

WEEKLY MARKET OUTLOOK

Moody's Analytics Research

Weekly Market Outlook Contributors:

Moody's Analytics/New York:

John Lonski
Chief Economist
1.212.553.7144
john.lonski@moodys.com

Yukyung Choi
Quantitative Research

Moody's Analytics/Asia-Pacific:

Katrina Ell
Economist

Moody's Analytics/Europe:

Barbara Teixeira Araujo
Economist

Ross Cioffi
Economist

Moody's Analytics/U.S.:

Ryan Sweet
Economist

Steven Shields
Economist

Editor
Reid Kanaley

Contact: help@economy.com

Sluggish Business Revenues Pressure Corporate Credit Quality

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

Sluggish Business Revenues Pressure Corporate Credit Quality

» 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: The year-to-year advances for July's USD-denominated corporate bond offerings were 59% for investment-grade and 141% for high-yield.

Credit Spreads	Investment Grade: We see year-end 2019's average investment grade bond spread above its recent 118 basis points. High Yield: Compared with a recent 487 bp, the high-yield spread may approximate 465 bp by year-end 2019.
Defaults	US HY default rate: Moody's Investors Service's Default Report has the U.S.' trailing 12-month high-yield default rate dipping from June 2019's actual 3.0% to a baseline estimate of 2.9% for June 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 2.9% for IG to \$1.313 trillion, while high-yield supply grows by 30.3% to \$362 billion. The very low base of 2018 now lends an upward bias to the yearly increases of 2019's high-yield bond offerings.

» FULL STORY PAGE 10

[Ratings Round-Up](#)

U.S. Rating Changes Mixed; European Activity Low

» 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: Corporate credit, Fed moves, spreads, yield collapse, inversions, unmasking danger, divining markets, upside risks, rating changes, high leverage, revenues and profits, riskier outlook, high-yield, defaults, confidence vs. skepticism, stabilization, volatility.

» 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

Credit Markets Review and Outlook

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

Sluggish Business Revenues Pressure Corporate Credit Quality

It was a tumultuous week. Volatility will lurk until trade issues are resolved. Perhaps the best markets can hope for on the trade front is a long-lived truce.

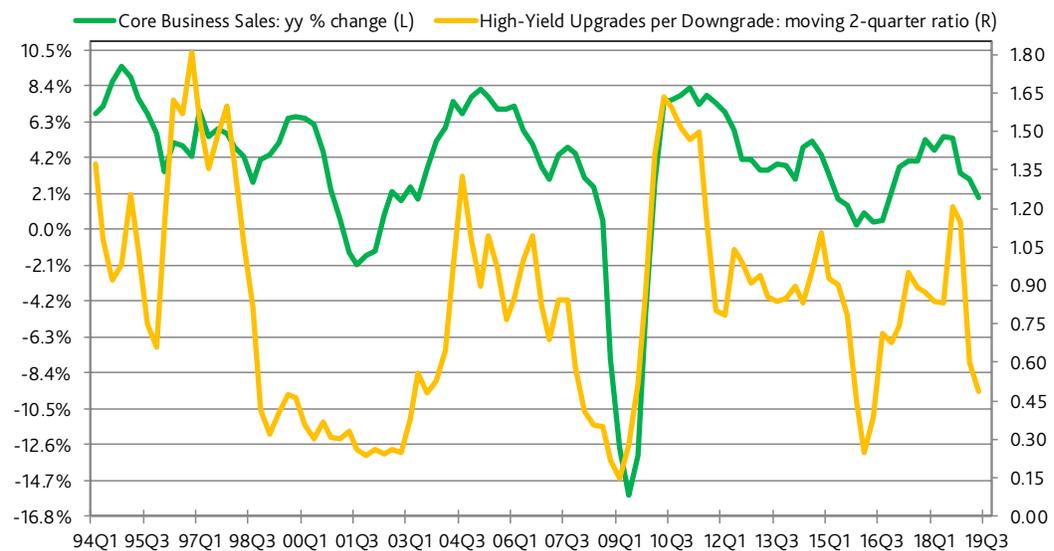
After jumping up from the 1.33:1 of 2018's final quarter to the 2.27:1 of 2019's first quarter, the number of downgrades per upgrade among U.S. corporate high-yield credit rating revisions eased to 1.90:1 in the second quarter. Thus far, 2019's third-quarter shows an even lower high-yield downgrade per upgrade ratio of 1.32:1. Though the latter is under the 1.49:1 high-yield downgrade per upgrade ratio of 1986-2018, it tops the 1.16:1 since the June 2009 end to the Great Recession.

Since the end of 1985, the high-yield downgrade per upgrade ratio has shown a significant inverse correlation with the annual increase of a proxy for business sales, especially after identifiable energy product sales are excluded from the business sales proxy. What's left of business sales after excluding energy product sales is referred to as core business sales.

Since June 2010, the annual increase of core business sales has formed three localized tops—the 8.3% of 2011's first quarter, the 5.2% of 2014's third quarter, and the 5.4% of 2018's second quarter. The periods surrounding these tops were associated with high-yield downgrade per upgrade ratios that were less than 1.25:1.

Figure 1: Faster Growth by Core Business Sales Would Improve Outlook for High-Yield Credit Rating Revisions

sources: Census Bureau, Moody's Analytics



Recovery's Fastest Growth by Business Sales Was Joined by More Upgrades than Downgrades

First-quarter 2011's 8.3% peak was in the middle of a strong showing by core business sales. Beginning with 2010's second quarter and ending with 2012's second-quarter, core business sales advanced by 7.4% annually, on average. During this nine-quarter span, the high-yield downgrade per upgrade ratio was a well below-trend 0.83:1, meaning that high-yield upgrades outnumbered downgrades.

The constructive showing by 2010-2012's high-yield credit rating changes also was aided by the much faster 14.0% growth of core pretax profits relative to the 1.6% rise by the outstanding debt of U.S. nonfinancial-corporations (both growth rates are the median annual percent changes of April 2010 through June 2012). Moreover, the plunge by a composite speculative-grade bond yield from a first-quarter 2010 average of 8.70% to a first-half 2011 average of 7.00% facilitated the refinancing of high-yield debt that both lengthened maturities and lowered interest expense.

Credit Markets Review and Outlook

The subsequent slowing of core business sales' yearly growth rate to the 2.9% bottom of 2014's first quarter gave rise to a high-yield downgrade per upgrade ratio that was no higher than the 1.27:1 of 2014's second quarter. Credit quality managed to shrug off first-half 2014's brief 4.2% year-over-year drop by core pretax profits, as well as the accompanying 6.2% annual advance by nonfinancial-corporate debt.

Immediately thereafter, core business sales' annual increase jumped up to the 5.2% of 2014's third quarter that coincided with a downgrade per upgrade ratio of 0.83:1.

However, core business sales would quickly lose vigor. Revenues were curbed by burdensome benchmark Treasury bond yields and slower than expected global growth, where the latter prompted a severe bout of industrial commodity price deflation. The annual increase of core business sales fell under 2% in 2015's second quarter and would bottom at the 0.2% of 2015's final quarter.

Downgrade per Upgrade Ratio Soared During 2015-2016's Profits Recession

The weak showing by top-line revenues explains why nonfinancial-corporate core profits fell from a year earlier in each of the seven quarters from 2015's third-quarter to 2017's first quarter by 6.3%, on average. In response, the high-yield downgrade per upgrade ratio of October 2015 through June 2016 was an elevated 2.80:1. During the nine months ended June 2016, a composite high-yield bond spread averaged 689 basis points, wherein its month-long average peaked at February 2016's now 10-year high of 839 bp.

Partly because of an ensuing recovery by core business sales' yearly increase to second-quarter 2018's latest peak of 5.4%, high-yield's downgrade per upgrade ratio sank to third-quarter 2018's now 26-year low of 0.37:1. Nevertheless, the latest deceleration by the yearly increase of core business sales to the 1.9% of 2019's second quarter has helped to lift high-yield's downgrade per upgrade ratio to the 1.92:1 of 2019-to-date.

A further slowing by core business sales cannot be dismissed. July's 1.8% monthly drop by the seasonally-adjusted unit sales of light motor vehicles hints of possible difficulty at quickly ending the slowdown by core business sales. As derived from consensus forecasts, July's retail sales excluding gasoline station sales are expected to rise by merely 0.2% from June 2019. If July's core business sales also grow by 0.2% monthly, the odds will favor roughly a 2% annual rise by third-quarter 2019's core business sales.

Unless business sales quicken, a disruptive contraction by pretax profits from current production looms. After surging higher by 16.0% year over year during 2018's second half, pretax profits from current production slowed to a 6.5% yearly increase in 2019's first quarter.

Average and Median High-Yield EDFs Disagree on Spreads

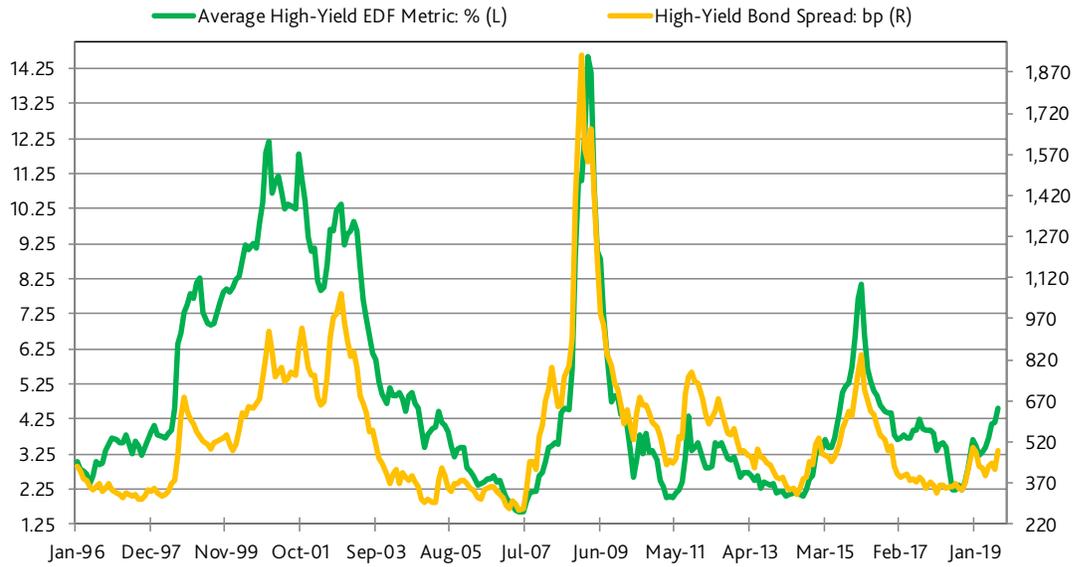
A jump by a composite high-yield bond spread from a July 2019 average of 422 bp to August 7's 487 bp shows that the market has lowered its outlook for corporate credit quality. However, two forward-looking quantitative estimates of default risk have yet to agree on the severity of a prospective worsening of corporate credit quality.

As of August 7, the average high-yield EDF—a default probability estimate for the entire U.S. high-yield credit market—climbed to 4.58%, which was its highest close since the 4.60% of November 9, 2016, the day after Trump's surprise Presidential election victory. August 7's average high-yield EDF and its 1.11 percentage point increase over the past three months favor a 525 bp midpoint for the composite high-yield bond spread.

Credit Markets Review and Outlook

Figure 2: The Average High-Yield EDF Metric Favors a 525 Basis Points Midpoint for the High-Yield Bond Spread

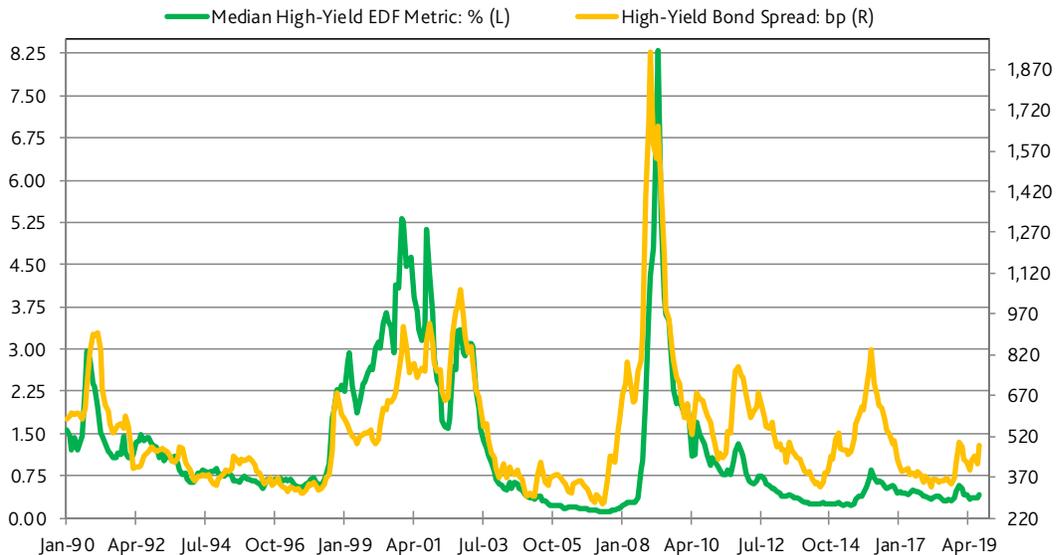
source: Moody's Analytics



However, August 7's median high-yield EDF of 0.427% was under its 0.521% average of November 2018 through January 2019. Back on November 9, 2016, the median high-yield EDF was a significantly higher 0.572%. Unlike the average high-yield EDF, August 7's median high-yield EDF and its three-month rise favor a narrower 450 bp midpoint for the high-yield bond spread.

Figure 3: Recent Median High-Yield EDF Metric and Its Three-Month Difference Are Consistent with a 450 bp Midpoint for the High-Yield Bond Spread

source: Moody's Analytics



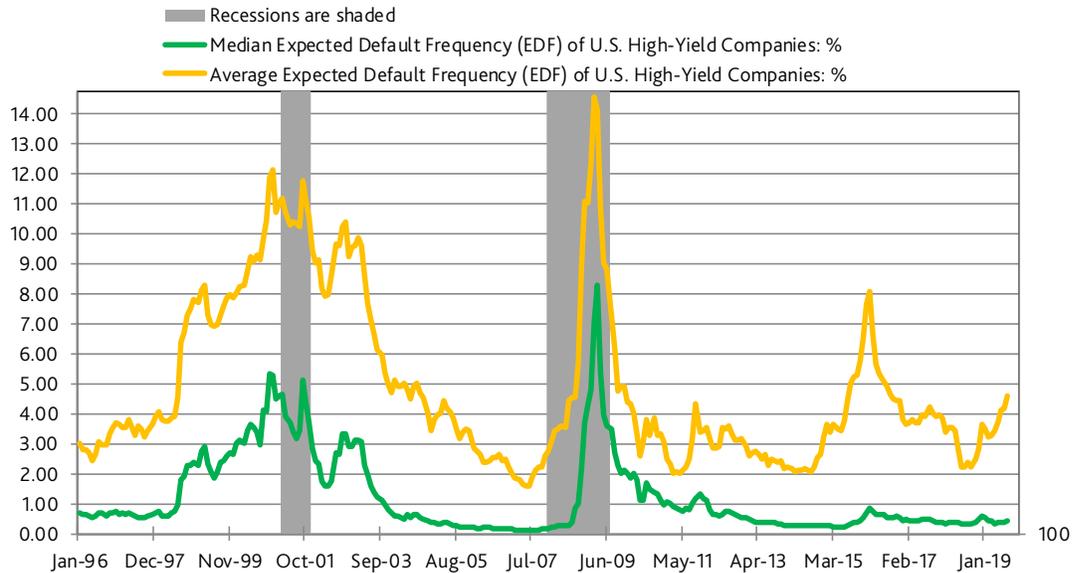
Credit Markets Review and Outlook

The average of the spreads predicted by August 7's average and median high-yield EDFs equals 487 bp, which exactly matched the actual spread.

There is now an atypically wide gap between the average and median high-yield EDFs. This might be explained by how the latest deterioration of high-yield credit quality has not been uniformly distributed. Historically, August 7's 0.427% median high yield EDF has been joined by a 3.75% average high-yield EDF, while August 7's 4.58% average high-yield EDF has been accompanied by a median high-yield EDF of 0.78%. The average high-yield EDF was previously atypically high relative to the median high-yield EDF during late 2015 through early 2017. The good news is that the profits recession of 2015-2016 did not lead to a full-blown recession and a default rate in excess of 10%.

Figure 4: Recent Average High-Yield EDF Is Well Above What Is Suggested by the Accompanying Median High-Yield EDF

sources: NBER, Moody's Analytics



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

THE U.S.

By Ryan Sweet of Moody's Analytics

A Predictable Playbook for the Unpredictable

U.S. financial markets are on edge because of the escalation in the trade tensions between the U.S. and China, and we have updated our subjective probabilities of how this will play out through Trump's first term. Our baseline assumption, with odds of 35%, is that the current tariffs plus the 10% on the remaining \$300 billion in Chinese imports, scheduled for September 1, remain in place through Trump's first term. We assign a 25% likelihood that there is further escalation in the form of 25% tariffs on all Chinese imports. The likelihood of a full-blown trade war, which includes 25% tariffs on all Chinese imports and tariffs on imported vehicles and parts, have risen to 25%. The best-case scenario is a sustained de-escalation in the trade war, but those odds are only 20%.

As we have seen over the past couple of years, these odds can change quickly. But it's increasingly difficult to see how the Trump administration can ease financial markets' concerns. The Trump "put" may lose its magic soon. The put is Trump's option to change course—the belief that he will not let the stock market decline significantly, since he views it as a measure of his administration's policy success. Though forecasting what comes out of the White House is difficult, Trump has followed a fairly predictable playbook on trade and with financial markets.

First on trade, after each of the past leader-to-leader meetings, Trump initially agreed to postpone further tariffs, but this proved temporary, and tariffs were eventually implemented. Trump stuck to this pattern with the plan to raise tariffs on the \$300 billion in remaining Chinese imports. Financial markets have responded poorly to the recent escalation in the trade tensions. In the past Trump has either delayed tariffs or sounded upbeat about trade negotiations, likely in an effort to put a floor under the stock market. If the past is any guidepost, a 7% to 10% drop in the S&P 500 could trigger the Trump put. Currently the S&P 500 is not near that threshold.

Further declines in the stock market will catch the Trump administration's attention, but this could only lead to a delay in the implementation of the September 1 tariffs, not a truce. The odds of a deal are very unlikely.

The escalation in the trade tensions is causing some tightening in U.S. financial market conditions, and we are going to be keeping a close eye on business confidence, initial claims, and capital spending plans.

Business confidence is already fragile and will likely decline further given the tightening in financial market conditions, trade tensions, and heightened policy uncertainty. We find evidence that both business confidence and economic policy uncertainty affect manufacturers' capital expenditure plans. To highlight this, we calculated z-scores, a measure of the standard deviations above or below the mean, for the capital expenditure plans in the key regional Fed manufacturing surveys that we track closely. The z-score shows how many standard deviations each volatility index is from its mean.

After increasing in 2018 because of the fiscal stimulus, capital expenditure plans have been declining, but they are currently in line with their average this cycle. The concern now is that they continue to fall because of the heightened policy uncertainty given the escalation in the trade tensions. The correlation coefficient between the average z-score for the regional Fed manufacturing surveys' capital expenditure plans is negative, implying more uncertainty reduces capital expenditure plans.

Further, we used Granger causality tests. With a one-month lag, policy uncertainty was found to Granger-cause changes in capital expenditure plans. Given that uncertainty will increase, odds favor capital expenditure plans sliding further. This dims the outlook a little for real business investment and suggests it won't soon provide any meaningful positive contribution to GDP growth.

The Week Ahead

The escalation in the trade war led us to alter our Fed call. The August baseline forecast will include two additional rate cuts this year—in September and December. The fed funds rate will remain unchanged in 2020, before the central bank resumes tightening interest rates in 2021. A similar pattern occurred when the Federal Reserve did some insurance easing in both 1995 and 1998.

Recent Fed rhetoric also supports the change to the forecast. Following the July rate cut, Fed Chairman Jerome Powell offered two main rationales for that cut. First, the cut is intended to provide insurance against downside risks from weak global growth and trade policy uncertainty. Second, the cut is intended to accelerate the return of inflation to the 2% target. With the trade tensions now going down a darker path, we believe the Fed will want to cut rates again. Its concern about the risks to the outlook have shifted quickly. In June's Summary of Economic Projections (the latest), 14 participants noted that they viewed the risks to their GDP forecast as weighted to the downside, compared with four in the previous SEP.

Looking ahead

The economic calendar is busier next week. The key data consumer prices, retail sales, industrial production, housing starts, business inventories, NAHB housing market index, regional Fed manufacturing surveys and initial claims.

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

Germany's Advance Q2 GDP Numbers Awaited

In the spotlight in the coming week is the long-awaited advance release of Germany's second-quarter GDP. The aggregate euro zone numbers suggest that the German economy held at least steady in the three months to June, but this comes with a caveat. This calculation is derived from the comparison between the individual country figures and the headline for the euro zone as a whole, and the German GDP figures are the last to be made available among the major economies. However, the high-frequency data for the country are pointing towards a much less upbeat headline.

Notably, the latest German industrial production and construction numbers for June suggest that activity declined sharply over the second quarter, even if a spike in services output is expected to provide some offset. Excluding construction, Germany's industrial production plummeted 1.8% m/m in June, fully reversing May's downwardly revised 0.7% increase. The monthly drop helped push the sector's yearly rate further into negative territory; German production slumped 6.2% y/y in June, worsening on the 5% decline in May, and the weakest result in a decade. This meant that over the second quarter, production shed as much as 2% from the prior stanza, marking the fourth consecutive quarter of decline. Production has plummeted 6.7% since it reached its last peak in May 2018, mainly because of a 6.6% fall in manufacturing production.

Numbers for construction are also a letdown, with activity adding a paltry 0.3% m/m in June and failing to reverse the cumulative 3.8% decline since March. We had expected that the month's good weather would ultimately boost building activities. Overall for the second quarter, construction was down 1.1% q/q, partially reversing the first quarter's 1.6% rise (which was revised sharply downwards from 3.5% previously).

Putting together the declines in industrial and construction activities, services output would have to rise by nothing less than 1% q/q to allow GDP to remain only steady over the quarter. Such a rise is possible but unlikely given the recent slowdown in retail sales and consumer-facing service activities. And while we are sticking to our forecast of a steady reading, we wouldn't be surprised to see Germany's GDP contract by 0.1% to 0.2% q/q over the quarter.

The Week Ahead

The problem is that, if Germany's GDP really declined over the quarter, it is more likely than not that the euro zone aggregate GDP figures would ultimately be revised down to only 0.1% q/q, from an advance estimate of 0.2%. The second estimate of euro zone GDP growth is expected to be published shortly after the German report, which creates scope for a selloff in financial markets. We are sticking to our forecast of 0.2% q/q growth in the three months to June, which already marks a significant deceleration from the first stanza's 0.4% increase.

The expenditure breakdown won't be published just yet—it is scheduled for release on September 6—but we believe that net trade dragged the most on overall euro zone growth. The slowdown in global growth has taken a heavy toll on exports, while imports are by contrast expected to have increased on the back of still-strong growth in domestic demand. Inventories are a wild card. While we had been penciling in a strong contribution from stock-building in the second quarter following two consecutive stanzas of destocking, the individual country figures haven't been very promising. Inventories dragged on growth in France and didn't contribute or add to growth in Italy and Spain. We need to wait until the German numbers are out to be sure if our forecast will materialize.

Regarding domestic demand, we think that consumer spending slowed somewhat following the extremely solid numbers of the previous stanza. This doesn't mean that we have downgraded our outlook for the euro zone consumer this year since we continue to expect that consumer spending will be the main driver of growth on the back of solid wage and employment gains. Investment and government spending, meanwhile, are expected to have held relatively steady. Risks for government spending are nonetheless tilted to the upside, as fiscal policy is gradually becoming more supportive. Regarding investment, we expect that services and construction investment remained strong, but leading data point to a sharp decline in manufacturing capital expenditure, in line with the drop in external demand for the area's finished goods.

	Key indicators	Units	Moody's Analytics	Last
Tues @ 7:00 a.m.	Germany: Consumer Price Index for July	% change yr ago	1.7	1.6
Tues @ 8:00 a.m.	Spain: Consumer Price Index for July	% change yr ago	0.5	0.4
Tues @ 9:30 a.m.	U.K.: Unemployment for July	%	3.8	3.8
Wed @ 7:45 a.m.	France: Consumer Price Index for July	% change yr ago	1.4	1.4
Wed @ 9:30 a.m.	U.K.: Consumer Price Index for July	% change yr ago	2.1	2.0
Wed @ 10:00 a.m.	Euro zone: Industrial Production for June	% change	-0.5	0.9
Thur @ 9:30 a.m.	U.K.: Retail Sales for July	% change yr ago	3.2	3.8
Thur @ 2:00 p.m.	Russia: Industrial Production for July	% change yr ago	3.0	3.3
Fri @ 10:00 a.m.	Euro Zone: External Trade for June	bil euro	17.0	23.0

ASIA-PACIFIC

By Katrina Ell of Moody's Analytics

China's Efforts to Shore Up Credit Growth Boosts Money Supply

China's July activity data will be in the spotlight. Stabilisation from June's mostly improved print is expected to be the theme. M2 money supply likely cooled a whisker in July but remains one of the strongest performing monthly indicators in terms of annual growth because of the People's Bank of China's efforts to shore up credit growth, particularly for smaller private firms.

China's fixed asset investment likely held at 5.8% y/y YTD in July. By industry, investment in manufacturing is an ongoing weak spot, a consequence of disruption from the U.S.-China trade war adding to uncertainty and readjustment of supply chains, particularly since the baseline is that a truce that involves removing existing tariffs is remote. Industrial production has been volatile through 2019, and after the unexpected surge in June some cooling is forecast. Export-facing sectors are expected to remain under pressure with global demand cooling and the trade war being an additional weight. More-

The Week Ahead

domestic-facing sectors are forecast to improve heading into 2020 as Beijing's combined fiscal and monetary stimulus measures bear fruit.

Singapore's exposure to the downturn in global demand is clear as day in the export data. Nonoil domestic exports are forecast to have contracted in July, marking the fifth straight fall. Electronics remain a major source of weakness and tumbled by 32% y/y in June, following the 31.6% plummet in May. Nonelectronics have occasionally provided relief to the headline, but not of late. Nonelectronics shipments declined by 12.4% y/y in June, after an 11.1% drop in May. Tech shipments have been on a downswing for around two years, but weakness in the nontech sector did not materialize until 2019.

	Key indicators	Units	Confidence	Risk	Moody's Analytics	Last
Mon @ Unknown	China Monetary aggregates for July	% change yr ago	3	←	8.4	8.5
Mon @ 10:00 p.m.	India Consumer price index for July	% change yr ago	3	←	3.2	3.2
Mon @ 10:20 p.m.	India Industrial production for June	% change yr ago	2	←	2.6	3.1
Wed @ Unknown	India Foreign trade for July	US\$ bil	2	↓	-14.6	-15.3
Wed @ 9:00 a.m.	South Korea Unemployment rate for July	%	3	←	4.0	4.0
Wed @ 9:50 a.m.	Japan Machinery orders for June	% change	2	↓	3.9	-7.8
Wed @ 12:00 p.m.	China Fixed asset investment for July	% change yr ago YTD	3	←	5.8	5.8
Wed @ 12:00 p.m.	China Industrial production for July	% change yr ago	3	↓	5.9	6.3
Wed @ 12:00 p.m.	China Retail sales for July	% change yr ago	2	↑	8.6	9.8
Wed @ 2:00 p.m.	Malaysia GDP for Q2	% change yr ago	3	←	4.6	4.5
Thurs @ 11:30 a.m.	Australia Unemployment rate for July	%	4	←	5.2	5.2
Thurs @ 2:00 p.m.	Indonesia Foreign trade for July	US\$ bil	2	←	-1.2	0.2
Fri @ Unknown	Singapore Nonoil domestic exports for July	% change yr ago	3	↓	-13.2	-17.3

The Long View

The year-to-year advances for July's USD-denominated corporate bond offerings were 59% for investment-grade and 141% for high-yield.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group
August 8, 2019

CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 118 basis points is under its 122-point mean of the two previous economic recoveries. This spread may be no wider than 130 bp by year-end 2019.

The recent high-yield bond spread of 487 bp is thinner than what is suggested by both the accompanying long-term Baa industrial company bond yield spread of 194 bp, but approximates what is inferred from the recent VIX of 17.0 points.

DEFAULTS

June 2019's U.S. high-yield default rate was 3.0%. The high-yield default rate may average 3.2% during 2019's final quarter, according to Moody's Investors Service.

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.

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.

First-quarter 2019's worldwide offerings of corporate bonds revealed annual setbacks of 0.5% for IG and 3.6% for high-yield, wherein US\$-denominated offerings fell by 3.0% for IG and grew by 7.1% for high yield.

Second-quarter 2019's worldwide offerings of corporate bonds revealed an annual setback of 2.5% for IG and an annual advance of 17.6% for high-yield, wherein US\$-denominated offerings sank by 12.4% for IG and surged by 30.3% 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 4.3% for IG and 23.1% for high yield. When stated in U.S. dollars, issuers based outside the U.S. supplied 60% of the investment-grade and 57% of the high-yield bond offerings of 2019's first half.

The Long View

US ECONOMIC OUTLOOK

As inferred from the CME Group's FedWatch Tool, the futures market recently assigned an implied probability of 100% to a cutting of the federal funds rate at the September 18, 2019 meeting of the Federal Open Market Committee. 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 below trend, the 10-year Treasury yield may not remain above 2.25% 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 and Ross Cioffi of Moody's Analytics
August 8, 2019

GERMANY

German industrial production and construction numbers for June suggest that activity declined sharply over the second quarter as a whole—the GDP numbers should be published next Wednesday—even if a spike in services output is expected to provide some offset. We are sticking to our forecast of a steady reading, which is consistent with the overall advance GDP numbers for the currency area, but we wouldn't be surprised to see Germany's GDP contract by 0.1% to 0.2% q/q over the quarter.

Excluding construction, Germany's industrial production plummeted 1.8% m/m in June, significantly below market expectations of a 0.4% increase. Even more disappointing was that May's increase was revised down to 0.7%. The monthly drop helped push the sector's yearly rate further into negative territory; German production slumped 6.2% y/y in June, worsening on the 5% decline in May, and was the weakest result in a decade. Over the second quarter as a whole, production shed 2% from the prior stanza, marking the fourth consecutive quarter of decline. Production has plummeted 6.7% since it reached its last peak in May 2018, mainly because of a 6.6% fall in manufacturing production.

Numbers for construction were also a letdown, with activity adding a paltry 0.3% m/m in June and failing to reverse the cumulative 3.8% decline since March. This is disappointing mainly because we had expected that the month's good weather would boost building. Overall for the second quarter, construction was down 1.1% q/q, partially reversing the first quarter's 1.6% rise (which was revised sharply downwards from 3.5%). Putting together the declines in industrial and construction activities, services output would have to rise by nothing less than 1% q/q to allow GDP to remain only steady over the quarter. Such a rise is possible but unlikely given the recent slowdown in retail sales and consumer-facing service activities.

EURO ZONE

We expect the European Central Bank to cut interest rates in September. Given disappointing growth figures, low inflation, and continued global uncertainty, our baseline is that the ECB will cut the deposit rate by 10 basis points to -0.5%. But given that euro zone banks are already struggling with low profitability, the ECB has started exploring options to alleviate the blow from this further cut in rates. In the spotlight is the possible introduction of a tiered system of interest rates.

Negative policy rates are meant to encourage lending; rather than take losses on holding their excess reserves at the ECB, banks make loans. But negative rates hurt banks' profit margins by lowering the overall interest they receive on those loans, as well as by increasing the cost of holding mandatory reserves at the central bank. A tiered rate at the central bank's deposit facilities would mitigate the effects on profitability by exempting a given amount of excess reserves from negative rates.

Tiering could also support the effectiveness of the announced TLTRO III, the third round of targeted longer-term refinancing operations. TLTROs offer long-term funding at favorable borrowing conditions to banks. The interest rate applied to the loans are linked to the banks' lending patterns such that the more loans the bank issues to

The Long View

nonfinancial corporations or households, the better the rate. With tiering, the ECB can continue charging subzero rates on loans while phasing out the negative rates it offers on deposits. Maintaining such favorable credit conditions (rates could go as low as 10 basis points above the deposit rate under the program) is essential to ensuring credit flows in euro zone members such as Italy and Spain, where the banking sector is still constrained. If the ECB announced a tiering policy, especially when coupled with TLTRO III, we would expect the effects of weakening external demand on growth to be partially mitigated by the resulting further expansion of credit. However, as ECB President Mario Draghi has repeatedly made clear, monetary policy is no panacea and fiscal and structural policies such as the completion of the euro zone banking union are increasingly important. In any case, monetary expansion supports our baseline assumption of steady growth, though we caution that for as long as global risks persist, we expect growth to remain below its potential.

U.K.

On Friday we will get the long-awaited second-quarter GDP figures for the U.K. We expect them to show that the country's economy stalled in the three months to June, though risks are tilted towards a small contraction.

While markets may fret over the figures and there will be a lot of talk of a coming recession, the no-change in GDP should not be overread. It will follow an unsustainable acceleration in the first stanza, which was mainly due to firms at home and abroad rushing to build up their inventories ahead the initial March deadline for Brexit. We had long warned that this would warrant a sharp mean reversion in the three months to June, so we weren't surprised to see all of the high-frequency indicators showing a sharp deterioration in manufacturing production in April and May.

We are betting that another decline in June will round off one of the worst quarters ever for British manufacturers. And we expect that this weak trend carried over into July, though on the upside the new October 31 Brexit deadline suggests another round of stockpiling soon.

Adding to base effects related to stockpiling, auto manufacturers brought forward planned summer maintenance shutdowns to April as part of Brexit planning to prevent major disruptions had the U.K. left the EU with no deal on March 31. Consequently, car production plunged by double digits over the month. Factories went back to business as normal in May, but April's slump will wallop the quarterly numbers.

Our forecast is that manufacturing production plummeted by around 2% q/q over the quarter, following a 1.9% gain in the first stanza. Elsewhere in industrial production, we expect that energy production rose sharply, though we project a sharp decline for June in line with soaring temperatures. Mining and quarrying, by contrast, should have contracted, but only slightly. This means that the sector isn't expected to have added to or detracted from growth. Putting together manufacturing, energy, and mining and quarrying, we forecast that industrial production fell by around 1.5% q/q over the second quarter as a whole.

Construction output likely retreated as well, even if we expect fairly upbeat figures for June. We are penciling in a 0.7% q/q decline, reversing half of the first stanza's 1.5% jump. There is no sugarcoating the construction figures, though; Brexit uncertainty is hammering construction investment, especially in commercial construction, and will continue to do so until there is more clarity on negotiations.

The services sector will likely save the day in the second quarter and offset weakness in the two other main sectors of the economy. We look for a 0.3% q/q rise in services output, conditional on our forecast that production in the sector added 0.2% m/m in June, following no growth in May.

We predict some rebound in the third quarter, especially if firms start to stockpile again, but overall the pace of increase should average only around 0.1% to 0.2% q/q in the third and fourth quarters. This will mean that full-year growth should come in at 1.3%, worsening on the 1.4% gain in 2018. But all of this is conditional on a smooth Brexit outcome, which should include another extension of the Article 50 exit deadline at least until the end of the year.

The Long View

ASIA PACIFIC

By Katrina Ell of Moody's Analytics
August 8, 2019

ASIAN CENTRAL BANKS

Central bank meetings this week from New Zealand, India, the Philippines and Thailand confirm that policymakers in the region are spooked. The overarching concern is the U.S.-China trade war's impact on the global outlook and how it will hurt their own economies. The problem now is that monetary policymakers are so concerned about the outlook that they may talk themselves into a recession.

With the trade war back to escalation phase, economies throughout Asia have good reason to be worried. The Trump administration plans to impose a 10% tariff on an additional US\$300 billion of Chinese goods imports from 1 September. Beijing is retaliating; the first subtle maneuver was allowing the yuan to depreciate, and further measures are surely in the wings.

But more expansionary monetary policy cannot change the status quo. The potency of further expansionary monetary policy is limited by the unfavourable backdrop. Additional rate cuts make credit creation more attractive, but the global environment of heightened geopolitical risks is not one where firms want to invest.

NEW ZEALAND

The Reserve Bank of New Zealand surprised markets by cutting the Official Cash Rate by 50 basis points to 1% in August, bringing cumulative easing this year to 75 basis points. It takes up to a year for the impact of easier monetary policy to materialize in New Zealand given that 80% of residential mortgages are fixed. As a result, the RBNZ needs to be swift when conditions deteriorate to effectively shore up the economy. Consumption is a key driver of overall performance, so if the RBNZ is to be effective in trying to insulate the economy and shore up global demand, it needs to be aggressive from the get-go.

For New Zealand's small, open economy, the exchange rate is a key channel for monetary policy. By surprising markets with a 50-basis point reduction, the bank weakens the kiwi. The currency fell 1.4% against the dollar in the 45 minutes after the interest rate decision was released, to US\$0.644, bringing depreciation so far this year to 2.8%. The central bank has the flexibility to aggressively weaken the kiwi since inflation is already subdued, so imported inflation is not a concern. CPI is forecast to gradually pick up to the midpoint of the RBNZ's 1%-to-3% target band.

THAILAND

The Bank of Thailand cut the policy rate by 25 basis points to 1.5% in August, against expectations it would hold steady. The Monetary Policy Committee voted 5-2 to cut rates. The strength of the baht appeared to be the primary driver. The BoT had only last week stated that easing policy wouldn't do much for the baht given that interest rate differentials were already low, but with so many central banks in Asia and further abroad turning even more dovish, the BoT apparently felt backed into a corner.

INDIA

The Reserve Bank of India reduced the repurchase rate by 35 basis points in August to 5.4%. This move marks the fourth consecutive rate cut since December 2018 and has brought the cumulative easing so far this year to 110 basis points. With a larger than expected reduction in August, the benchmark rate currently sits at its lowest since April 2010. The much anticipated move by the Monetary Policy Committee comes against the backdrop of a slowing domestic economy and ongoing trade uncertainties. With global trade tensions likely to intensify and a sluggish domestic recovery predicted in the months ahead, we expect the RBI to maintain an accommodative stance, with the possibility of another rate cut by the end of 2019.

THE PHILIPPINES

The Bangko Sentral ng Pilipinas reduced the policy rate, as expected, by 25 basis points to 4.25% at its August meeting. The BSP has been given room to ease as inflation continues to cool and looks to remain within the 2%-to-4% target range through 2020, after it spiked in late 2018. The need to cut was driven by the softer global environment hurting exports. As major central banks including the Fed are in easing mode, the Philippines is able to reverse some of the 175 basis points of tightening introduced in 2018. Further rate cuts are on the horizon, with at least one further 25-basis point cut before the end of 2019, bringing cumulative easing this year to 75 basis points.

Ratings Round-Up

Ratings Round-Up

U.S. Rating Changes Mixed; European Activity Low

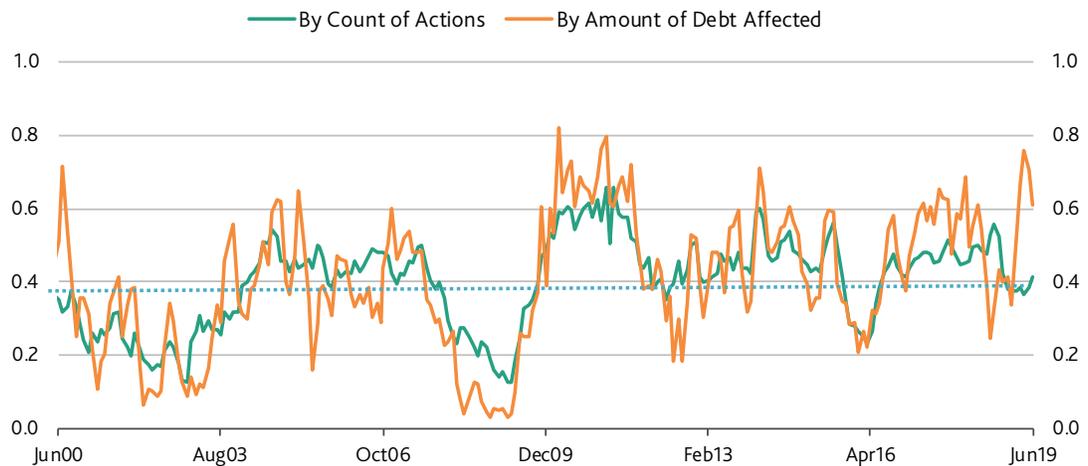
By Steven Shields

U.S. credit rating changes were mixed this week, with one large downgrade accounting for nearly 70% of all affected U.S. debt. Occidental Petroleum Corporation's senior unsecured rating was lowered to Baa3 from A3, with the change impacting \$10.4 billion in total debt. The change comes on the heels of Occidental's planned acquisition of Anadarko Petroleum. According to Moody's Investors Service, the acquisition will add meaningfully to Occidental's production and reserves, but very high leverage and negative coverage rating factors led to the credit downgrade. Meanwhile, Moody's Investors Service upgraded utility Mississippi Power Company's senior unsecured notes to Baa2 from Baa3, reflecting an improved regulatory environment in Mississippi, continued improvement in financial metrics, and its liquidity profile. The record U.S. expansion remains in overall good standing with none of the traditional causes for a recession, such as financial or inventory imbalances, appearing worrisome.

European rating activity was relatively quiet with only three rating changes this week. The single European upgrade was assigned to CB Kuban Credit Ltd. The firm's long-term foreign currency deposit rating was upgraded to B2 from B3, and the outlook remains stable. Italian building materials firm Officine Maccaferri S.p.A., was downgraded from B3 to Caa1 reflecting the company's weak liquidity, high leverage, and uncertainty over the restructuring process of its parent company, SECI S.p.A.

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

Ratings Round-Up

FIGURE 3

Rating Changes: Corporate & Financial Institutions – US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG
7/31/19	99 CENTS ONLY STORES LLC	Industrial	SrUnsec /LTCFR/PDR	250	U	Ca	Caa3	SG
7/31/19	KEHE DISTRIBUTORS HOLDINGS, LLC-KEHE DISTRIBUTORS, LLC	Industrial	SrSec /LTCFR/PDR	200	U	Caa1	B3	SG
7/31/19	CAREERBUILDER, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
7/31/19	ALCAMI CORPORATION	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
8/1/19	OCCIDENTAL PETROLEUM CORPORATION	Industrial	SrUnsec/LTIR/MTN/CP	10,387	D	A3	Baa3	IG
8/1/19	SOUTHERN COMPANY (THE)-MISSISSIPPI POWER COMPANY	Utility	SrUnsec/LTIR /JrSub/PS	1,211	U	Baa3	Baa2	SG
8/1/19	VISTEON CORPORATION	Industrial	SrSec/BCF /LTCFR/PDR		D	Ba2	Ba3	SG
8/2/19	CLEAR CHANNEL OUTDOOR HOLDINGS, INC.-CLEAR CHANNEL WORLDWIDE HOLDINGS, INC.	Industrial	SrSub	2,235	D	Caa1	Caa2	SG
8/5/19	CENTRALSQUARE TECHNOLOGIES, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	Caa2	Caa3	SG
8/6/19	NEW ENTERPRISE STONE & LIME CO., INC.	Industrial	SrSec/SrUnsec /LTCFR/PDR	650	U	B2	B1	SG
8/6/19	HUATAI SECURITIES CO., LTD.-ASSETMARK FINANCIAL HOLDINGS, INC.	Financial	SrSec /BCF/LTCFR		U	B1	Ba2	SG

Source: Moody's

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
8/1/19	FIRST INVESTMENT BANK AD	Financial	LTD		D	B2	B3	SG	BULGARIA
8/5/19	OFFICINE MACCAFERRI S.P.A.	Industrial	SrUnsec /LTCFR/PDR	211	D	B3	Caa1	SG	ITALY
8/6/19	CB KUBAN CREDIT LTD	Financial	LTD		U	B3	B2	SG	RUSSIA

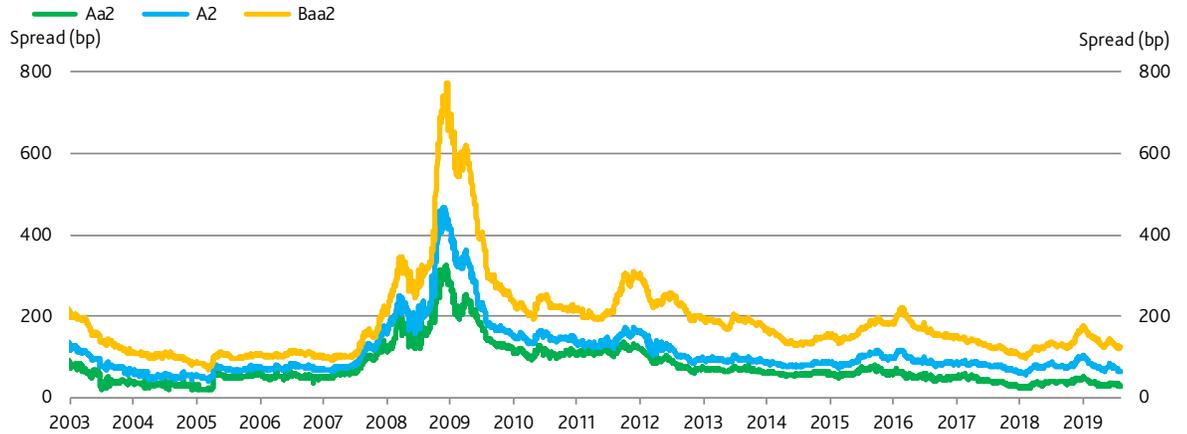
Source: Moody's

Market Data

Market Data

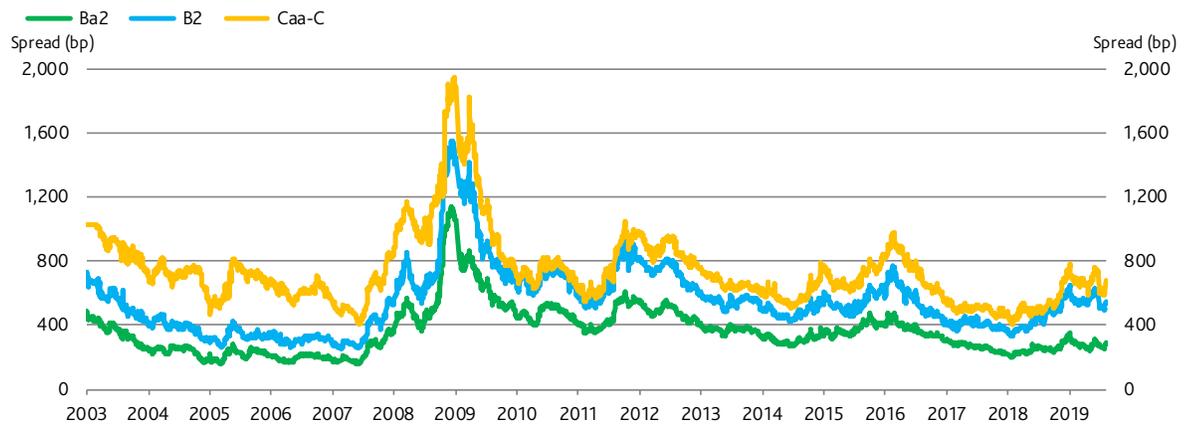
Spreads

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 (July 31, 2019 – August 7, 2019)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer	Aug. 7	Jul. 31	Senior Ratings	
Qwest Corporation	Ba3	B2	Ba2	
CenterPoint Energy Resources Corp.	A3	Baa2	Baa1	
Cummins, Inc.	A3	Baa2	A2	
Alliant Energy Corporation	A2	Baa1	Baa1	
Ford Motor Credit Company LLC	Ba3	B1	Baa3	
CVS Health	Baa2	Baa3	Baa2	
3M Company	Aa3	A1	A1	
Philip Morris International Inc.	Baa1	Baa2	A2	
Ford Motor Company	Ba3	B1	Baa3	
Enterprise Products Operating, LLC	Baa1	Baa2	Baa1	

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer	Aug. 7	Jul. 31	Senior Ratings	
Kerr-McGee Corporation	Baa3	A3	Ba1	
American Express Company	A1	Aa2	A3	
Anadarko Petroleum Corporation	Ba1	Baa2	Ba1	
Chesapeake Energy Corporation	Ca	Caa2	B2	
Ball Corporation	Baa1	A2	Ba1	
ConocoPhillips	Baa2	A3	A3	
Ashland LLC	Baa2	A3	Ba3	
Huntsman International LLC	A3	A1	Baa3	
Bear Stearns Companies LLC. (The)	A1	Aa2	A2	
JPMorgan Chase & Co.	A2	A1	A2	

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Aug. 7	Jul. 31	Spread Diff
Frontier Communications Corporation	Caa2	5,173	3,502	1,671
Dean Foods Company	Caa2	3,687	2,693	994
Neiman Marcus Group LTD LLC	Ca	4,391	3,721	669
Penney (J.C.) Corporation, Inc.	Caa3	6,334	5,884	450
Chesapeake Energy Corporation	B2	1,246	919	327
Diamond Offshore Drilling, Inc.	B3	664	437	227
K. Hovnanian Enterprises, Inc.	Caa3	2,034	1,811	222
Rite Aid Corporation	Caa2	1,718	1,509	209
Talen Energy Supply, LLC	B3	906	737	169
Nabors Industries Inc.	B1	707	543	164

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Aug. 7	Jul. 31	Spread Diff
DPL Inc.	Ba1	335	360	-25
Newell Brands	Baa3	145	169	-24
Qwest Corporation	Ba2	208	227	-18
First Industrial, L.P.	Baa2	233	251	-18
Service Corporation International	Ba3	158	171	-13
Commercial Metals Company	Ba2	239	248	-9
Dole Food Company, Inc.	Caa1	190	199	-8
Allergan, Inc.	Baa3	81	87	-7
PPG Industries, Inc.	A3	86	92	-6
Texas Instruments, Incorporated	A1	88	94	-6

Source: Moody's, CMA

Market Data

Figure 4. CDS Movers - Europe (July 31, 2019 – August 7, 2019)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer		Aug. 7	Jul. 31	Senior Ratings
Investor AB		A1	A3	Aa3
Unitymedia GmbH		A2	Baa1	B3
Barclays PLC		Baa3	Ba1	Baa3
Banco Bilbao Vizcaya Argentaria, S.A.		A2	A3	A3
Banco Santander S.A. (Spain)		Aa2	Aa3	A2
The Royal Bank of Scotland Group plc		Baa3	Ba1	Baa2
Santander UK plc		Baa2	Baa3	Aa3
Dexia Credit Local		Ba1	Ba2	Baa3
Nationwide Building Society		A3	Baa1	Aa3
Landesbank Hessen-Thuringen GZ		A2	A3	Aa3

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer		Aug. 7	Jul. 31	Senior Ratings
Banque Federative du Credit Mutuel		Aa3	Aa2	Aa3
Bankinter, S.A.		Baa2	Baa1	Baa1
Deutsche Telekom AG		Aa3	Aa2	Baa1
E.ON SE		Aa2	Aa1	Baa2
ENGIE SA		Aa2	Aa1	A3
Veolia Environnement S.A.		Aa3	Aa2	Baa1
Telia Company AB		Aa3	Aa2	Baa1
Deutsche Post AG		Aa2	Aa1	A3
Schneider Electric SE		Aa2	Aa1	Baa1
Airbus SE		Aa3	Aa2	A2

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Aug. 7	Jul. 31	Spread Diff
PizzaExpress Financing 1 plc	Caa2	6,335	5,553	782
Boparan Finance plc	Caa1	4,036	3,355	681
CMA CGM S.A.	B3	1,418	1,300	118
Matalan Finance plc	Caa1	877	759	118
Stena AB	B3	579	516	63
Novafives S.A.S.	Caa1	559	500	59
Jaguar Land Rover Automotive Plc	B1	673	633	40
Vedanta Resources Limited	B2	510	471	39
Iceland Bondco plc	Caa2	416	379	38
Greece, Government of	B1	261	225	37

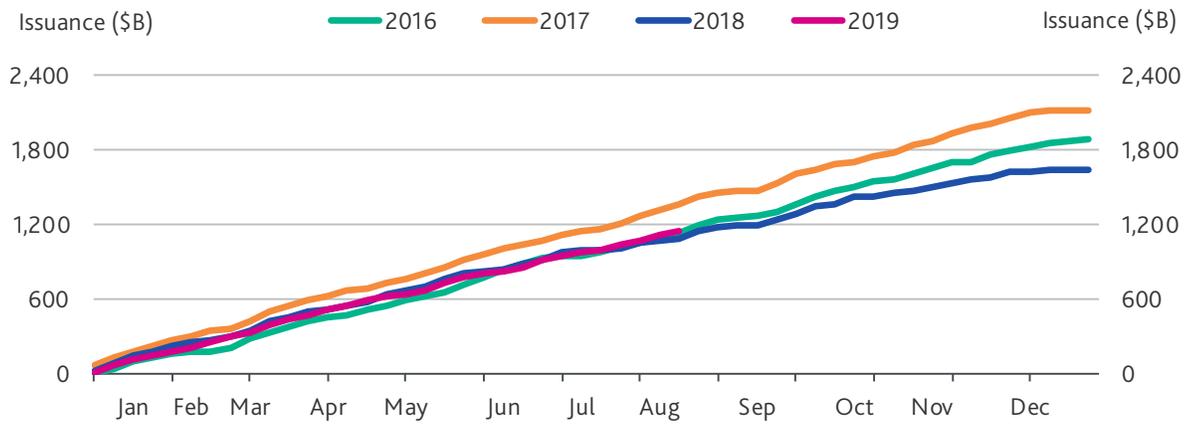
CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Aug. 7	Jul. 31	Spread Diff
Eksportfinans ASA	Baa1	506	546	-40
Altice Finco S.A.	Caa1	315	340	-25
Permanent tsb p.l.c.	Baa3	214	229	-15
3i Group plc	Baa1	94	101	-7
EWE AG	Baa1	112	117	-5
Nationwide Building Society	Aa3	52	56	-4
Allied Irish Banks, p.l.c.	A3	58	62	-4
Unitymedia GmbH	B3	46	50	-4
Stonegate Pub Company Financing plc	Caa1	156	160	-4
DZ BANK AG	Aa1	61	64	-3

Source: Moody's, CMA

Market Data

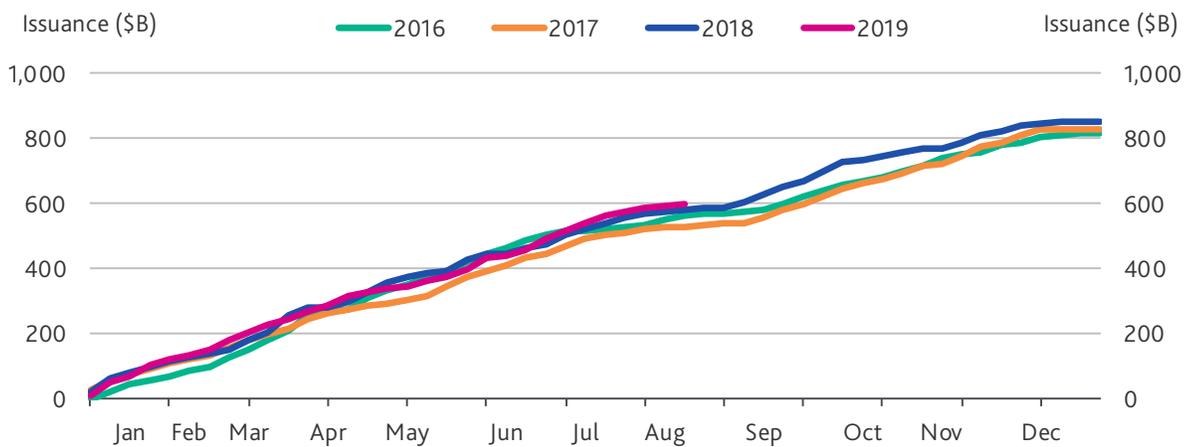
Issuance

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	26.967	9.534	36.992
Year-to-Date	827.285	258.079	1,148.948

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	4.508	1.765	8.813
Year-to-Date	525.241	56.203	601.090

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

Moody's Capital Markets Research recent publications

Faster Loan Growth Would Bode Poorly for Corporate Credit Quality (Capital Markets Research)

Likelihood of a 1.88% Fed Funds Rate by End of July Soars (Capital Markets Research)

Market Implied Ratings Differ on the Likely Direction of Baa3 Ratings (Capital Markets Research)

Below-Trend Spreads Bank on Profits Growth, Lower Rates and Healthy Equities (Capital Markets Research)

Global Collapse by Bond Yields Stems from Worldwide Slowdown (Capital Markets Research)

Borrowing Restraint Likely Despite Lower Interest Rates (Capital Markets Research)

The Fed Cured 1998's Yield Curve Inversion (Capital Markets Research)

Extended Yield Curve Inversion Would Presage Wide Spreads and Many Defaults (Capital Markets Research)

Business Debt's Mild Rise Differs Drastically from 2002-2007's Mortgage Surge (Capital Markets Research)

Earnings Slump Would Unmask Dangers of High Leverage (Capital Markets Research)

Credit May Again Outshine Equities at Divining Markets' Near-Term Path (Capital Markets Research)

Not Even the Great Depression Could Push the Baa Default Rate Above 2% (Capital Markets Research)

Benign Default Outlook Implies Profits Will Outrun Corporate Debt (Capital Markets Research)

Upside Risks to the U.S. Economy (Capital Markets Research)

Outstandings and Rating Changes Supply Radically Different Default Outlooks (Capital Markets Research)

High Leverage Offset by Ample Coverage of Net Interest Expense (Capital Markets Research)

Subdued Outlook for Revenues and Profits Portend Lower Interest Rates (Capital Markets Research)

Fed Will Cut Rates If 10-Year Yield Breaks Under 2.4% (Capital Markets Research)

Riskier Outlook May Slow Corporate Debt Growth in 2019 (Capital Markets Research)

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)

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

Report Number: 1189760

Editor
Reid Kanaley
help@economy.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.