

WEEKLY MARKET OUTLOOK

Moody's Analytics Research

Weekly Market Outlook Contributors:

John Lonski
1.212.553.7144
john.lonski@moody's.com

Yukyung Choi
1.212.553.0906
yukyung.choi@moody's.com

Moody's Analytics/Asia-Pacific:

Katrina Ell
+61.2.9270.8144
katrina.ell@moody's.com

Moody's Analytics/Europe:

Barbara Teixeira Araujo
+420.224.106.438
barbara.teixeiraraujo@moody's.com

Moody's Analytics/U.S.:

Ryan Sweet
1.610.235.5000
ryan.sweet@moody's.com

Greg Cagle
1.610.235.5211
greg.cagle@moody's.com

Michael Ferlez
1.610.235.5162
michael.ferlez@moody's.com

Editor
Reid Kanaley
1.610.235.5273
reid.kanaley@moody's.com

Riskier Outlook May Slow Corporate Debt Growth in 2019

[Credit Markets Review and Outlook](#) by John Lonski

Riskier Outlook May Slow Corporate Debt Growth in 2019

>> FULL STORY PAGE 2

[The Week Ahead](#)

We preview economic reports and forecasts from the US, UK/Europe, and Asia/Pacific regions.

>> FULL STORY PAGE 6

[The Long View](#)

Full updated stories and key credit market metrics: New loans graded Baa or lower dipped by 0.7% year-over-year during January-February 2019, to \$97.1 billion.

Credit Spreads

Investment Grade: We see year-end 2019's average investment grade bond spread above its recent 125 basis points. High Yield: Compared to a recent 422 bp, the high-yield spread may approximate 495 bp by year-end 2019.

Defaults

US HY default rate: Moody's Investors Service forecasts that the U.S.' trailing 12-month high-yield default rate will fall from February 2019's 2.7% to 1.7% by February 2020.

Issuance

For 2018's US\$-denominated corporate bonds, IG bond issuance sank by 15.4% to \$1.276 trillion, while high-yield bond issuance plummeted by 38.8% to \$277 billion for high-yield bond issuance's worst calendar year since 2011's 274 billion. In 2019, US\$-denominated corporate bond issuance is expected to rise by 4.3% for IG to \$1.331 trillion, while high-yield supply grows by 11.0% to \$308 billion. A significant drop by 2019's high-yield bond offerings would suggest the presence of a recession.

>> FULL STORY PAGE 10

[Ratings Round-Up](#)

U.S. Upgrades Account for Vast Majority of Affected Debt

>> FULL STORY PAGE 14

[Market Data](#)

Credit spreads, CDS movers, issuance.

>> FULL STORY PAGE 17

[Moody's Capital Markets Research](#) *recent publications*

Links to commentaries on: High-yield, defaults, confidence vs. skepticism fed pause, stabilization, growth and leverage, buybacks, volatility, monetary policy, yields, profits, corporate borrowing, U.S. investors, eerie similarities, base metals prices, trade war.

i THIS REPORT WAS REPUBLISHED MARCH 15, 2019, TO REPLACE "RISE" W/ "FALL"; REPLACE \$217.865T W/ \$17.865T; ADD "HIGH."

>> FULL STORY PAGE 22

Click [here](#) for *Moody's Credit Outlook*, our sister publication containing Moody's rating agency analysis of recent news events, summaries of recent rating changes, and summaries of recent research.

Credit Markets Review and Outlook

By John Lonski, Chief Economist, Moody's Capital Markets Research, Inc.

Riskier Outlook May Slow Corporate Debt Growth in 2019

The latest version of the Federal Reserve's "Financial Accounts of the United States" was released on March 7. As of 2018's final quarter, the total outstandings of private and public nonfinancial-sector debt grew by 5.1% year-to-year to a record high \$51.796 trillion. The year growth rate of the broadest estimate of U.S. nonfinancial-sector debt has slowed from second-quarter 2018's current cycle high of 5.6%. Since the end of the Great Recession, the 3.9% average annualized rise by nonfinancial-sector debt has slightly outpaced nominal GDP's accompanying 3.7% average annual increase.

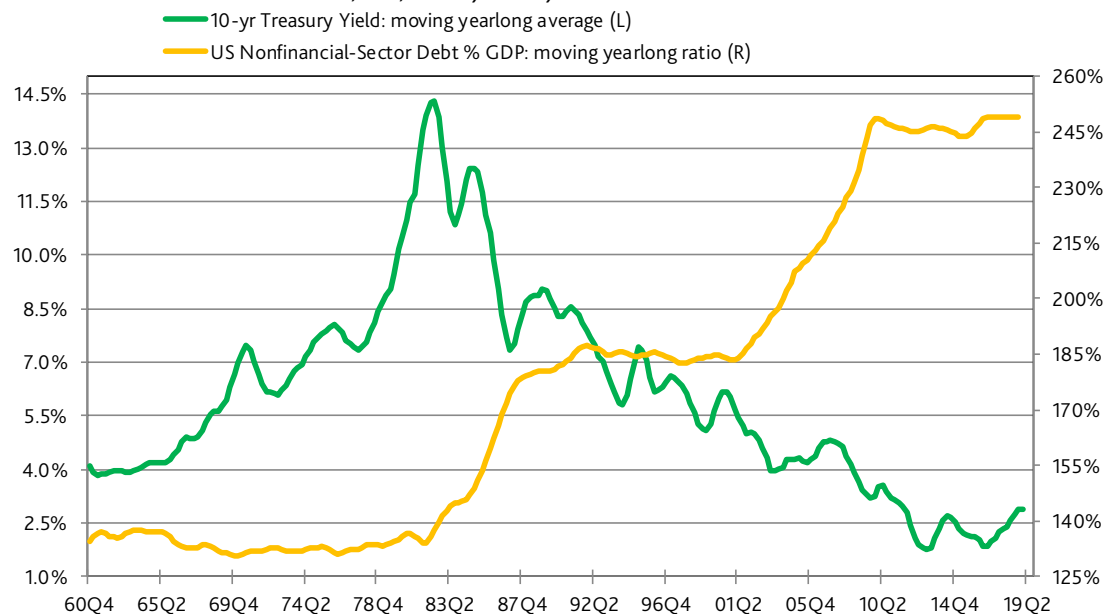
By contrast, during 2002-2007's upturn, the 8.1% average annualized advance by nonfinancial-sector debt was much faster than nominal GDP's comparably measured growth rate of 5.3%. As a result, the moving yearlong ratio of total nonfinancial-sector debt to GDP climbed from the 197% of 2001's final quarter to the 225% of 2007's final quarter. Because of the current recovery's much slower growth of debt vis-a-vis GDP, debt barely rose from second-quarter 2009's 243% to fourth-quarter 2018's 249% of GDP.

Today's near record high ratio of nonfinancial-sector debt to GDP limits the upside for benchmark interest rates. Just as highly leveraged businesses exhibit a more pronounced sensitivity to higher benchmark interest rates, highly leveraged economies are likely to slow more quickly in response to an increase by benchmark rates. Relatively low interest rates do much to lessen the burden implicit to a comparatively high ratio of debt to GDP.

Nevertheless, a powerful enough external shock could force U.S. benchmark interest rates up to levels that shrink business activity considerably. Under this scenario the Fed would be compelled to hike rates in defense of the dollar exchange rate despite how a deterioration of domestic business conditions requires lower rates.

Figure 1: Elevated Ratio of U.S. Nonfinancial-Sector Debt to GDP Helps Rein In Benchmark Interest Rates

sources: Federal Reserve, BEA, Moody's Analytics



Credit Markets Review and Outlook

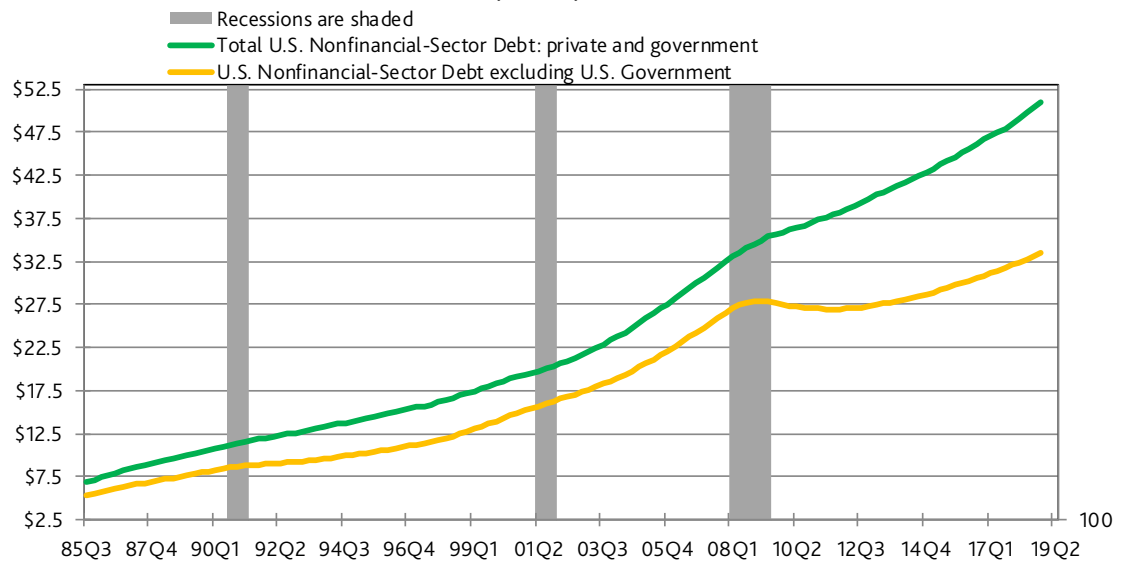
Federal Debt Growth Outruns Other Broad Categories

The federal government has dominated the growth of total nonfinancial-sector debt during the current business cycle upturn. In terms of moving yearlong averages, U.S. government debt's 9.3% average annualized surge has well outrun the accompanying 2.2% growth rate for the sum of private and state and local government nonfinancial-sector debt.

Regarding 2018's final quarter, the outstandings of U.S. government debt advanced by 7.6% annually to \$17.865 trillion. By comparison, household-sector debt rose by 3.1% to \$15.628 trillion, nonfinancial-corporate debt increased by 6.5% to \$9.759 trillion, unincorporated business debt grew by 4.9% to \$5.485 trillion, while state and local government debt shrank by 1.7% to \$3.060 trillion. Thus, fourth-quarter 2018's U.S. nonfinancial-sector debt excluding the obligations of the federal government grew by a modest 3.9% annually. Over the past 10-years, the faster growth of federal government debt compensated for the sluggish debt growth of non-federal borrowers.

Figure 2: Faster Growth of Federal Debt Compensated for Deceleration by Non-Federal Debt's 10-Year Annualized Growth Rate from 8.5% of Span-Ended 2007 to 1.9% of Span-Ended 2018
yearlong averages in \$ trillions

sources: Federal Reserve, NBER, Moody's Analytics

**Projected Default Rate Dips despite New High for Corporate Debt to GDP Ratio**

The average annual increase by U.S. nonfinancial-corporate debt has barely slowed from the 4.2% of 2002-2007's upturn to the 4.0% of the ongoing recovery. For the year-ended December 2018, U.S. nonfinancial-corporate debt approximated a record high 46.6% of nominal GDP. The ratio was 45.1% at June 2009's end to the Great Recession.

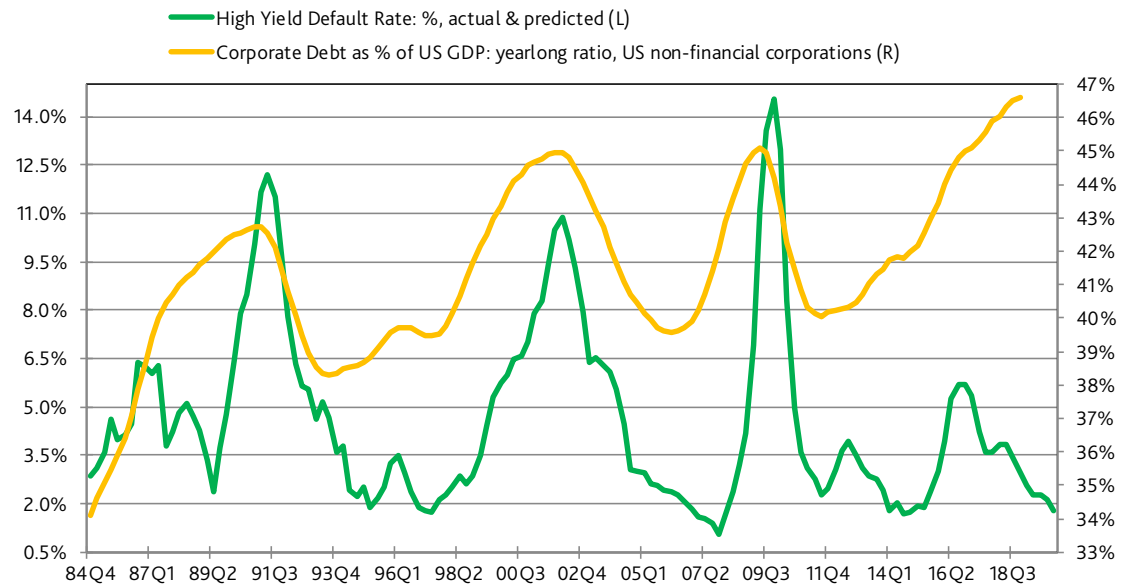
The deleveraging that is common to the early years of a business cycle upturn lowered the yearlong ratio of nonfinancial-corporate debt to GDP to its 40.0% cycle bottom of the span-ended September 2011. By the way, nonfinancial-corporate debt ended 2002-2007's upturn at 42.1% of GDP.

Despite a new record high ratio of nonfinancial-corporate debt to GDP, the high-yield bond spread is relatively narrow and the high-yield default rate is expected to drop by a percentage point over the next 12 months. Expectations of profits growth into 2020 explain why the unprecedented amount of corporate debt relative to GDP has yet to ruin the outlook for corporate credit. A Federal Open Market Committee that refuses to hike rates unless there is no other choice would lend support to the positive outlook for profits.

Credit Markets Review and Outlook

Figure 3: Default Rate Outlook Improves Despite Yet Another Record High Ratio of Corporate Debt to GDP

sources: Moody's Investors Service, Federal Reserve, BEA, Moody's Analytics



Fourth-quarter 2018's record high \$9.759 trillion of outstanding U.S. nonfinancial-corporate debt was up by 6.5% yearly. The yearly growth rate of this metric peaked for the current upturn at the 8.3% of 2015's second quarter, which practically coincided with a breakout of industrial commodity price deflation and a related contraction of core pre-tax profits. The latter helped discourage borrowing and, thereby, slowed the annual increase of nonfinancial-corporate debt to 5.0% by 2016's final quarter.

Nonfinancial-corporate debt will probably further slow from its 7.9% annual increase of 2018's second quarter if only because shareholders are likely to punish companies that boldly heighten leverage amid an aging economic recovery.

Loan Debt Speeds past Bond Debt

A 16.8% year-to-year surge by loan debt (from both banks and non-banks) to a record \$3.519 trillion led fourth-quarter 2018's increase by nonfinancial-corporate debt. Nonetheless, the current upturn's annual increase of such loan debt peaked at the 18.5% of 2018's second quarter.

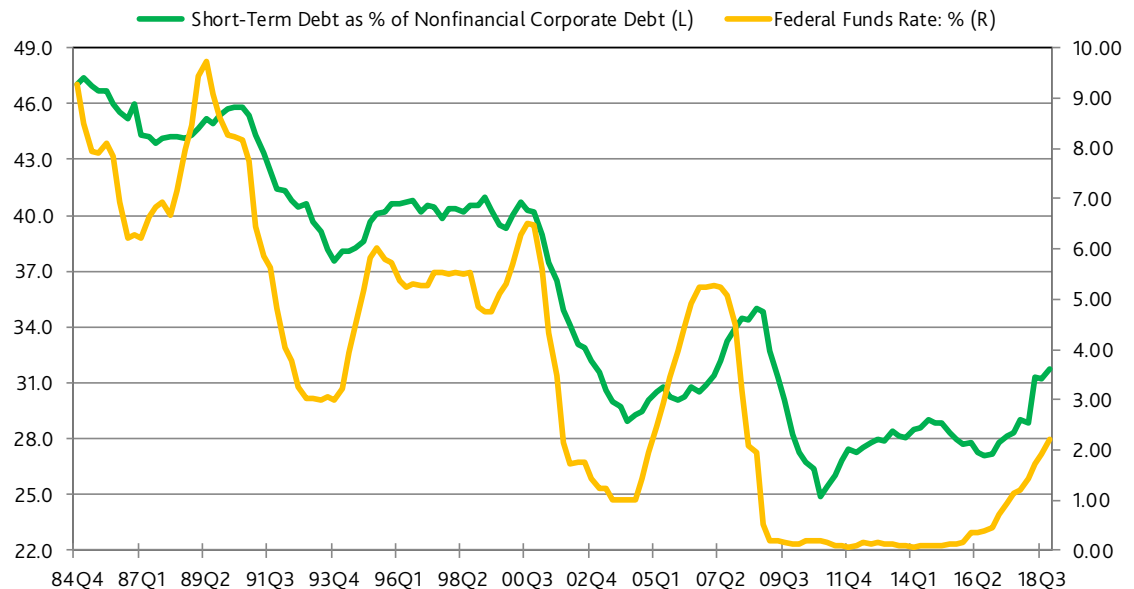
By contrast, fourth-quarter 2018's outstanding bond debt of nonfinancial corporations rose by a much slower 2.2% annually to a record high \$5.497 trillion. In the third quarter, bond debt edged higher by 2.1% from a year earlier. Thus, second-half 2018's annual rise by nonfinancial-corporate bond debt was the slowest since the roughly 1.0% of 2006's second and third quarters.

The much faster growth of loan debt relative to bond debt stemmed from the stronger investor preference for variable-rate loans owing to what had been expectations of at least four more Fed rate hikes. In addition, nonfinancial-corporate borrowers were willing to forgo borrowing at fixed rates in the bond market out of the belief that both short- and long-term interest rates would turn lower by 2022. The relaxation of loan covenants provided high-yield corporate borrowers with an extra incentive to secure funds via the loan market as opposed to the bond market.

Credit Markets Review and Outlook

Figure 4: Short-Term Debt's Share of Nonfinancial-Corporate Debt Shows a Correlation of 0.91 with the Federal Funds Rate

sources: Federal Reserve, Moody's Analytics



The short-term and mostly variable-rate debt of nonfinancial corporations includes loans and commercial paper debt. Since 1984, short-term debt peaked at 47.4% of nonfinancial-corporate debt in 2005's first quarter, or when the federal funds rate averaged a now unimaginable 8.50%. Following the financial crisis, short-term debt bottomed at 24.9% of corporate debt in 2010's final quarter, or when many correctly anticipated a long stay by fed funds at the then 0.125%. In response to previous expectations of an extended climb by fed funds, short-term obligations rose to 31.7% of corporate debt in 2018's final quarter. Short-term debt's share of corporate debt shows a very high correlation of 0.91 with the federal funds rate.

Revised Interest Rate Outlook Favors Slower Loan Growth

The interest outlook has changed considerably from what held throughout much of 2018's second half. Most financial market participants do not believe that the outlook for business activity will improve by enough to warrant a Fed rate hike anytime soon. Nevertheless, the Blue Chip consensus forecast of early March has the quarter-long average of the three-month Treasury bill rate rising from its latest 2.45% to a 2.6% average for 2019's final quarter, which is consistent with a single rate hike for 2019.

As inferred from the CME Group's FedWatch Tool, fed funds futures recently assigned an implicit probability of 20% to a Fed rate cut by the end of 2019. Moreover, a 0% probability was assigned to a Fed rate hike at any FOMC meeting through January 2020.

Perhaps the most important aspect of the upcoming March 20 meeting of the FOMC will be the committee's accompanying "dot chart" projections for the Fed funds rate. At the December 19, 2018 meeting, the FOMC's median forecast called for two rate hikes in 2019. Following the March 20 meeting, a median forecast calling for more than one rate hike in 2019 would raise many eyebrows. That being said, perhaps the FOMC should predict fed funds on the high-side in order to discourage speculative excess in the financial markets.

Because of the much reduced likelihood of a higher fed funds rate through 2020, investor demand for variable-rate loan debt has declined. By itself, that should be enough to slow the growth of loan debt relative to bond debt.

Total nonfinancial-corporate debt's annual increase is likely to slow from the 6.5% of 2018's final quarter to 5.0% by the end of 2019. Only if a contraction by profits forces borrowing higher in order to meet working capital needs might nonfinancial-corporate debt grow by at least 6% annually as of year-end 2019.

The Week Ahead – U.S., Europe, Asia-Pacific

THE U.S.

By Ryan Sweet, Moody's Analytics

FOMC Preview: Putting Pen to Paper

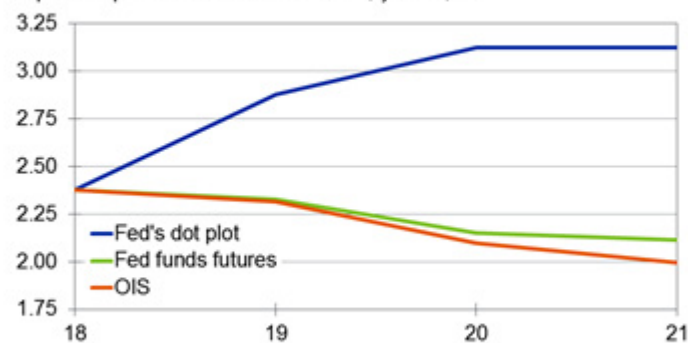
Though the U.S. economy has transitioned from a mid- to late-stage expansion, this expansion has plenty of life left in it. The labor market is strong and shows little sign of overheating and while GDP growth has slowed, it has been orderly. Also, financial market conditions have improved recently, thanks partly to the dovish pivot by the Federal Reserve.

The Federal Open Market Committee meeting next week will put pen to paper on its recent dovish pivot. We expect no changes on interest rates, but there will be plenty of important developments elsewhere, including the updated Summary of Economic Projections and the so-called dot plot.

We expect the median estimate for the fed funds rate to signal no rate hikes this year, compared with the two implied at the December meeting. This would better align the Fed's expectations with the markets'. There is a sizable gap between where the Fed anticipates rates are going and market expectations.

Someone Is Wrong

Expected path of the fed funds rate, yr-end, %



Sources: Bloomberg, Moody's Analytics

This gap will close with the updated dot plot, and we believe the Fed will want to strengthen its patience by showing no hikes anticipated this year. This would be consistent with the Fed's recent rhetoric that has noticeably raised the bar for a hike this year. To lower the median projection from three to no hikes this year, four participants need to remove one hike from their projections, and three more need to remove two hikes. We anticipate that the Fed will signal one hike in 2020.

Before digging more into the Summary of Economic Projections, the post-meeting statement, and possible announcement on the dot plot, we still believe the Fed needs to kill the dot plot. It won't happen at this meeting, but a change sometime this year is possible.

The dot plot was introduced in late 2011, when the Fed was considering how to prepare markets for the shift it hoped to make away from the unprecedented array of monetary support measures it had put in place after the financial crisis.

The objective for the dot plot was to give markets a look into the Fed's thinking beyond any immediate meeting. Given the shift toward more data-dependence, the usefulness of the dot plot has run its course. In fact, it will be difficult to provide any significant clarity or direction on the path of interest rates beyond one or two meetings. Continuing to provide the dot plot, which is often misunderstood,

The Week Ahead

would convey that the Fed has an a priori view of where rates are headed. It also signals that the Fed still plans to turn policy restrictive in 2020, fanning market concerns that the Fed's plan is to hike until something breaks. On the contrary, the interest rate projections are not set in stone and are likely causing the Fed more problems than they are worth.

As for the SEP, the Fed's forecast for GDP growth this year will likely be revised from 2.3% to 2.2%. We don't anticipate any changes to 2020. We don't believe the Fed will make any changes to its GDP forecast for either 2020 or 2021. On the unemployment rate, the new forecasts should show a slightly higher one this year and policymakers could lower their estimate of the non-accelerating inflation rate of unemployment. The key will be the committee's forecast for inflation, which will likely be revised lower for 2019 to just below the 2% objective. We still expect the FOMC to forecast 2% inflation in both 2020 and 2021.

The Fed has been working on altering its plan for the balance sheet, and we anticipate that it will announce its intentions to end the runoff in the fourth quarter of this year, which would put the balance sheet around \$3.6 billion.

We don't anticipate any dissents or significant changes to the statement.

Recapping the week that was

A quick recap of this week. The incoming economic data was mixed. Retail sales rose 0.2% in January but December's drop is more puzzling as it was revised lower. Within the details for January, not a lot makes sense except sporting goods and hobbies, where sales rose 4.8% in January, compared with the 6.1% plunge in December. This retail segment includes toys, and this is the first December and January without Toys R Us. This likely threw off the seasonal adjustment, particularly since spending on toys is seasonal.

There are plenty of head-scratchers. Motor vehicle and parts sales fell 2.4% in January, more than that implied by unit sales and vehicle prices. Because Ford and GM no longer report monthly unit sales, the relationship between units and retail sales could be weaker. Nonstore retail sales rose 2.6% in January, but this follows a 5% drop in December, which is inconsistent with the anecdotes about online shopping during the holidays.

Building material store sales were up 3.3% in January, likely boosted by some favorable weather during the month. This wasn't enough to alter our tracking estimate of real residential investment in the first quarter; it's still on track to fall. Overall, retail sales point toward a 0.4% gain in consumer spending in January, which would put it up 1.5% at an annualized rate. This is a touch stronger than our high-frequency GDP model's estimate of 1.4%.

Durable goods orders rose 0.4% in January. Core capital goods orders were up 0.8% in January, and there were some positive revisions to prior months. Core capital goods shipments also rose by 0.8% in January. The new data on core capital goods orders and shipments are a tentative sign of some improvement in business investment after it weakened in the second half of last year. January durable goods orders boosted our high-frequency GDP model's estimate of real equipment investment this quarter to around 2% at an annualized rate.

New-home sales fell 6.9% in January to 607,000 annualized units but there were favorable revisions to prior months. The trend in new-home sales appears to have firmed slightly. The headline CPI rose 0.2% in February but the core index, which excludes food and energy, came in a little light, rising 0.1%.

All told, our high-frequency GDP model has first quarter growth of 0.6% at an annualized rate.

We will publish our forecasts for next week's data on Monday on [Economy.com](https://www.economy.com).

EUROPE

By Barbara Teixeira Araujo of Moody's Analytics in Prague

Brexit Continues to Dominate

We continue to expect U.K. politics to dominate the headlines in the busy week ahead. According to a motion passed by the parliament Thursday, the withdrawal agreement could be put to yet another vote before next Wednesday. It remains unlikely that parliament would approve it, but if it did, Prime Minister Theresa May would be required to go to Brussels and ask for a short-term, technical extension of Article 50 until June 30. If the deal is rejected, May would likely ask the EU for a long-term extension of article 50 that would allow for the U.K. parliament to find consensus on a different approach to Brexit. EU leaders are expected to discuss and vote on the extension (either a short- or a long-term one) on March 21, during the European Council meeting. Since the vote needs to be unanimous (all 27 EU leaders must agree on an extension), risks remain that a no-deal Brexit would happen by March 29. We don't think this is very likely, though, as no one wants a cliff-edge, disruptive Brexit to occur.

Elsewhere, the Bank of England couldn't have chosen a worst week to hold its March monetary policy meeting. Brexit fog is expected to cloud any decision taken by the monetary policy committee. The consensus is that the MPC will all but stand pat next Thursday. There is no justification for it to act in the midst of the chaos and risk taking the wrong actions. That this meeting won't be accompanied by an update of the bank's forecasts or by a press conference only adds to our view that it will be a snoozer; past experience suggests that the bank only acts when an Inflation Report is published. What's more, most of the MPC's members have given speeches over the past few weeks, and they all had one thing in common: cautiousness. Even Michael Saunders, one of the most hawkish voices in the rate-setting committee, has said that it now makes sense to wait and see how Brexit will unfold before considering any tightening.

Still, that wage growth has picked up considerable momentum over the past few months could support a move by the MPC later in the year, provided that an agreement is found with the EU and growth picks up momentum in line with the fading of uncertainty. Some might argue the recent GDP data adds to the argument. It showed that GDP rose by a strong 0.5% m/m in January, following a 0.4% decline in December. That suggests the economy is holding up much better than previously expected, and that it remains resilient despite all the woes. But we have cautioned against reading too much into the monthly headline. It is rather volatile. Growth in the three months to January remained much more subdued. At 0.2% q/q, it stood at its joint-lowest since the April quarter of 2018. Also, we expect most of the momentum at the start of the year to have been due to stockpiling, which would warrant a sharp mean-reversion soon.

In any case, with headline inflation below target in January (for the first time in two years) the MPC has been given a breather. And the good news is that we expect inflation to remain contained through the rest of the year, notably as energy inflation pressures have eased considerably in line with base effect in oil prices. Core goods inflation has also declined sharply during the past year, as the anniversary of sterling-related price increases for imported products has passed. We expect that both energy and core goods inflation will continue to edge down in coming months, which will put further downward pressure on the headline. Services inflation, by contrast, should start increasing, in line with the tight labour market. But this increase will be gradual, which will allow the BoE not to feel rushed.

For February, we expect that CPI data due next week will show that inflation picked up slightly to 1.9% y/y, from 1.8% in January. This will be due mainly to a jump in food inflation—itsself related to base effects from last year—and to a small increase in motor fuels inflation. But even if motor fuels inflation likely rose slightly in February, it should be back on its downward path from April (following a likely steady reading in March), provided that oil prices remain steady at around their current value of \$67 per barrel.

The Week Ahead

	Key indicators	Units	Moody's Analytics	Last
Mon @ 10:00 a.m.	Euro Zone: External Trade for January	bil euro	1.5	17.0
Mon @ 2:00 p.m.	Russia: Industrial Production for February	% change yr ago	1.0	1.1
Tues @ 9:30 a.m.	U.K.: Unemployment for January	%	4.0	4.0
Wed @ 9:30 a.m.	U.K.: Consumer Price Index for February	% change yr ago	1.9	1.8
Wed @ 2:00 p.m.	Russia: Unemployment for February	%	4.9	4.9
Wed @ 2:00 p.m.	Russia: Retail Sales for February	% change yr ago	1.7	1.6
Thur @ 9:30 a.m.	U.K.: Retail Sales for January	% change yr ago	3.3	4.2
Thur @ 12:00 p.m.	U.K.: Monetary Policy and Minutes for March	%	0.75	0.75
Fri @ 11:30 a.m.	Russia: Monetary Policy for March	%	7.75	7.75

ASIA-PACIFIC

By Katrina Ell and the Asia-Pacific staff of Moody's Analytics in Sydney

Once Again, Japan's Core CPI Inflation to Stay Below 1%

Japan's core CPI inflation will remain below 1% y/y in February for a fourth consecutive month. We look for core CPI to have reached 0.9% y/y in February, from 0.8% in January. Energy costs remain the primary driver of inflation, but the fall in oil prices towards the end of 2018 has led to energy costs adding less to overall inflation. Core-core inflation, which excludes food and energy prices, is forecast to remain at 0.3% y/y. The Bank of Japan is expected to stay quiet in 2019, licking its wounds after continually downwardly revising its inflation forecasts. Its latest core CPI estimate for fiscal 2019-2020 has been reduced by 0.5 percentage point to 0.9%, and the 2020-2021 forecast has been reduced by 0.1 percentage point to 1.4%, keeping the BoJ's 2% target out of reach.

Singapore's export sector is a good barometer of regional export performance, and recent performance is expected to be weak. Singapore's nonoil domestic exports plummeted 10.1% y/y in January, and a 4.6% drop is forecast for February. Electronics remain the primary source of weakness, with global tech demand well past its peak. Now shipments of nonelectronics have weakened, a sign of the broader slowdown in global activity.

It's been a terrible start to 2019 for Japan's exporters. The trade deficit widened to ¥370 billion in January, and Lunar New Year disruption likely further widened the deficit to ¥394 billion in February. Exports in January fell by 8.4% y/y, the sharpest decline in more than two years, following the 3.9% drop in December. It is difficult to disentangle the Lunar New Year effect, but there's no doubt that global demand has slowed and has captured Japan's exporters and manufacturers. The near-term outlook points to further weakness, with overseas machinery orders falling in December at the fastest rate in more than a decade.

The Bank of Thailand is firmly back to the sidelines. We expect the central bank to keep policy settings unchanged in March. The last movement was in December with a 25-basis point hike, the first upward movement in seven years. With inflation expected to remain low and the Monetary Policy Committee acknowledging elevated financial stability risks, accommodative monetary settings are expected to remain at least through the first half of 2019.

	Key indicators	Units	Confidence	Risk	Moody's Analytics	Last
Mon @ Unknown	Singapore nonoil domestic exports for February	% change yr ago	3	←	-4.6	-10.1
Mon @ 10:50 a.m.	Japan Foreign trade for February	¥ bil	2	↑	-394	-370
Wed @ 7:00 p.m.	Thailand Monetary policy for March	%	4	←	1.75	1.75
Thurs @ 8:45 a.m.	New Zealand GDP for Q4	% change	3	↑	0.5	0.3
Thurs @ 11:30 a.m.	Australia Unemployment rate for February	%	3	←	5.1	5.0
Fri @ 10:30 a.m.	Japan Core consumer price index for February	% change yr ago	3	←	0.9	0.8

The Long View

New loans graded Baa or lower dipped by 0.7% year-over-year during January-February 2019, to \$97.1 billion.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group
March 14, 2019

CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 125 basis points exceeded its 122-point mean of the two previous economic recoveries. This spread may be no wider than 140 bp by year-end 2019.

The recent high-yield bond spread of 422 bp is thinner than what is suggested by the accompanying long-term Baa industrial company bond yield spread of 205 bp but is wider than what is suggested by the recent VIX of 13.6 points.

DEFAULTS

February 2019's U.S. high-yield default rate of 2.7% was less than the 3.8% of February 2018. Moody's Investors Service now expects the default rate will average 2.1% during 2019's fourth quarter.

US CORPORATE BOND ISSUANCE

Yearlong 2017's US\$-denominated bond issuance rose by 6.8% annually for IG, to \$1.508 trillion and soared by 33.0% to \$453 billion for high yield. Across broad rating categories, 2017's newly rated bank loan programs from high-yield issuers sank by 26.2% to \$72 billion for Baa, advanced by 50.6% to \$319 billion for Ba, soared by 56.0% to \$293 billion for programs graded single B, and increased by 28.1% to \$25.5 billion for new loans rated Caa.

Fourth-quarter 2017 revealed year-over-year advances for worldwide offerings of corporate bonds of 17.6% for IG and 77.5% for high-yield, wherein US\$-denominated offerings posted increases of 21.0% for IG and 56.7% for high yield.

First-quarter 2018's worldwide offerings of corporate bonds incurred year-over-year setbacks of 6.3% for IG and 18.6% for high-yield, wherein US\$-denominated offerings posted sank by 14.4% for IG and 20.8% for high yield.

Second-quarter 2018's worldwide offerings of corporate bonds eked out an annual increase of 2.8% for IG, but incurred an annual plunge of 20.4% for high-yield, wherein US\$-denominated offerings rose by 1.6% for IG and plummeted by 28.1% for high yield.

Third-quarter 2018's worldwide offerings of corporate bonds showed year-over-year setbacks of 6.0% for IG and 38.7% for high-yield, wherein US\$-denominated offerings plunged by 24.4% for IG and by 37.5% for high yield.

Fourth-quarter 2018's worldwide offerings of corporate bonds incurred annual setbacks of 23.4% for IG and 75.5% for high-yield, wherein US\$-denominated offerings plunged by 26.1% for IG and by 74.1% for high yield.

During yearlong 2017, worldwide corporate bond offerings increased by 4.1% annually (to \$2.501 trillion) for IG and advanced by 41.5% for high yield (to \$603 billion).

For 2018, worldwide corporate bond offerings sank by 7.2% annually (to \$2.322 trillion) for IG and plummeted by 37.6% for high yield (to \$376 billion). The projected annual percent increases for 2019's worldwide corporate bond offerings are 3.2% for IG and 5.1% for high yield.

US ECONOMIC OUTLOOK

As inferred from the CME Group's FedWatch Tool, the futures market recently assigned an implied probability of 0.0% to at least one Fed rate hike in 2019. In view of the underutilization of the world's productive resources, low inflation should help to rein in Treasury bond yields. As long as the global economy operates

The Long View

below trend, the 10-year Treasury yield may not remain above 3% for long. A fundamentally excessive climb by Treasury bond yields and a pronounced slowing by expenditures in dynamic emerging market countries are among the biggest threats to the adequacy of economic growth and credit spreads.

EUROPE

By Barbara Teixeira Araujo of Moody's Analytics
March 14, 2019

UNITED KINGDOM

It was a good thing that Thursday didn't bring much news on the data front, because this allowed us to concentrate (yet again) on the Brexit developments. After parliament voted against a no-deal Brexit on Wednesday—meaning that Prime Minister Theresa May will now have to do whatever it takes to prevent the U.K. from crashing out of the EU on March 29—Thursday brought a vote on the extension of article 50. With only 15 days to go until Brexit day, the U.K. urgently needs more time to allow for a solution to be found on the EU exit, notably because lawmakers have categorically rejected the improved deal that May and Brussels managed to find at the start of this week.

As expected, parliament voted in favor of an extension of article 50. The motion put forward by the government implies nonetheless that the withdrawal agreement could be put to a third vote before next Wednesday. If the withdrawal agreement is passed by then (which is unlikely), then May would ask the EU for a technical extension of article 50 until 30 June, 2019. If the agreement is not passed by then, the motion suggests that May would have to seek a longer extension, and that the U.K. would need to take part in the European parliament elections that will take place before June. How long the extension would last is still not determined, but we think that a year-long extension is the most likely scenario.

The justification for postponing Brexit day—the EU asks for one—would be to give parliament time to build consensus on an alternative approach for Brexit. In our view, this alternative approach would be a full membership of the customs union, as right now this is the only option that looks likely to command majority in parliament. Given that such an outcome is also in the interests of most EU member countries, we don't think the EU would pose major hurdles in extending article 50. But risks remain, as EU's 27 heads of state and government would have to unanimously agree on delaying Brexit during the European Council meeting that will take place next Thursday.

Lawmakers did put forward a second referendum motion, but it was defeated, notably as several members of parliament abstained. We don't think that this means a second referendum is out of the picture. Most of the MPs which abstained said they did so because they considered this not the time to debate a second referendum, and the amendment could be easily brought back in the coming weeks or months.

Spring Statement

U.K. Chancellor Philip Hammond's Spring Statement was a non-event, as we had expected. Hammond saved all his firepower for the Autumn Budget, and made any fiscal stimulus measures conditional on the finding of a Brexit deal. On the upside, the Office for Budget Responsibility revised down its deficit forecasts throughout the forecast period (which lasts until fiscal 2023-2024). The government deficit is now expected to read at only 1.1% of GDP this fiscal year, fall steadily to 0.9% in 2020-2021, and register at 0.5% in 2023-2024.

Given that the government's fiscal mandate is for the deficit to reach 2% by 2020-2021, the current forecasts imply that the chancellor's headroom amounts to 1.1% of GDP, or £26.6 billion. This is up from an estimate of £15.4 billion in the October Budget. This headroom is openly referred to as Hammond's 'war chest'—or the extra money he has to spend should Britain crash out of the EU with no deal in place—but Hammond claimed he is ready to use it to support the economy once a deal is found and there is less uncertainty about the future. This, combined with a revival in confidence and investment, would boost the U.K. economy substantially next year. We continue to expect that fiscal policy will become slightly stimulative in 2020.

Growth forecasts for this year were revised sharply downwards, to 1.2% from 1.6%, though this is still considerably higher than the OECD's forecast of 0.8%. Unless there is a radical development on the Brexit front today or tomorrow, we expect Article 50 will be extended (following the parliamentary defeat of Theresa May's deal on Tuesday) and that the uncertainty will carry over into the summer and possibly into the second half of this year. This would further dampen growth prospects, and especially investment, making the OECD's forecast more

The Long View

credible than that of the OBR. Since our baseline still implies that a deal will be reached by midyear, we continue to see GDP growth at 1.2% to 1.3% this year, and then at 1.7% in 2020.

ASIA PACIFIC

By Katrina Ell of Moody's Analytics
March 14, 2019

CHINA

The annual session of the National People's Congress is a highlight for watchers of China's economy. Beyond the bravado, the two-week meeting reveals the economic and social priorities for the next year. In the work report revealed on the first day of the Congress last week, it was clear that Beijing's focus is at home and as Premier Li Keqiang put it in the opening NPC address, on the "tough economic battle ahead."

This references the complex task of stabilizing slowing growth while carrying out the deleveraging campaign to deliver more sustainable growth. This is also occurring against a backdrop of global demand being on a cooling trajectory and the complex trade negotiations with the U.S. to prevent further escalation of tariffs.

China can't escape that its debt accumulation is a problem on the horizon. Credit to the nonfinancial sector shot up from 97% of GDP in 2008 to 164% in the March quarter of 2018, according to the Bank for International Settlements. The rapid rise was borne out of the global financial crisis when a stimulus package of US\$586 billion (13.4% of GDP) was announced in November 2008. It was the country's largest government spending package to date. More than 30% of the stimulus was allocated to infrastructure, including railways and other transport links.

GDP target is a signal

The GDP target was announced at 6% to 6.5% in 2019, down from the "around 6.5%" target in 2018. Our baseline is for GDP growth to hit 6.3% in 2019, after 6.6% in 2018. If this comes to fruition, it would be the slowest annual expansion since 2001.

A lot of emphasis is placed on China's annual GDP target, but given the unrelenting questions around the accuracy of China's national accounts, we think the growth target acts as more of a signal to the market of continued softening in conditions this year.

Appropriately setting up expectations is critical when it comes to growth targets, particularly in China. An upside surprise can appease financial markets and broader external pressures, while a downside surprise can do the opposite. Managing expectations around growth is critical to maintain confidence in the economy and for policymakers' ability to guide the deleveraging campaign. Beyond our forecast for 6.3% GDP growth in 2019, we forecast 5.9% growth in 2020.

Fiscal policy will play a greater role

Further fiscal and monetary stimulus will be released in 2019 to deliver on the growth and employment targets. The government hopes to create more than 11 million urban jobs, representing almost 2% growth in the labour force. Fiscal policy will play a more supportive role this year, with the government noting it will be "proactive, stronger and more effective."

Government spending is targeted to rise by 6.5% y/y and tax cuts of CNY2 trillion were announced for 2019. The top bracket of the value-added tax was cut by 3 percentage points, a move to shore up manufacturing. The official manufacturing PMI shows manufacturing sentiment is hovering around a three-year low and the forward-looking subcategories, including new orders, point to further weakness ahead.

The deficit-to-GDP target for 2019 is 2.8%, which is 0.2 percentage point higher than in 2018. But this largely hides the infrastructure spending push that is taking place via local governments. The increase in infrastructure spending will come from bond issuance at the local government level, rather than via shadow banking, which has occurred in the past. The government plans on US\$321 billion in local government bonds in 2019, also known as special purpose bonds.

The Long View

Measured monetary stimulus

Targeted monetary support will remain a theme, with further cuts to the required reserve ratio for smaller banks expected. The required reserve ratio is already at global financial crisis lows, following numerous cuts in 2018.

It's important to remember that the stimulus this cycle is about stabilizing growth at the lower target range, rather than reinvigorating the economy. The government's quest to create more sustainable growth by reducing financial risks has not been abandoned, but it will be a slow journey. It will also be slower than expected at the beginning of last year, as the priority to stabilize growth has increased.

Ratings Round-Up

Ratings Round-Up

U.S. Upgrades Account for Vast Majority of Affected Debt

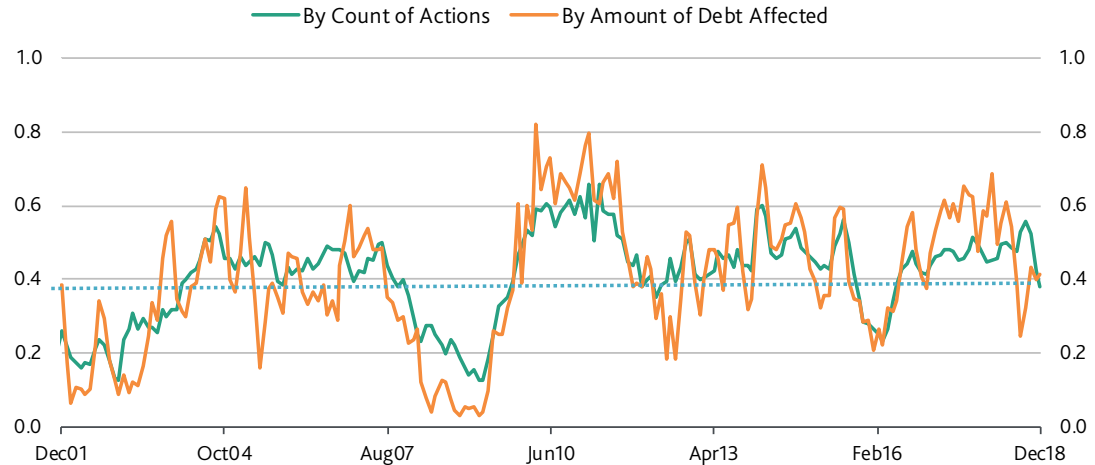
By Michael Ferlez

U.S. rating activity improved slightly last week, with positive rating changes accounting for 43% of total activity, up from 42% in the prior week. Despite being outnumbered again, upgrades continued to account for the vast majority of affected debt. Last week, upgrades were headlined by Bank of America Corporation and Chesapeake Energy Corporation. Bank of America Corporation was upgraded to A2 from A3, impacting \$202.5 billion in debt. Meanwhile, Chesapeake Energy Corporation's senior unsecured credit rating was upgraded from B3 to B2, and reflect the benefits added by the firm's recent acquisition of WildHorse. The upgrade affected \$8 billion in debt.

In Europe, rating change activity was sparse, with only two changes. The lone upgrade was Alpha Bank Romania S.A., which saw its long-term deposit rating upgraded from Ba3 to Ba2. Alpha Bank Romanian S.A.'s upgrade follows the upgrade of its parent bank, Alpha Bank AE, in the prior week. Elsewhere, Intralot S.A., represented the only downgrade for the week. The Greek bank was downgraded from B3 to Caa1 primarily because the firm lost the SporToto offer for managing the IDDAA sports-betting license, currently held by one of its subsidiaries. The downgrade impacts \$843 billion in debt.

FIGURE 1

Rating Changes - US Corporate & Financial Institutions: Favorable as % of Total Actions



* Trailing 3-month average

Source: Moody's

Ratings Round-Up

FIGURE 2

Rating Key

BCF	Bank Credit Facility Rating	MM	Money-Market
CFR	Corporate Family Rating	MTN	MTN Program Rating
CP	Commercial Paper Rating	Notes	Notes
FSR	Bank Financial Strength Rating	PDR	Probability of Default Rating
IFS	Insurance Financial Strength Rating	PS	Preferred Stock Rating
IR	Issuer Rating	SGLR	Speculative-Grade Liquidity Rating
JrSub	Junior Subordinated Rating	SLTD	Short- and Long-Term Deposit Rating
LGD	Loss Given Default Rating	SrSec	Senior Secured Rating
LTCF	Long-Term Corporate Family Rating	SrUnsec	Senior Unsecured Rating
LTD	Long-Term Deposit Rating	SrSub	Senior Subordinated
LTIR	Long-Term Issuer Rating	STD	Short-Term Deposit Rating

FIGURE 3

Rating Changes: Corporate & Financial Institutions – US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	Old STD Rating	New STD Rating	IG/ SG
3/6/19	BANK OF AMERICA CORPORATION	Financial	SrUnsec/LTIR/LTD /SrSub/Sub/JrSub /MTN/PS/CP	202,457	U	A3	A2	P-1	P-2	IG
3/6/19	VIASAT, INC.	Industrial	SrUnsec /LTCFR/PDR	700	D	B3	Caa1			SG
3/6/19	AFFINION GROUP HOLDINGS, INC. -AFFINION GROUP, INC.	Industrial	SrUnsec/PDR	1,065	D	Ca	C			SG
3/6/19	STRATEGIC MATERIALS HOLDING CORP.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3			SG
3/7/19	CHESAPEAKE ENERGY CORPORATION	Industrial	SrUnsec /LTCFR/PDR	8,074	U	B3	B2			SG
3/7/19	SG ACQUISITION INC.	Financial	LTCFR/PDR		U	B3	B2			SG
3/7/19	KEHE DISTRIBUTORS HOLDINGS, LLC -KEHE DISTRIBUTORS, LLC	Industrial	LTCFR/PDR		U	B3	B2			SG
3/8/19	SOLAR STAR FUNDING, LLC	Industrial	SrSec	1,323	D	Baa1	Baa2			IG
3/12/19	CTI FOODS HOLDING CO., LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	Caa3	C			SG

Source: Moody's

Ratings Round-Up

FIGURE 4

Rating Changes: Corporate & Financial Institutions – Europe

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/SG	Country
3/6/19	ALPHA BANK AE-ALPHA BANK ROMANIA S.A.	Financial	LTD		U	Ba3	Ba2	SG	ROMANIA
3/8/19	INTRALOT S.A.	Industrial	SrUnsec /LTCFR/PDR	843	D	B3	Caa1	SG	GREECE

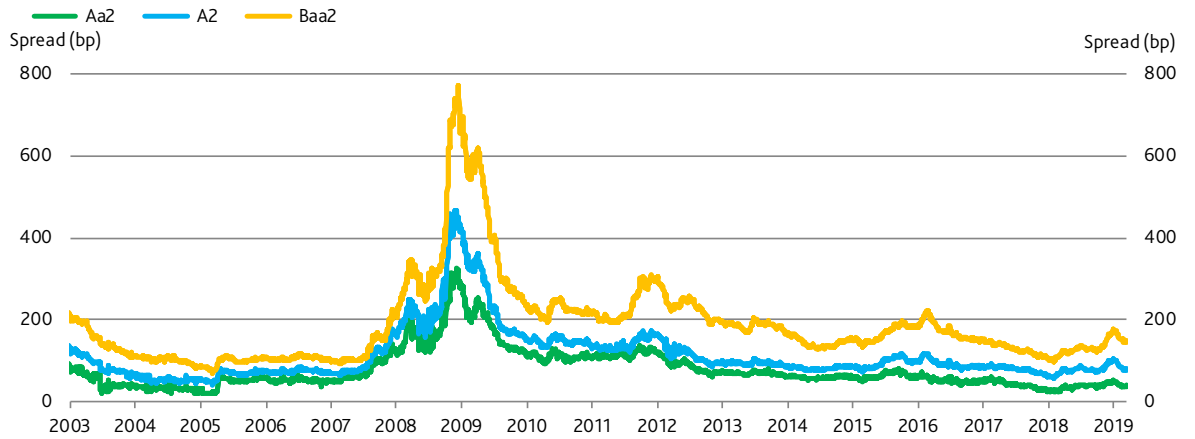
Source: Moody's

Market Data

Market Data

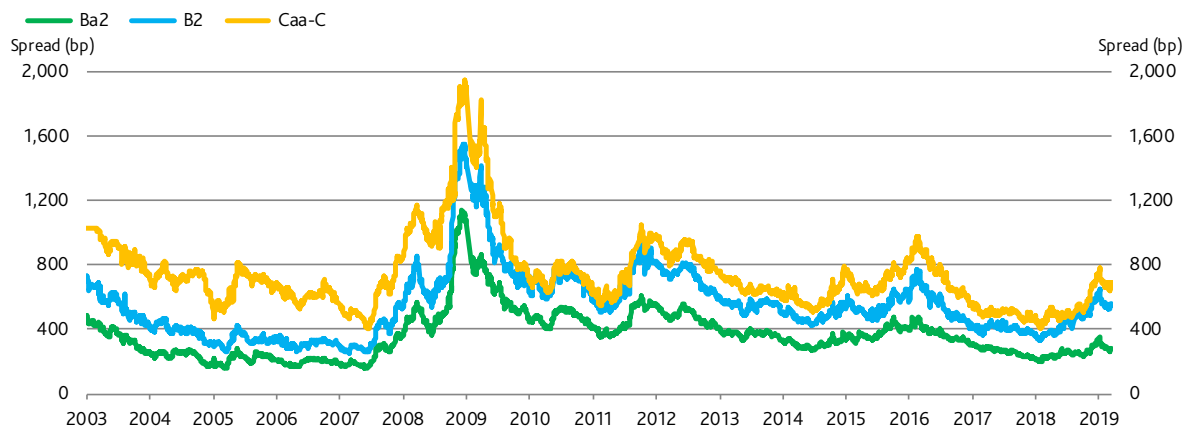
Spreads

Figure 1: 5-Year Median Spreads-Global Data (High Grade)



Source: Moody's

Figure 2: 5-Year Median Spreads-Global Data (High Yield)



Source: Moody's

Market Data

CDS Movers

Figure 3. CDS Movers - US (March 6, 2019 – March 13, 2019)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer	Mar. 13	Mar. 6	Senior Ratings	
Hertz Corporation (The)	Caa2	Ca	B3	
R.R. Donnelley & Sons Company	Caa2	Ca	B3	
AK Steel Corporation	Caa2	Ca	B3	
YRC Worldwide Inc.	Caa1	Caa3	Caa1	
Oracle Corporation	Aa3	A1	A1	
Philip Morris International Inc.	A3	Baa1	A2	
CSC Holdings, LLC	Ba1	Ba2	B2	
Univision Communications Inc.	Caa1	Caa2	Caa2	
Dish DBS Corporation	Caa1	Caa2	B1	
Southern Company (The)	Baa1	Baa2	Baa2	

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer	Mar. 13	Mar. 6	Senior Ratings	
Boeing Company (The)	A3	Aa2	A2	
PepsiCo, Inc.	A2	Aa2	A1	
United Airlines, Inc.	B2	Ba2	Ba3	
Xerox Corporation	B2	Ba2	Ba1	
Freeport-McMoRan Inc.	B2	Ba2	Ba2	
ServiceMaster Company, LLC (The)	B2	Ba2	B2	
United Technologies Corporation	A3	A1	Baa1	
United Rentals (North America), Inc.	B1	Ba2	Ba3	
Springleaf Finance Corporation	B3	B1	B1	
Ball Corporation	Baa3	Baa1	Ba1	

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Mar. 13	Mar. 6	Spread Diff
Neiman Marcus Group LTD LLC	Ca	2,178	1,941	238
Dean Foods Company	B3	1,668	1,604	65
K. Hovnanian Enterprises, Inc.	Caa3	3,645	3,606	38
Rite Aid Corporation	Caa2	1,279	1,244	34
Xerox Corporation	Ba1	194	163	30
Pitney Bowes Inc.	Ba1	407	378	29
Boeing Company (The)	A2	54	31	22
Ball Corporation	Ba1	78	58	20
International Game Technology	Ba2	202	183	18
Cooper Tire & Rubber Company	B1	157	141	16

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Mar. 13	Mar. 6	Spread Diff
Frontier Communications Corporation	Caa1	2,190	2,398	-208
Lexmark International, Inc.	Caa3	940	1,050	-110
Penney (J.C.) Corporation, Inc.	Caa2	2,940	3,010	-71
Diamond Offshore Drilling, Inc.	B3	376	423	-48
Talen Energy Supply, LLC	B3	455	494	-39
Weatherford International, LLC (Delaware)	Caa3	1,741	1,774	-33
Beazer Homes USA, Inc.	B3	427	449	-22
Office Depot, Inc.	B3	408	429	-21
CenturyLink, Inc.	B2	348	367	-19
Dish DBS Corporation	B1	539	555	-16

Source: Moody's, CMA

Market Data

Figure 4. CDS Movers - Europe (March 6, 2019 – March 13, 2019)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer		Mar. 13	Mar. 6	Senior Ratings
Ukraine, Government of		Caa1	Caa3	Caa1
Novo Banco, S.A.		Caa2	Ca	Caa2
CMA CGM S.A.		Caa1	Caa3	B3
Novafives S.A.S.		Caa1	Caa3	Caa1
Banca Nazionale Del Lavoro S.p.A.		A3	Baa2	Baa3
Deutsche Bank AG		Ba1	Ba2	A3
Societe Generale		A1	A2	A1
BNP Paribas		A1	A2	Aa3
Credit Agricole S.A.		Aa2	Aa3	A1
Credit Agricole Corporate and Investment Bank		Aa2	Aa3	A1

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer		Mar. 13	Mar. 6	Senior Ratings
Italy, Government of		B2	Ba3	Baa3
Bank VTB, PJSC		B2	Ba3	Ba1
Orange		A1	Aa2	Baa1
Telecom Italia S.p.A.		B3	B1	Ba1
Banco Comercial Portugues, S.A.		B1	Ba2	Ba3
Sberbank		B2	Ba3	Ba1
thyssenkrupp AG		B2	Ba3	Ba2
Sappi Papier Holding GmbH		B3	B1	Ba2
DEPFA BANK plc		B2	Ba3	A2
Heathrow Finance plc		B2	Ba3	Ba1

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Mar. 13	Mar. 6	Spread Diff
PizzaExpress Financing 1 plc	Caa2	2,446	2,216	230
Jaguar Land Rover Automotive Plc	Ba3	591	567	24
Koninklijke KPN N.V.	Baa3	101	85	16
Boparan Finance plc	Caa1	1,176	1,160	16
Matalan Finance plc	Caa1	597	582	15
Commerzbank AG	A1	97	86	11
Akbank T.A.S.	B1	380	371	9
Sappi Papier Holding GmbH	Ba2	259	251	8
Bayer AG	Baa1	67	60	7
Clariant AG	Ba1	64	57	7

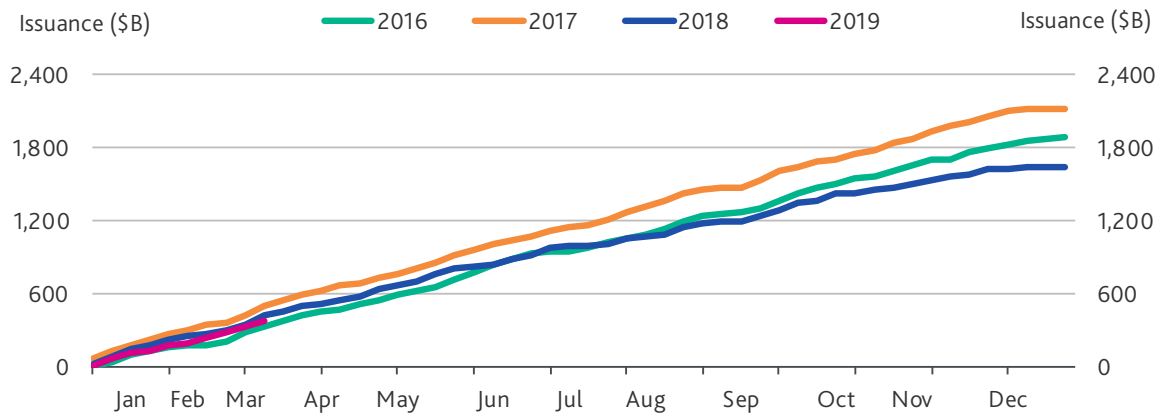
CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Mar. 13	Mar. 6	Spread Diff
Schaeffler Finance B.V.	Baa3	80	137	-57
Weatherford International Ltd. (Bermuda)	Caa3	1,941	1,978	-37
Russian Standard Bank	Caa2	1,183	1,217	-34
CMA CGM S.A.	B3	634	660	-26
Casino Guichard-Perrachon SA	Ba1	379	404	-25
Eksportfinans ASA	Baa3	438	457	-20
Stonegate Pub Company Financing plc	Caa1	229	248	-20
Iceland Bondco plc	Caa2	333	352	-19
Caixa Geral de Depositos, S.A.	Ba1	139	156	-17
Deutsche Bank AG	A3	135	148	-13

Source: Moody's, CMA

Market Data

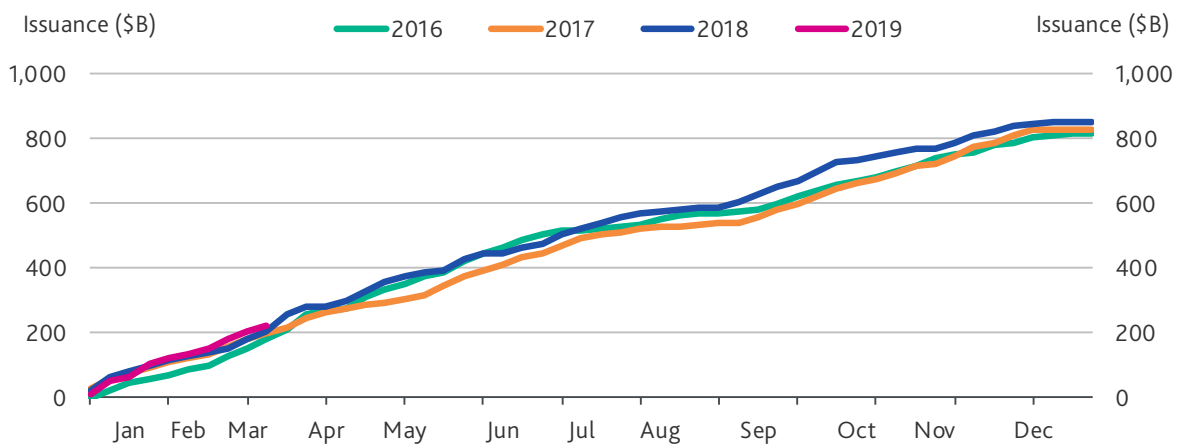
Issuance

Figure 5. Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated



Source: Moody's / Dealogic

Figure 6. Market Cumulative Issuance - Corporate & Financial Institutions: Euro Denominated



Source: Moody's / Dealogic

Market Data

Figure 7. Issuance: Corporate & Financial Institutions

	USD Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	43.333	6.800	52.120
Year-to-Date	288.801	77.641	382.505

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	16.961	2.327	22.737
Year-to-Date	201.659	16.038	223.980

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

Moody's Capital Markets Research recent publications

Replay of Late 1998's Drop by Interest Rates May Materialize (Capital Markets Research)

High-Yield Might Yet Be Challenged by a Worsened Business Outlook (Capital Markets Research)

Default Outlook Again Defies Unmatched Ratio of Corporate Debt to GDP (Capital Markets Research)

Equity Analysts' Confidence Contrasts with Economists' Skepticism

Fed's Pause May Refresh a Tiring Economic Recovery (Capital Markets Research)

Rising Default Rate May be Difficult to Cap (Capital Markets Research)

Baa-Grade Credits Dominate U.S. Investment-Grade Rating Revisions (Capital Markets Research)

Upper-Tier Ba Rating Comprises Nearly Half of Outstanding High-Yield Bonds (Capital Markets Research)

Stabilization of Equities and Corporates Requires Treasury Bond Rally (Capital Markets Research)

High Leverage Will Help Set Benchmark Interest Rates (Capital Markets Research)

Medium-Grade's Worry Differs from High-Yield's Complacency (Capital Markets Research)

Slower Growth amid High Leverage Lessens Upside for Interest Rates (Capital Markets Research)

Core Profit's Positive Outlook Lessens Downside Risk for Credit (Capital Markets Research)

Unprecedented Amount of Baa-Grade Bonds Menaces the Credit Outlook (Capital Markets Research)

Gridlock Stalls Fiscal Policy and Elevates Fed Policy (Capital Markets Research)

Navigating Choppy Markets: Safety-First Equity Strategies Based on Credit Risk Signals

Net Stock Buybacks and Net Borrowing Have Yet to Alarm (Capital Markets Research)

Financial Liquidity Withstands Equity Volatility for Now (Capital Markets Research)

Stepped Up Use of Loan Debt May Yet Swell Defaults (Capital Markets Research)

Financial Market Volatility May Soon Influence Fed Policy (Capital Markets Research)

Equities Suggest Latest Climb by Treasury Yields Is Excessive (Capital Markets Research)

Profits Determine Effect of High Corporate Debt to GDP Ratio (Capital Markets Research)

Higher Interest Rates Suppress Corporate Borrowing (Capital Markets Research)

Middling Ratio of Net Corporate Debt to GDP Disputes Record Ratio of Corporate Debt to GDP (Capital Markets Research)

There's No Place Like Home for U.S. Investors (Capital Markets Research)

Significant Differences, Eerie Similarities (Capital Markets Research)

Base Metals Price Slump May Dispute Benign Default Outlook (Capital Markets Research)

Profit Outlook Offsets Record Ratio of Corporate Debt to GDP (Capital Markets Research)

Upon Further Review, Debt to EBITDA Still Falls Short as an Aggregate Predictor (Capital Markets Research)

Base Metals Price Drop Suggests All Is Not Well (Capital Markets Research)

Markets Suggest U.S. Fares Best in a Trade War (Capital Markets Research)

Trade War Will Turn Ugly if Profits Shrink (Capital Markets Research)

To order reprints of this report (100 copies minimum), please call 212.553.1658.

Report Number: 1165739

Editor
Reid Kanaley
reid.kanaley@moody.com

Contact Us

Americas:	1.212.553.4399
Europe:	+44 (0) 20.7772.5588
Asia:	813.5408.4131

© 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.

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 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 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.moody.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.

Additional terms for Japan only: Moody's Japan K.K. ("MJJK") 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 MJJK. 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. MJJK 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.

MJJK 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 MJJK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJJK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

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