MOODY'S
INVESTORS SERVICE

OUTLOOK
8 November 2017

Rate this Research

Analyst Contacts

Christian de Guzman +65.6398.8327
VP-Sr Credit Officer
christian.deguzman@moodys.com

Serena Wang +65.6398.8334
Associate Analyst
serena.cc.wang@moodys.com

Marie Diron +65.6398.8310
Associate Managing Director
marie.diron@moodys.com

Atsi Sheth +1.212.553.7825
MD-Sovereign Risk
atsi.sheth@moodys.com

Yves Lemay +44.20.7772.5512
MD-Sovereign Risk
yves.lemay@moodys.com

Alastair Wilson +44.20.7772.1372
MD-Global Sovereign Risk
alastair.wilson@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Sovereigns – Global

2018 outlook stable as healthy growth tempers high debt, geopolitical tensions

Our outlook for sovereign creditworthiness in 2018 is stable overall, reflecting our expectations for the fundamental credit conditions that will drive sovereign credit over the next 12-18 months. The benign global sovereign credit environment is reflected in 74% of Moody's-rated sovereigns currently holding a stable rating outlook (see Exhibit 1 overleaf). Our stable outlook overall balances increasingly solid growth momentum in the global economy against ongoing risks from high debt levels and elevated geopolitical tensions.

» **Healthy growth likely to continue into 2018**. Global GDP growth will remain roughly the same as in 2017 at slightly over 3%, and is likely to be more broad-based and sustained than in previous years. The benign economic backdrop provides some insulation against shocks. It will also facilitate the continued normalization of monetary policies, albeit gradually given low inflation levels, which will in turn reduce the risk of financial instability.

» **Prospects for economic and fiscal reform are uneven**. The more benign economic backdrop broadens the window for sovereigns to pursue unpopular or costly economic and fiscal reforms. The longer-term credit impact of the supportive growth environment will depend on how far they manage to do so. As suggested by the small number of sovereigns with positive rating outlooks, we expect that many will focus on addressing short-term vulnerabilities rather than fundamental weaknesses – leaving those with high debt and lower growth susceptible to weakening credit profiles in the event of a downturn.

» **Public debt levels will remain high**. Across all rating categories, government debt burdens will remain high for years to come. While the corresponding exposure to rising interest rates will be tempered by the expected slow pace of normalization and the benign economic conditions that are likely to accompany it, sovereigns with wide deficits and large short-term refinancing needs are most vulnerable to an unexpected rise in yields.

» **Heightened geopolitical risks could undermine the stable outlook for sovereign credit**. The probability of a military conflict in the Korean peninsula has risen, with the potential for far-reaching implications beyond Korea (Aa2 stable). In addition, heightened uncertainty around US (Aaa stable) policy, particularly on trade, could be credit negative for its trading partners. Separately, while political risk has abated in Europe for now, the tensions between Catalunya (Ba3 negative) and Spain (Baa2 stable) illustrate the ongoing risk of highly destabilizing political events.

Exhibit 1

74% of Moody's-rated sovereigns have a stable outlook, 16% a negative outlook (or are on review for downgrade), 10% a positive outlook (as of 8 November 2017)

Source: Moody's Investors Service

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Ratings overview

In line with the benign credit environment that we foresee for sovereigns in 2018, 102 (74%) of the 137 Moody's-rated sovereigns have a stable outlook, and a further 13 (10%) hold a positive outlook (see Exhibit 1). Only 22 (16%) sovereigns have a negative outlook compared with 35 (26%) a year ago, pointing to the likelihood of fewer downward rating adjustments in 2018 compared with 2017.

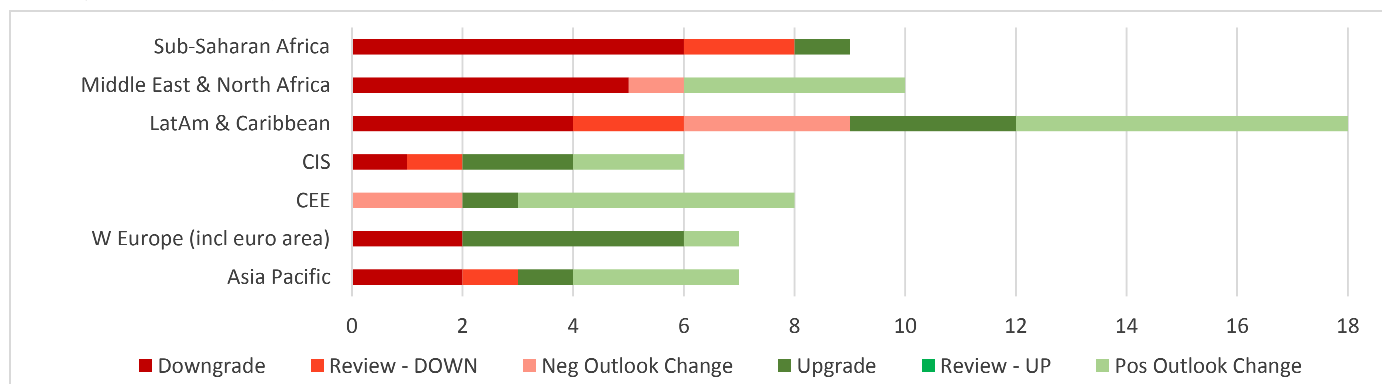
» **Twice as many sovereign upgrades in 2017 (12) as in 2016 (6)**. As shown in Exhibit 2, most of the 12 upgrades in 2017 were concentrated in the euro area (Cyprus (Ba3 positive), Greece (Caa2 positive), Ireland (A2 stable) and Slovenia (Baa1 stable)) and in Latin America (Belize (B3 stable), Dominican Republic (Ba3 stable) and Honduras (B1 stable)). Slovenia and Belize were the only sovereigns that received two-notch upgrades each, both mainly driven by improvements in their respective debt profiles.

» **Almost half as many sovereign downgrades in 2017 (20) as in 2016 (37)**. Most 2017 downgrades were concentrated in Sub-Saharan Africa and the Middle East, as shown in Exhibits 2 and 3. The two regions' most high-profile downgrades included those of South Africa (Baa3 negative) in response to its weakening institutions, declining growth and rising debt, and Qatar (Aa3 negative) due to its weakening external position while the negative outlook reflects the risks arising from the dispute with its GCC neighbours and other countries. Further afield, we downgraded China (A1 stable) to reflect its weakening financial strength and rising debt.

» **Shifts in fiscal strength and event risk drove most rating and outlook adjustments in 2017**, both positive and negative, as shown in Exhibit 4. For example, improvements in fiscal strength drove the upgrade of Slovenia and the change in outlook to positive for Panama (Baa2 positive) in September 2017. To differing degrees, political event risk contributed to our decisions to change the rating outlook to negative for Turkey (Ba1 negative) in March and Brazil (Ba2 negative) in May, downgrade the United Kingdom (Aa2 stable) in September, and maintain the negative outlook on Italy (Baa2 negative) in October.

Exhibit 2

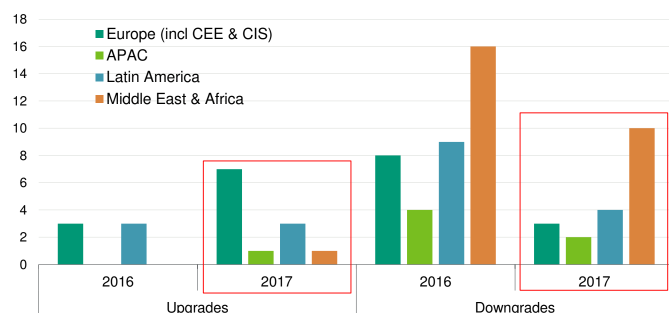
Overall, sovereign downgrades (dark red) still exceeded upgrades (dark green) in 2017[1]
(1 January - 8 November 2017)



Source: Moody's Investors Service

Exhibit 3

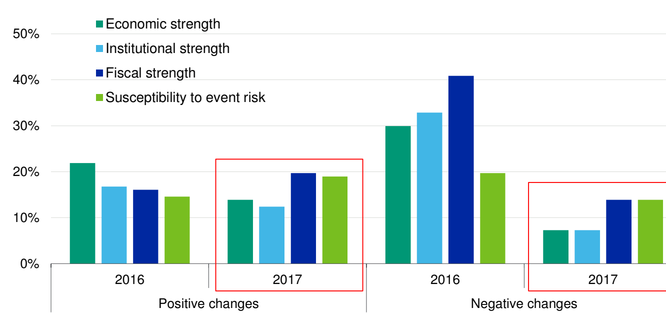
Twice as many upgrades, half as many downgrades in 2017 as in 2016



Source: Moody's Investors Service

Exhibit 4

Most 2017 rating and outlook changes reflected shifts in fiscal strength and event risk



Source: Moody's Investors Service

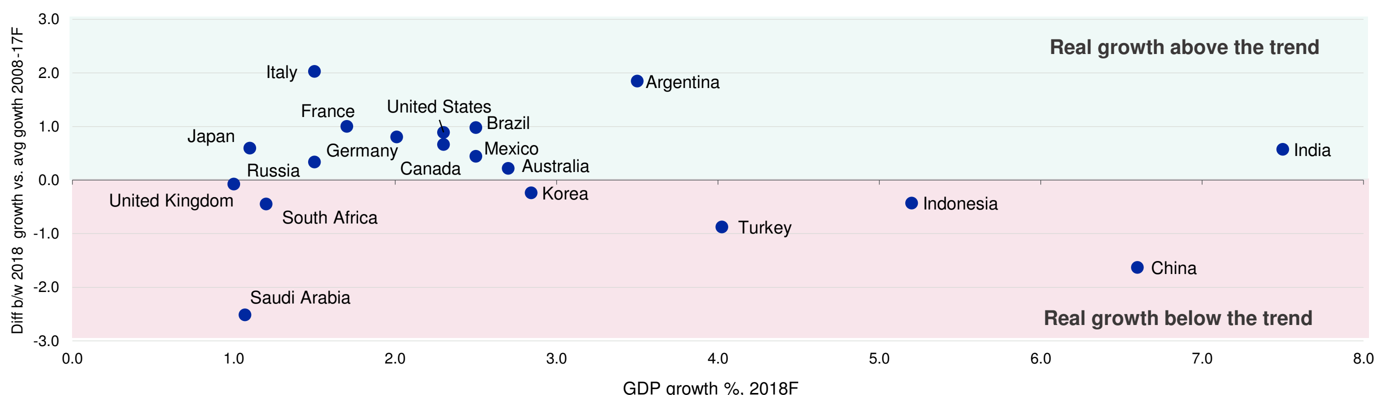
Healthy growth likely to continue in 2018

The macroeconomic environment for sovereigns is more benign than it was a year ago: while we expect global GDP growth in 2018 to remain roughly the same as in 2017 at slightly over 3%, it is likely to be more broad-based and sustained than in previous years. Last year's concerns about reduced cross-border trade did not materialize, allowing 2017 global growth to be stronger than expected, and we expect momentum to be sustained into 2018.

- **Synchronized global economic expansion to continue in 2018, with a few exceptions**. Domestic demand will support above-potential growth in the US, Germany (Aaa stable), and Japan (A1 stable) (see Exhibit 5). Private consumption and business investment are likely to continue underperforming in the UK due to Brexit-related uncertainties, in contrast to the ongoing economic recovery elsewhere in Europe. We also expect GDP growth in China to remain steady as the government prioritizes maintaining employment and financial stability while trying to contain economy-wide leverage. The more favourable backdrop for global trade will continue to benefit very open economies such as Singapore (Aaa stable) and Korea, although the associated recovery in commodity prices is not strong enough to restore robust growth in Saudi Arabia (A1 stable), Russia (Ba1 stable) and other energy exporters. In Africa, growth will accelerate modestly but remain uneven and below recent historical norms.
- **Increasingly benign economic backdrop will drive continued normalization of monetary policies, albeit gradually given low inflation.** Monetary authorities in advanced economies, with the exception of Japan, will start or continue the withdrawal of monetary accommodation – i.e., the increase in policy rates and the unwinding of central banks' balance sheets – after several years of extraordinary easing prompted by the global financial crisis. The unusually low inflation levels across both advanced economies and many emerging markets will keep the pace of the normalization gradual. In particular, we expect continued policy accommodation in 2018 in Brazil and Russia.
- **Normalization is unlikely to pose a broad threat to sovereign credit.** Current ratings incorporate expectations of rate rises. The gradual pace of monetary tightening will dampen the risk of financial instability in economies like Australia (Aaa stable), Canada (Aaa stable), Korea, New Zealand (Aaa stable) and Sweden (Aaa stable), which experienced a large build-up in private-sector indebtedness linked to house price increases amid low interest rates. Across Europe, sovereigns will continue to replace high-cost debt issued during the crisis with lower-yielding debt as monetary policy tightens. In the US, rising rates will harm debt affordability but not to levels inconsistent with the current rating, other things being equal. With the notable exception of China, the increase in private sector indebtedness in emerging Asia has, for the most part, been less marked than prior to the Asian Financial Crisis. It is also denominated, to a much greater extent, in local currency, providing some protection from interest-rate-driven exchange rate adjustments. Moreover, greater exchange rate flexibility than was available during past recoveries will allow some emerging market central banks to tailor monetary policy to their specific needs, instead of moving their policy rates in lockstep with those of advanced economies.

Exhibit 5

We expect above-trend growth in a number of countries in 2018
2018F real GDP growth vs. long-term average, 2008-2017F



Source: Moody's Investors Service

Prospects for reform are uneven, with only modest fiscal consolidation likely

The longer-run credit implications of the supportive growth environment will depend on how far it bolsters sovereigns' efforts to pursue reforms that address long-run vulnerabilities by raising growth or cutting debt. Measures include fiscal reforms to address the costs of ageing populations; labour and product market reforms to enhance and spur growth beyond the current cyclical upturn; and banking sector reforms to alleviate contingent risks and support growth. Progress to date has been patchy (see Exhibit 6). Slow progress leaves many sovereigns more susceptible to a deterioration in their credit profiles in the event of a shock.

» **The healthier macro environment provides some sovereigns additional space to address long-standing structural problems**. Slightly improved growth prospects for China afford the authorities greater latitude to pursue measures to contain system-wide leverage and risks posed by fast growth in the less transparent and regulated shadow banking sector. In Argentina, the ongoing recovery from the recession in 2016, coupled with a strong mandate from the recently concluded mid-term legislative elections, supports our expectation that the government will take steps to more aggressively reduce the fiscal deficit. We also expect ongoing IMF programs for lower-rated sovereigns, including Egypt (B3 stable), Ghana (B3 stable), Sri Lanka (B1 negative) and Mongolia (Caa1 stable), to help improve fiscal consolidation and external liquidity.

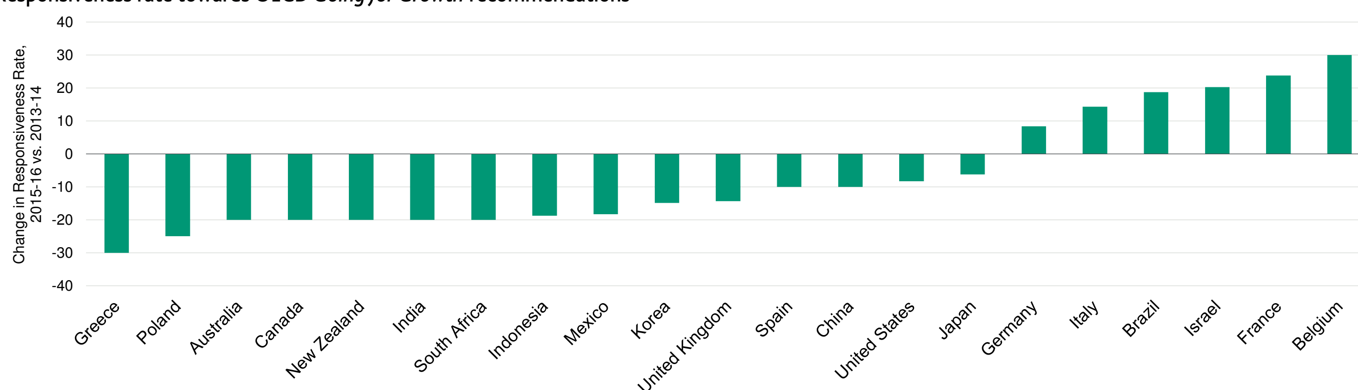
» **Ongoing, though slow-moving, labour market reforms will bolster job creation.** In 2018, Belgium (Aa3 stable) is set to implement the next phase of a multi-year tax reform aimed at further reducing the tax burden on labour, financed in part by increases in other types of revenue, such as taxes on consumption and capital gains. After introducing revisions to its labour code in September 2017 to make the labour market more flexible, the government of France (Aa2 stable) will likely pursue further measures to improve competitiveness, including lower corporate tax rates and lower social contributions from companies and individuals, while simultaneously cutting overall government spending. The focus of Japan's structural reform agenda will shift towards "work style reforms" that would address the gaps between regular and non-regular workers ("equal pay for equal work"), increase minimum wages, curtail overtime, and promote productivity.

» **Efforts to create fiscal space or strengthen fiscal discipline will continue**. The benign environment offers sovereigns the opportunity to reap benefits from tax-broadening measures. In 2018, Saudi Arabia and the UAE (Aa2 stable) intend to introduce a value added tax to help offset the fall of petroleum-related receipts. In the Philippines (Baa2 stable), a tax reform package that the legislature is currently deliberating could enhance funding for the government's infrastructure development program. The recent implementation of a goods and services tax in India (Baa3 positive) could support the adoption of a revised medium-term fiscal consolidation framework in late 2017 or 2018. Brazil's privatization program aims to support compliance with a fiscal rule that prohibits debt financing of current spending, and the government is persisting in its efforts to implement pension reforms that will support the long-run sustainability of government finances.

Exhibit 6

Progress on structural reform has slowed for many large economies in recent years

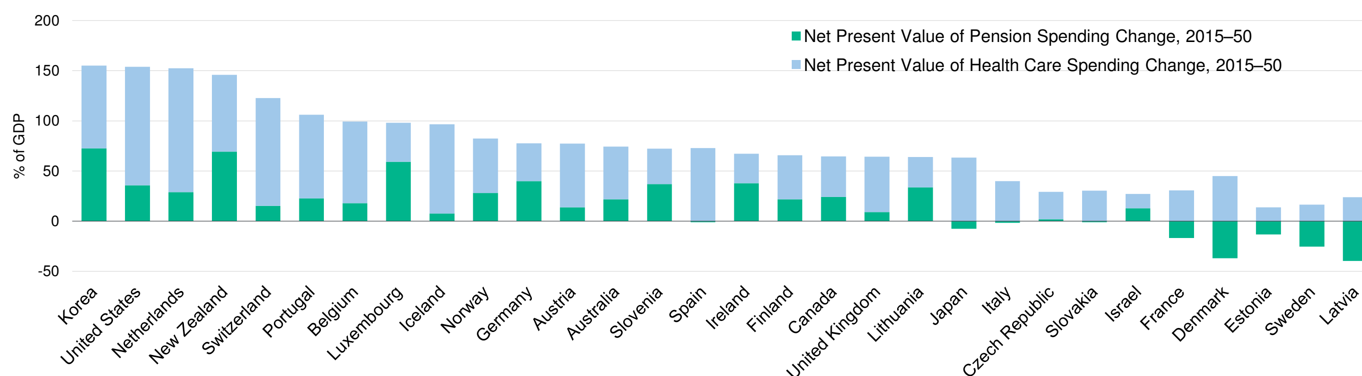
Responsiveness rate towards OECD *Going for Growth* recommendations



Note: The responsiveness rate measures the extent to which countries have followed up with reforms under five policy priority areas to achieve strong and more inclusive growth.
Source: OECD

- **But progress is patchy; political uncertainty and social tensions can weaken the commitment to reform**. The negative rating outlooks for Brazil, South Africa and Turkey reflect in part how electoral trends and corruption scandals have, to different degrees, weakened institutional strength and undermined the reform effort. Even in politically more stable countries, social tensions generated by the uneven distribution of gains from the recovery limit room for manoeuvre on economic, financial and fiscal reforms. In Europe, a number of sovereigns are experiencing a worsening of structural fiscal positions in the face of rising electoral challenges. In the US, the tax reform proposal put forward by the House of Representatives is in line with our previous expectation that tax cuts are unlikely to be offset by equivalent cuts to spending, putting upward pressure on the federal budget deficit. In Chile (Aa3 negative), a permanent increase in spending due to higher demand for better public goods (e.g. education, health, pensions) by the growing middle class has only been partly offset by tax reform, thus contributing to the erosion in the government's debt position. And while our assessment of the credit implications of the Korean government's shift in policy emphasis is neutral, the new administration is also attempting to respond to demands for more inclusive growth through measures such as an increase in the minimum wage and creation of jobs in the public sector.
- **Demographic decline remains largely unaddressed.** Ageing populations are increasingly dampening potential growth, and posing a fiscal challenge given the rising cost of health care and pension entitlements, particularly in developed economies (see Exhibit 7). The rejection of pension reforms in Switzerland (Aaa stable) in mid-2017 and the unresolved debate over healthcare in the US illustrate the difficulty of pursuing reforms in these areas. Meanwhile, in Poland (A2 stable), the lowering of the statutory retirement age in 2017 effectively reverses the previous government's 2013 pension reform, undermining the sustainability of Poland's social security system. In general, while a number of European governments have implemented reforms of pension systems to postpone retirement ages, reduce benefits and/or raise contributions, much less has been done to address the forthcoming sharp increase in healthcare costs. Relatedly, more restrictive immigration policies in the wake of Brexit could undermine already low productivity growth in the UK, while removing an important mitigant to rising old-age dependency ratios.
- **While some banking systems have improved, weaknesses in others will continue to pose contingent liability risks and weigh on economic growth.** Banking systems that were under pressure during the global financial crisis, such as those of Ireland, Spain and Portugal (Ba1 positive), have since strengthened their capital buffers and asset quality. In Italy, the government has stabilized the banking sector, reducing the tail risk of a deeper banking crisis. There and elsewhere, however, challenges remain. In Azerbaijan (Ba2 stable), the high rate of dollarization means that the country's banking system continues to face adjustment difficulties nearly two years after it adopted a flexible exchange rate regime. A legacy of problem loans still burdens banking systems in India and Kazakhstan (Baa3 stable) despite the implementation of reforms in recent years. In late 2017, the Indian government approved a plan to further recapitalize its state banks over the next two years, to be followed by other reforms. Similarly, reforms that strengthen regulation and supervision of the Kazakh banking system are still forthcoming.

Exhibit 7
Many advanced economies face looming costs due to demographic decline
Cumulative long-term spending on pensions and health care



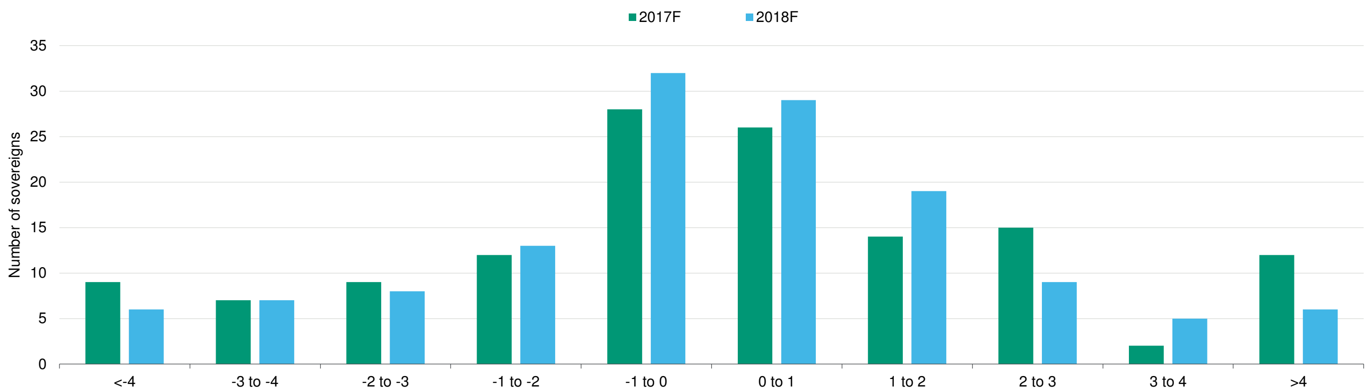
Source: IMF Fiscal Monitor and Moody's Investors Service

Public debt levels will remain high

Overall, important vulnerabilities remain. Economic and fiscal reforms are unlikely to be calibrated so as to enhance growth and reduce debt sufficiently quickly to achieve meaningful reductions of government debt burdens (see Exhibit 8). As growth inevitably wanes over the course of the cycle, the most prominent manifestation of weakness in sovereign credit profiles – high public and private indebtedness – will assume an ever-greater prominence.

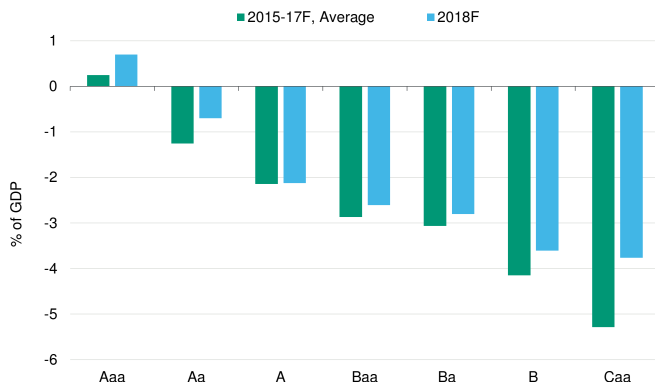
- **Globally, aggregate government indebtedness will amount to around 75% of world GDP in 2018**, which is largely the same level as in 2017, and still far above the 57% recorded in 2008. While that overall profile represents a profound vulnerability to future recessions or other shocks, the picture is at least a broadly stable one. We expect nearly half of all sovereigns' debt burdens to remain within one percentage point of their 2017 position. And while a slight majority will record higher debt ratios in 2018, there are far fewer sovereigns that are subject to increases of four percentage points of GDP or more.
- **Fiscal balances are broadly correlated to rating categories**, with the Aaa median projected to run a small surplus in 2018 (Exhibit 9). That said, we also expect a quite rapid narrowing of deficits and corresponding falls in debt across the lowest-rated countries, many of which saw a deterioration due to the impact of falling commodity prices on government revenue. Each of the four sovereigns projected to have the largest declines in debt to GDP is rated in the B or Caa categories.

Exhibit 8
Government debt burdens will remain largely stable in 2018
Expected change in general government debt/GDP, percentage points



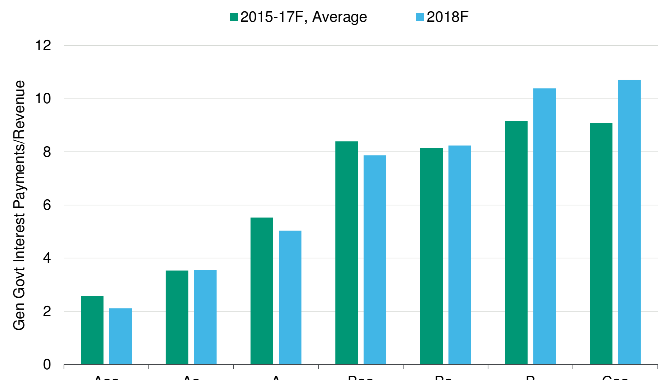
Source: Moody's Investors Service

Exhibit 9
Fiscal balances set to improve across rating categories
Median general government fiscal balances by rating category



Source: Moody's Investors Service

Exhibit 10
Investment-grade sovereigns to continue benefiting from low interest rates
Median debt affordability ratios



Note: Debt affordability ratio as measured by interest payments as a share of gov't revenue.
Source: Moody's Investors Service

» **Lower debt affordability will be offset by benign economic conditions, but will limit fiscal space to respond to shocks.** In an environment of rising interest rates, the absence of balance sheet repair and debt reduction will lead to an erosion of debt affordability. Assuming monetary policy normalization is gradual and accompanied by firmer growth and revenues, the deterioration will be slow. We expect investment-grade sovereigns to continue to benefit from the low interest rate environment in 2018, although the peer medians in the Ba, B, and Caa rating categories reveal credit negative pressures on their debt affordability ratios (see Exhibit 10). But most sovereigns will continue to have very little fiscal space to respond to potential shocks.

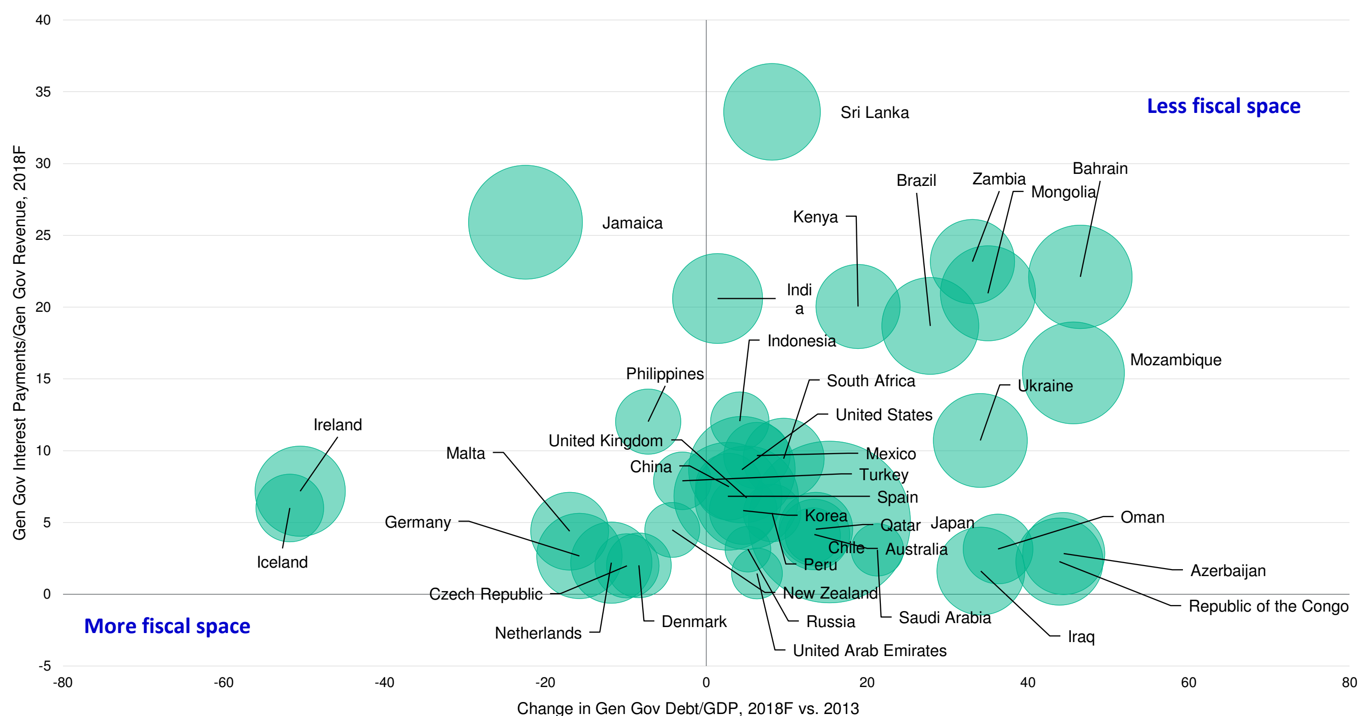
» **A shock to interest rates could weaken sovereign credit profiles.** A shock to confidence and to yields resulting, for example, from a geopolitical event crystallizing unexpectedly would heighten pressures, particularly on those sovereigns with high deficits and debt loads, higher near-term maturities and high economy-wide reliance on external borrowing.

» **Sovereigns with both wide deficits and debt with short average terms to maturity are most vulnerable**. In such cases, higher interest rates will apply both to the refinancing of maturing debts and to new debt issued to finance current shortfalls. Sovereigns with negative outlooks based in part on expectations of further balance sheet deterioration include Bahrain (B1 negative), Brazil, Oman (Baa2 negative) and Kenya (B1 on review for downgrade). By contrast, a sustained fall in indebtedness has led to improved fiscal strength for Iceland (A3 stable) and Ireland (see Exhibit 11).

Exhibit 11

Higher interest rates will pose challenges to debt affordability for some countries in 2018

Five-year change in debt ratio, 2013 to 2018F vs. 2018F interest payments/revenue



Note: Size of circles correspond to Moody's 2018 forecasts for General Government Debt/GDP.

Source: Moody's Investors Service

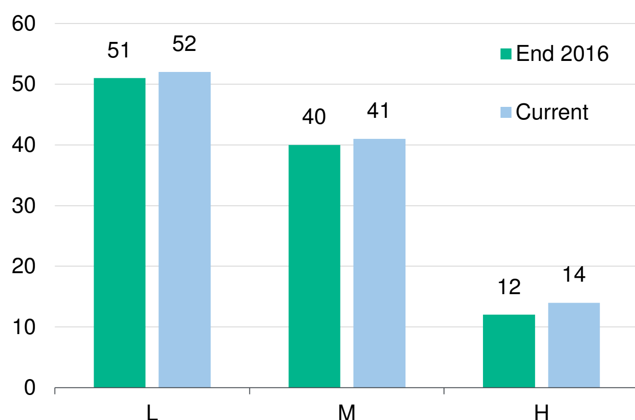
Geopolitical risks could undermine the stable outlook for sovereign credit

Geopolitical risks – representing low-probability but high-impact events – have a higher profile than in recent years. In 2017, we adjusted our assessment of political risks for a number of sovereigns (see Exhibit 12 and 13). Although sovereigns with relatively low geopolitical risk outnumber those facing greater risks, the crystallization of the latter could have implications beyond a particular country's economic and fiscal fundamentals, and affect cross-border capital flows and thus funding conditions for a range of sovereigns.

- **The probability of a conflict in the Korean peninsula has risen, with consequences extending well beyond Korea**. While the credit implications would reflect the intensity of a military escalation, any conflict would damage Korea's sovereign credit profile.[2] Elsewhere, disruptions to trade flows would particularly affect Vietnam (B1 positive), but also other trade-reliant economies given Korea's role as both a source of demand and a node in global supply chains, especially for electronics. For Japan, lower growth as a result of the regional and global impact of a conflict would jeopardize fiscal consolidation efforts. Heightened risk aversion in global financial markets would challenge countries reliant on external sources of financing.
- **Uncertainties around US policy have altered the geopolitical landscape**. In addition to the uncertainty around the prospects for the Korean peninsula, the desire of the US administration to reduce or eliminate bilateral trade deficits could have negative credit implications for its trading partners, including Mexico (A3 negative) and, to a lesser extent, China, Japan and Korea. The US's doubts about the accord that is designed to contain the development of Iran's nuclear weapons could have ramifications within and beyond the Middle East, including for the efforts to prevent conflict with North Korea.
- **The dispute between Qatar and GCC neighbours highlights the elevated susceptibility to event risks in the Middle East**. The stand-off has led GCC neighbours and other countries to impose travel and trade restrictions on Qatar, thereby dampening the country's economic growth, increasing inflation, and leading to capital outflows. Looking ahead, Qatar's decision to file a complaint with the WTO, and the potential for Qatar to realign itself with either Iran and/or Turkey could exacerbate the risk of trade-related or military conflict in the region.

Exhibit 12

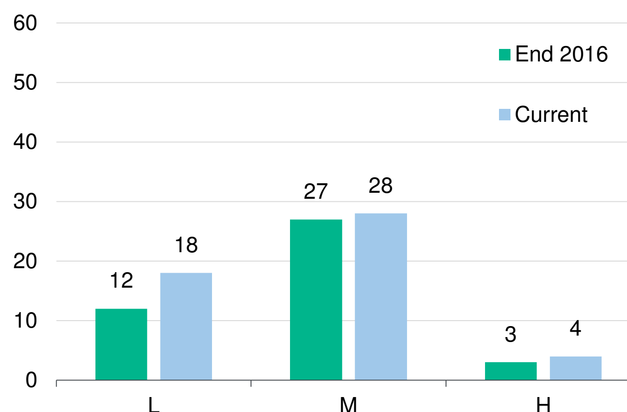
Most sovereigns face low domestic political risk...
(Number of Low, Medium and High scores for this sub-factor)



Note: This chart excludes "Very Low" scores (41 for end 2016 and 38 currently) and "Very High" scores (2 for end 2016 and 1 currently) assigned to sovereigns for the domestic political risk sub-factor.
Source: Moody's Investors Service

Exhibit 13

...while many scores for geopolitical risk are in the medium range
(Number of Low, Medium and High scores for this sub-factor)



Note: This chart excludes "Very Low" scores (105 for end 2016 and 98 currently) and "Very High" scores (2 for end 2016 and 1 currently) assigned to sovereigns for the geopolitical risk sub-factor.
Source: Moody's Investors Service

- **Anti-consensus political movements have not gained electoral traction in western Europe, but the potential for shocks remains**. While negotiations over the UK's plan to exit the European Union continue to be a source of political friction, political developments in Europe in 2017 have been comparatively benign, with elections in France, the Netherlands (Aaa stable) and Germany ceding little ground to anti-establishment, anti-EU parties. Overall, the probability of material financial market dislocation arising from 'exit' fears has diminished somewhat compared to last year. However, the influence granted to anti-establishment parties following elections in Austria (Aa1 stable) and the Czech Republic (A1 stable), and the tensions between Catalunya and Spain over the Catalan government's secessionist aspirations, illustrate the ongoing potential for political events which can distract national reform efforts and at worst threaten economic and financial market dislocation.
- **Prospect of a conflict stemming from Russia's activities near the Baltic region is low but not negligible**. Russia's militarization of its Kaliningrad enclave and its military exercises in the Baltic region have added to the ongoing tensions surrounding Ukraine (Caa2 positive). While the risk of a related military confrontation between Russia and NATO forces remains very low, it has had a fiscal impact via stepped-up military expenditure in Estonia (A1 stable), Latvia (A3 stable) and Lithuania (A3 stable).

Moody's Related Publications

Issuer research

- Government of South Africa: Medium-Term Budget Signals Credit-Negative Change in Policy Direction, 30 October 2017
- Government of United Kingdom: FAQ on fiscal, economic and institutional challenges as Brexit looms, 26 September 2017
- Government of Korea: Extent of negative credit impact of military escalation would depend on containment of conflict, 7 September 2017
- Government of United States of America: Frequently Asked Questions About the Debt Ceiling, 5 September 2017
- Government of Brazil: FAQ on current political turmoil, prospects for social security reform and sovereign credit risk, 18 July 2017
- Government of France: Macron's large parliamentary majority eases the path for structural reform, a credit positive, 19 June 2017

Sector Research

- Cross-Sector – Catalunya and Spain: Declaration of Catalan independence and suspension of region's self-rule are credit negative for Spain and Catalunya, 1 November 2017
- Sovereigns – Global: Vietnam and Japan most exposed to credit impact of a potential Korean conflict, 3 October 2017
- Sovereigns - Asia-Pacific: Export-led upturn largely benefits sovereigns that implement structural reforms, 18 September 2017
- Sovereigns – Gulf Cooperation Council: Drawn-out standoff would be credit negative for all GCC members, but Qatar, Bahrain most exposed, 13 September 2017
- Political Risk - Latin America: Political risk poses major challenges to regional credit prospects, 29 August 2017
- Sovereigns – Asia Pacific: Investment in human capital can offset demographic drag on growth, 13 August 2017
- Cross-Sector – UK: 'No deal' Brexit would be significantly credit negative for some UK-based issuers, 18 July 2017
- Sovereigns – Global: Robotics' Impact on Emerging Market High-Tech Exporters Depends on their Technology Absorption Capacity, 17 May 2017

Selection of key 2017 rating actions on sovereigns

- Moody's downgrades UK's rating to Aa2, changes outlook to stable, 22 September 2017
- Moody's upgrades Ireland's rating to A2, changes outlook to stable from positive, 15 September 2017
- Moody's changes Qatar's rating outlook to negative, affirms Aa3 rating, 4 July 2017
- Moody's downgrades South Africa's rating to Baa3 and assigns negative outlook, 9 June 2017
- Moody's changes outlook on Brazil's Ba2 issuer rating to negative from stable, 26 May 2017
- Moody's downgrades China's rating to A1 from Aa3 and changes outlook to stable from negative, 24 May 2017
- Moody's downgrades Qatar's rating to Aa3 from Aa2 and changes the outlook to stable from negative, 6 May 2017

Rating Methodology

- Sovereign Bond Ratings, 22 December 2016

Endnotes

1 Exhibit 2 takes account of all downgrades, upgrades, reviews for up- or downgrade, and changes in outlook to negative or positive. In addition, for the purposes of counting all *directionally* positive and negative rating actions, we have counted those actions that moved a negative outlook to stable as a 'positive' outlook change, and those that moved a positive outlook to a stable one as a 'negative' outlook change. Confirmations or affirmations that were not also accompanied by an outlook change were not counted.

2 A country's sovereign credit profile is determined by economic strength, institutional strength, fiscal strength, and susceptibility to event risks

© 2017 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY 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. 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.

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 SUCH 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 appraisal and rating services rendered by it fees ranging from $1,500 to approximately $2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1091261

Moody's
INVESTORS SERVICE