

## WEEKLY MARKET OUTLOOK

Moody's Analytics Research

Weekly Market Outlook Contributors:

John Lonski  
1.212.553.7144  
john.lonski@moodys.com

Franklin Kim  
1.212.553.4419  
franklin.kim@moodys.com

Yuki Choi  
1.212.553.0906  
yukyung.choi@moodys.com

Njundu Sanneh  
1.212.553.4036  
njundu.sanneh@moodys.com

Moody's Analytics/U.S.:

Ryan Sweet  
1.610.235.5213  
ryan.sweet@moodys.com

Moody's Analytics/Europe:

Barbara Teixeira Arajuo  
+420.224.106.438  
barbara.teixeiraaraujo@moodys.com

Reka Sulyok  
+420.224.106.435  
reka.sulyok@moodys.com

Moody's Analytics/Asia-Pacific:

Katrina Ell  
+61.2.9270.8144  
katrina.ell@moodys.com

### Editor

Reid Kanaley  
1.610.235.5273  
reid.kanaley@moodys.com

## Upon Further Review, Debt to EBITDA Still Falls Short as an Aggregate Predictor

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

Upon Further Review, Debt to EBITDA Still Falls Short as an Aggregate Predictor

>>

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 7

### [The Long View](#)

Full updated stories and key credit market metrics: July 2018's issuance of US\$-denominated high-yield bonds may be no greater than \$16 billion for the slowest July since 2008's recession year.

Credit Spreads

**Investment Grade:** We see year-end 2018's average investment grade bond spread exceeding its recent 123 bp. **High Yield:** Compared to a recent 350 bp, the high-yield spread may approximate 420 bp by year-end 2018.

Defaults

**US HY default rate:** Moody's Default and Ratings Analytics team forecasts that the U.S.' trailing 12-month high-yield default rate will sink from June 2018's 3.4% to 2.3% by June 2019.

Issuance

**In 2017,** US\$-denominated IG bond issuance grew by 6.8% to a record \$1.508 trillion, while US\$-priced high-yield bond issuance advanced by 33.0% to a new record calendar-year high of \$453 billion. **For 2018's** US\$-denominated corporate bonds, IG bond issuance may drop by 9% to \$1.374 trillion, while high-yield bond issuance is likely to fall by 13% to \$394 billion..

>>

FULL STORY PAGE 16

### [Ratings Round-Up](#)

M&A the Main Driver of Rating Change Activity

>>

FULL STORY PAGE 21

### [Market Data](#)

Credit spreads, CDS movers, issuance.

>>

FULL STORY PAGE 24

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

Links to commentaries on: Base metals, trade war, Investment grades, defaults, higher rates, profit growth, credit quality, foreign investors, internal funds, tariffs, borrowing restraint, corporate bonds, tax law changes, stocks and spreads, Greek drama, South Korea.

>>

FULL STORY PAGE 29

**!** THIS REPORT WAS REPUBLISHED AUGUST 6, 2018 TO UPDATE ECONOMIC FORECASTS FOR THE WEEK AHEAD.

[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.

### Upon Further Review, Debt to EBITDA Still Falls Short as an Aggregate

Last week's commentary began with a reference to the weak predictive power of an unadjusted median ratio of corporate debt to EBITDA for publicly held, nonfinancial-company issuers of high-yield debt. However, one reader was gracious enough to take the time to alert me to a major shortcoming of the median ratio of corporate debt to EBITDA, especially as it applies to high-yield issuers.

EBITDA—or earnings before interest, taxes, depreciation and amortization—can be negative, especially among companies having speculative-grade ratings. As a result, an unadjusted median ratio of corporate debt to EBITDA often understates how burdensome outstanding debt is relative to the EBITDA of high-yield issuers.

When corporate debt falls relative to EBITDA (typically because of EBITDA's faster growth), the declining ratio of corporate debt to EBITDA is viewed as representing an enhancement of credit quality. In other words, default risk declines as the ratio of corporate debt to EBITDA approaches zero.

#### Negative EBITDA Saps Meaning From the Median Ratio for Debt to EBITDA

However, the major problem with employing the median ratio of corporate debt to EBITDA arises because of the sometimes relatively large number of high-yield issuers showing negative EBITDA. If EBITDA is negative, the ratio of corporate debt to EBITDA will fall under zero, where the deeper the ratio falls under zero, the worse will be corporate credit quality. Thus, the ratio of corporate debt to EBITDA is a non-monotonic relationship. Though credit quality improves as the ratio of debt to EBITDA approaches zero, credit quality worsens once the ratio turns increasingly negative.

Because highly positive and negative ratios of corporate debt to EBITDA are associated with above-trend default risk, an unadjusted median ratio of corporate debt to EBITDA can be very misleading. For example, as the number of high-yield companies having negative EBITDA increases, the median ratio of corporate debt to EBITDA will fall despite how high-yield credit quality is worsening on balance.

However, unlike the ratio of corporate debt to EBITDA, the ratio of EBITDA to corporate debt is monotonic. That is regardless of whether EBITDA is positive or negative, a declining ratio of EBITDA to corporate debt represents a deterioration of credit quality and vice versa.

#### Ratio of EBITDA to Debt Offers a More Consistent View Than Ratio of Debt to EBITDA

Market analysts would be better off employing the median ratio of EBITDA to corporate debt, as opposed to the median ratio of corporate debt to EBITDA, when assessing the overall high-yield credit market. In view of how bad habits are hard to break, high-yield market analyses that stubbornly opt for the median ratio of corporate debt to EBITDA might first invert each company-specific ratio of debt to EBITDA to a ratio of EBITDA to corporate debt. A subsequent inversion of the median ratio of EBITDA to debt would supply an approximation of the median ratio of corporate debt to EBITDA that is without the downward bias otherwise imparted by negative EBITDA.

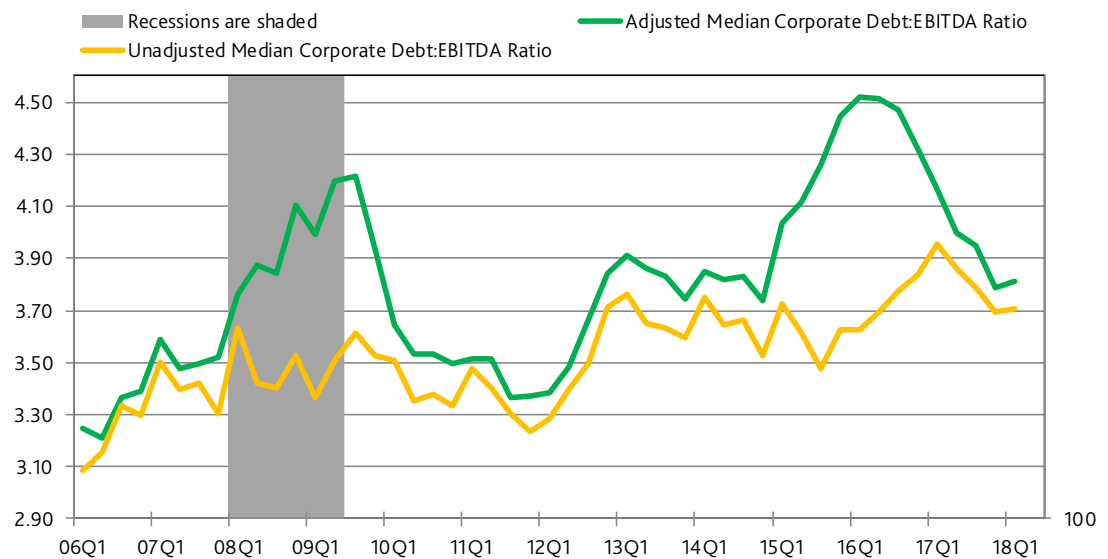
The following analysis of ratios that are specific to high-yield companies suffers from being limited to publicly held companies whose most senior unsecured rating is below investment grade. Because privately held high-yield issuers tend to be more highly leveraged than publicly held entities, the high-yield data employed in the following charts understates the degree of leverage for publicly and privately held speculative-grade issuers.

## Credit Markets Review and Outlook

Let's begin by comparing the unadjusted and adjusted median ratios of high-yield corporate debt to EBITDA. As noted earlier, the adjusted ratio employs the inverted median ratio of EBITDA to corporate debt in order to avoid the downward bias of the unadjusted median. As shown by Figure 1, the adjusted ratio almost always exceeds the unadjusted ratio, where the gap widens as the frequency of negative EBITDA becomes more widespread. For example, the adjusted ratio climbs far above the unadjusted ratio during the Great Recession of 2008-2009 and again during 2015-2016's bout of severe industrial commodity price deflation. This comparison illustrates the danger implicit to employing an unadjusted ratio of corporate debt to EBITDA when undertaking market-wide analysis.

**Figure 1: Adjusted Ratio Moves Well Above Unadjusted Ratio of Debt to EBITDA When Frequency of Negative EBITDA Mounts**

*yearlong ratios of publicly-held US nonfinancial high-yield companies*  
sources: BEA, Moody's Analytics



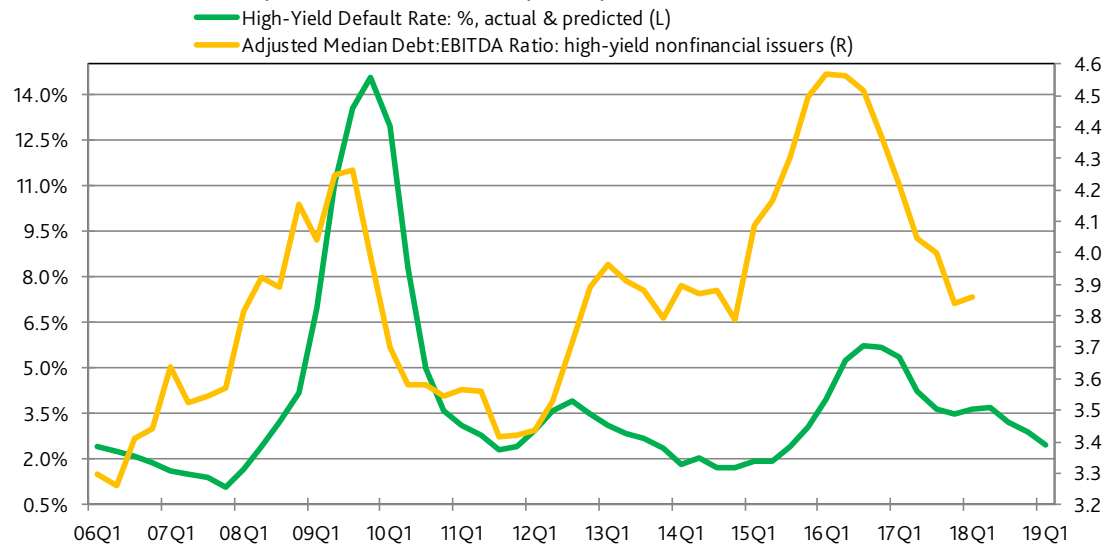
### Adjusted Median Ratio of Debt to EBITDA Is a Less Than Trustworthy Default Indicator

Nevertheless, the adjusted median ratio of debt to EBITDA for publicly held high-yield companies still falls short as a leading indicator of the high-yield default rate. The correlation between the high-yield default rate and the coincident and lagged versions of the adjusted median ratio of debt to EBITDA climbs no higher than the 0.49 for the debt to EBITDA ratio of two quarters earlier. Though the adjusted median ratio of debt to EBITDA correctly anticipated the default rate's direction for 2015 and thereafter, the adjusted median ratio grossly overstated the amplitude of 2016's climb by the high-yield default rate.

## Credit Markets Review and Outlook

**Figure 2: After Adjusting for Negative EBITDA, Median Ratio of Debt to EBITDA Still Grossly Overstated High-Yield Default Rate's Climb of 2015-2016**  
*US high-yield issuers*

*sources: Moody's Investors Service, Moody's Analytics*



#### Ratio of High-Yield Debt to EBITDA Misled on Defaults During 2006-2008

The unimpressive forecasting performance by even the median ratio of high-yield debt to EBITDA begs the question as to whether the overall ratio of debt to EBITDA might fare better. As derived from the same Moody's Analytics CreditEdge data base of publicly held high-yield issuers, the simple overall ratio of corporate debt to EBITDA is a somewhat better than the adjusted median ratio at predicting the default rate.

Nevertheless, as shown by Figure 3, the overall ratio of high-yield debt to EBITDA was so volatile prior to 2009 that it offered no clear indication regarding the likely direction of the default rate. Granted that the 28% annual surge by the outstanding high-yield debt of 2007's third quarter warned of excessive leveraging, but the accompanying 30% annual advance by high-yield EBITDA of the year-ended September 2007 suggested that the heavier debt load might prove manageable. Moreover, the dip by the overall ratio of high-yield debt to EBITDA from the 4.2:1 of 2007's final quarter to the 3.4:1 of 2008's first quarter hinted of an improving default outlook when, in fact, a then rising default rate was about to jump sharply higher.

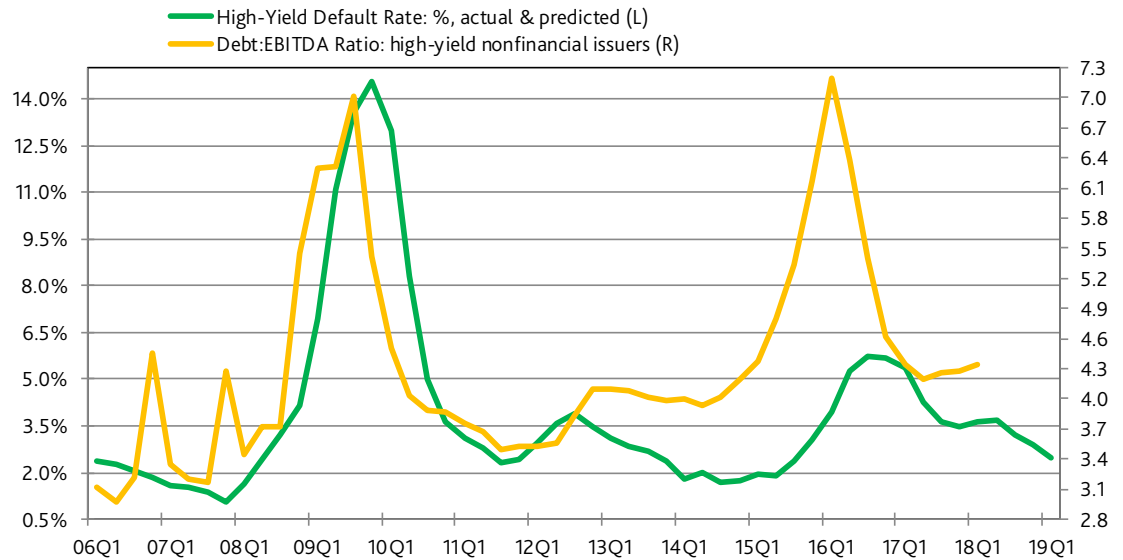
Similar to what befell the adjusted median ratio of debt to EBITDA, the steep ascent by the overall ratio of high-yield debt to EBITDA from a second-quarter 2014 low of 3.9:1 to a first-quarter 2016 high of 7.1:1 overestimated the accompanying climb by the high-yield default rate from the 1.7% of 2014's third quarter to the 5.7% of 2016's third quarter. Finally, the latest uptick by the debt to EBITDA ratio from the 4.1:1 of 2017's second quarter to the 4.3:1 of 2018's first quarter suggests that the prediction of declining default rate into the summer of 2019 by Moody's Default Research Group is not without some risk.

## Credit Markets Review and Outlook

**Figure 3: Overall Ratio of Ratio of Debt to EBITDA Is a Better Predictor of High-Yield Default Rate than Adjusted Median Ratio**

US high-yield issuers

sources: Moody's Investors Service, Moody's Analytics



#### Ratio of Debt to Pretax Income Has Been a More Reliable Default Indicator

Among all conceivable debt to income ratios, perhaps none performs better than the ratio of corporate debt to pretax profits from current production, where the ratio is derived from all U.S. nonfinancial corporations be they high-yield, investment-grade or unrated.

The high-yield default rate shows a correlation as high as 0.85 with the ratio of corporate debt to profits that is lagged one quarter. When the debt to profits ratio is from two quarters earlier, the correlation dips slightly to 0.81. By contrast, the default rate's correlation with the overall ratio of high-yield debt to EBITDA peaks at the 0.74 of two quarters earlier.

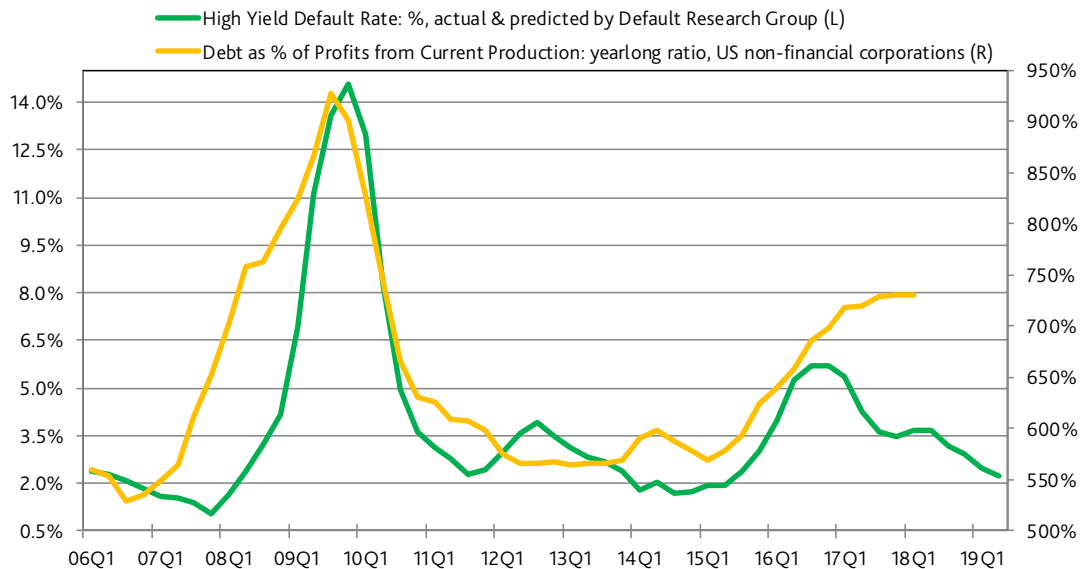
As shown by Figure 4, after bottoming in 2006's third quarter, the ratio of corporate debt to profits from current operating steadily moved higher and, thereby, consistently warned of a rising high-yield default rate. However, the ratio has yet to confirm a declining default rate. Unless pretax profits from current production continue to outrun nonfinancial-corporate debt, the projected default rate may be revised higher. In the worst case scenario, pretax profits from current production incur an extended slide that switches the default rate's predicted direction from lower to higher.

At least 2018-to-date's annual decline by the bond issuance of US-based companies is consistent with the faster growth of profits vis-a-vis corporate debt. Thus, a decline by the ratio of debt to profits may not require especially brisk corporate earnings.

Credit Markets Review and Outlook

**Figure 4: Forecasts of Lower Default Rate Implicitly Assume Sufficient Growth by Profits from Current Production**

*sources: Moody's, Federal Reserve, Bureau of Economic Analysis*



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

### THE U.S.

By Ryan Sweet of Moody's Analytics

### Energy Likely Was a Slight Drag on CPI

After a hectic week, the U.S. economic calendar is light. The focus will be on inflation. We look for the consumer price index to have risen 0.1% in July, leaving it up 2.9% on a year-ago basis. The forecast assumes that energy was a slight drag. We look for a small increase in food prices. Excluding food and energy, the CPI is forecast to have risen 0.2%, leaving it up 0.2% on a year-ago basis in July. The monetary policy implications will be minimal because the Fed has the green light to raise rates in September, since unemployment is low, inflation is near the Fed objective, and GDP is growing above trend.

	Key indicators	Units	Moody's Analytics	Consensus	Consensus Range	Last
Mon @ 10:00 a.m.	Moody's Analytics Business Confidence for 8/3/18	index, 4-wk MA				29.4
Tue @ 10:00 a.m.	Job Openings and Labor Turnover Survey for June	ths				6,638
Thur @ 8:30 a.m.	Jobless Claims for 8/4/18	ths	216	220	215 to 227	218
Thur @ 8:30 a.m.	Producer Price Index for July	% change	0.3	0.3	0.0 to 0.4	0.3
	Core PPI	% change	0.3	0.3	0.1 to 0.4	0.3
Fri @ 8:30 a.m.	Consumer Price Index for July	% change	0.1	0.2	-0.1 to 0.3	0.1
	Core CPI	% change	0.2	0.2	0.2 to 0.3	0.2

### MONDAY, AUGUST 6

#### Business confidence (week ended August 3; 10:00 a.m. EDT)

Forecast: N/A

Global businesses appear to be growing wary of the escalating global trade war. Sentiment is strong, but it is well off its highs of earlier in the year. Much of the weakening in sentiment is in expectations about business prospects into early next year, which are about as weak as they have been at any time during this economic expansion. Fewer than 40% of respondents say that prospects are improving; this is the lowest percentage since the economy was pulling out of the Great Recession at the start of this decade.

Businesses' other big concern is around regulatory and legal issues, although this concern is receding with about one-third of respondents saying the issues are their greatest worry. Worries about the cost and availability of labor are on the rise and the issues are now the top concern of nearly one-fourth of respondents.

The four-week moving average in our global business confidence index dropped from 31 to 29.4 in the week ended July 27, the lowest this year.

### TUESDAY, AUGUST 7

No major economic releases scheduled.

### WEDNESDAY, AUGUST 8

No major economic releases scheduled.

## The Week Ahead

THURSDAY, AUGUST 9

**Jobless claims (week ended August 4; 8:30 a.m. EDT)**

Forecast: 216,000

We look for initial claims for unemployment insurance benefits to have fallen by 2,000 to 216,000 in the week ended August 4. Claims are volatile this time of year because of the Fourth of July holiday and the annual auto plant retooling. With these temporary distortions behind us, new filings should begin to settle down.

FRIDAY, AUGUST 10

**Consumer price index (July; 8:30 a.m. EDT)**

Forecast: 0.1% (headline)

Forecast: 0.2% (core)

We look for the consumer price index to have risen 0.1% in July, leaving it up 2.9% on a year-ago basis. The forecast assumes that energy will be a slight drag. We look for a small increase in food prices. Excluding food and energy, the CPI is forecast to have risen 0.2%, up 0.2% on a year-ago basis in July.

---

**EUROPE**

By Barbara Teixeira Araujo of the Europe staff of Moody's Analytics in London and Prague

**A New Look at U.K. GDP**

The week ahead will be much lighter than last week on the data front. In the spotlight will be the much-awaited first estimate of the U.K.'s second-quarter GDP growth. This will be the first time that the country's statistical office will publish the preliminary release showing both production and the expenditure breakdown. It previously released the expenditure breakdown only with the second GDP estimate, four weeks after the preliminary one and around eight weeks after the end of the quarter. From now on, though, the Office for National Statistics is delaying publication of the production breakdown by two weeks while moving forward the publication of the expenditure breakdown by two weeks as well, allowing them to be merged.

We expect that next week's figures will give the Bank of England a pat on the back for not backing away from the second rate hike in a decade on Thursday. We are forecasting that GDP increased by 0.4% q/q in the second quarter, accelerating from a 0.2% rise in the previous stanza, matching the Monetary Policy Committee's expectations and its assessment of trend growth. However, the outlook for growth remains extremely fragile, notably as the rise in GDP should normally have jumped above its trend in the second quarter, as construction firms and consumers had to make up for activity lost at the start of the year due to weather disruptions. In any case, a 0.4% quarterly increase is expected to be just strong enough to corroborate the MPC's expectations that a tightening move was warranted to prevent inflation from exceeding its 2% target in the medium term.

The growth breakdown should show that most sectors rebounded following broad-based weakness in the first quarter. The exception should be energy production, which is set to have plunged on the back of the unusually warm weather over the quarter, which depressed demand for heating. But the flip side is that the warm weather boosted consumers' spending both on the High Street and at services firms. Accordingly, high-frequency data showed that retail sales increased at their fastest rate in 17 years in the second quarter, rising by as much as 2.1% q/q, more than fully reversing the 0.3% weather-related decline in the first stanza. True, retail trade accounts for only 7% of total services output, and for only one-third of total household spending, and consumers usually cut back on services spending to finance



## The Week Ahead

spending more on goods. But we still expect that both services firms' output outside the distribution sector as well as consumer services spending performed strongly after weakness at the start of the year. The warm weather and the World Cup are expected to have boosted output in the accommodation, food and transport sector, while demand for business services is also expected to have remained resilient. We are thus expecting that services output accelerated to 0.6% q/q, from 0.3% in the previous stanza.

Elsewhere, worse news will come from the production sector. Even if we pencil in a 0.8% m/m increase in output in June, manufacturing output is still set to decline by around 1.2% q/q over the second quarter as a whole, failing to rebound from a 0.1% fall in the first stanza. And with energy production expected to have plunged by as much as 3% q/q as due to the decline in demand for heating, not even a 1.8% expected rise in mining and quarrying will be able to salvage the total production headline. We expect it fell by 1.1% q/q, reversing the previous stanza's 0.4% rise. The good news is that construction output is expected to have recovered from weakness over the previous quarters on the back of the warm weather and risen by 0.7% q/q.

We still look for growth of 0.3% q/q in each if the remaining quarters this year. This should allow then the MPC to stand pat until at least next spring to wait to see what the Brexit negotiations will bring.

	Key indicators	Units	Moody's Analytics	Last
Mon @ 2:00 p.m.	Russia: Consumer Price Index for July	% change	0.4	0.5
Tues @ 7:00 a.m.	Germany: Industrial Production for June	% change	-0.6	2.6
Wed @ 8:00 a.m.	Spain: Industrial Production for June	% change	0.2	0.9
Wed @ 11:00 a.m.	OECD: Composite Leading Indicators for June		99.9	99.9
Fri @ 7:45 a.m.	France: Industrial Production for June	% change	1.1	-0.2
Fri @ 9:30 a.m.	U.K.: Industrial Production for June	% change	0.8	-0.4
Fri @ 9:30 a.m.	U.K.: GDP for Q2	% change	0.4	0.2
Fri @ 2:00 p.m.	Russia: Foreign Trade for June	\$ bil	15.5	15.2

## MONDAY, AUGUST 6

No major indicators are scheduled for release.

## TUESDAY, AUGUST 7

**Germany: Industrial Production (June; 7:00 a.m. BST)**

German industrial production likely experienced a slight correction in June, falling 0.6% m/m after surging by 2.6% in May. At the same time, in year-ago terms the rate of increase likely remained broadly unchanged at around 3%. The Markit manufacturing PMI slid further in June to an 18-month low of 55.9 from 56.9 in May and well below the peak in December, which points to weakening momentum in the sector. However, demand improved in the middle of the second quarter, which could support production in the coming months. German manufacturing orders rose 2.6% m/m in May and jumped 4.4% in year-ago terms. Domestic orders drove the increase during the month, and foreign orders rose as well, though at a weaker pace. Still, the outlook remains clouded as uncertainty caused by the Brexit negotiations and the new U.S. tariffs, which threaten to cause a global trade war, could hit German manufacturing.

## WEDNESDAY, AUGUST 8

**Spain: Industrial Production (June; 8:00 a.m. BST)**

Industrial production switched to a lower gear in June and likely added a paltry 0.2% m/m after an unusually strong performance in May. We expect that durable consumer goods production eased from a month earlier and that the energy sector dragged. In year-ago terms, industry likely expanded by 2.1%, well below the 12-month average of 3.2%. The PMI report showed that new business expansion hit a rough patch because of softer demand. Rising input price inflation due to higher aluminum and oil prices may curtail industrial production. Assuming that manufacturing keeps the pace from June, we are penciling in 2% growth in industrial output for 2018, down from 3.2% in 2017. The chances of a

## The Week Ahead

full-blown trade war seem to have diminished, but if tensions heat up again, Spain's industry could post a considerably weaker performance over the medium term.

## THURSDAY, AUGUST 9

No major indicators are scheduled for release.

## FRIDAY, AUGUST 10

**France: Industrial Production (June; 7:45 a.m. BST)**

France's industrial production likely grew by 1.1% m/m in June, fully reversing May's 0.2% decline. This should have pushed the yearly rate higher to 2%, following a 0.9% decline in May, though the reading will still be below the 2.6% average for the past 12 months. The main boost to the headline is expected to have come from a rebound in manufacturing production following a 0.6% m/m decline previously, which itself came mainly on the back of a plunge in oil refining due to extended maintenance in several of the country's refineries. As most of the refineries went back to business in June, we expect that oil refining rose by 15% m/m. But elsewhere in manufacturing, production is also expected to have corrected following May's disappointing results, when output declined in 11 of the 14 manufacturing subsectors. In the spotlight will be car production, which is expected to have finally grown following two consecutive months of declines. Overall, we expect that manufacturing output added 1% m/m in June, but even this increase won't salvage the second quarter.

That temperatures in June remained 1.7 degrees Celsius above their long-term average should have again depressed demand and hit energy production. We thus forecast another decline in energy output in June after May's small rebound, so energy production is expected to have plunged by 4.8% q/q in the second quarter, following a 2.1% gain previously.

**U.K.: Industrial Production (June; 9:30 a.m. BST)**

We expect that industrial production in the U.K. added 0.8% m/m in June, following a 0.4% m/m decline in May. This should have pushed the yearly rate to 1.1%, up from 0.8% previously but still below the past-year average of 2.1%. We forecast that energy production rebounded slightly from a 3.2% m/m decline in May, but temperatures in June remained around 1.8 degrees Celsius above their long-term average, keeping a lid on the correction. Mining and quarrying is similarly expected to have rebounded from a 4.6% m/m plunge in May, which itself was caused by unplanned maintenance at the Sullom Voe oil and gas terminal. Manufacturing should have increased 0.5% m/m, building on a 0.4% rise in May, driven by rises in machinery and equipment and in metal products production. But this won't be able to salvage the second quarter headline. The sector's output is still set to have declined by 1.2% q/q in the three months to June given the 1.8% m/m plunge in April, failing to rebound from a disappointing 0.1% fall in the first stanza of the year. We expect production as a whole fell by 1.1% q/q in the second quarter, fully reversing the previous stanza's 0.4% rise.

**U.K.: GDP (Q2; 9:30 a.m. BST)**

We forecast that U.K. GDP grew by 0.4% q/q in the second quarter, accelerating from 0.2% in the previous stanza and matching the MPC's expectations and its assessment of trend growth. This should have pushed yearly growth to 1.3%, from 1.2% in the previous quarter. The growth breakdown should show that most sectors rebounded following broad-based weakness in the first quarter. The exception was likely energy production, which should have plunged on the back of the unusually warm weather over the quarter that depressed demand for heating. But the flip side is that the warm weather boosted consumers' spending on the High Street and at services firms. Accordingly, high-frequency data showed that retail sales increased at their fastest pace in 17 years in the second quarter, by 2.1% q/q, more than fully reversing the 0.3% weather-related decline in the first stanza. Retail trade accounts for only 7% of total services output and for only one-third of total household spending, and consumers usually cut back on services spending to finance more spending on goods. But we still expect that services firms' output outside the distribution sector as well as consumer services spending performed strongly after weakness at the start of the year. The warm weather and the World Cup likely boosted output in the accommodation, food and transport sector, while demand for business services is also

## The Week Ahead

expected to have remained resilient. We thus expect that services output accelerated to 0.6% q/q, from 0.3% in the previous stanza.

Worse news will have come from the production sector. Even if we pencil in a 0.8% m/m increase in output in June, manufacturing output is still set to decline by around 1.2% q/q over the second quarter as a whole, failing to rebound from a 0.1% fall in the first stanza. And with energy production expected to have plunged by 3% q/q due to the decline in heating demand, not even a 1.8% expected rise in mining and quarrying will be able to save the total production headline. We expect it fell by 1.1% q/q, reversing the previous stanza's 0.4% rise. The good news is that construction output is expected to have recovered from weakness over the previous quarters on the back of the warm weather and risen by 0.7% q/q.

### Russia: Foreign Trade (June; 2:00 p.m. BST)

Russia's trade surplus dipped slightly but has been stable at just above US\$15 billion for three consecutive months. Wage gains have reached a healthy pace in 2018 after lagging the remainder of the recovery. This has supported increased spending on foreign goods, keeping imports rising and the trade balance in check. Higher energy prices have kept exports high as well, and this trend should have continued in June. Energy products account for about 85% of Russian exports. Oil prices jumped near the end of the month, although they dipped in the first half. Russia also increased crude oil production by 100,000 barrels per day, bringing about half of its previous supply cut back to the market. The combination of higher oil prices and export volume will push up exports, while lower prices early in the month and ongoing import increases will keep the gains in the trade balance modest.

---

## ASIA-PACIFIC

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

### Japan Likely Bounced Back After Q1 Contraction

The week is scattered with second quarter national accounts data. Japan's economy likely improved in the June quarter, after contracting in the March stanza and ending the uninterrupted GDP growth of the prior eight consecutive quarters. Domestic demand is expected to add to growth, with consumption and business investment likely increasing. However, the decline in residential investment will partially offset the rise in domestic demand elsewhere. On the external front, exports continue to rise, but imports have risen sharply on high commodity prices, leading to a weak contribution from net exports.

Indonesia's GDP growth likely cooled slightly in the June stanza. Aggressive monetary tightening from mid-May was a headwind to the already-underperforming household sector. Higher oil prices alongside buoyant global demand keeping manufacturing upbeat will help exports. GDP growth in the Philippines also likely softened a little. Consumer spending is healthy, thanks to steady inflows of overseas worker remittances and a firm labour market. External demand has remained solid but high base effects are at play.

Hong Kong's GDP growth likely weakened markedly in the second quarter, after the unsustainable 2.2% surge in the March quarter. Hong Kong's economy was firing on all cylinders in the March quarter, benefiting from the upswing in global demand. Private consumption was a particular strength in the first stanza and we expect households lost some of their exuberance by the June stanza.

Eyes will be fixated on China's July foreign trade data for tariff impacts and we expect the trade surplus widened. Tech import growth decelerated markedly in June, suggesting that firms are expecting slower exports and production in coming months, likely in expectation of the U.S. tariffs. One upside is that a trade deal could release pent-up demand. But in the meantime, the uncertainty is likely to dampen trade flows, especially for imports.

Inflation pressures in China are quiescent. Higher food inflation contributed to a mild rise in overall inflation in June. Core inflation remains stable, thanks to relatively stable housing and employment

## The Week Ahead

conditions. Higher import tariffs could lead to higher soybean prices in coming months, which would push up pork and food inflation.

	Key indicators	Units	Moody's Analytics	Last
Tues @ Unknown	Indonesia GDP for Q2	% change yr ago	5.0	5.1
Tues @ 2:30 p.m.	Australia Monetary policy for August	%	1.5	1.5
Tues @ 6:00 p.m.	Taiwan Consumer price index for July	% change yr ago	1.4	1.3
Tues @ 6:00 a.m.	Taiwan Foreign trade for July	US\$ bil	3.9	5.2
Wed @ Unknown	China Foreign trade for July	US\$ bil	44.0	41.6
Wed @ 5:05 p.m.	Thailand Monetary policy for August	%	1.5	1.5
Thurs @ 7:00 a.m.	New Zealand Monetary policy for August	%	1.75	1.75
Thurs @ Unknown	Philippines GDP for Q2	% change yr ago	6.6	6.9
Thurs @ 9:50 a.m.	Japan Machinery orders for June	% change	1.5	-3.7
Thurs @ 11:30 a.m.	China Consumer price index for July	% change yr ago	1.9	1.9
Thurs @ 11:30 a.m.	China Producer price index for July	% change yr ago	4.3	4.7
Fri @ Unknown	China Monetary aggregates for July	% change yr ago	8.1	8.0
Fri @ 9:50 a.m.	Japan GDP for Q2	% change	0.3	-0.2
Fri @ 6:30 p.m.	Hong Kong GDP for Q2	% change	0.6	2.2
Fri @ 10:20 p.m.	India Industrial production for June	% change yr ago	3.0	3.2

## MONDAY, AUGUST 6

No major economic indicators are scheduled for release.

## TUESDAY, AUGUST 7

**Indonesia: GDP (2018Q2; Unknown)**

Indonesia's GDP growth likely cooled to 5% y/y in the June quarter, from 5.1% in the opening quarter of 2018. Aggressive monetary tightening from mid-May was a headwind to the already-underperforming household sector. We expect consumption cooled to 4.7% y/y, shy of the 4.9% gain notched previously. Higher oil prices alongside buoyant global demand keeping manufacturing upbeat will help exports. An additional support should come from the ailing rupiah, which has been amongst Asia's worst-performing currencies this year. The likelihood of the government achieving its 5.4% full-year growth target for 2018 seems remote.

**Australia: Monetary Policy (August; 2:30 p.m. AEST; 4:30 a.m. GMT)**

The Reserve Bank of Australia is steering a relatively steady ship and will keep the cash rate on hold at 1.5% in August. The RBA appears comfortable with how domestic economic conditions are evolving; the labour market is continuing to tighten, GDP growth is on track to average a bit over potential at 3% in 2018 and 2019, and the previously heated pockets of the housing market are on an entrenched, albeit gradual, cooling trend thanks to tighter lending requirements. The low inflation outlook means that rate hikes are unlikely to come into view until the fourth quarter of 2019, and this could be pushed out further.

**Taiwan: Consumer Price Index (July; 6:00 p.m. AEST; 8:00 a.m. GMT)**

Taiwan's consumer price index likely increased 1.4% y/y in July, after rising 1.3% in the prior month. Price pressures eased in June, with inflation decelerating for the second straight month. Although tobacco and fuel prices remained elevated, declines in food and clothing prices as well as weaker housing-related inflation lowered overall price pressures. Excluding food and energy, consumer prices increased 1.3%. In the first half of 2018, consumer prices were up a mild 1.6% y/y, while core inflation was up 1.4%.

## The Week Ahead

**Taiwan: Foreign Trade (July; 6:00 p.m. AEST; 8:00 a.m. GMT)**

Taiwan's trade surplus likely narrowed to US\$3.9 billion in July, after widening to US\$5.2 billion in June. Taiwan's trade surplus surprised on the upside in June, with exports continuing to rise at a solid pace thanks to strong demand from mainland China, Japan and Europe. Meanwhile, imports remained firm, rising by a double-digit pace for the second straight month on the back of a surge in fuel imports and ongoing strength in electronic component imports. However, the escalating trade war between mainland China and the U.S. clouds the outlook, as Taiwan's export-manufacturing sector is a key cog in mainland China's supply chain. Any reduction in China's tech exports will inevitably hurt Taiwan's manufacturing sector, especially electronics, which account for more than one-third of Taiwan's exports.

## WEDNESDAY, AUGUST 8

**China: Foreign Trade (July; Unknown)**

China's trade surplus widened in June on account of a slowdown in imports. Tech import growth in particular decelerated, suggesting that firms are expecting slower exports and production in coming months, likely in expectation of the U.S. tariffs. One upside is that a trade deal could release pent-up demand. But in the meantime, the uncertainty is likely to dampen trade flows, especially for imports. China's trade balance likely widened to a US\$44 billion surplus in July, after a US\$41.6 billion surplus in June.

**Thailand: Monetary Policy (August; 5:05 p.m. AEST; 7:05 a.m. GMT)**

The Bank of Thailand will keep the policy rate steady at 1.5% at its August meeting. Inflation is mild and remains at the low end of the central bank's 1%-to-4% target range. Judging by the central bank's last monetary policy statement, the bank is still not confident in the economic recovery. Indeed, domestic demand, especially investment, has only just showed signs of improvement. Meanwhile, rising trade protectionism clouds the broader global economic outlook. Given the central bank's cautious tone in June, and given that inflation remains well within the target range, a rate hike appears unlikely in August.

## THURSDAY, AUGUST 9

**New Zealand: Monetary Policy (August; 7:00 a.m. AEST; Wednesday, 9:00 p.m. GMT)**

The Reserve Bank of New Zealand will keep the official cash rate at 1.75% in August. The economy is running at a decent clip, with employment growth healthy. There's no need to remove the accommodative settings any time soon, as the GDP outlook is slightly softer and inflation remains below the 2% midpoint target. Unlike most other central banks in the region, the RBNZ isn't set on its next move being a hike. It doesn't get much clearer than the bank stating that it's well positioned to manage change in either direction when it comes to the Official Cash Rate. We maintain our view that the RBNZ will start to gradually normalize policy from the fourth quarter of 2019, but that could be pushed out further given the weaker inflation outlook.

**Philippines: GDP (2018Q2; Unknown)**

The Philippine economy likely grew 6.6% y/y in the June quarter, after a 6.9% lift in the first three months of the year. Consumer spending is healthy, thanks to steady inflows of overseas worker remittances and a firm labour market. Investment has been robust and is likely to remain strong, as the government boosts infrastructure development. External demand has remained solid. Although these factors likely supported 6.6% GDP growth in the second quarter, rising price pressures will need watching. Headline inflation is at a five-year high and is well above Bangko Sentral ng Pilipinas' target band of 2% to 4%, which has prompted two policy rate hikes this year.

**Japan: Machinery Orders (June; 9:50 a.m. AEST; Wednesday, 11:50 p.m. GMT)**

Core machinery orders retreated in May after a surge in April, which had the biggest jump in orders since June 2008. But we expect orders to have made a comeback in June by rising 1.5% over the month following May's 3.7% decline. The second quarter is off to a decent start after GDP contracted in the first stanza; rising machinery orders tend to lead the capital investment pipeline by six to eight months,

## The Week Ahead

so the impact is unlikely to be felt straight away. Machinery orders are expected to expand, but not sharply, in the coming months. We also expect auto production to remain firm throughout 2018, as various new car models flood global markets. Auto production pulled back slightly in May after a surge in the previous months. And although steel production could slow because of protectionist measures, it's unlikely to derail thanks to the demand for autos.

**China: Consumer Price Index (July; 11:30 a.m. AEST; 1:30 a.m. GMT)**

Inflation pressures in China are quiescent. Higher food inflation contributed to a mild rise in overall inflation in June. Core inflation remains stable, thanks to relatively stable housing and employment conditions. Higher import tariffs could lead to higher soybean prices in coming months, which would push up pork and food inflation. Consumer prices likely rose 1.9% y/y July, the same as in June.

**China: Producer Price Index (July; 11:30 a.m. AEST; 1:30 a.m. GMT)**

Chinese producer prices picked up to a yearly high of 4.7% y/y in June, with rising commodity prices leading the increase. Rising prices of energy and other commodities are broadly positive, helping to boost industrial profits and ease deflation and debt concerns. Tariffs could also lead to higher costs for firms, although they could also boost profitability among some industrial producers. China's producer prices likely rose 4.3% y/y in July, up from 4.1% in June.

## FRIDAY, AUGUST 10

**China: Monetary Aggregates (July; 2:00 a.m. AEST; Thursday, 4:00 p.m. GMT)**

China's government had been clamping down on credit growth but is reversing its stance. Markets seem to have been spooked from the tightening as well as the trade war with the U.S., and liquidity had been reduced as capital exited the country. The People's Bank of China cut certain banks' reserve ratios by 100 basis points in April and an additional 50 basis points in late June. The freed-up funds will enable those banks to boost lending and could cause other finance companies to boost activity. The M2 money supply likely grew 8.1% y/y in July, up from 8% in June.

**Japan: GDP (2018Q2; 9:50 a.m. AEST; Thursday, 11:50 p.m. GMT)**

Japan's economy lost momentum in early 2018. GDP contracted by 0.2% q/q in the March quarter, according to second estimates. The March quarter contraction ended the uninterrupted GDP growth in the prior eight consecutive quarters, Japan's longest growth streak in years. However, we expect a rebound in the June quarter to 0.3% q/q on a seasonally adjusted basis. Domestic demand is expected to add to growth, with consumption and business investment likely increasing. However, the decline in residential investment will partially offset the rise in domestic demand elsewhere. Public spending contracted sharply in March because of big increases in 2017. This is expected to increase. Overall, downside risks persist in net exports, which are unlikely to add as sharply to growth compared with last year. Although exports continue to rise, imports have also risen markedly because of high commodity prices.

**Hong Kong: GDP (2018Q2; 6:30 p.m. AEST; 8:30 a.m. GMT)**

Hong Kong's GDP growth likely softened to 0.6% q/q in the June quarter, following the unsustainable 2.2% surge in the March quarter. Hong Kong's economy was firing on all cylinders in the March quarter, benefiting from the upswing in global demand. That looks to have softened in the June quarter, with the global wave of trade protectionism likely increasing caution around future economic conditions. Private consumption was a particular strength in the first stanza, accelerating to 3.1%, from 1.5% gain in the December quarter. We expect households lost some of their exuberance by the June stanza, driving a softer 0.8% rise.

**India: Industrial Production (June; 10:20 p.m. AEST; 12:20 p.m. GMT)**

India's industrial production continued to decelerate towards the midpoint of the year as higher oil prices bit into various projects. Industrial production slowed to 3.2% in May, and we expect production slid to 3% y/y in June. Fixed investment has been undermined by excess capacity and weak balance sheets in recent years. Demonetisation and confusion about the new goods and services tax also hurt investment last year. Industrial production could lose further pace as higher borrowing costs start to

## The Week Ahead

filter through. Nonperforming loans already remain relatively elevated and the resumption of a monetary policy tightening stance after a four-year hiatus could put further pressure on the sector.

## The Long View

### July 2018's issuance of US\$-denominated high-yield bonds may be no greater than \$16 billion for the slowest July since 2008's recession year.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group,  
August 2, 2018

#### CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 123 basis points resembles its 122-point mean of the two previous economic recoveries. This spread may be no wider than 140 bp by year-end 2018.

The recent high-yield bond spread of 350 bp is thinner than the 358 bp of the previous week and is less than might be inferred from the spread's macroeconomic drivers and the long-term Baa industrial company bond yield spread. The adverse implications for liquidity of possibly significantly higher interest rates merit consideration.

#### DEFAULTS

After rising from January 2018's latest bottom of 3.4% to March's 4.0%, the U.S. high-yield default rate has returned as of June to 3.4%. Moody's Default and Ratings Analytics team now expects the default rate will average 2.5% during 2019's first 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.

Second-quarter 2017's worldwide offerings of corporate bonds showed an annual decline of 6.3% for IG and an increase of 8.3% for high-yield, wherein US\$-denominated offerings fell by 6.4% for IG and grew by 5.8% for high yield.

Third-quarter 2017's worldwide offerings of corporate bonds showed an annual percent decline of 1.6% for IG and an increase of 6.6% for high-yield, wherein US\$-denominated offerings dipped by 0.7% for IG and grew by 4.3% for high yield.

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.

For yearlong 2016, worldwide corporate bond offerings rose by 2.3% annually for IG (to \$2.402 trillion) and sank by 7.8% for high yield (to \$426 billion). During yearlong 2017, worldwide corporate bond offerings increased by 4.0% annually (to \$2.499 trillion) for IG and advance by 41.2% for high yield (to \$602 billion). The projected annual changes for 2018's worldwide corporate bond offerings are -0.8% for IG and -12.0% for high yield.

The financing of acquisitions and shareholder compensation will stand out among 2016's uses of funds obtained via bond issues and newly-rated bank loan programs. Companies will resort to acquisitions and divestitures in order to better cope with the US's subpar recovery. To the degree companies fear significantly



## The Long View

higher bond yields, pre-fundings will rise.

### US ECONOMIC OUTLOOK

The consensus expects that the mid-point for the federal funds rate should finish 2018 at 2.125%. In view of the considerable 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 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  
August 2, 2018

### UNITED KINGDOM

August brought the second rate hike in a decade by the Bank of England, but the move had already been largely priced in by investors so the market's reaction to the 25-basis point increase was muted. It was nonetheless surprising that the vote was unanimous; we and the consensus were expecting at least one or two dissents. But fears of a hawkish U-turn by the bank were calmed as Bank Governor Mark Carney reinforced several times that the BoE is in no rush to raise interest rates again in coming months—any future increases in the bank rate are still expected to be gradual and to a limited extent. This chimes in with our view that the Monetary Policy Committee will wait until at least May before moving again, especially since in the next seven months Brexit negotiations will come to a climax and the uncertainty related to the talks will create little opportunity for the MPC.

That the economy is far from booming will similarly ensure that the MPC stands pat until next spring at least. Our view remains that the U.K.'s economic outlook is fragile, with wage growth still showing little sign of a sustainable increase, inflation easing back to target faster than the MPC had expected, and the housing market in the doldrums.

Granted, Carney stressed in his opening statement that the MPC is now confident that most of the weakness in the first stanza was due to one-off and erratic factors—notably the weather including snowfalls—and that all indicators suggest that the momentum strengthened in the second quarter. This conforms to our forecasts, but we strongly argue that expected growth of 0.4% q/q in the second quarter is still nothing to write home about, since mean-reversions should have pushed the rate much higher and above its assumed trend.

The BoE made small changes to its inflation and growth forecasts. The key detail was that it revised up slightly its inflation forecasts for 2019 and 2020, which was largely expected given the pound's 3% depreciation since May. But it also raised its forecast for GDP growth in 2019 to 1.8%, from 1.7%, though rounding played a big role in this revision.

Carney insisted that the bank's new estimate of the equilibrium interest rate has a wide margin for error, so markets played little attention to it. We don't think the bank will use the equilibrium interest rate as a regular feature, and will revise it only periodically. The bank estimates the U.K.'s long-run neutral rate at around 2% to 3%, but highlighted that several factors are depressing it in the short term without providing a precise estimate, with the uncertainty related to Brexit being one of them.

## The Long View

### EURO ZONE

Second quarter preliminary GDP numbers for the euro zone all but confirmed that the single-currency area lost significant momentum in the first half of 2018. A further slowdown in yearly expansion in the second quarter was always expected, but it was disappointing that the quarterly gain also lost pace against forecasts that it would hold ground or even accelerate. The bad weather in the first quarter created favorable base effects for a rebound in the three months to June, particularly regarding consumer spending and construction, but this doesn't appear to have materialized. However, there is no need to panic. At 2.1%, the pace of expansion remains solid, while base effects and leading indicators point towards better figures in the third quarter.

While the breakdown details are not yet available, we expect that slowing domestic demand was mainly behind the headline's disappointment. Retail sales and services spending are both expected to have risen solidly, but a plunge in energy spending due to the quarter's above-average temperatures combined with long-lasting strikes in the transportation sector in France likely kept a lid in goods consumption growth. And investment figures are unlikely to be anything to write home about, as monthly industrial production figures suggest that factory growth declined yet again in the second quarter. Elsewhere, no better news should come from net trade; the sector is expected to have neither contributed nor subtracted from growth.

Our view is that yearly growth will continue to slow this year following the above-average momentum in 2017. We forecast yearly growth to ease to 1.9% in the third quarter and 1.7% in the fourth; this will be consistent with a quarter-on-quarter acceleration of 0.4% in both stanzas. The story remains unchanged. Growth in the euro area is slowing but is not falling off a cliff, while base effects and temporary factors all suggest that the second half of the year will be better. This will allow for the European Central Bank to finish its quantitative easing programme as expected, but slowing growth and easing inflation won't tempt it to raise rates before autumn of next year.

---

### ASIA PACIFIC

By Katrina Ell of Moody's Analytics  
August 2, 2018

#### CHINA

A massive investment push is happening in a plethora of developing economies, especially in Asia, thanks to China's One Belt One Road Initiative. The various projects could bring important infrastructure improvements that will yield economic benefits for generations. However, beyond the surface are concerns that OBOR will leave economies dependent on China, particularly as a large chunk of financing for these projects tends to be sourced from Beijing.

It is difficult to directly quantify the economic impact on individual economies. First, it's unusual for the estimated spending on various projects to actually reach those numbers. Second, a number of important projects have already faced unforeseen delays that have pushed out completion dates for years. For example, the largest OBOR project in Indonesia is the Jakarta-Bandung high-speed rail, valued at \$5 billion, which Jakarta awarded to the Chinese in 2015 after a tight race with Japan. It has met problems including land ownership issues. Ownership rights for nearly 40% of the land have yet to be resolved. Construction began in early 2016 and was initially supposed to be completed by 2019, but the latest government estimates indicate that the railway may not be in use until 2024.

#### Investment lift scenario

So we took a different approach: Using our global macro model we estimated how sensitive a handful of Southeast Asia's largest economies are to changes in investment. We did this by increasing the fixed investment component of GDP. Our global macro model is made up of 68 countries with linkages via trade flows, foreign direct investment, and financial markets.

## The Long View

In the economies of Indonesia, Malaysia, Thailand and the Philippines we lifted our baseline projection of quarterly fixed investment growth by 1 percentage point each quarter beginning in 2019 until the end of 2020. These economies are important recipients of the One Belt One Road Initiative and are facing increasing pressure on their often already stressed infrastructures, implying that economic growth is not living up to its potential. For instance, an acknowledged key impediment to Indonesia's GDP growth meeting President Joko Widodo's 7% target is infrastructure bottlenecks, and in particular problems with the public sector crowding out incentives for the private sector to play a greater role in infrastructure financing. Indonesia's GDP growth is forecast at 5% in 2018, after notching 5.1% in 2017.

Under the investment lift scenario, fixed investment averages around 3 to 4 percentage points higher in annual terms for each country in 2019 and 2020. In practice, if the numerous OBOR projects reach completion, there likely would be a larger and longer-term spillover to investment growth, but we adopted a relatively short timeframe to exemplify sensitivities to investment. Also, it's important to not overstate the potential benefits from OBOR given the downside risks that include the possibility of some projects not getting off the ground or facing lengthy, or even insurmountable, delays.

Under the scenario we found that the weighted GDP growth of these four economies exceeds the baseline until mid-2022, six quarters after the investment shock ends. The underlying linkages are straightforward: In the short run, higher capital spending directly lifts aggregate demand and has positive spillovers to employment and wages as infrastructure projects, for example, are built. Long term, there can be benefits by improving the productive capacity of the economy and lifting competitiveness, and these are not well captured in our model.

We found Indonesia and the Philippines to be relatively more sensitive to changes in investment than Malaysia and Thailand. This could be related to how domestic demand makes up a larger share of the Indonesian and Philippine economies; Malaysia and Thailand are relatively more dependent on exports. That being said, there was still a notable and positive impact on both Malaysia's and Thailand's GDP growth.

### Malaysia's gone cold on OBOR

This is a relevant finding given that the role that OBOR will play in Malaysia has been reduced since the general elections in May. Newly elected Prime Minister Mahathir Mohamad announced in June that the government would review major projects agreed to by the previous government, partially on the government's renewed quest to reduce its indebtedness; gross debt-to-GDP was 51% in 2017. Projects for review include the East Coast Rail Link, the country's largest OBOR project. It is worth around \$13.8 billion and was planned to connect Malaysia's largest port with Thailand. Mahathir is renegotiating the terms, which he views as unfavourable, and this seems likely to mean the project will not come to fruition.

The high-speed rail link from Kuala Lumpur to Singapore, valued at \$17 billion, is also less likely to happen since the change of government. It was hoped that this important infrastructure project would improve bottlenecks, and the rail link was slated to begin operating in 2026. It was to shorten the journey between Kuala Lumpur and Singapore from around five hours to 90 minutes. Now it is unclear what, if anything, will be put in its place. If the government does not proceed with an equivalent investment push, there will be increasing bottlenecks and drag on long-term potential GDP growth.

### Case study: Pakistan

With significant infrastructure spending comes significant risk. Pakistan's experience with OBOR is a good case in point. Imran Khan appears victorious following Pakistan's general elections on 25 July and will inherit an economy struggling to keep its head above water. Pakistan has had three currency devaluations since December; foreign currency reserves are severely depleted; and the country is reportedly very likely to request an International Monetary Fund bailout, after receiving one of \$6.6 billion in September 2016. Pakistan has received 12 IMF bailouts since 1988. The current account deficit has widened over 40% in the fiscal year ending in June to \$18 billion. Pakistan is a net oil importer, so the sharp rises in global prices have contributed to the ballooned current account deficit.

Another important contributor to Pakistan's larger current account deficit and debt-to-GDP ratio is OBOR. China is reportedly making a \$50 billion investment in Pakistan's infrastructure. The China-Pakistan Economic Corridor is an important part of that investment and it aims to address many of the infrastructure bottlenecks facing businesses including inadequate ports, roads and power supply. But it's important to appreciate that

## The Long View

imports of materials (often from China) are required to construct these projects, so they contribute to the bloated import bill—along with the ailing currency. China has provided Pakistan around \$5 billion in loans in the past year, but this is more a Band-Aid solution to Pakistan's worsening economic fundamentals, as meaningful reforms haven't occurred and indebtedness to China is on a steep incline.

A problem down the road for Pakistan and other important OBOR partners is managing the debt burden when these OBOR loans need to be repaid. The IMF's Christine Lagarde warned of this in April, saying that OBOR "can lead to a problematic increase in debt...creating balance of payment challenges. In countries where public debt is already high, careful management...is critical."

In other words, OBOR projects are not a bottomless pit of cash. Strings are attached, so finances need to be carefully managed throughout the duration. It's particularly problematic if the debt is needed to be materially paid back before the economic benefits of projects can be realized. This is concerning given that it can take many years for the efficiency gains of improved infrastructure such as transport and utility supply to be properly realized.

## Ratings Round-Up

## Ratings Round-Up

By Njundo Sanneh

## M&amp;A the Main Driver of Rating Change Activity

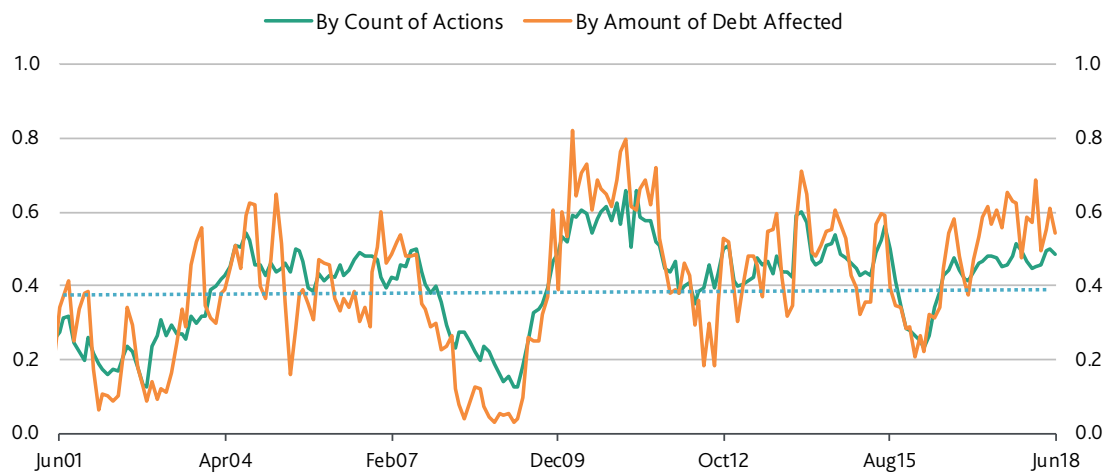
The past week's rating change activity was driven mainly by M&A-related activities, but improved operating performance also contributed to some upgrades as we see positive rating changes bested downgrades in the past week.

Qualcomm Corporation, PGT Innovations Inc., Covestro AG, and Nordic Packaging and Container Holding Limited ratings were affected by some form of M&A or IPO activity. Qualcomm was downgraded as it announced plans for a \$30 billion-share buyback following the end of its attempt to acquire NXP. Nordic Packaging also suffered a downgrade following the sale of Powerflute Group Holdings OY, which accounts for about 505 of its EBIDTA. The planned acquisition of Western Window Systems contributed to the upgrade of PGT while Covestro's IPO a couple of years ago helps maintain financial flexibility, an important part of its upgrade.

Superior Energy, Boise Cascade Company and Bioscrip Inc. were upgraded mainly on account of improved operating performance. The steady energy prices above the lows of a couple of years ago has led to increased demand for the services of oil service companies, and Superior Energy is one of the beneficiaries. There is steady growth in U.S. housing starts as the economy keeps its growth momentum and the labor markets firm even as trade wars remain a serious risk to global growth.

FIGURE 1

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



\* Trailing 3-month average

Source: Moody's

## Ratings Round-Up

FIGURE 2

## Rating Key

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

FIGURE 3

## Rating Changes: Corporate &amp; Financial Institutions – US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/ SG
7/25/18	SUPERIOR ENERGY SERVICES, INC. -SESI, L.L.C.	Industrial	SrUnsec/LTCFR/PDR	1,300	U	B3	B2	SG
7/26/18	AEROJET ROCKETDYNE HOLDINGS, INC.	Industrial	SrUnsec/LTCFR/PDR	300	U	B3	B2	SG
7/26/18	QUALCOMM INCORPORATED	Industrial	SrUnsec/LTIR	15,500	D	A1	A2	IG
7/30/18	BIOSCRIP, INC.	Industrial	SrSec/SrUnsec/LTCFR	1,020	U	B3	B1	SG
7/30/18	PRIMERICA, INC.	Financial	SrUnsec/IFSR	375	U	Baa2	Baa1	IG
7/31/18	BOISE CASCADE COMPANY	Industrial	SrUnsec/LTCFR/PDR	350	U	Ba3	Ba2	SG
7/31/18	FOCUS FINANCIAL PARTNERS, LLC	Financial	LTCFR/PDR		U	B1	Ba3	SG
7/31/18	FRESH MARKET, INC. (THE)	Industrial	SrSec/LTCFR/PDR	800	D	Caa1	Caa2	SG
7/31/18	SOUTHCROSS HOLDINGS LP- SOUTHCROSS ENERGY PARTNERS, L.P.	Industrial	SrSec/BCF/LTCFR/PDR		D	Caa1	Caa2	SG
7/31/18	PGT INNOVATIONS, INC.	Industrial	SrSec/BCF/PDR		U	B2	Ba2	SG

Source: Moody's

## Ratings Round-Up

FIGURE 4

## Rating Changes: Corporate &amp; Financial Institutions – Europe

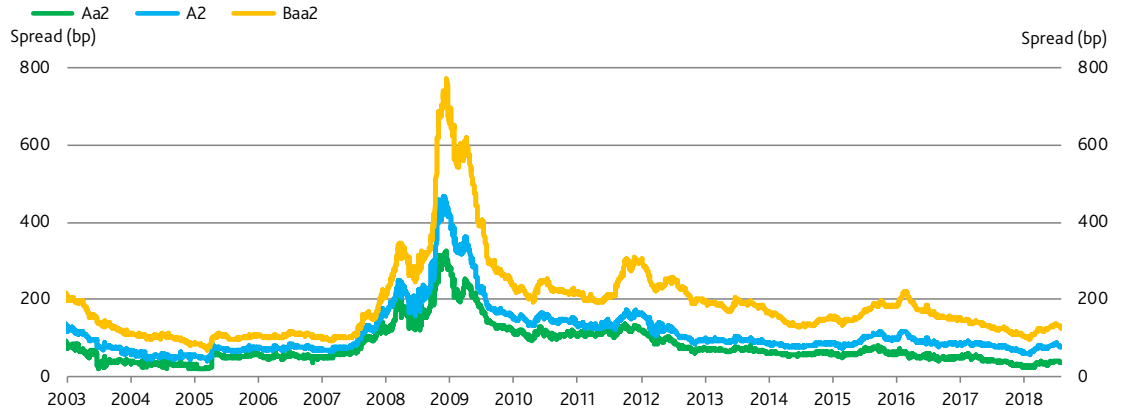
Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	Old STD Rating	New STD Rating	IG/ SG	Country
7/25/18	AIB GROUP PLC	Financial	SrUnsec/SLTD /JrSub/Sub/MTN/PS	3,921	U	Ba2	Baa3	P-2	P-1	SG	IRELAND
7/27/18	NORDIC PACKAGING AND CONTAINER HOLDINGS LIMITED	Industrial	SrSec/BCF /LTCFR/PDR		D	B1	B2			SG	UNITED KINGDOM
7/30/18	COVESTRO AG	Industrial	SrUnsec/LTIR/MTN	1,101	U	Baa2	Baa1			IG	GERMANY

Source: Moody's

## Market Data

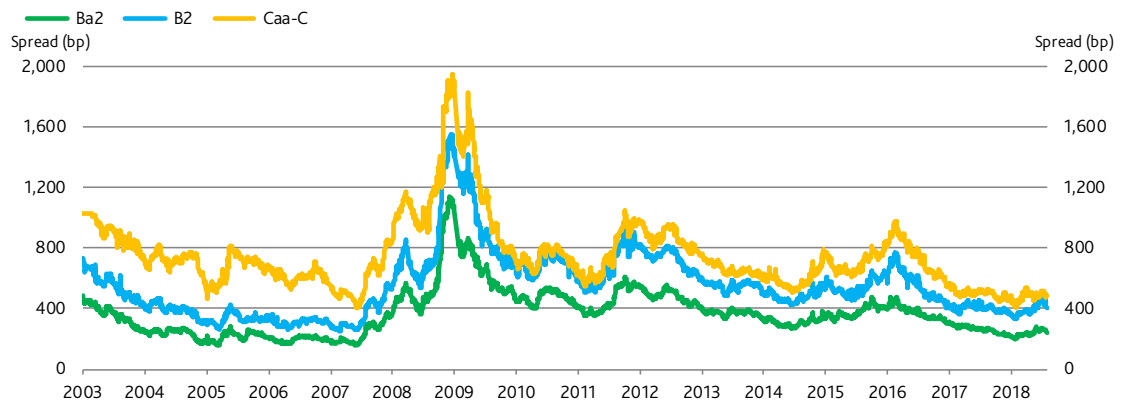
### Spreads

**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 25, 2018 – August 1, 2018)

CDS Implied Rating Rises			
Issuer	CDS Implied Ratings		Senior Ratings
	Aug. 1	Jul. 25	
SUPERVALU Inc.	B2	Caa1	B3
Navistar International Corp.	Ba3	B2	Caa1
Morgan Stanley	A3	Baa1	A3
Wells Fargo & Company	A2	A3	A2
John Deere Capital Corporation	A3	Baa1	A2
Walt Disney Company (The)	Aa3	A1	A2
American International Group, Inc.	Baa2	Baa3	Baa1
Prudential Financial, Inc.	Baa1	Baa2	Baa1
Amgen Inc.	Aa3	A1	Baa1
General Electric Company	Baa2	Baa3	A2

CDS Implied Rating Declines			
Issuer	CDS Implied Ratings		Senior Ratings
	Aug. 1	Jul. 25	
Philip Morris International Inc.	Baa1	A3	A2
CBS Corporation	Baa3	Baa2	Baa2
Consolidated Edison Company of New York, Inc.	A2	A1	A2
Plains All American Pipeline L.P.	Ba2	Ba1	Ba1
Cardinal Health, Inc.	Ba1	Baa3	Baa2
Charles Schwab Corporation (The)	A2	A1	A2
AvalonBay Communities, Inc.	Baa1	A3	A3
Colgate-Palmolive Company	Aa2	Aa1	Aa3
Rockwell Collins, Inc.	Baa2	Baa1	Baa2
Liberty Mutual Group Inc	Ba1	Baa3	Baa2

CDS Spread Increases				
Issuer	Senior Ratings	CDS Spreads		
		Aug. 1	Jul. 25	Spread Diff
Windstream Services, LLC	Caa2	2,765	2,502	262
Arconic Inc.	Ba2	293	241	52
ServiceMaster Company, LLC (The)	B1	286	246	41
AK Steel Corporation	B3	419	390	29
AutoNation, Inc.	Baa3	441	413	28
Beazer Homes USA, Inc.	B3	420	392	28
Talen Energy Supply, LLC	B2	752	729	23
DPL Inc.	Ba2	338	320	18
First Industrial, L.P.	Baa2	246	231	15
K. Hovnanian Enterprises, Inc.	Caa3	1,109	1,096	13

CDS Spread Decreases				
Issuer	Senior Ratings	CDS Spreads		
		Aug. 1	Jul. 25	Spread Diff
SUPERVALU Inc.	B3	201	400	-199
Hertz Corporation (The)	B3	893	980	-87
McClatchy Company (The)	Caa2	502	578	-76
MBIA Inc.	Ba3	497	558	-62
Lexmark International, Inc.	Caa1	1,137	1,198	-62
Avis Budget Car Rental, LLC	B1	367	411	-44
Unisys Corporation	B3	435	473	-38
Sears Roebuck Acceptance Corp.	C	2,088	2,126	-38
Navistar International Corp.	Caa1	172	210	-37
Frontier Communications Corporation	Caa1	1,460	1,496	-36

Source: Moody's, CMA

## Market Data

Figure 4. CDS Movers - Europe (July 25, 2018 – August 1, 2018)

CDS Implied Rating Rises			
Issuer	CDS Implied Ratings		Senior Ratings
	Aug. 1	Jul. 25	
Credit Agricole S.A.	Aa3	A2	A1
Societe Generale	A1	A2	A1
The Royal Bank of Scotland Group plc	Baa3	Ba1	Baa2
BNP Paribas	A1	A2	Aa3
Banco Bilbao Vizcaya Argentaria, S.A.	Baa2	Baa3	A3
Finland, Government of	Baa1	Baa2	Aa1
CaixaBank, S.A.	Baa2	Baa3	Baa1
Credit Agricole Corporate and Investment Bank	A1	A2	A1
Danske Bank A/S	A1	A2	A1
ING Groep N.V.	Baa1	Baa2	Baa1

CDS Implied Rating Declines			
Issuer	CDS Implied Ratings		Senior Ratings
	Aug. 1	Jul. 25	
Unipol Gruppo S.p.A.	B1	Ba2	Ba1
ABN AMRO Bank N.V.	A3	A2	A1
Bankia, S.A.	Baa3	Baa2	Baa3
DZ BANK AG	Baa2	Baa1	Aa3
HSH Nordbank AG	Ba3	Ba2	Baa3
Casino Guichard-Perrachon SA	Caa1	B3	Ba1
Unione di Banche Italiane S.p.A.	Ba3	Ba2	Baa3
Fresenius SE & Co. KGaA	A2	A1	Baa3
Orsted A/S	A1	Aa3	Baa1
Electrabel SA	Baa3	Baa2	Baa1

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Aug. 1	Jul. 25	Spread Diff
Casino Guichard-Perrachon SA	Ba1	377	339	38
Eksportfinans ASA	Baa3	460	431	29
Heathrow Finance plc	Ba2	144	116	28
Jaguar Land Rover Automotive Plc	Ba2	312	296	16
Unipol Gruppo S.p.A.	Ba1	175	158	16
Care UK Health & Social Care PLC	Caa1	131	118	14
Sappi Papier Holding GmbH	Ba2	349	336	13
Storebrand ASA	Baa3	199	187	12
Marks & Spencer p.l.c.	Baa3	125	115	10
Permanent tsb p.l.c.	Ba3	186	176	10

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Aug. 1	Jul. 25	Spread Diff
Astaldi S.p.A.	Caa1	1,791	1,878	-87
Vedanta Resources plc	B2	335	374	-39
CNH Industrial N.V.	Ba2	116	144	-28
Galapagos Holding S.A.	Caa3	3,373	3,395	-22
Novafives S.A.S.	B3	337	358	-21
Leonardo S.p.a.	Ba1	153	169	-16
ArcelorMittal	Baa3	131	146	-15
Boparan Finance plc	Caa1	565	578	-13
Peugeot S.A.	Ba1	106	116	-11
Telecom Italia S.p.A.	Ba1	176	186	-10

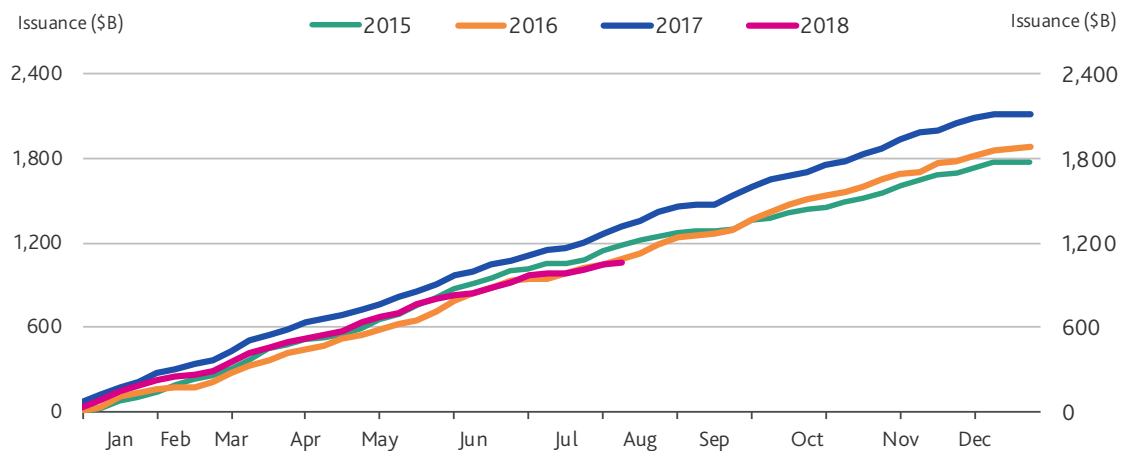
Source: Moody's, CMA

## Market Data

## Issuance

FIGURE 5

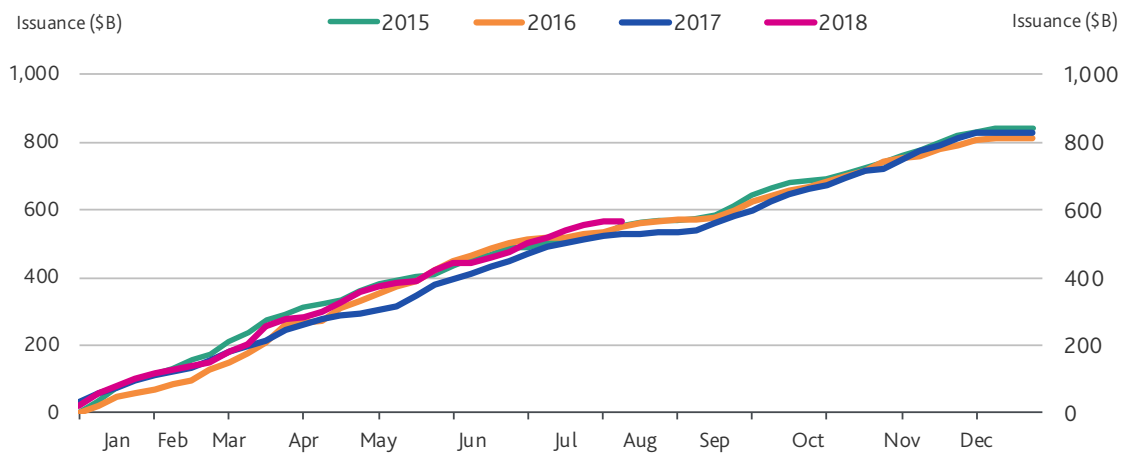
## Market Cumulative Issuance - Corporate &amp; Financial Institutions: USD Denominated



Source: Moody's / Dealogic

FIGURE 6

## Market Cumulative Issuance - Corporate &amp; 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	14.350	3.175	18.100
Year-to-Date	818.232	198.289	1,065.346

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	3.339	0.527	4.303
Year-to-Date	474.444	66.014	567.743

\* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

---

Moody's Capital Markets Research recent publications

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)

Investment-Grade Looks Softer and High-Yield Looks Firmer Compared With Year-End 2007 (Capital Markets Research)

Fewer Defaults Strongly Favor a Higher Equity Market (Capital Markets Research)

Higher Interest Rates Will Be the Source of Their Own Demise (Capital Markets Research)

Low Utilization Rate Favors Profits Growth and Fewer Defaults (Capital Markets Research)

Equities Give and Taketh Away from Credit Quality (Capital Markets Research)

M&A both Enhances and Diminishes Corporate Credit Quality (Capital Markets Research)

Loan Default Rate May Approach Bond Default Rate (Capital Markets Research)

Outstandings Now Show Leveraged Loans Topping High-Yield Bonds (Capital Markets Research)

Profits Growth Curbs Defaults (Capital Markets Research)

Debt-to-Profits Outperforms Debt-to-GDP (Capital Markets Research)

Foreign Investors Ease Burden of U.S.' Elevated Leverage (Capital Markets Research)

Default Rate Defies Record Ratio of Corporate Debt to GDP (Capital Market Research)

Internal Funds Outrun Corporate Debt by Widest Margin since 2011 (Capital Markets Research)

Tariffs Warn of Even Faster Price Inflation and Slower Growth (Capital Markets Research)

Borrowing Restraint Elsewhere Makes Room for Federal Debt Surge (Capital Markets Research)

Declining Default Rate Offsets Drag of Higher Interest Rates (Capital Markets Research)

Corporate Bonds Beg to Differ with Their Equity Brethren (Capital Markets Research)

Topics CreditEdge - Bank Default Risk Improves in 2017

Higher Yields and Lower Equities Might Yet Swell Credit Risk (Capital Markets Research)

High-Yield Bond Issuance Thrives Despite Tax Law Changes (Capital Markets Research)

Surging Equities and Thinner Spreads Favor Higher Treasury Yields (Capital Markets Research)

Sovereign & Supranational: Greece's Sovereign EDF Implies Upbeat Next Act in Greek Economic Drama

Sovereign & Supranational: South Korea's Sovereign Credit Risk: Calmer Against a Friendlier Backdrop

Stocks and Spreads May Transcend Higher Treasury Yields (Capital Markets Research)

Sovereign & Supranational: Brazil's Sovereign Credit Risk at Year's Best

Profits Growth and Benign Default Outlook May Offset Higher Interest Rates (Capital Markets Research)

Benign Credit Outlook Comes With Blemishes (Capital Markets Research)

---

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

---

**Report Number: 1136576**

**Contact Us**

Americas: 1.212.553.4399

---

**Editor**  
Reid Kanaley

Europe: +44 (0) 20.7772.5588

Asia: 813.5408.4131

© 2018 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. ("MIS") AND ITS AFFILIATES ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND CREDIT RATINGS AND RESEARCH PUBLICATIONS PUBLISHED BY MOODY'S ("MOODY'S PUBLICATIONS") MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.**

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS FOR RETAIL INVESTORS TO CONSIDER MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS IN MAKING ANY INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

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

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

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

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

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

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 61 003 399 657 AFSL 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 clients. It would be dangerous for "retail clients" to make any investment decision based on MOODY'S credit rating. If in doubt you should contact your financial or other professional adviser.

For Publications Issued by Moody's Capital Markets Research, Inc. only:

The statements contained in this research report are based solely upon the opinions of Moody's Capital Markets Research, Inc. and the data and information available to the authors at the time of publication of this report. There is no assurance that any predicted results will actually occur. Past performance is no guarantee of future results.

The analysis in this report has not been made available to any issuer prior to publication.

When making an investment decision, investors should use additional sources of information and consult with their investment advisor. Investing in securities involves certain risks including possible fluctuations in investment return and loss of principal. Investing in bonds presents additional risks, including changes in interest rates and credit risk.

Moody's Capital Markets Research, Inc., is a subsidiary of MCO. Please note that Moody's Analytics, Inc., an affiliate of Moody's Capital Markets Research, Inc. and a subsidiary of MCO, provides a wide range of research and analytical products and services to corporations and participants in the financial markets. Customers of Moody's Analytics, Inc. may include companies mentioned in this report. Please be advised that a conflict may exist and that any investment decisions you make are your own responsibility. The Moody's Analytics logo is used on certain Moody's Capital Markets Research, Inc. products for marketing purposes only. Moody's Analytics, Inc. is a separate company from Moody's Capital Markets Research, Inc.