>
<thead>
<tr>
<th>Factor 1: Scale (15%)</th>
<th>Measure</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Revenue (USD Billion)</td>
<td>$41.9</td>
<td>A</td>
</tr>
<tr>
<td>b) PP&amp;E (net) (USD Billion)</td>
<td>$45.8</td>
<td>Aaa</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 2: Business Profile (25%)</th>
<th>Measure</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Business Profile</td>
<td>Aa</td>
<td>Aa</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 3: Profitability (10%)</th>
<th>Measure</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) EBITDA Margin</td>
<td>29.6%</td>
<td>A</td>
</tr>
<tr>
<td>b) ROA (Return on Average Assets)</td>
<td>8.9%</td>
<td>Ba</td>
</tr>
</tbody>
</table>

### Factor 4: Leverage & Coverage (30%)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Debt / EBITDA</td>
<td>1.1x</td>
</tr>
<tr>
<td>b) RCF / Debt</td>
<td>40.1%</td>
</tr>
<tr>
<td>c) EBITDA / Interest Expense</td>
<td>18.7x</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 5: Financial Policy (20%)</th>
<th>Measure</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Financial Policy</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

### Rating:

| a) Indicated Outcome from Scorecard | A1 |
| b) Actual Rating Assigned | A1 |

### Government-Related Issuer Factor

| a) Baseline Credit Assessment | A1 |
| b) Government Local Currency Rating | A1 |
| c) Default Dependence | High |
| d) Support | Strong |
| e) Final Rating Outcome | A1 |


[3] This represents Moody’s forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody’s Financial Metrics™

## Ratings

### Exhibit 5

<table>
<thead>
<tr>
<th>Category</th>
<th>Moody’s Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAUDI BASIC INDUSTRIES CORPORATION</strong></td>
<td></td>
</tr>
<tr>
<td>Outlook</td>
<td>Stable</td>
</tr>
<tr>
<td>Issuer Rating</td>
<td>A1</td>
</tr>
<tr>
<td><strong>SABIC CAPITAL II B.V.</strong></td>
<td></td>
</tr>
<tr>
<td>Outlook</td>
<td>Stable</td>
</tr>
<tr>
<td>Bkd Senior Unsecured</td>
<td>A1</td>
</tr>
<tr>
<td><strong>SABIC CAPITAL I B.V.</strong></td>
<td></td>
</tr>
<tr>
<td>Outlook</td>
<td>Stable</td>
</tr>
<tr>
<td>Bkd Senior Unsecured -Dom Curr</td>
<td>A1</td>
</tr>
</tbody>
</table>

Source: Moody’s Investors Service
## Appendix

### Exhibit 6
Peer comparison table

<table>
<thead>
<tr>
<th>Saudi Basic Industries Corporation</th>
<th>BASF (SE)</th>
<th>Dow Chemical Company (The)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in US millions)</td>
<td>A1 Stable (a1 BCA)</td>
<td>A1 RUR-DNG</td>
</tr>
<tr>
<td>FYE Dec-17</td>
<td>FYE Dec-18</td>
<td>LTM Jun-19</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Revenue</td>
<td>$39,934</td>
<td>$45,093</td>
</tr>
<tr>
<td>EBITDA</td>
<td>$12,829</td>
<td>$14,960</td>
</tr>
<tr>
<td>Total Debt</td>
<td>$17,694</td>
<td>$15,196</td>
</tr>
<tr>
<td>Cash &amp; Cash Equiv.</td>
<td>$16,903</td>
<td>$13,970</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>32.1%</td>
<td>33.2%</td>
</tr>
<tr>
<td>ROA - EBIT / Avg. Assets</td>
<td>10.1%</td>
<td>12.1%</td>
</tr>
<tr>
<td>EBITDA / Int. Exp.</td>
<td>21.7x</td>
<td>22.6x</td>
</tr>
<tr>
<td>Debt / EBITDA</td>
<td>1.4x</td>
<td>1.0x</td>
</tr>
<tr>
<td>RCF / Debt</td>
<td>42.0%</td>
<td>49.2%</td>
</tr>
</tbody>
</table>


Source: Moody's Investors Service

### Exhibit 7
Debt adjustment breakdown

<table>
<thead>
<tr>
<th>Saudi Basic Industries Corporation</th>
<th>(in US Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FYE Dec-14</td>
</tr>
<tr>
<td>As Reported Debt</td>
<td>22,560</td>
</tr>
<tr>
<td>Pensions</td>
<td>2,925</td>
</tr>
<tr>
<td>Operating Leases</td>
<td>1,852</td>
</tr>
<tr>
<td>Moody's-Adjusted Debt</td>
<td>27,337</td>
</tr>
</tbody>
</table>

[1] All figures are calculated using Moody’s standard adjustments. FYE = financial year. LTM = Last 12 months.

[2] SABIC implemented IFRS 16 in January 2019 and an operating lease liability has been recognised in the balance sheet. Therefore, we have removed our adjustment from 2019 onwards.

[3] Data from 2014-2015 is under Saudi GAAP while data from 2016 onwards is under IFRS.

Source: Moody's Investors Service

### Exhibit 8
EBITDA adjustment breakdown

<table>
<thead>
<tr>
<th>Saudi Basic Industries Corporation</th>
<th>(in US Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FYE Dec-14</td>
</tr>
<tr>
<td>As Reported EBITDA</td>
<td>14,026</td>
</tr>
<tr>
<td>Pensions</td>
<td>0</td>
</tr>
<tr>
<td>Operating Leases</td>
<td>436</td>
</tr>
<tr>
<td>Unusual</td>
<td>0</td>
</tr>
<tr>
<td>Non-Standard Adjustments</td>
<td>-245</td>
</tr>
<tr>
<td>Moody's-Adjusted EBITDA</td>
<td>14,217</td>
</tr>
</tbody>
</table>

[1] All figures are calculated using Moody’s standard adjustments.

[2] SABIC implemented IFRS 16 in January 2019 and an operating lease liability has been recognised in the balance sheet. Therefore, we have removed our adjustment from 2019 onwards.

[3] Data from 2014-2015 is under Saudi GAAP while data from 2016 onwards is under IFRS.

Source: Moody’s Investors Service
MOODY’S INVESTORS SERVICE

MOODY’S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES (“MIS”) ARE MOODY’S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY’S PUBLICATIONS MAY INCLUDE MOODY’S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY’S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE MOODY’S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY’S RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY’S OPINIONS INCLUDED IN MOODY’S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY’S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY’S ANALYTICS, INC. CREDIT RATINGS AND MOODY’S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY’S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY’S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY’S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY’S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY’S CREDIT RATINGS AND MOODY’S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY’S CREDIT RATINGS OR MOODY’S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY’S PRIOR WRITTEN CONSENT.

CREDIT RATINGS AND MOODY’S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY’S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided “AS IS” without warranty of any kind. MOODY’S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY’S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY’S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody’s publications.

To the extent permitted by law, MOODY’S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY’S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY’S.

To the extent permitted by law, MOODY’S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY’S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY’S IN ANY FORM OR MANNER WHATSOEVER.

Moody’s Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody’s Corporation (“MCO”), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody’s Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from $1,000 to approximately $2,700,000. MCO and MIS also maintain policies and procedures to address Japanese regulatory requirements.

© 2019 Moody’s Corporation, Moody’s Investors Service, Inc., Moody’s Analytics, Inc. and/or their licensors and affiliates (collectively, “MOODY’S”). All rights reserved.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.

© MOODY’S.