

**WEEKLY  
MARKET OUTLOOK**

Moody's Analytics Research

Weekly Market Outlook Contributors:

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

Njundu Sanneh  
1.212.553.4036  
njundu.sanneh@moody's.com

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

Moody's Analytics/U.S.:

Ryan Sweet  
1.610.235.5213  
ryan.sweet@moody's.com

Moody's Analytics/Europe:

Barbara Teixeira Arajuo  
+420.224.106.438  
barbara.teixeiraarajuo@moody's.com

Reka Sulyok  
+420.224.106.435  
reka.sulyok@moody's.com

Moody's Analytics/Asia-Pacific:

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

**Editor**

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

**There's No Place Like Home for U.S. Investors**

**Credit Markets Review and Outlook** *by John Lonski*

There's No Place Like Home for U.S. Investors

[» 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: The US\$-denominated corporate bond issuance of January-August 2018 included annual declines of 14% for investment-grade and 22% for high-yield.

Credit Spreads	<b>Investment Grade:</b> We see year-end 2018's average investment grade bond spread exceeding its recent 128 bp. <b>High Yield:</b> Compared to a recent 361 bp, the high-yield spread may approximate 425 bp by year-end 2018.
Defaults	<b>US HY default rate:</b> 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 2.2% by June 2019.
Issuance	<b>In 2017,</b> 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. <b>For 2018's</b> US\$-denominated corporate bonds, IG bond issuance may drop by 8.2% to \$1.385 trillion, while high-yield bond issuance is likely to fall by 12.9% to \$395 billion..

[» FULL STORY PAGE 17](#)

**Ratings Round-Up**

Consumer Products Drive Rating Revisions

[» FULL STORY PAGE 21](#)

**Market Data**

Credit spreads, CDS movers, issuance.

[» FULL STORY PAGE 23](#)

**Moody's Capital Markets Research** *recent publications*

Links to commentaries on: Base metals prices, debt to EBITDA, 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.

[» FULL STORY PAGE 28](#)

**THIS REPORT WAS REPUBLISHED SEPTEMBER 10, 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

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

### There's No Place Like Home for U.S. Investors

The U.S. economy and financial markets have been pulling away from the rest of the world. Of special importance is the lagging performance of emerging market economies, which, not too long ago, had been the primary driver of world economic growth. The combination of higher U.S. interest rates and the relatively stronger performance of the U.S. economy has triggered a notable and potentially destabilizing appreciation of the dollar versus a host of emerging market currencies.

Excluding the collapse of Venezuela's currency, other noteworthy appreciations by the dollar since year-end 2008 include the dollar's 102% surge against Argentina's peso, the 74% advance in terms of Turkish lira, the 25% climb versus Brazil's real, the 24% ascent against South Africa's rand, the 15% increase versus India's rupee, the 10% climb in terms of Indonesia's rupiah, and the 11% increase vis-a-vis Pakistan's rupee.

Emerging market countries having especially large current account deficits relative to GDP are vulnerable to dollar exchange rate appreciation. The funding of large current account deficits requires large amounts of foreign-currency debt that is often denominated in U.S. dollars. As the dollar appreciates vis-a-vis emerging market currencies, it becomes costlier to service dollar-denominated debt in terms of emerging market currencies.

#### Lower Base Metals Prices Hint of Slower World Growth

Moreover, a dollar that costs more in terms of foreign currencies tends to lower the prices of dollar-denominated industrial commodities. Unfortunately, just when emerging-market exporters of commodities need more support from the dollar-denominated commodity exports, the dollar price of such exports tends to fall. In fact, Moody's industrial metals price index recently incurred setbacks of 12.4% since year-end 2017 and 9.3% compared to a year earlier.

The industrial metals price index often serves as a useful coincident indicator of global industrial activity. The calendar-year averages of the 20-years-ended 2017 show a surprisingly strong correlation of 0.83 between world economic growth (as estimated by the IMF) and the annual percent change of Moody's industrial metals price index.

#### U.S. Manufacturing Thrives as the Rest of the World Sags

Nevertheless, the lively pace of U.S. manufacturing activity offers no hint of the ongoing slide by base metals prices. The ISM's index of U.S. manufacturing activity climbed up to 61.3 points in August 2018 for its highest reading since the 61.4 points of May 2004. For the 12-months-ended August 2018, the ISM's manufacturing index averaged 59.3 points, which was its liveliest yearlong average since the 59.3 points of the year-ended September 2004.

However, manufacturing strength appears to be limited to the U.S. and helps to explain why the dollar strengthens and industrial metals prices soften. For example, the global manufacturing PMI as calculated by JPMorgan/Markit last crested in December 2017 at 54.5 points and has since eased to the 52.5 points of August. Moreover, when the ISM index of U.S. manufacturing activity last rivaled its August 2018 reading in May 2004, the global manufacturing PMI equaled 58.0 points.

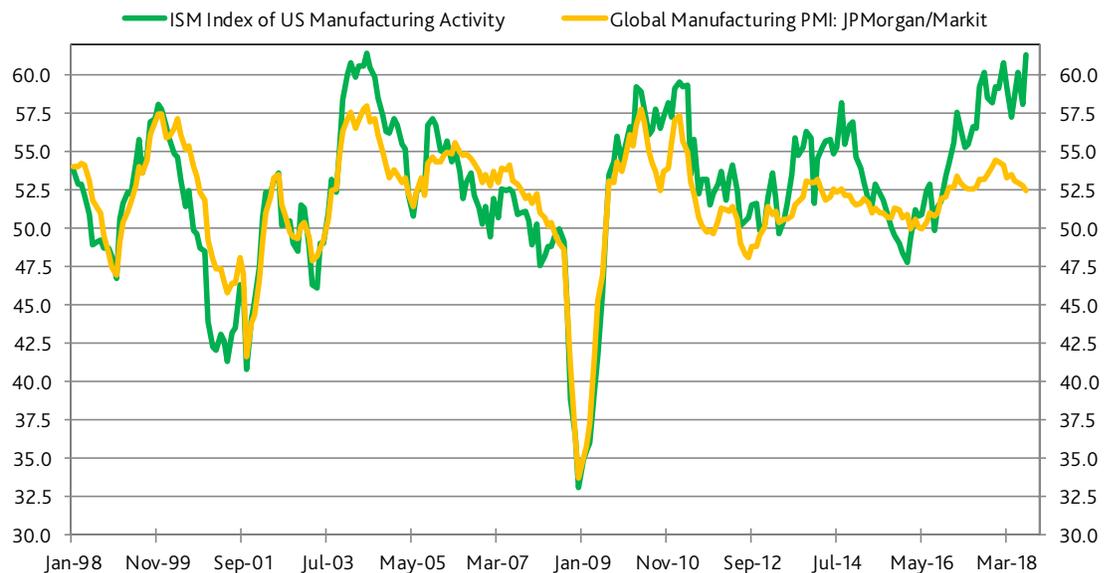
The global manufacturing PMI for August declined by 2.0 points since year-end 2017 and by 0.7 points from a year earlier. Both of those setbacks are consistent with the year-to-date and year-to-year retreats posted by the base metals price index. By contrast, the ISM index of U.S. manufacturing activity for August was up by 2.0 points compared to both year-end 2017 and August 2017.

To better understand how much livelier the U.S. is relative to the rest of the world, consider how August 2018's 8.8-point premium of the ISM's index of U.S. manufacturing activity over the global manufacturing PMI was a record high for a sample that commences in January 1998.

## Credit Markets Review and Outlook

**Figure 1: ISM Index of US Manufacturing Activity Now Outperforms Global Manufacturing PMI by a Record 8.8 Points**

*sources: ISM, JPMorgan/Markit, Moody's Analytics*



### China's Equity Market Has Been on a Declining Trend since June 2015

As derived from the Dow Jones Total Stock Market Index (also known as the Wilshire Index), the U.S. equity market's recent 8.5% advance since the end of 2017 far outperformed the accompanying 7.3% drop by the Dow Jones Global Stock Price Index excluding the U.S. Among the world's major equity markets, 2018-to-date's 18.5% plunge by China's Shanghai Composite stock price index stands out.

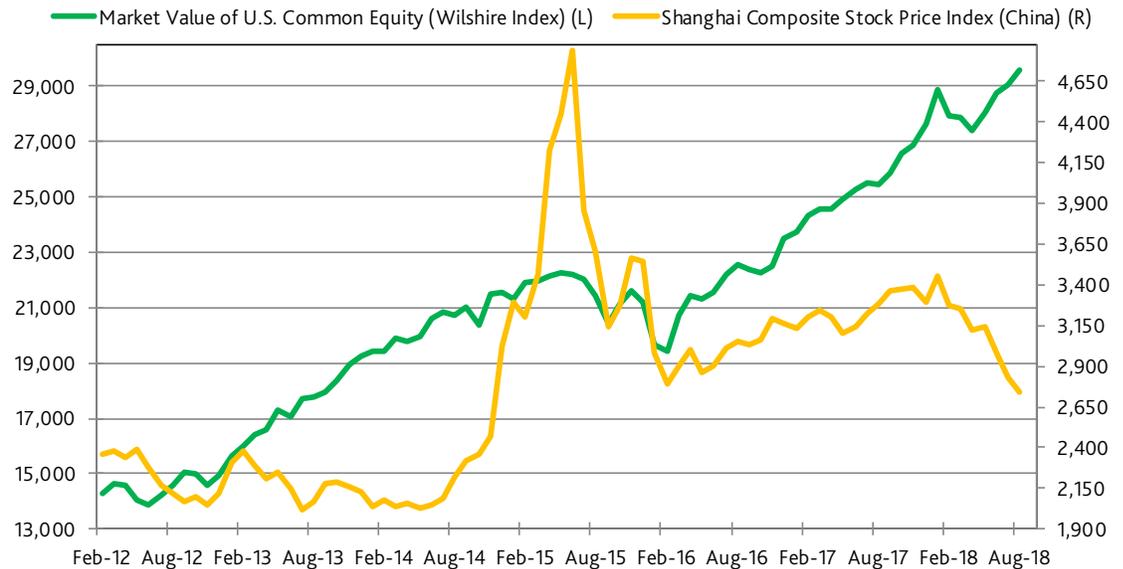
The relative weakness of China's equity prices was in place prior to the start of the ongoing bout of trade frictions. For example, the average annualized percent changes of the last three years show a 6.0% decline for the Shanghai Composite that lags far behind the comparably measured 13.8% advance by the market value of U.S. common stock.

In terms of month-long averages, the Shanghai Composite stock price index of August 2018 was down by 43% from its peak of June 2015. The same serial comparison shows a 35% advance by the market value of U.S. common stock. For purposes of comparison, it was in November 2008 that the market value of U.S. common equity last sank by at least 43% from its prior record high.

## Credit Markets Review and Outlook

**Figure 2: Market Value of US Common Stock Soars as Chinese Equities Struggle...  
Shanghai Composite Peaked in June 2015**

sources: Moody's Analytics, Dow Jones, Wall Street Journal

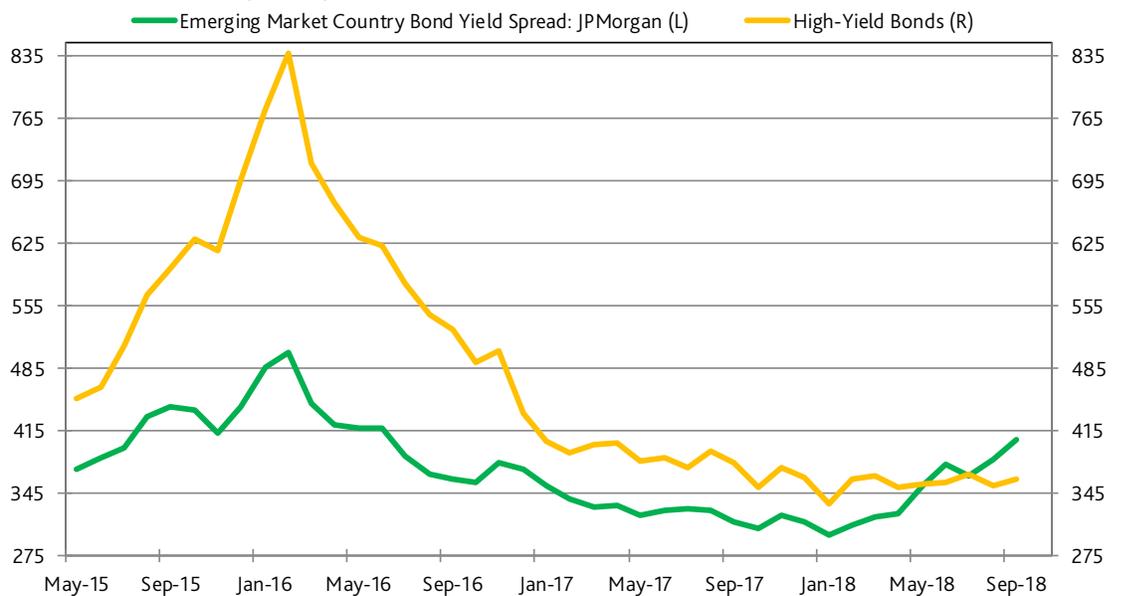


### Emerging Market Bond Spread Widens Above U.S. High-Yield Spread

The shakiness of emerging markets has prompted a pronounced 95 basis point widening by JPMorgan's emerging market country bond yield (EMBI Global Index) spread from year-end 2017's 311 bp to September 5's 406 bp. By contrast, a composite high-yield bond spread barely widened by two basis points from 359 bp to 361 bp. Moreover, after being thinner than the U.S. high-yield bond spread over an extended period, the emerging market country yield spread is now wider than the high-yield spread.

**Figure 3: Emerging Market Country Bond Yield Spread Is Now Wider than US High-Yield Bond Spread**  
in basis points (bps)

source: Moody's Analytics



## Credit Markets Review and Outlook

**Above-Average Baa Industrial Spread Warns High-Yield**

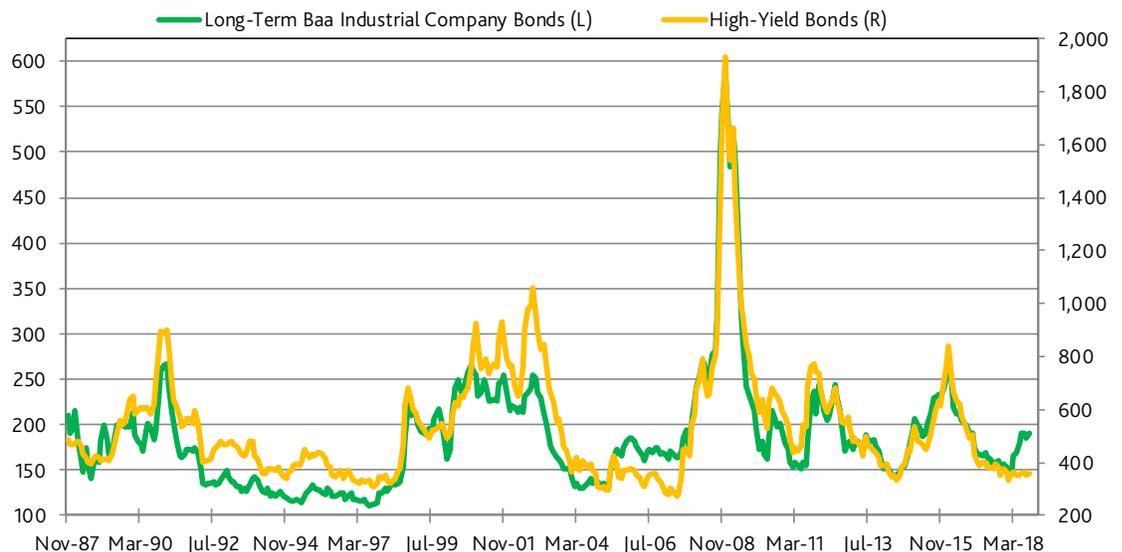
A well-below-average U.S. high yield bond spread of 361 bp remains atypically thin vis-a-vis a recent above-trend long-term Baa industrial company bond yield spread of 191 bp. The long-term medians for these spreads are 470 bp for the high-yield spread and 174 bp for the long-term Baa industrial spread. As derived from the historical record, a Baa industrial spread of 191 bp has been associated with a 497 bp median for the high-yield spread.

It was during 2007's first half that the high-yield bond spread was previously so far under what otherwise might be inferred from the Baa industrial spread. High-yield investors would have done well to heed the caution expressed by the Baa industrial spread in view of how the average high-yield bond spread ballooned from the 286 bp of 2007's first half to the 700 bp of 2008's first half.

**Figure 4: Below-Trend High-Yield Bond Spread May Be Unsustainably Thin Compared to an Above-Trend Baa Industrial Bond Spread**

*in basis points (bps)*

*source: Moody's Analytics*

**Containment of Labor Costs Is Key to Extending the Current Upturn**

A positive outlook for U.S. corporate earnings lends critical support to the corporate bond and equity markets. Helping to justify a positive outlook for profits has been the recent acceleration of corporate gross value added relative to the business-sector's unit labor costs.

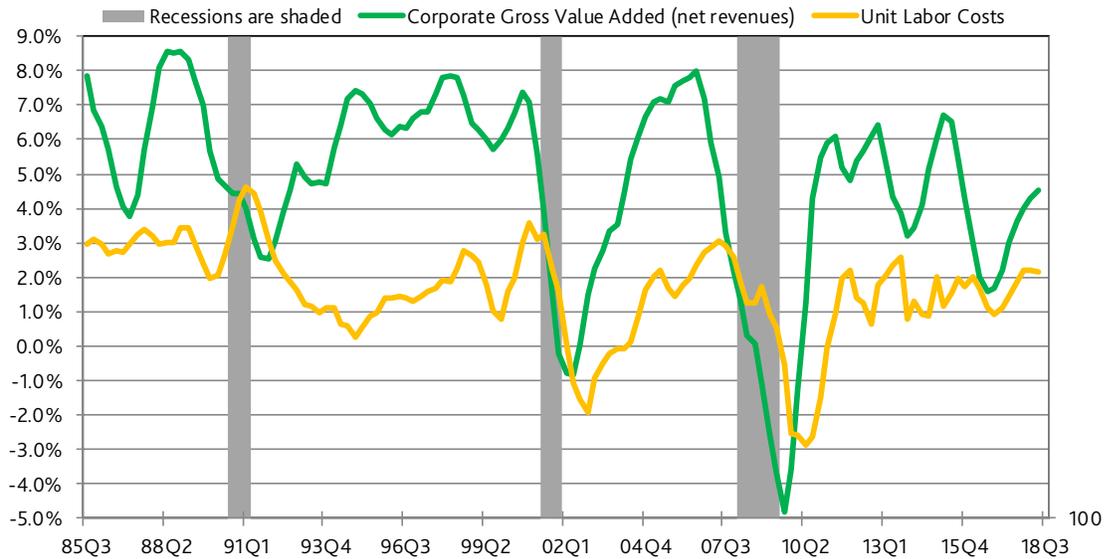
Corporate GVA equals the value of final goods and services produced by businesses and, thus, excludes the value of materials and non-labor services that enter into the production of final products. In turn, GVA can be viewed as a proxy for corporate net revenues.

The year-over-year increases for corporate GVA were 5.1% for 2018's second quarter and 4.5% for the year-ended June 2018, while the comparable increases for unit labor costs were 1.9% and 2.2%, respectively.

## Credit Markets Review and Outlook

**Figure 5: A Wider Gap Between the Growth Rates of Corporate Gross Value Added and Unit Labor Costs Bodes Well for Profits**

*yy % changes for yearlong averages*  
*sources: BEA, BLS, Moody's Analytics*



The containment of employee compensation can lengthen a business cycle upturn. Once too many businesses find that labor costs have become unduly burdensome, widespread layoffs can turn a slowdown into a recession.

Perhaps one of the peculiarities of the current business cycle upturn is a possible curbing of growth by the average wage that stems from the retirement of so many relatively highly paid baby boomers. Given the tendency of wages to rise as the tenure of employment lengthens, a likely increase in the number of new retirees stemming from the now unprecedented increase in the number of Americans aged 65 years and older may be helping to offset the upward pressure put on the average wage by a tight labor market.

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

### THE U.S.

By Ryan Sweet of Moody's Analytics

### CPI Will Get a Close Look Following the August Jobs Report

The economic calendar for the week is backloaded. There will be key data on consumer prices, retail sales and industrial production. The CPI will be scrutinized even further following the August employment report, which showed wage growth accelerated from July to August. However, there is no correlation between monthly changes in average hourly earnings and the CPI. Also, it will take time for any acceleration in wage growth to bleed into consumer prices.

We expect the CPI to have risen 0.3% in August, aided by energy prices. On a year-ago basis, both the headline and core inflation will decelerate a touch, but this is mostly because of rounding and more difficult comparisons. Industrial production shouldn't be overly impressive, particularly for manufacturing output.

We will release our forecast for retail sales after the CPI next week.

Data aside, trade policy will be a focus. Trade tensions have ebbed and flowed but with the comment period passing, the Trump administration could impose another round of tariffs on China. There will also be a number of Fed speeches.

	Key indicators	Units	Moody's Analytics	Consensus	Consensus Range	Last
Mon @ 10:00 a.m.	Moody's Analytics Business Confidence for 9/7/18	index, 4-wk MA				35.8
Tues @ 6:00 a.m.	NFIB Small Business Survey for August	index	107.6	108.2	105.5 to 108.5	107.9
Tues @ 10:00 a.m.	Job Openings and Labor Turnover Survey for July	% change				4.3
Wed @ 8:30 a.m.	Producer Price Index for August	% change	0.2	0.2	0.1 to 0.5	0.0
	Core PPI	% change	0.2	0.2	0.2 to 0.3	0.3
Wed @ 2:00 p.m.	Beige Book					
Thur @ 8:30 a.m.	Jobless Claims for 9/8/18	ths	210			203
Thur @ 8:30 a.m.	Consumer Price Index for August	% change	0.3	0.3	0.2 to 0.4	0.2
	Core CPI	% change	0.2	0.3	0.2 to 0.3	0.2
Fri @ 8:30 a.m.	Import Prices for August	% change	-0.3	-0.3	-0.4 to 0.3	0.0
	Excluding fuels	% change	-0.1	-0.1	-0.2 to -0.1	-0.1
Fri @ 8:30 a.m.	Retail Sales, advanced for August	% change		0.6	-0.1 to 0.6	0.5
	Excluding autos	% change		0.6	0.5 to 0.8	0.6
Fri @ 9:15 a.m.	Industrial Production for August	% change	0.1	0.4	-0.2 to 0.5	0.1
	Capacity Utilization	%	78.0	78.3	78.1 to 78.5	78.1
Fri @ 10:00 a.m.	Michigan sentiment for September, preliminary	index	96.0	96.2	95.0 to 99.0	96.2
Fri @ 10:00 a.m.	Business Inventories for July	% change	0.6	0.4	0.2 to 0.6	0.1

### MONDAY, SEPTEMBER 10

#### Business confidence (week ended September 7; 10:00 a.m. EDT)

Forecast: N/A

Although global business sentiment has stabilized in recent weeks, this comes after several months of weakening. The global trade war appears to be weighing on sentiment, particularly in Asia. The weakening in sentiment is most pronounced with regard to expectations about business prospects into early next year; they are as weak as they have been at any time during this economic expansion. Less than 40% of respondents say that prospects are improving, 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 issue is their greatest worry. Worries about the cost and

## The Week Ahead

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 in our global business confidence index rose from 33.7 to 35.8 in the week ending August 31.

### TUESDAY, SEPTEMBER 11

#### **NFIB small business optimism survey (August; 6:00 a.m. EDT)**

Forecast: 107.6

We look for the NFIB small business optimism index to have slipped from 107.9 in July to 107.6 in August. Already-released data from the NFIB showed that hiring plans remain strong with a net 26% of respondents planning to create jobs, up 3 points from July and hitting a new high for the survey. Sixty-two percent of owners reported trying to hire, up 3 points from July, but 89% of those owners reporting few or no qualified applications for their open positions. Even with a small decline in the NFIB optimism index in August, it will remain elevated. This is welcome, as trade tensions are creating uncertainty for businesses of all sizes.

### WEDNESDAY, SEPTEMBER 12

#### **Producer prices (August; 8:30 a.m. EDT)**

Forecast: 0.2%

### THURSDAY, SEPTEMBER 13

#### **Jobless claims (week ended September 8; 8:30 a.m. EDT)**

Forecast: 210,000

Initial claims for unemployment insurance benefits fell by 10,000 to 203,000 in the week ended September 1, not only a cyclical low but the lowest since December 1969. These data are for the week prior to Labor Day, and new filings can be volatile. Also, filings were estimated in five states: California, Kansas, Maine, Hawaii and Virginia. This makes it even more difficult to forecast initial claims in the week ending September 8, since there could be noticeable revisions to the prior week. It's difficult to gauge the magnitude and direction of the revisions. Also, the upcoming data will include Labor Day. Though new filings don't show an identifiable pattern leading up to Labor Day, new filings can be volatile this time of year. The forecast is for initial claims to have risen by 7,000 to 210,000 in the week ending September 8.

#### **Consumer prices (August; 8:30 a.m. EDT)**

Forecast: 0.3% (headline)

Forecast: 0.2% (core)

We look for the consumer price index to have risen 0.3% between July and August, boosted by higher energy prices. We look for trend-like increases in rents while medical care prices should bounce back. Excluding food and energy, we look for the CPI to have risen 0.2%. On a year-ago basis, the headline CPI was likely up 2.8% in August, compared with 2.9% in July. The core CPI is forecast to have risen 2.2% on a year-ago basis in August, but this is mostly attributed to rounding.

### FRIDAY, SEPTEMBER 14

#### **Retail sales (August; 8:30 a.m. EDT)**

We will release our forecast next week after the CPI.

## The Week Ahead

**Industrial production (August; 9:15 a.m. EDT)**

Forecast: 0.1%

Industrial production is expected to have risen 0.1% in August. Manufacturing output is forecast to have risen 0.1% as aggregate hours worked in manufacturing were down slightly in August on the month along with payrolls. Away from manufacturing, active rotary rig counts were little changed between July and August. Based on heating-degree days, August was unseasonably warm and weekly utility output was soft.

**EUROPE**

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

**BoE and ECB Hold Separate Policy Meetings Thursday**

The week will bring a flurry of data for the euro zone and for the U.K. We should get Britain's monthly GDP estimate and unemployment figures for July, as well as the euro zone's July industrial production numbers and final August CPI figures for Germany, France, Spain and Italy. If this barrage of releases was not enough, the Bank of England and the European Central Bank have monetary policy meetings scheduled for Thursday, though we don't expect either of them to be decisive.

In the U.K., August brought the second rate hike in a decade by the BoE, and we aren't expecting any further moves in September. Our view is that the Monetary Policy Committee will want to wait until at least May before moving again, especially as Brexit negotiations should come to a climax over the next few months and the uncertainty related to the talks should give little leeway for the bank. That the economy is far from booming will similarly ensure that the MPC stands pat at least until spring. The U.K.'s economic outlook remains fragile, with wage growth still showing few signs of a sustainable increase, inflation easing back to target faster than the MPC had expected—our view is that the CPI headline will fall to 2% by December—and the housing market remaining in the doldrums.

Granted, wage growth should have heated up in July, as salaries of almost 1.3 million workers increased by at least 3%. But our view remains that, while pay gains will gradually climb this year, they won't soar. Behind this assessment is the expected slowdown in employment demand—the PMIs showed that job growth in the manufacturing sector slumped to near-stagnation in August—and the fact that consumer confidence remains uninspired, which should prevent job-to-job flows from picking up soon.

In the euro zone, the ECB's meeting should also be a rather tedious affair. The ECB already shook its forward guidance foundations during June's meeting, so we expect the bank will stick this month to that previous guideline. The bank should confirm that it intends to end its quantitative easing programme by reducing its asset purchases to €15 billion in October, from €30 billion currently, and then by outright stopping them in January. True, preliminary CPI figures for August showed that inflation edged back to 2% in the middle of the third quarter, from 2.1% in July. Fading base effects in oil prices should ensure that the headline falls further in coming months. But our view is that the ECB will be wary of delaying action on QE now that inflation is at target and growth remains solid, and of losing this window of opportunity.

The prospects for rate hikes next year, however, are slim. The ECB announced in June that it intends to keep rates unchanged through the summer of 2019 or longer, if necessary. With bank President Mario Draghi set to leave by October 2019, it is unlikely that he will take action on interest rates. That ball will be in his successor's court, but we still don't know which candidates will be the front-runners for Draghi's position. The main risk is that the ECB's new leadership will decide to target headline inflation—which is the bank's official mandate—instead of Draghi's preferred measure, core inflation. The Taylor rule implies that the ECB's current monetary stance should be much tighter than it is; such a situation would raise the risks of a faster than expected rate hiking cycle. However, we think that the chances of this happening are small, given how growth is set to continue to slow in coming quarters, following already-disappointing figures for the first half of this year. We maintain our forecast that the ECB will lift the deposit rate only once, in the fourth quarter of next year.

## The Week Ahead

	Key indicators	Units	Moody's Analytics	Last
Mon @ 9:30 a.m.	U.K.: Monthly GDP for July	% change	0.1	0.1
Tues @ 9:30 a.m.	U.K.: Unemployment for July	%	4.1	4.0
Tues @ 2:00 p.m.	Russia: Foreign Trade for July	\$ bil	16.2	15.6
Wed @ 8:00 a.m.	Spain: Consumer Price Index for August	% change yr ago	2.2	2.2
Wed @ 9:00 a.m.	Italy: Industrial Production for July	% change	0.1	0.5
Wed @ 10:00 a.m.	Euro Zone: Industrial Production for July	% change	-0.1	-0.7
Thur @ 7:00 a.m.	Germany: Consumer Price Index for August	% change yr ago	2.0	2.0
Thur @ 7:45 a.m.	France: Consumer Price Index for August	% change yr ago	2.6	2.6
Thur @ 12:00 p.m.	U.K.: Monetary Policy and Minutes for September	%	0.75	0.75
Thur @ 12:45 p.m.	Euro Zone: Monetary Policy for September	%	0.0	0.0
Fri @ 10:00 a.m.	Italy: Consumer Price Index for August	% change yr ago	1.3	1.9
Fri @ 10:00 a.m.	Euro Zone: External Trade for July	bil euro	19.0	22.5
Fri @ 11:30 a.m.	Russia: Monetary Policy for September	%	7.25	7.25

## MONDAY, SEPTEMBER 10

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

We expect that the U.K.'s monthly GDP grew by 0.1% m/m in July, the same rate as in June. It is expected to have expanded by 0.5% in the three months to July, accelerating from a 0.4% gain in the three months to June. Across sectors, we expect that industrial production rose by 0.2% m/m, building on a 0.4% increase in the previous month. Energy production should have been the main driver of the increase, as temperatures in the country climbed high and read 2.2 °C above the 1981-2010 long-term average, making this July the joint second warmest July since records began. While above-average temperatures normally depress demand for heating throughout most of the year, in summer the inverse happens, as climbing temperatures push demand for air-conditioning into overdrive. Manufacturing production is also expected to have increased, driven by a rebound in textile and machinery and equipment production. And we are similarly penciling in a mean reversion in mining and quarrying, following a 0.5% decline in the previous month.

We expect that services output added 0.2% m/m, following no growth in June. Part of the increase should be due to a rise in retail sales, as provisional data show that sales gained 0.7% m/m over the month, but we expect that consumer services spending also rebounded following weakness in June, especially leisure spending and spending in bars and restaurants.

We are less optimistic regarding the construction industry, and we are penciling in a 0.5% m/m contraction in construction output in July. This won't be enough to reverse the 0.8% increase in June, which itself can be mainly seen as a recovery from snow-related disruption in previous months.

## TUESDAY, SEPTEMBER 11

**U.K.: Unemployment (July; 9:30 a.m. BST)**

The U.K.'s headline unemployment rate likely climbed to 4.1% in the three months to July, after it unexpectedly fell to 4% in the June quarter, down from 4.2% previously. Most of the decrease in the June quarter was due to a cohort of individuals that had consistently reported an above-average unemployment rate leaving the sample, but sampling for the three months to July suggests that the headline rate should have increased by around 0.1 percentage point. Growth in the number of employed persons likely eased considerably following a jump the previous quarter, as all surveys of employment intentions have weakened since the start of the year, but we still expect some further decline in the number of unemployed. Elsewhere, we expect that wage growth accelerated in July, since the pay of 1.3 million National Health Service workers rose by at least 3% and backdated

## The Week Ahead

payments from April were made. We are thus penciling in that average salaries including bonuses grew by 2.6% y/y in the three months to July, up from 2.4% previously.

## WEDNESDAY, SEPTEMBER 12

**Spain: Consumer Price Index (August; 8:00 a.m. BST)**

Spain's headline inflation likely printed at 2.2% in yearly terms in August, the same rate as in July. Fuel prices, which have been exerting pressure on the headline this year, softened. Instead, electricity prices picked up over the month, according to the national statistics office. We expect that services prices were unassertive, as tourism-related services prices stabilized after dipping in July. That also means that core inflation lingers well below the headline. We expect household demand will slow considerably in September as summer seasonal jobs end and unemployment increases. That should keep a lid on price growth. Underpinning that is the Ministry of Labour's report that the rise in unemployment in August was the sharpest for that month since 2011.

**Italy: Industrial Production (July; 9:00 a.m. BST)**

Industrial production in Italy likely rose marginally in July, gaining 0.1% following a 0.5% increase in June. Business sentiment has weakened, especially among Italian manufacturers, because domestic demand has fallen and the pace of new orders has slowed. The Markit manufacturing PMI declined in August to its lowest level in two years because of fewer new orders and waning expectations. Future global trade conditions remain a concern as threats of increasing protectionism persist.

**Euro Zone: Industrial Production (July; 10:00 a.m. BST)**

Industrial production in the euro zone likely fell by 0.1% m/m in July, building on a 0.7% decline in June. This should have pushed the yearly rate down to 1.2%, from 2.5% previously. Already-released individual country data have been mixed, but in the spotlight was the sharp 1.1% m/m decline in Germany's headline, which only worsened on June's already-disappointing 0.7% fall. Production also retreated for the second consecutive month in Spain, down by 0.3% m/m. By contrast, production in France rose by 0.7% m/m, matching the previous month's increase and much better than the consensus for an only marginal uptick. Across sectors, we expect that energy production rose as July's above-average temperatures are expected to have boosted demand for air-conditioning, but capital goods production likely dipped somewhat because of Germany's dismal results.

## THURSDAY, SEPTEMBER 13

**Germany: Consumer Price Index (August; 7:00 a.m. BST)**

Preliminary estimates show that Germany's yearly inflation remained strong in August, holding steady at 2%, not seasonally adjusted, staying slightly above the ECB's target of close to but below 2%. The pace of increase in goods' prices accelerated somewhat from July, while the annual inflation of services ticked down compared with the previous month. Food price inflation remained broadly unchanged, clocking in at 2.5% y/y. Meanwhile, the growth of energy prices gained further, reaching 6.9% y/y in August, up from 6.6% previously, driven to a large extent by high oil prices. Brent crude remained close to \$75 per barrel on average in August, around 40% higher in year-ago terms. Also, the euro weakened further, reaching \$1.15 per U.S. dollar on average during the month and pushing up import inflation. The seasonally adjusted CPI likely remained at 2% y/y in August.

**France: Consumer Price Index (August; 7:45 a.m. BST)**

Harmonized inflation in France likely remained stable at 2.6% in year-ago terms in August, a rate not seen since early 2012. Energy prices continued to climb from a year earlier, which kept the headline above the ECB's target for the fourth consecutive month. A hike in administrated prices and tobacco still pushed yearly inflation higher, though to a lesser extent if compared with petrol prices. On an underlying basis, little has changed since the beginning of the year. Core inflation barely budged over the last three months, suggesting that demand is still anemic. Underpinning that is that second quarter GDP was considerably weaker than expected, at 0.2% q/q. In the first half of

## The Week Ahead

the year, the French economy printed at 0.3% q/q. Unimpressive French consumer spending in July suggests that a rebound in consumption is yet to come. All considered, we will not see core prices converging to the headline this year.

**U.K.: Monetary Policy and Minutes (September; 12:00 p.m. BST)**

We and the consensus expect that the Bank of England will keep its bank rate at 0.75% during its September meeting, following a 25-basis point hike in August. Our view is that the Monetary Policy Committee will want to wait until at least May before moving rates again, especially as Brexit negotiations should come to a climax over the next few months and the uncertainty related to the talks should leave little opportunity for the bank. That the economy is far from booming will similarly ensure that the MPC stands pat at least until next spring. The U.K.'s economic outlook remains fragile, with wage growth still showing few signs of a sustainable increase, inflation easing back to target faster than the MPC had expected—our view is that the CPI headline will fall to 2% by December—and the housing market remaining in the doldrums.

**Euro Zone: Monetary Policy (September; 12:45 p.m. BST)**

We don't expect the European Central Bank's September meeting to excite markets. First, rates should be kept unchanged as should the bank's quantitative easing program. Second, we don't expect bank President Mario Draghi to make any changes to the bank's forward guidance or to its plans to end quantitative easing by the end of this year. Draghi should only confirm that purchases will be reduced to €15 billion in October, from €30 billion currently, and then outright stopped by January.

The latest economic data mostly confirmed our expectations, showing that euro zone inflation pressures peaked in July and are now on a gradual downward path, as base effects in oil prices have begun to kick in. That core inflation unexpectedly cooled in August confirmed our view that the prospects for rate hikes next year are slim. With core inflation reading at only 1% in August, the bank's expectations that core inflation will average 1.6% next year look just too fanciful. And with growth clearly slowing—we expect the euro zone's expansion will ease to 2% in 2018, down from 2.5% last year—the ECB is unlikely to start raising its deposit rate before the fourth quarter of next year, while the main refinancing rate should not be lifted before the beginning of 2020.

## FRIDAY, SEPTEMBER 14

**Italy: Consumer Price Index (August; 10:00 a.m. BST)**

Inflation in Italy likely eased in August, from the previous month's strong pace. We expect Italian CPI increased 1.3% y/y in August following a 1.9% gain in July. Summer sales of clothing and footwear likely dragged on price growth but not enough to completely offset higher energy prices. Price growth will remain strong through the end of the year as stalwart economic growth and an improving labour market push up material and labour costs.

**Euro Zone: External Trade (July; 10:00 a.m. BST)**

The euro zone's external trade balance likely narrowed to around €19 billion at the start of the third quarter, following a surplus of €22.5 billion in June. The balance was in surplus of €21.6 billion in June 2017. Slowing economic activity within the single-currency zone likely weighed on imports in the second quarter. The final estimate shows the euro zone's GDP expansion rate registered at 0.4% q/q, the same rate as in the previous quarter. We expect the expansion to hold steady in the three months to September. Meanwhile, various geopolitical tensions are keeping the outlook for euro zone exports clouded. The British exit from the EU may hamper trade between the two parties in the coming years, and the impact of Trump's policies, including steel import tariffs, could curb euro zone exports to its biggest trade partner, or even result in a global trade dispute, although recent weakening of the euro could provide relief.

## The Week Ahead

**Russia: Monetary Policy (September; 11:30 a.m. BST)**

Russia's central bank may now fear losing the upper hand on expectations. Russians typically overestimate even current inflation and stubbornly expect much higher rates in the future. But over the last 12 months, the central bank was able to set expectations downward with its moderately tight policy stance. The share of those who expect above-target inflation to prevail over the next three years dashes the bank's policy normalization plans. Russia's central bankers will likely keep policy tighter longer than we thought at the beginning of the year. The rate in September will likely hold steady at 7.25%.

---

**ASIA-PACIFIC**

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

**Subdued Inflation Gives Beijing Flexibility on Stimulus Measures**

A suite of China's August data dominates the economic calendar. China's consumer prices likely cooled in August. Subdued inflation is giving Beijing the flexibility to keep fiscal and monetary stimulus measures in motion. The government has a tough job steering the economy through the headwinds from the trade war with the U.S. all the while managing softer domestic demand from its deleveraging quest.

Investment in China reached a record low in July and little relief is expected in August. The slowdown is consistent with our view that fixed investment growth is likely to be weak in 2018 as overcapacity in heavy industry, softness in real estate, and efforts to rein in financial risks and pollution curb investment. China's M2 money supply growth likely remained elevated in August. Relatively high credit growth is a sign that the central bank's easing campaign is having an effect, and further easing is expected heading into 2019 to keep the domestic economy powering forward and the 6.5% growth target on track.

China's merchandise trade surplus likely was US\$35 billion in August, after US\$41.6 billion in June and US\$28 billion in July. The July surplus was lower than expected and came from a surge in imports. Commodity imports were strong, but we expect that pace to have cooled in August as softer domestic conditions had further impact.

The second estimate of Japan's June quarter GDP growth is expected to be unchanged from the preliminary estimate. We expect GDP growth hit 0.5% q/q, following a 0.2% contraction in the March stanza. Private consumption drove the rebound in June, while business investment also clawed back gains from the prior quarter.

India's inflation likely hit 4.6% y/y in August, after surprisingly decelerating to 4.2% in July. Food drove July's slowdown but remains volatile, and the coming monsoon season will determine how prices will evolve in the latter half of the year. The Reserve Bank of India is unlikely to relax from its hawkish stance given that the rupee remains under intense pressure from capital outflows as emerging markets have fallen out of favour.

## The Week Ahead

	Key indicators	Units	Moody's Analytics	Last
Mon @ Unknown	China Monetary aggregates for August	% change yr ago	8.4	8.5
Mon @ Unknown	China Foreign trade for August	US\$35 bil	35.0	41.6
Mon @ 9:50 a.m.	Japan GDP for Q2	% change	0.5	-0.2
Mon @ 11:30 a.m.	China Consumer price index for August	% change yr ago	2.0	2.1
Mon @ 11:30 a.m.	China Producer price index for August	% change yr ago	4.7	4.6
Wed @ 9:00 a.m.	South Korea Unemployment rate for August	%	3.8	3.8
Wed @ 10:00 p.m.	India Consumer price index for August	% change yr ago	4.6	4.2
Wed @ 10:20 p.m.	India Industrial production for July	% change yr ago	5.5	7.0
Thurs @ 9:50 a.m.	Japan Machinery orders for July	% change	2.3	-8.8
Thurs @ 11:30 a.m.	Australia Unemployment rate for August	%	5.3	5.3
Fri @ Unknown	India Foreign trade for August	US\$ bil	-18.8	-18.0
Fri @ 12:00 p.m.	China Fixed asset investment for August	% change yr ago YTD	5.7	5.5
Fri @ 12:00 p.m.	China Industrial production for August	% change yr ago	6.2	6.0
Fri @ 12:00 p.m.	China Retail sales for August	% change yr ago	8.8	8.8

## MONDAY, SEPTEMBER 10

**China: Monetary Aggregates (August; Unknown)**

China's M2 money supply growth likely remained elevated at 8.4% y/y in August, following the 8.5% gain in July and 8% increase in June. Relatively high credit growth is a sign that the central bank's easing campaign is having an effect; further easing is expected heading into 2019 to keep the domestic economy powering forward and the 6.5% growth target on track. The government is increasingly leaning on stimulus measures to maintain economic growth in the face of potential trade disruptions.

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

China's merchandise trade surplus likely was US\$35 billion in August, after US\$41.6 billion in June and US\$28 billion in July. The surplus in July was lower than expected and came from a surge in imports. Commodity imports were strong, but we expect that pace to have cooled in August as softer domestic conditions had further impact. Exports also increased at a good pace but may have been lifted by impending tariffs, which came into effect in late August.

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

The second estimate of Japan's June quarter GDP growth is expected to be unchanged from the preliminary estimate. We expect GDP growth hit 0.5% q/q, following a 0.2% contraction in the March stanza. Private consumption drove the rebound, while business investment also clawed back gains from the prior quarter. A small but consistent rise in wages throughout early 2018, along with further labour market tightening, culminated in a consumption rebound. The yen's favourable levels will support further increases in business sentiment, which means it's unlikely to decline in the second half of the year. Net exports were a blip in the June quarter, as higher commodity prices bloated the import bill.

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

China's consumer prices likely cooled to 2% y/y in August, after 2.1% in July. Food inflation is tepid with pork prices a key drag; pork was down 9.6% y/y in July and this subtracted 0.24 percentage point from headline annual CPI growth. The government is targeting CPI of around 3% this year, unchanged from the goal in 2017. Subdued inflation is giving Beijing the flexibility to keep fiscal and monetary stimulus measures in motion. The government has a tough job steering the economy through the headwinds stemming from the trade war with the U.S. while managing softer domestic demand from its deleveraging quest.

## The Week Ahead

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

Producer price inflation likely came in at 4.7% y/y in August, following the 4.6% gain in July. Higher commodity prices are driving producer price inflation, with mining and raw material goods increasing sharply over the year. Profit margins will likely rise, as factory prices have been under stress for the past year or so. The outlook for producer prices is tilted to the upside; the trade war between the U.S. and China could push up import costs. But so far, there's little evidence of trade war in the data.

**TUESDAY, SEPTEMBER 11**

No major economic indicators are scheduled for release.

**WEDNESDAY, SEPTEMBER 12****South Korea: Employment (August; 9:00 a.m. AEST; Tuesday, 11:00 p.m. GMT)**

South Korea's labour market is having a tough run. The unemployment rate likely held at 3.8% in August. The real weakness is displayed in employment growth, which hit just 0.1% y/y in July, marking the weakest reading since January 2010. Weakness is broad-based with declines in mining, manufacturing, wholesale and retail trade, real estate, facilities management, and education jobs. With job creation languishing, in part because of the large minimum wage hike at the beginning of the year, and consumer confidence declining, the Bank of Korea will be hard-pressed to raise rates at its next policy meeting. Another minimum wage hike is scheduled for early 2019, ensuring employment growth remains weak.

**India: Consumer Price Index (August; 10:00 p.m. AEST; 12:00 p.m. GMT)**

India's inflation likely hit 4.6% y/y in August, after surprisingly decelerating to 4.2% in July. Food drove July's slowdown, but it remains volatile, and the coming monsoon season will determine how prices will evolve in the latter half of the year. The Reserve Bank of India is unlikely to relax from its hawkish stance given that the rupee remains under intense pressure from capital outflows as emerging markets have fallen out of favour. Indeed, the rupee hit a record low in late August. We expect at least one 25-basis point hike before the end of 2018, but there could be further hikes depending on the rupee's performance.

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

Industrial production likely hit 5.5% y/y in July, after rebounding to 7% in June. The rupee has been amongst Asia's worst-performing currencies this year, being swept up in the wave of emerging market outflows, and it hit a record low late in August. A lower rupee makes the export sector more competitive, but it also raises import costs for various manufacturing sectors, especially those that rely on commodity imports, so it could dent some manufacturing through the third quarter. Despite recent improvement, the real sectors of the economy underperform. For a large economy such as India, production should be increasing at or near double digits if growth were around trend.

**THURSDAY, SEPTEMBER 13****Japan: Machinery Orders (July; 9:50 a.m. AEST; Wednesday, 11:50 p.m. GMT)**

Japan's machinery orders have had a difficult run in recent months. Core machinery orders fell 8.8% in June, compounding a 3.7% drop in May. We expect mild relief in July, with a 2.3% gain. The decline in June was broad-based across manufacturing, nonmanufacturing and public sector orders. The reduction in orders suggests firms are pulling back on investment, which may be a result of uncertainty caused by the trade war between the U.S. and China, alongside the increasing consensus that global demand will be less supportive through 2019.

**Australia: Employment Situation (August; 11:30 a.m. AEST; 1:30 a.m. GMT)**

Australia's labour market is having a great run. The seasonally adjusted unemployment rate fell by 0.1 percentage point to 5.3% in July and likely held there in August. The more closely watched trend unemployment rate held at 5.4% in July, its lowest since 2012. Labour market tightening is on a continuing but slowing trend. Employment growth softened to 2.4% y/y in July, down from 3% early in

## The Week Ahead

2018 but remains above its 20-year average of 2%. This cooling trend is also observed in part-time positions rising relative to full-time positions; part-time employment has increased by 0.2 percentage point in the year to July to 31.8%. Nevertheless, forward indicators suggest employment growth will remain above trend for some months. Income growth averaged 2.1% y/y in the first half of 2018 and a weakening pace of employment growth means that only modest improvement in income growth is likely heading into 2019.

FRIDAY, SEPTEMBER 14

### India: Foreign Trade (August; Unknown)

India's trade deficit has widened dangerously, which could put stress on its current account deficit. The trade deficit widened to US\$18 billion in July, and we expect the deficit to have hit US\$18.8 billion in August. Though a sustained double-digit rise in export growth is preventing the goods balance from collapsing, export growth slowed in July. This was further compounded by a sharper rise in imports of nearly 30%, nearly doubling the rise in exports. A wide current account deficit leaves India exposed to capital flight, and thus far the rupee has shown signs of weakness, prompting the Reserve Bank of India to hike rates twice this year. However, the current account deficit remains in a relatively comfortable zone despite the recent widening. This should prevent sharper capital outflows in coming months.

### China: Fixed Asset Investment (August; 12:00 p.m. AEST; 2:00 a.m. GMT)

Investment in China reached a record low in July and little relief is expected in August. Growth of fixed asset investment fell to 5.5% y/y year to date in July, down from 6% in June, and will likely record 5.7% for August. The slowdown is consistent with our view that fixed investment growth will likely be weak in 2018 as overcapacity in heavy industry, softness in real estate, and efforts to rein in financial risks and pollution curb investment. That said, Beijing's recent moves to stabilize growth may dampen the slowdown through the remainder of the third quarter and onwards.

### China: Industrial Production (August; 12:00 p.m. AEST; 2:00 a.m. GMT)

Industrial production likely hit 6.2% y/y in August, after the 6% notched in July. Manufacturers may be scaling back production on account of further tariff measures that could come shortly. Tech firms exporting to the U.S. may be dialing down production to avoid potential excess inventories. Forward-looking manufacturing sentiment surveys suggest cooler domestic and offshore orders in the near term.

### China: Retail Sales (August; 12:00 p.m. AEST; 2:00 a.m. GMT)

China's retail trade likely remained at 8.8% y/y in August. Fuel remains a large contributor to overall retail trade, as gasoline prices are still elevated on the back of higher global prices. Auto sales remain a drag as the impact of earlier subsidies fades. The sharp slowdown in discretionary spending suggests that the trade war could hurt consumer spending.

## The Long View

### The US\$-denominated corporate bond issuance of January-August 2018 included annual declines of 14% for investment-grade and 22% for high-yield.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group, September 6, 2018

#### CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 128 basis points tops its 122-point mean of the two previous economic recoveries. This spread may be no wider than 130 bp by year-end 2018.

The recent high-yield bond spread of 361 bp is less than what 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

July 2018's U.S. high-yield default rate of 3.37% was the lowest since January 2016's 3.34% and was less than the 3.82% of July 2017. Moody's Default and Ratings Analytics team now expects the default rate will approximate 2.2% by July 2019, which implies a deepening of the default rate's yearly decline from July 2018 to July 2019.

#### 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 **-2.4%** for IG and **-12.4%** 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 U.S.'s subpar recovery. To the degree companies fear

## The Long View

significantly 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 Reka Sulyok of Moody's Analytics  
September 6, 2018

### ITALY

The Genoa bridge catastrophe highlighted not only the decrepit state of post-war infrastructure in Italy but also the policy vacuum that compromised its maintenance. Modernizing infrastructure is the gravest test of the new Italian government, whose fiscal targets to be revealed in September likely center on tax cuts and welfare spending. We expect an arduous budget wrangle through October.

In Italy, key public utilities were built after World War II and roads in the 1960s were designed to serve less traffic and smaller vehicles. Even setting aside durability issues and concerns about the quality of maintenance, the sheer load of trucks and daily commuters renders the infrastructure largely inadequate. These days, loaded freight trucks clog highways in northern Italy, since these are the main routes through the Alps for Italian fresh food exports to the rest of Europe, with no alternative means of transport.

### A lucrative business

While motorways are free of charge in Germany, the Netherlands and Belgium, Italian highways are the costliest in Europe. Even in France, which has a toll system to similar Italy's, traveling comparable distances is 15% to 20% cheaper.

That Italy's highway tolls are so exorbitant is due in no small part to a generous concession deal which allows for an annual 2.75% toll increase—well above the inflation rate, which has not exceeded 2% for the last five years. And the Ministry of Transportation's guarantee of a 7.95% return on capital to the holder of a concession makes it clear that Italian regulators did little to mitigate the natural monopoly's power. The concessions were generally extended for 20 years, practically ensuring that competition policy did not work. With little incentive to invest in modernization, concession holders have been skimping on maintenance costs and infrastructure investment since 2015. Autostrade per l'Italia, one of the largest concessionaires, had an operating margin of €2.5 billion but invested only around half a billion.

After the Genoa bridge collapse, the government is now up against public unease. Citizens are demanding that the government enact immediate reform and strip the concessionaires of their monopoly power. But the coalition partners firmly disagree on what to do next. Five Star favors revoking the concessions and switching to full state control. But Northern League, its far-right coalition partner, opposes public ownership because the bureaucratic costs are high while the state is inefficient.

### Tough choices

There is a limit to how much more the government can spend to make up for the pent-up investment into public utilities. The government plans to ramp up investment spending to €50 billion or 3% of GDP in 2019, from around €34 billion or 2% of GDP now. Stepping up public investment could lead to a growth spurt, authorities claim. Their estimate of 7% to 8% GDP growth, however, seems wildly exaggerated. The efficiency of public investments tends to be low, so topping even 2% GDP growth is unlikely. Administrative bottlenecks create funding problems, too. Italy has a poor track record of utilizing EU funds, and little was done to speed up the withdrawal. Out of the pending 51 EU-sponsored programs, 19 are already running late. Delays could jeopardize a payout of the EU money.

## The Long View

The cash-strapped government has some serious prioritizing to do. Tricking the European Commission into excluding public investment spending from the deficit calculation is unlikely to fly. But a lot is at stake: The Genoa bridge tragedy put the government on the spot to bring about serious reform to replace and upgrade public utilities. The new budget must accommodate that need. But that puts the government at odds with its agenda of promised tax cuts.

Challenging the EU's fiscal rule and forging ahead with deficit-financed investment would surely unsettle financial markets. Looming uncertainty about the budget has already led to a selloff of Italian public debt. Foreign investors dumped record volumes: €25 billion in May and €33 billion in June. As a result, the share of foreign investors holding Italian debt fell below 31% in June, from 33% in April. We think the market backlash could force the Italian government to act prudently.

That the coalition partners disagree on major economic policy directions adds to the near-term uncertainty. Take the high-speed railway tunnel under the Alps connecting Turin to Lyon. Construction had already started but was recently halted, awaiting a green light from Rome. Five Star remains fully opposed to the project, estimated to cost a hefty €26.1 billion. Meanwhile, Northern League argues that downsizing is the way to go.

### Cracks in the coalition

Large-scale public projects like this carry high risks for the incumbent political power. The worry is that if the government picks up the cost of the project, its fiscal space will be too tightly squeezed to start other projects or deliver on populist pledges. And Five Star would lose face in approving the railway line it heavily opposed during its campaign. The Italian government needs to find an internal compromise as well as one with the EU, but this is a tall order for the uncompromising parties currently in power.

---

## ASIA PACIFIC

By Katrina Ell of Moody's Analytics  
September 6, 2018

### CHINA

China's yuan has been relatively stable, after the People's Bank of China indicated that banks resumed using the countercyclical factor in August to address the yuan's downward bias in 2018. China had suspended the use of this measure in January. The idea is that the countercyclical factor will assist guiding more stable market expectations for the yuan. The reintroduction of the countercyclical factor had been evident in the data for some time, with the PBoC setting the daily fixings stronger than market moves have implied for weeks.

The PBoC also announced early in August that it was boosting the cost of shorting the yuan. These measures are aimed at stopping a mounting wave of bets on yuan weakness, and preventing panic and more generally herd behaviour. The yuan has fallen 4.7% year to date. But the real pressure has been in the past three months with a 6% depreciation, making it the worst-performing currency in Asia.

The PBoC's actions make it crystal clear that the weakening yuan trajectory is not desired by Beijing, nor does it offer overwhelming positives for the economy. The PBoC's efforts to support the economy have put China's monetary policy path on a firmly different trajectory from that of the Federal Reserve. As a result, lower yields are adding to downward pressure on the yuan.

There's more to the story than a depreciated yuan shoring up exports and helping absorb weakness stemming from the escalating trade war with the U.S. If the yuan continues to fall at the pace it has for the past three months it could trigger a crisis of confidence and massive capital outflows. When China devalued the yuan in 2015, around \$500 billion (4.5% of GDP) in capital outflows occurred that year alone, according to the Institute of International Finance. Outflows are undesirable when worries are already elevated around China's large debt burden, running at around 250% of GDP. If outflows intensify, a crisis of confidence in China's ability to service it could be triggered.

## The Long View

Officially the PBoC has said that a stable yuan is desired. But further depreciation is on the cards, with forward estimates suggesting the yuan could cool to around 7 per U.S. dollar by early 2019. Ongoing depreciation will irk important trading partners, not least the U.S., even though the pace of depreciation is being tempered.

### China's slowdown

China's economy is on an entrenched slowing path. Industrial profits data for July confirm this trend. Profit growth at large industrial companies cooled to 16.2% y/y, following June's 20%. There are marked differences behind the headline. Automakers' profits were up just 1.6% y/y year to date in July, while tech manufacturers were up 0.9%. Meanwhile, the petroleum industry was an important contributor, recording profit growth at 20%, helped by prices significantly higher than a year ago.

These trends are broadly reflected in producer prices, which are a key determinant of industrial profits. All else being equal, an increase in the prices received by producers for their products raises producers' profits. The correlation coefficient between industrial profits and producer prices is 0.77 from January 2015 to July 2018. The opposite is true when prices decline, as producers receive a lower price for a given level of output.

Producer price inflation was 4.6% y/y in July, but raw materials were up by 9%, fuel and power grew 9.9%, and ferrous metals were 7.7% higher. China's steel mills have enjoyed particularly favourable conditions in 2018 as China continues its production restrictions to address pollution, pushing steel prices higher. Shanghai rebar steel futures are hovering around their highest level since November 2011. China's largest privately owned steel mill is Jiangsu Shagang, whose profits surged by 242% y/y YTD in June.

High raw commodity prices are benefiting oil and steel mill companies, but they are squeezing margins further down the line. Business sentiment surveys confirm that smaller producers are on a weaker trajectory and are shedding staff, helping explain why the People's Bank of China has been targeting smaller producers. The U.S.-China trade war adds further downside risk to China's softer outlook. Important planned targets of the next round of U.S. tariffs on Chinese goods imports include tech and auto parts, where profit growth is already barely keeping its head above water.

China's third quarter GDP growth is tracking at a weak 4.2% annualized pace with most of the July data now in the bag. This translates to 6.1% y/y, which feels weak and will likely strengthen as further data are released for the quarter, but it nonetheless demonstrates the slow growth pace China is enduring.

## Ratings Round-Up

## Ratings Round-Up

By Njundu Sanneh

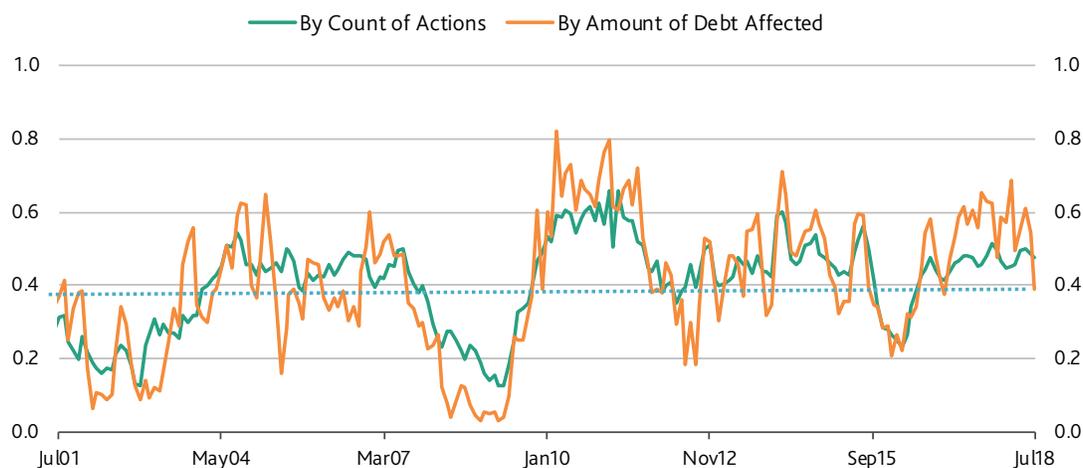
## Consumer Products Drive Rating Revisions

Rating revision activity was particularly sparse over the past week especially in Europe, where only two United Kingdom entities represent the European rating revisions list. One upgrade and one downgrade comprised the European changes. Hollywood Student Accommodation, a real estate company, was upgraded with \$82 million of debt affected. On the downgrade side was Standard Life Aberdeen PLC with \$1.04 billion of affected debt.

The U.S. did not offer much more in terms of the count of rating revisions; the total amounted to six. However, the contribution of upgrades, at 83%, was strongly suggestive of a positive corporate credit quality with a strong trend of upgrades in our rating changes list for the past few months. With consumer confidence strong and a tight labor market, consumer products were the main drivers of positive rating changes over the week. The strong showing of the U.S. economy in the second quarter and rising corporate profits should help continue the momentum for more positive rating changes in the near term. Homebuilding also featured as the housing market remains strong. With the growing economy and tight labor market, housing purchases continue to be strong in many regions of the U.S.

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	Old STD Rating	New STD Rating	IG/SG
8/29/18	FORD MOTOR COMPANY	Industrial	SrUnsec/BCF/STD/MTN/CP	81,561	D	Baa2	Baa3	P-2	P-3	IG
8/29/18	FTI CONSULTING, INC.	Industrial	SrUnsec/LTCFR/PDR	300	U	Ba3	Ba2			SG
8/29/18	CENTURY COMMUNITIES, INC.	Industrial	SrUnsec/LTCFR/PDR	785	U	B3	B2			SG
8/30/18	HRG GROUP, INC.	Industrial	SrUnsec	890	U	Caa1	B3			SG
8/30/18	LAMB WESTON HOLDINGS, INC.	Industrial	SrUnsec/LTCFR/PDR	1,666	U	Ba3	Ba2			SG
9/4/18	CENTERPOINT ENERGY, INC.- CENTERPOINT ENERGY RESOURCES CORP.	Utility	SrUnsec/SrSec/BCF	2,193	U	Baa2	Baa1			IG

Source: Moody's

FIGURE 4

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

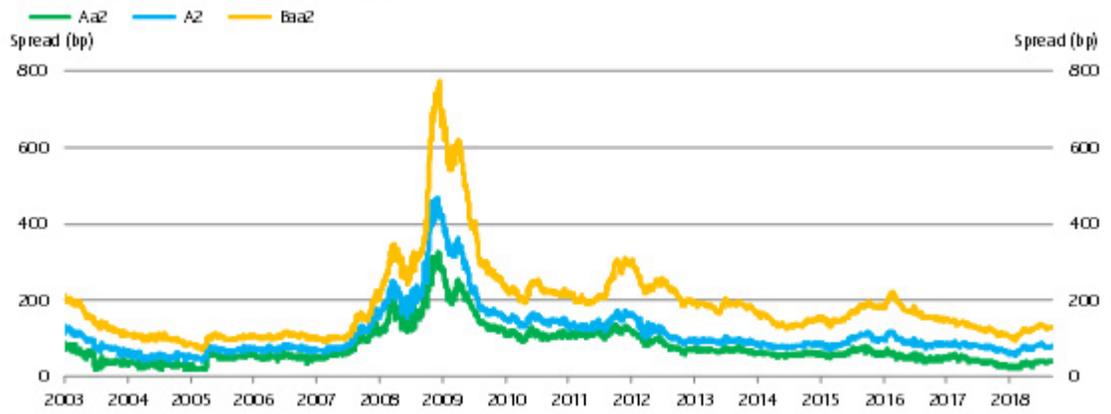
Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG	Country
8/29/18	HOLYROOD STUDENT ACCOMMODATION PLC	Industrial	SrSec	82	U	Baa3	Baa2	IG	UNITED KINGDOM
9/3/18	STANDARD LIFE ABERDEEN PLC	Financial	Sub/JrSub	1,040	D	A3	Baa1	IG	UNITED KINGDOM

Source: Moody's

## Market Data

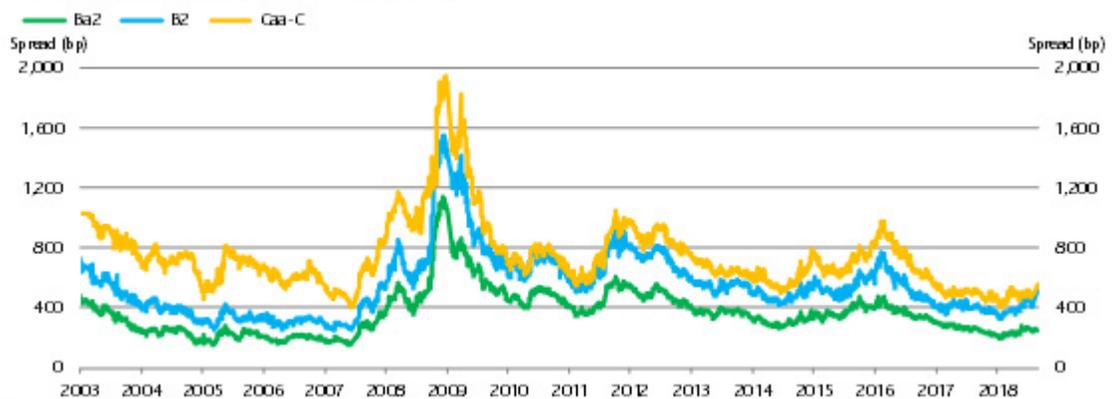
### Spreads

**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 (August 29, 2018 – September 5, 2018)

CDS Implied Rating Rises		CDS Implied Ratings		Senior Ratings
Issuer		Sep. 5	Aug. 29	
YRC Worldwide Inc.		Caa2	Ca	Caa1
PepsiCo, Inc.		Aa2	Aa3	A1
Amazon.com, Inc.		Aa3	A1	Baa1
Nissan Motor Acceptance Corporation		Baa2	Baa3	A2
Northrop Grumman Corporation		Aa2	Aa3	Baa2
Welltower Inc.		Baa3	Ba1	Baa1
Charles Schwab Corporation (The)		A1	A2	A2
Kellogg Company		Baa2	Baa3	Baa2
Campbell Soup Company		Baa3	Ba1	Baa2
NiSource Finance Corporation		A1	A2	Baa2

CDS Implied Rating Declines		CDS Implied Ratings		Senior Ratings
Issuer		Sep. 5	Aug. 29	
TRW Automotive Inc.		A3	A1	Baa3
Wells Fargo & Company		A3	A2	A2
American Express Credit Corporation		Aa3	Aa2	A2
Comcast Corporation		A2	A1	A3
UnitedHealth Group Incorporated		Aa3	Aa2	A3
Intel Corporation		Aa3	Aa2	A1
Capital One Financial Corporation		Baa2	Baa1	Baa1
21st Century Fox America, Inc.		Aa3	Aa2	Baa1
CBS Corporation		Baa3	Baa2	Baa2
Berkshire Hathaway Inc.		Baa1	A3	Aa2

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Sep. 5	Aug. 29	Spread Diff
Windstream Services, LLC	Caa2	3,425	3,213	212
Frontier Communications Corporation	Caa1	1,649	1,496	153
Penney (J.C.) Corporation, Inc.	Caa2	2,091	1,955	136
Weatherford International, LLC (Delaware)	Caa1	706	623	83
ServiceMaster Company, LLC (The)	B1	326	256	70
Avon Products, Inc.	B3	862	793	69
Parker Drilling Company	Caa2	1,606	1,550	56
Sears Roebuck Acceptance Corp.	C	2,235	2,188	46
Interval Acquisition Corp	Ba3	283	241	42
Sears Holdings Corp.	C	1,891	1,852	39

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Sep. 5	Aug. 29	Spread Diff
Lexmark International, Inc.	Caa1	845	1,063	-219
YRC Worldwide Inc.	Caa1	673	776	-103
R.R. Donnelley & Sons Company	B3	608	627	-19
Univis Corporation	B3	395	413	-17
Welltower Inc.	Baa1	83	98	-15
Campbell Soup Company	Baa2	91	105	-14
Commercial Metals Company	Ba2	194	208	-13
Equity Commonwealth	Baa2	196	207	-11
Cablevision Systems Corporation	B3	333	344	-10
Kellogg Company	Baa2	70	76	-7

Source: Moody's CMA

## Market Data

**Figure 4. CDS Movers - Europe (August 29, 2018 – September 5, 2018)**

<b>CDS Implied Rating Rises</b>			
<b>Issuer</b>	<b>CDS Implied Ratings</b>		<b>Senior Ratings</b>
	<b>Sep. 5</b>	<b>Aug. 29</b>	
Rabobank	Aa2	Aa3	Aa3
Barclays Bank PLC	Baa1	Baa2	A2
Portugal, Government of	Baa3	Ba1	Ba1
Intesa Sanpaolo S.p.A.	Ba2	Ba3	Baa1
BNP Paribas	A1	A2	Aa3
UniCredit S.p.A.	Ba2	Ba3	Baa1
UniCredit Bank Austria AG	Baa1	Baa2	Baa1
Allianz SE	Aa1	Aa2	Aa3
Unibail-Rodamco SE	A3	Baa1	A2
Assicurazioni Generali S.p.A.	Ba1	Ba2	Baa2

<b>CDS Implied Rating Declines</b>			
<b>Issuer</b>	<b>CDS Implied Ratings</b>		<b>Senior Ratings</b>
	<b>Sep. 5</b>	<b>Aug. 29</b>	
Abbey National Treasury Services plc	Baa1	A3	Aa3
Anheuser-Busch InBev SA/NV	Baa2	Baa1	A3
Iberdrola International B.V.	Baa2	Baa1	Baa1
Casino Guichard-Perrachon SA	Caa2	Caa1	Ba1
Vivendi SA	A3	A2	Baa2
Vinci S.A.	A3	A2	A3
Compass Group PLC	A1	Aa3	A3
Unipol Gruppo S.p.A.	Ba3	Ba2	Ba1
Bourgeois S.A.	Baa2	Baa1	A3
Iberdrola S.A.	Baa2	Baa1	Baa1

<b>CDS Spread Increases</b>				
<b>Issuer</b>	<b>Senior Ratings</b>	<b>CDS Spreads</b>		
		<b>Sep. 5</b>	<b>Aug. 29</b>	<b>Spread Diff</b>
Astaldi S.p.A.	Caa1	5,267	2,653	2,614
Casino Guichard-Perrachon SA	Ba1	560	462	98
PizzaExpress Financing 1 plc	Caa1	1,466	1,374	92
CMA CGM S.A.	B3	641	587	54
Boparan Finance plc	Caa1	531	506	24
Banca Monte dei Paschi di Siena S.p.A.	B3	325	306	19
Telecom Italia S.p.A.	Ba1	212	197	14
Unipol Gruppo S.p.A.	Ba1	165	154	10
Vue International Bidco p.l.c.	B3	256	246	10
Atlantia S.p.A.	Baa2	241	232	9

<b>CDS Spread Decreases</b>				
<b>Issuer</b>	<b>Senior Ratings</b>	<b>CDS Spreads</b>		
		<b>Sep. 5</b>	<b>Aug. 29</b>	<b>Spread Diff</b>
Galapagos Holding S.A.	Caa3	2,683	2,787	-104
Jaguar Land Rover Automotive Plc	Ba2	322	335	-14
Intesa Sanpaolo S.p.A.	Baa1	154	166	-12
UniCredit S.p.A.	Baa1	148	160	-11
Italy, Government of	Baa2	229	239	-10
Assicurazioni Generali S.p.A.	Baa2	124	134	-10
Novo Banco S.A.	Caa2	595	603	-8
Virgin Media Finance PLC	B2	182	189	-7
UPC Holding B.V.	B2	132	138	-6
Banca Nazionale Del lavoro S.p.A.	Baa3	54	60	-6

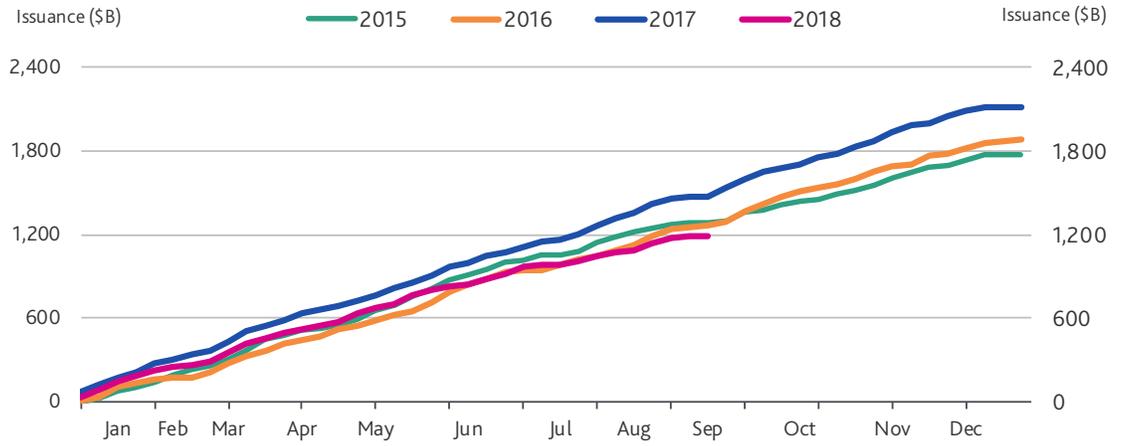
Source: Moody's CMA

Market Data

Issuance

FIGURE 5

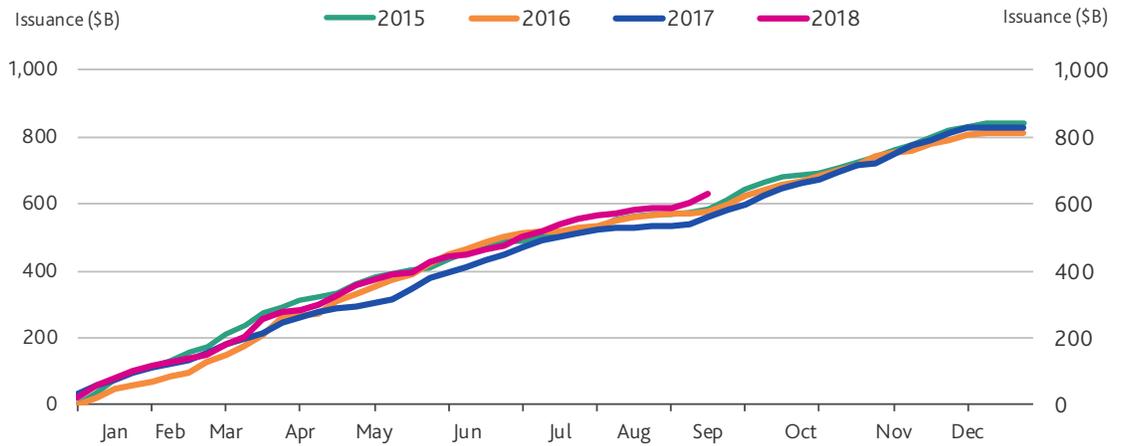
Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated



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	5.700	0.955	7.178
Year-to-Date	912.908	225.874	1,194.387

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	24.674	0.000	25.742
Year-to-Date	535.692	67.268	629.421

\* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

---

Moody's Capital Markets Research recent publications

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

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

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

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

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

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

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 Take 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

---

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

---

**Report Number: 1140726**

**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's.com](http://www.moody's.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 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 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.