

**WEEKLY
MARKET OUTLOOK**

Moody's Analytics Research

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Coronavirus May Be a Black Swan Like No Other

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Full updated stories and key credit market metrics: Moody's long-term single-A and Baa industrial company bond yields have sunk to levels last observed in 1956.

| | |
|----------------|--|
| Credit Spreads | Investment Grade: We see the year-end 2020's average investment grade bond spread above its recent 113 basis points. High Yield: Compared with a recent 415 bp, the high-yield spread may approximate 450 bp by year-end 2020. |
| Defaults | US HY default rate: Moody's Investors Service's Default Report has the U.S.' trailing 12-month high-yield default rate dipping from December 2019's actual 4.2% to a baseline estimate of 3.5% for December 2020. |
| Issuance | For 2019's offerings of US\$-denominated corporate bonds, IG bond issuance rose by 2.6% to \$1.309 trillion, while high-yield bond issuance surged by 55.8% to \$432 billion. In 2020, US\$-denominated corporate bond issuance is expected to rise by 6.4% for IG to \$1.393 trillion, while high-yield supply may grow by 3.4% to \$447 billion. |

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U.S. Rating Change Activity Weakens

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Credit spreads, CDS movers, issuance.

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Moody's Capital Markets Research *recent publications*

Links to commentaries on: Corporate credit, thin spreads, leverage, rate sensitivity, sentiment, VIX, fundamentals, next recession, liquidity and defaults, cheap money, fallen angels, Fed moves, yields, inversions, unmasking danger, divining markets, upside risks.

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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.

Coronavirus May Be a Black Swan Like No Other

A coronavirus pandemic would be even more of a "black swan" than the global financial crisis and Great Recession of 2008-2009. Unlike the U.S. home mortgage meltdown, no one predicted the early 2020 arrival of a potentially devastating pandemic. And unlike the financial crisis, public-health and economic policymakers may be limited regarding their ability to remedy or offset a 1918 (or Spanish flu) type pandemic.

Moody's Analytics' industrial metals price index has plunged in response to the risks posed by the possible spread of the coronavirus. To a considerable degree, the latest bout of industrial metals price deflation stems from China's outsized influence on global industrial activity.

The 7.1% plunge by the industrial metals price index since the arrival of coronavirus risks included price setbacks of 10.4% for copper, 8.7% for nickel, 8.2% for tin, 7.3% for zinc, 4.6% for lead, and 3.5% for aluminum. January 29's base metals price index was the lowest since June 2017. Thus, this often-reliable barometer of global industrial activity fared better during the worst of the U.S./China trade dispute that came to the forefront in June 2018.

World Growth Shows High Correlation with Industrial Metals Price Index

For a span starting with 1987 and ending in 2019, calendar-year world economic growth (as measured by the IMF) generated a strong correlation of 0.79 with the annual percent change of Moody's Analytics' industrial metals price index. By comparison, world economic growth recorded a much weaker correlation of 0.53 with U.S. economic growth. For the 25 years ended 2019, world economic growth supplied correlations of 0.80 with the industrial metals price index's annual percent change and of 0.58 with U.S. economic growth.

As world economic growth slowed from 2018's 3.6% to 2019's prospective 2.9%, the annual percent change of the industrial metals price index switched direction from 2018's 7.0% increase to 2019's 6.9% contraction.

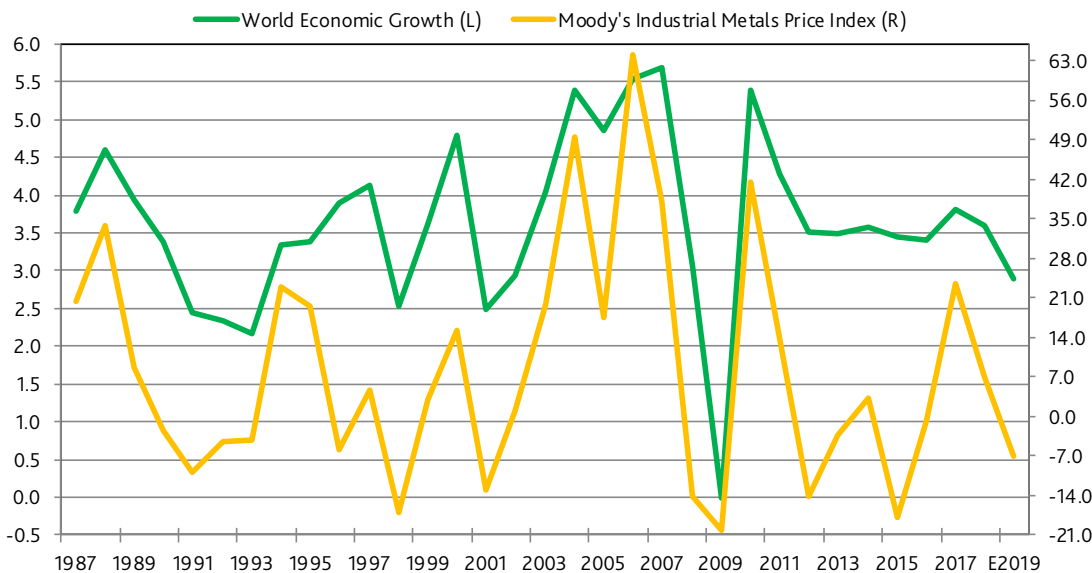
For the nine years since 1986 showing a deeper than 5% annual contraction by the industrial metals price index, the average annual rates of growth were 2.7% for the world economy and 1.5% for U.S. real GDP. At the other extreme, for the 15 years showing a greater than 5% annual advance by the industrial metals price index, the average annual rates of growth were 4.4% for the world economy and 3.1% for U.S. real GDP. For the remaining years, or when the base metals price index's annual percent change was less than 5% and greater than -5%, the average annual rates of economic growth were 3.2% for the world and 2.8% for the U.S.

Expectations of a quickening by world growth to 3.3% in 2020 are now being challenged by the unknown course of the coronavirus. After having recovered to the 0.8% year-over-year rise of the 13-weeks-ended January 17, 2020, the industrial metals price index has since declined by 3.8% yearly.

Credit Markets Review and Outlook

Figure 1: Industrial Metals Price Index Is a Useful Coincident Indicator of Global Business Activity

yy % changes
sources: IMF, Moody's Analytics



Base Metals Prices Were Subpar Prior to Arrival of Pandemic Fears

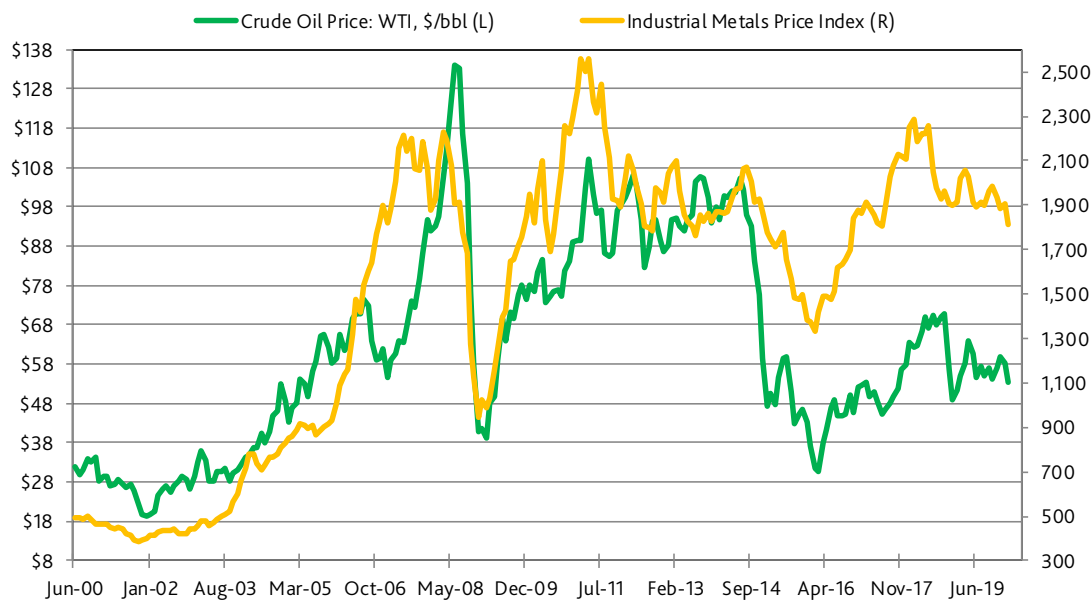
Even before the outbreak of the coronavirus, global industrial activity was steadying at merely a sluggish pace. The industrial metals price index was not even close to mimicking its recovery following the global slowdown and profits recession of 2015-2016.

For example, February 2016's base metals price index was up by a substantial 6.5% from its January 2016 bottom. Prior to the arrival of coronavirus fears, the January-to-date average of the industrial metals price index was only 1.7% above December 2019's low and 0.5% under its average of 2019's second half.

If the unimaginable happens and a full-blown global pandemic occurs, the downside for industrial commodity prices is considerable. Simply getting the monthly averages down to their respective lows of 2015-2016's profits recession would drop the base metals price index by 26% and sink the price of WTI crude oil by 43% from their recent readings.

Figure 2: Global Pandemic Would Probably Drive Industrial Commodity Prices Down to Early 2016's Lows

sources: LME, Wall Street Journal, Moody's Analytics



Credit Markets Review and Outlook

Excess Production Capacity Suppresses Commodity and Finished Goods Prices

A removal of the coronavirus threat offers no assurance of a quick return by industrial commodity prices to their highs of 2018. Global industrial activity is likely to still fall short of what might significantly lift the utilization of global production capacity.

Partly because of the world's underutilized production capabilities, tariffs have yet to accelerate the U.S. rate of tradable goods price inflation. Much to the contrary, December 2019's U.S. price index for non-petroleum imports fell by 1.5% from a year earlier.

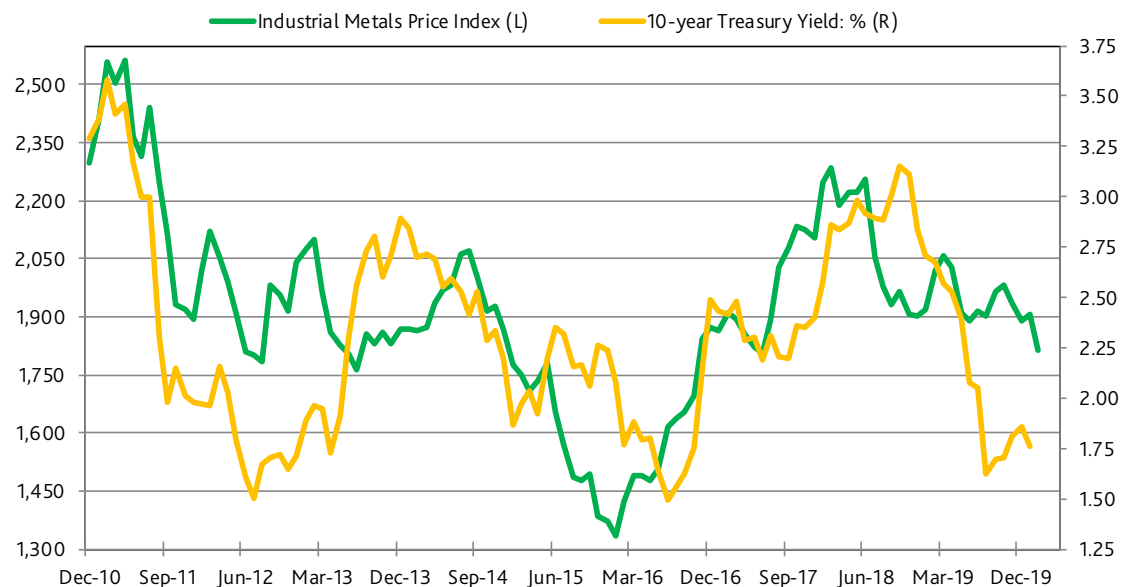
Soft Base Metals Prices Would Signal Low Treasury Yields and Wider Spreads

Somewhat paradoxically, when the base metals price index's month-long average set its 2019 peak in March, it was down by 6.1% from March 2018 and when the index bottomed for 2019 in December, it was off by a shallower 0.7% from a year earlier. Nevertheless, December 2019's month-long average was the lowest since June 2017 and was a deep 26.3% under April 2011's high of the current business cycle upturn.

When the industrial metals price index peaked for the current upturn in April 2011, the accompanying month-long averages were 3.46% for the 10-year Treasury yield and 144 basis points for Moody's long-term Baa industrial company bond yield spread. Since April 2011, the 10-year Treasury yield's month-long average has been no greater than May 2011's 3.17%. Recently, the 10-year Treasury yield equaled a much lower 1.54%.

Figure 3: Further Slide by Industrial Metals Price Index Would Help Keep 10-Year Treasury Yield in a Range of 1.50% to 1.75%

source: Moody's Analytics



Moreover, April 2011's Baa industrial spread serves as the lowest month-long average of the now record-long business-cycle upturn. Though January 29, 2020's long-term Baa industrial company bond yield spread was a wider 180 bp, the 3.84% long-term Baa industrial yield was the lowest since 1956.

For Now, Coronavirus Fears Boost Quality Bonds and Punish High Yield

Since coronavirus fears first disrupted financial markets following January 17's close, the 10-year Treasury yield has sunk from 1.82% to a recent 1.54%, the long-term Baa industrial bond yield fell from 3.99% to 3.84%, and Bloomberg/Barclays Baa corporate bond yield for all maturities sank from 3.05% to 2.89%. The latter was the lowest in seven years.

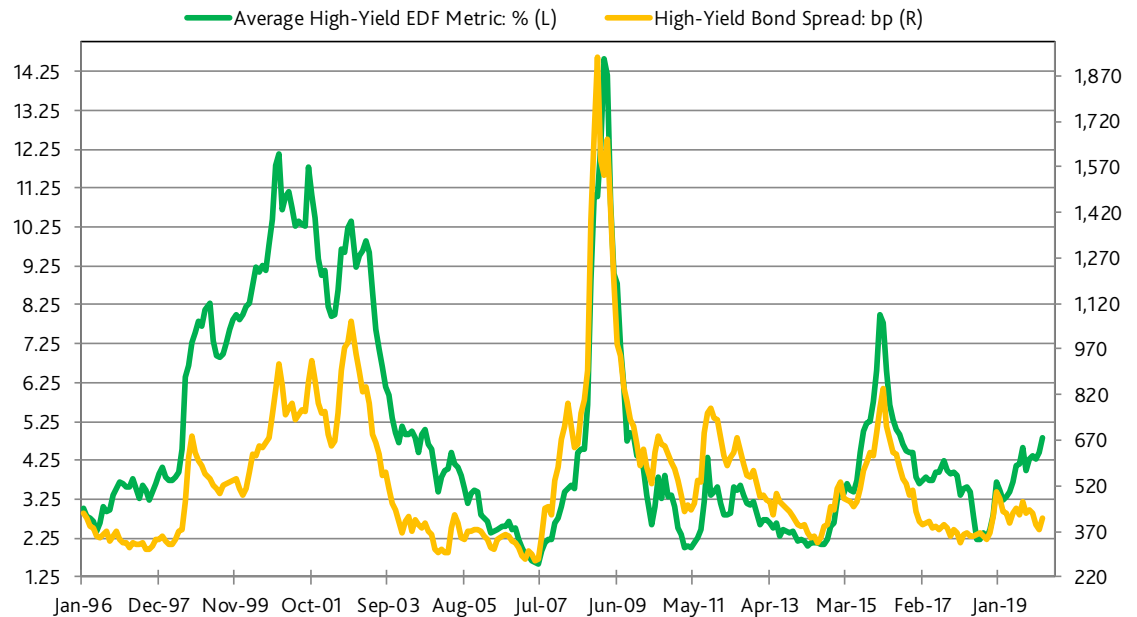
High-yield represents the one major component of the U.S. credit market that has been adversely affected by coronavirus risk. Nevertheless, after soaring from January 17's 5.26% to January 27's 5.79%, a composite speculative-grade bond yield has since eased to January 29's 5.58%. However, January 30's sell-off of equities warns of a renewed climb by the spec-grade bond yield.

Credit Markets Review and Outlook

Also, Moody's Analytics' average expected default frequency metric—a leading indicator of high-yield default risk—increased from January 17's 4.40% to January 29's 4.84%. The latter was the highest since the 4.89% of August 15, 2019, or when the accompanying high-yield bond spread of 495 bp was much wider than the recent 415 bp. All else the same, an 80 bp widening of the high-yield bond spread would lift the spec-grade yield to 6.38%.

Worse yet, from a historical perspective, both the recent average high-yield EDF and its accompanying ascent of the past three months favor a midpoint of between 520 bp and 560 bp for the composite high-yield bond spread. Such a broadening of the high-yield bond spread would drive the spec-grade yield up to a range of 6.00% to 7.00%.

Figure 4: Average High-Yield EDF Metric Warns of a Wider Than 500 Basis Points (bp) High-Yield Bond Spread
source: Moody's Analytics



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

THE U.S.

By Ryan Sweet of Moody's Analytics

Odds Rise for a Rate Cut This Year

The Federal Open Market Committee didn't throw any curveballs after the conclusion of its January meeting with regard to its policy decisions, but a small tweak to the statement is telling and dovish. The Fed opted to keep the target range for the fed funds rate unchanged while making a technical adjustment to the interest on excess reserves. The IOER was increased by 5 basis points to 1.6%. The purpose of this adjustment is to support trading of the effective fed funds rate well within the FOMC's target range of 1.5% to 1.75%. Historically, the Fed has made these technical adjustments when the funds rate has been trading within 5 basis points of the borders of the target range, as it had been leading up to the meeting.

Though there were very few changes to the statement, one stood out to us. The Fed noted that the stance of monetary policy will help inflation return to policymakers' symmetric 2% objective, compared with the December statement that said policy would support inflation "near" the objective. This suggests that the Fed won't settle for inflation close to its target but rather needs to achieve it.

Fed Chairman Jerome Powell hammered this point home during his post-meeting presser. Powell said the Fed can't be comfortable with below-target inflation. Powell briefly discussed the Fed's review of its policy framework and noted that a different framework, which we believe will be average inflation targeting, would require a different policy.

Favorable comparisons should boost year-over-year growth in the core PCE deflator early this year. Monthly growth in the core PCE deflator will need to average 0.17% to put year-over-year growth in December 2020 at 2%, the Fed's target. Through November, the core PCE deflator rose an average of 0.1% in 2019. Therefore, risks to our and the Fed's inflation forecast remain weighted to the downside.

To highlight the downside risks, we created models to monitor the possible inflation outcomes and by extension the possible implications for monetary policy. We created probit models, which use the normal distribution to convert various economic and inflation data into a probability of growth in the core PCE deflator hitting or exceeding certain thresholds over the next year.

Among the variables chosen were the unemployment rate gap, the net percent of small businesses planning to increase prices, corporate profit margins, and various measures of inflation expectations. The reasoning for using short- and long-term inflation expectations is that key determinants of the former are gasoline and food prices. Long-term inflation expectations helped determine if inflation that exceeds thresholds would prove to be persistent.

In the probit model we denoted various inflation thresholds using 0 or 1. If year-over-year growth in the core PCE deflator was at or above 2%, a 1 is assigned. If inflation was less than 2%, the dependent variable equals 0. Then we estimate the probability of inflation at or above 2% one year out. The model does a decent job, but in a couple of instances inflation was above the 2% threshold temporarily. The model puts the odds of the core PCE deflator at or exceeding 2% in the next year at 18%.

If inflation does not accelerate as the Fed anticipates, the odds of another Fed rate cut would increase since we expect the central bank to adopt average inflation targeting in the second half of this year. AIT should be fairly easy to communicate, and it prescribes that if inflation has been below target for a period, then the Fed will aim for a stretch of above-target inflation, so that inflation averages the target over the cycle.

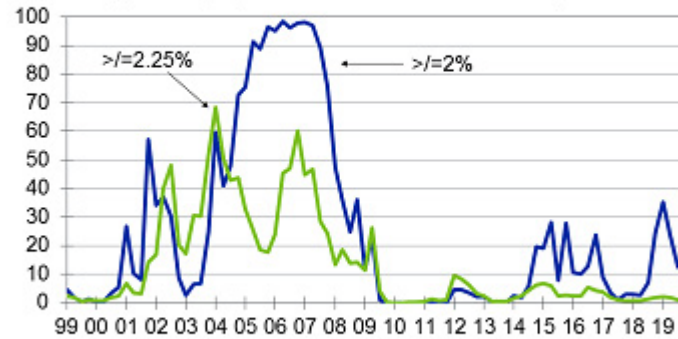
We modified our inflation probit model to assess the probability of inflation hitting 2.25% in the next year. The odds are close to 0%. If the Fed does raise the bar for inflation by adopting AIT, another cut in

The Week Ahead

the fed funds rate is possible in early 2021. Another cut and the adoption of the AIT would affect our expected timing of the next tightening cycle.

Odds Favor Inflation to Remain Muted

Probability yr-over-yr growth in core PCE deflator in 1 yr will be...



Source: Moody's Analytics

Following Powell's presser, we are raising our subjective odds of a rate cut at a couple of meetings this year, primarily June. Therefore, a probabilistic forecasting approach to the fed funds rate, which is based on the subjective probabilities of a fed hike versus a cut, is consistent with one 25-basis point rate cut this year. Our baseline forecast doesn't include a cut, but if inflation doesn't begin to perk up, one could be added.

Next week

The economic calendar is packed with data on construction spending, the ISM surveys, Senior Loan Officer Opinion Survey, vehicle sales, factory orders, trade, productivity and employment.

EUROPE

By Barbara Teixeira Araujo of Moody's Analytics

U.K.'s First Week Out of the EU

Next week will be the U.K.'s official first week out of the EU. For the economy, things will remain business as usual. The transition period is expected to last until the end of the year. In the meantime, the status quo will be maintained, with the U.K. remaining in the customs union and the single market. Expectations are that passing of the Brexit deal gave a boost to consumer and business confidence and will lead to a rebound in economic growth in the first quarter. That is why the release of the U.K. January final PMI figures next week will be paramount. As of now, there are few data available for the post-election period, so we don't know the extent to which this expected improvement in confidence and activity materialized. If the data ultimately disappoint, there is certain to be a rate cut by the Bank of England in March or May—our view is that May 7 is the most likely date for a move. In any case, markets will be extremely sensitive to any U.K. data releases until then.

Elsewhere, the week will bring December retail sales and industrial production figures for the euro zone countries, as well as the barrage of final January CPI data for major European economies. Regarding the retailing sector, we expect that sales fell across most of the euro zone countries in December, following a sharp increase in November. For the currency area as a whole, we are penciling in a 0.2% m/m decline, which should reverse only a small part of the 1% rise in November. The fall won't be enough to taint the fourth-quarter figures; sales should still have increased by 0.4% q/q in the three months to December, building on a 0.5% rise in the third quarter. For the year as a whole, we expect that retail sales were up by 2.4%, improving on a 1.6% increase in 2018. Consumers in the euro zone have benefited both from an increasingly tight labour market—joblessness fell across all the euro zone economies in 2019—and a pickup in wage growth, which together have boosted consumers' purchasing power and will to spend. Both retail sales and services spending performed well during the first three quarters of 2019, and we expect that they continued to increase in the fourth—we will not get the euro zone's detailed fourth-quarter GDP breakdown until March 10.

Prospects remain upbeat. Granted, growth has slowed sharply over the past few months, leading to a deterioration in hiring intentions and a slowdown in employment gains. But we don't think that the deterioration will be enough to cause unemployment to spike and to push consumers into caution mode. The labour market will remain tight in 2020, and the unemployment rate will rise, though only slightly. Supporting our outlook for continued consumer spending is that fiscal policy is set to become or remain expansionary in most of the euro zone's major countries with tax cuts and higher spending expected to give a boost to household's disposable income. Also, interest rates are likely to remain low throughout the year—our outlook is for the European Central Bank to leave rates unchanged—making access to credit very cheap. However, in the very short term, a major risk to our consumer spending outlook arises from the outbreak of the coronavirus. As of now, most of the economic damage is expected to be felt in Asia, but it is early, and we don't know how the virus will spread or how long it will take for it to be contained. It is thus hard to estimate the impact that the coronavirus will have on the morale of euro zone's consumers and their spending habits. For now, we know that the European aviation sector is likely to be hard hit by the travel bans and the cancelling of flights to China, while European retailers in tourist cities should feel the pinch from the drop in Chinese tourists—especially given that travel bans took place during the Chinese New Year holiday season.

| | Key indicators | Units | Moody's Analytics | Last |
|------------------|---|----------|-------------------|------|
| Wed @ 11:00 a.m. | Euro Zone: Retail Sales for December | % change | -0.5 | 1.0 |
| Thur @ 2:00 p.m. | Russia: Consumer Price Index for January | % change | 0.3 | 0.4 |
| Fri @ 8:00 a.m. | Germany: Industrial Production for December | % change | 0.7 | 1.1 |
| Fri @ 8:45 a.m. | France: Industrial Production for December | % change | 0.3 | 0.3 |
| Fri @ 9:00 a.m. | Spain: Industrial Production for December | % change | -0.1 | 1.0 |
| Fri @ 10:00 a.m. | Italy: Retail Sales for December | % change | 0.1 | -0.2 |
| Fri @ 11:30 a.m. | Russia: Monetary Policy for February | % | 6.00 | 6.25 |

ASIA-PACIFIC

By Katrina Ell of Moody's Analytics

Trade War, Protests Hurt Hong Kong's Economy; Coronavirus Is Next

Hong Kong's GDP growth likely contracted by 3.3% y/y in the December quarter, following the 2.9% fall in the September quarter. Hong Kong's economy has had the double whammy of the U.S. trade war and the civil protests over the failed extradition bill, and both have inflicted serious damage on the economy. The trade dispute has calmed since Washington and Beijing signed the Phase One trade deal on 15 January, and the odds of escalation have been reduced. But with existing tariffs expected to remain in place through 2020, global trade flows will remain subdued in 2020.

A more recent downside risk to Hong Kong's economy is from the outbreak of the coronavirus. The number of confirmed cases has risen exponentially in late January and with China's Hubei province the epicenter, Hong Kong's economy is at risk of severe damage if the outbreak continues to escalate. The 2003 SARS outbreak, when Hong Kong's economy was deeply impacted for around six months, provides a useful case in point. During that period, Hong Kong's retail trade and visitor arrivals sharply fell, as did the stock market and GDP growth. When SARS—severe acute respiratory syndrome—became contained in mid-2003, Hong Kong's economy enjoyed a decent rebound.

Central banks in Australia and Thailand are set to keep their respective policy rates on hold in February. Odds that the Reserve Bank of Australia would cut in February have fallen sharply over January. An important contributor to the falling odds was the better-than-expected December employment report, which showed that the labour market has a little more momentum than previously thought. But the more important driver was the federal and some state governments meaningfully increasing spending as a result of the devastating bushfires that escalated since November. The government has also lowered the priority of returning the 2019-2020 federal budget to surplus, potentially opening the door to further spending initiatives, particularly related to the bushfires. That being said, the RBA maintains an easing bias and the performance of the already weakened consumer in the early months of 2020 will determine the extent of easing through the first half of 2020.

The Bank of Thailand has kept interest rates constant at 1.25% since November's widely expected rate cut. There are several reasons for holding steady in February. First, financial conditions in Thailand remain accommodative because of the previous two rate cuts. Also, the global outlook looks more stable with the U.S. and China achieving their Phase One trade deal. Also, maintaining the current rate provides the central bank room to ease monetary policy should downside risks escalate in 2020.

| | Key indicators | Units | Confidence | Risk | Moody's Analytics | Last |
|--------------------|--|-----------------|------------|------|-------------------|------|
| Mon @ 7:30 p.m. | Hong Kong GDP for Q4 | % change yr ago | 3 | ← | -3.3 | -2.9 |
| Mon @ Unknown | South Korea Foreign trade for January | US\$ bil | 2 | ← | 2.4 | 2.0 |
| Tues @ 10:00 a.m. | South Korea CPI for January | % change yr ago | 3 | ↑ | 0.7 | 0.7 |
| Tues @ 2:30 p.m. | Australia Monetary policy for February | % | 3 | ↓ | 0.75 | 0.75 |
| Tues @ 3:00 p.m. | Malaysia Foreign trade for December | MYR bil | 2 | ← | 8.9 | 6.5 |
| Wed @ 6:00 p.m. | Thailand Monetary policy for February | % | 3 | ← | 1.25 | 1.25 |
| Thurs @ 11:30 a.m. | Australia Foreign trade for December | A\$ bil | 3 | ← | 5.2 | 5.8 |
| Thurs @ 11:30 a.m. | Australia Retail sales for December | % change yr ago | 3 | ↓ | -0.1 | 0.9 |
| Thurs @ Unknown | Indonesia GDP for Q4 | % change yr ago | 3 | ↓ | 5.0 | 5.0 |
| Fri @ Unknown | China Foreign trade for January | US\$ bil | 2 | ← | 44.2 | 46.8 |

The Long View

Moody's long-term single-A and Baa industrial company bond yields have sunk to levels last observed in 1956.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group
January 30, 2020

CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 113 basis points was less than its 122-point mean of the two previous economic recoveries. This spread may be no wider than 120 bp by year-end 2020.

The recent high-yield bond spread of 415 bp is thinner than what is suggested by the accompanying long-term Baa industrial company bond yield spread of 180 bp and the recent VIX of 15.3 points.

DEFAULTS

December 2019's U.S. high-yield default rate of 4.2% was up from December 2018's 2.8% and may average 3.6% during 2020's final quarter according to Moody's Investors Service.

US CORPORATE BOND ISSUANCE

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

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

Second-quarter 2019's worldwide offerings of corporate bonds revealed an annual setback of 2.5% for IG and an annual advance of 17.6% for high-yield, wherein US\$-denominated offerings sank by 12.4% for IG and surged by 30.3% for high yield.

Third-quarter 2019's worldwide offerings of corporate bonds revealed annual advances of 15.2% for IG and 56.8% for high-yield, wherein US\$-denominated offerings soared higher by 36.8% for IG and 81.3% for high yield.

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

Fourth-quarter 2019's worldwide offerings of corporate bonds revealed annual advances of 15.3% for IG and 329% for high-yield, wherein US\$-denominated offerings dipped by 0.8% for IG and surged higher by 330% for high yield.

For 2019, worldwide corporate bond offerings grew by 5.4% annually (to \$2.447 trillion) for IG and advanced by 49.2% for high yield (to \$561 billion). The projected annual percent increases for 2020's worldwide corporate bond offerings are 2.9% for IG and 4.0% for high yield.

US ECONOMIC OUTLOOK

In view of the underutilization of the world's productive resources, low inflation should help to rein in Treasury bond yields. As long as the global economy operates below trend, the 10-year Treasury yield may not remain above 2.00% 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.

The Long View

EUROPE

By Barbara Teixeira Araujo of Moody's Analytics
January 30, 2020

UNITED KINGDOM

The Bank of England decided to stand pat at its January meeting—markets had penciled in an even probability for a cut—both the meeting's minutes and Governor Mark Carney's press conference sounded extremely dovish, suggesting that a rate cut in coming months is not off the table. The story here is simple: The bank wisely chose to wait and see instead of rushing to act, especially as the consensus is for a significant rebound in activity in the first quarter of 2020. At the same time, if the upcoming data disappoint, the bank left the door open to cut rates without shocking markets. This means that market volatility will remain extremely elevated in coming months, with investors scrutinizing every piece of data released. Our view is that May 7 would be the most likely date for a move.

Given that our forecast is for a significant rebound in growth in the first quarter—we are penciling in a 0.3% to 0.4% q/q increase in GDP, higher than the BoE's 0.2% forecast—we still haven't incorporated a rate cut in our baseline. But we will be watching the data closely. As of now, all leading indicators suggest that the passing of the Brexit deal gave a strong boost to household and consumer confidence, lifting investment and spending intentions. The housing market also seems to be recovering. Adding to this, the chancellor has given all indications that the budget will outline expansionary fiscal policy measures for 2020.

That said, risks to the outlook abound, and our forecast is for growth to slow during the second half of the year given the trade negotiations. Therefore, a rate cut could still be warranted around midyear. In addition, this is the first time since 2013 that the BoE is not forecasting any period of above-target inflation if the bank rate remains unchanged. This means that, although a rate cut in 2020 is not set in stone, a rate hike also seems to be far off. Indeed, the Monetary Policy committee dropped from the minutes the reference to the need for "limited and gradual" increases in interest rates so as to keep inflation in check.

A key point of the meeting was that the bank revised down sharply its forecast for potential growth, with a margin of excess demand arising by the end of 2022. Given that inflation pressures are by then expected to be around or slightly above target, this could be a potential date for a first rate hike.

FRANCE AND GERMANY

We got solid consumer confidence data for both France and Germany on Wednesday. The INSEE's consumer confidence index for France rose from 102 in December to 104 in January—further above its previous-year average of 100. Germany's GfK consumer sentiment indicator was up to 9.9 heading into February from the prior 9.7. The new figure is the highest since June. Both measures chimed in with our view that a still-tight labour market and strong wage growth will continue to support consumer spending and GDP growth in the euro zone during the first half of 2020.

Downside risks remain. Leading labour market data suggest employment gains are now slowing across most countries, with hiring intentions having dropped sharply. The risk is that the downturn in euro zone manufacturing won't bottom out—as expected—and that, on the contrary, it spills into the rest of the economy, leading to a severe drop in demand and job losses. Rising unemployment is a fodder for a recession. It leads consumers to become more cautious and rein in spending, weighing on aggregate demand and resulting in even further job losses. As of now, this is not our base case. We expect growth in the currency area's manufacturing sector to stabilize and allow for the overall economy to sail through this year rather intact. We expect euro zone GDP to grow by 1.3% in 2020, accelerating only slightly from a 1.2% rise in 2019.

Unfortunately, we have to add a new risk to our baseline: the coronavirus outbreak. While the immediate economic impact should be concentrated in Asia, the European economies could suffer from a tightening of financial market conditions, a drop in confidence, and hits to consumer spending and exports. The latter is in the spotlight. A high share of euro zone exports head to China, and we expect Chinese activity to be severely hit in the first quarter—we wouldn't rule out an actual decline in GDP given the significant containment measures.

The Long View

ASIA PACIFIC

By Katrina Ell of Moody's Analytics
January 30, 2020

CHINA

Panic is growing, and adverse economic implications are rising as the number of confirmed cases of coronavirus in China and abroad continues to rise. While there is usually a bounce-back in economic activity after containment of a health epidemic, this latest outbreak hasn't reached that point. Most of the cases are in China, but Hong Kong, Australia, the U.S., Canada, Taiwan and South Korea are amongst those with infected patients. There are directly observable economic implications of coronavirus.

The Chinese government has imposed domestic and international travel restrictions. This includes banning all tour groups heading overseas. This ban coincides with China's peak tourism season—the Lunar New Year celebrations are taking place this year from late January until early February. This is a blow to neighbouring countries that are typically large recipients of Chinese tourists during this annual celebration, including Japan, South Korea, Singapore, Hong Kong and Macau. Data from Macau's tourism office and Bloomberg show that the mainland visitors to Macau were down by 80% on 26 January (the third day of the Lunar New Year celebration) compared with the equivalent day in 2019. On 23 January, the chief executive of Macau, Ho Iat Seng, said that all casinos in the city could be closed due to the virus, a potentially major blow to Macau's economy given that around 80% of the government's annual revenue is from betting.

Taking a hit

Retail trade in China is taking a hit. Household consumption accounts for around 40% of GDP in China, and the adverse impact on retail trade from this epidemic extends beyond Wuhan and Hubei province, where the outbreak began. Major tourist attractions across China have been closed, including Disneyland and the Great Wall. Movie theaters have been closed for several days and some Lunar New Year events cancelled.

Business disruption is also significant. Wuhan is a large industrial hub in central China; the city is home to over 11 million people, and many large auto, steel and electronics producers have a presence there. With the virus outbreak, many factories have closed, and some staff and family members have been evacuated, with further evacuations planned in coming days. The priority has shifted from keeping supply chains intact to ensuring worker safety, resulting in a substantial fall in worker productivity throughout Hubei province, extending well beyond those infected with the virus. Also, from a business perspective, the halting of transport services including trains, buses and planes means that goods cannot reach their intended destinations as planned, and it is unclear how long the transport suspensions will last.

The Chinese government has extended the Lunar New Year celebrations by three days because of the virus. This means that the usual business disruption that occurs over the holiday period will last longer than prior years and will capture production, transportation and shipping.

Worst performance

The Shanghai Composite has been closed since 23 January and on its final day of trade was down by 2.8%, its worst performance on record for the eve of the Lunar New Year. It is not confirmed whether China's equity markets will reopen on Friday, as was planned, or also extend their closure. During the SARS outbreak—severe acute respiratory syndrome, an epidemic that began in China in 2002—the equity market closure was extended during the May Day holiday period. China's equity market is a decent barometer of economic sentiment during extreme shocks but doesn't tend to track closely with GDP growth or other widely watched economic indicators.

Health costs from diagnosing and treating coronavirus have increased and resources including military personnel in the health field have been redirected to assist with the epidemic.

Less observable but still significant is the impact on consumer and business sentiment. Fear can lead to lower discretionary spending on goods and services. The impact on sentiment is particularly pronounced for those in the quarantined areas, including Wuhan and surrounding cities; their economic profile was vibrant prior to the virus outbreak. Services account for 51% of Wuhan's GDP and many have ground to a halt with the virus outbreak. There can be a longer-term impact on foreign investment in infected economies, as businesses shy away from large-scale investments in provinces with an epidemic outbreak in their recent history.

Ratings Round-Up

Ratings Round-Up

U.S. Rating Change Activity Weakens

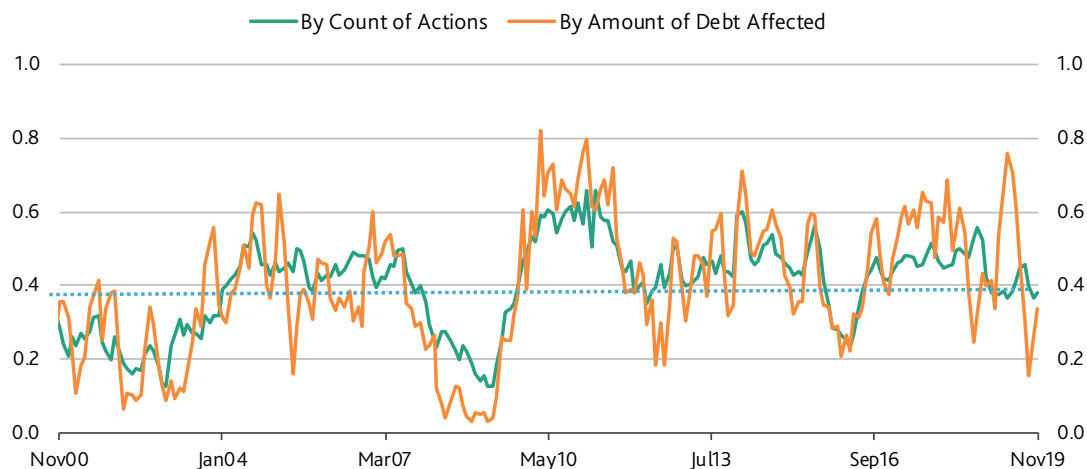
Michael Ferlez

U.S. rating change activity weakened from the prior week. For the week ended January 28, downgrades accounted for 69% of total changes. However, in a break with the recent trend, downgrades also accounted for the majority of the affected debt. This week's rating change activity was headlined by Elanco Animal Health Inc. The firm saw its senior unsecured credit rating cut two-notches to Baa3 from Ba2. The Moody's Investors Service downgrade reflects the decline in the firm's credit quality from the acquisition of Bayer AG's animal health business as well as the increase in the amount of secured debt. The downgrade affected \$2 billion in total debt. Elanco was the only investment-grade company to receive a downgrade. Although downgrades have consistently outnumbered upgrades over the few years, downgrades have largely been confined to speculative-grade companies, which have less of an effect on the broader economy.

European rating change activity improved from the prior week with upgrades accounting for four of the five rating changes. The most notable changes were made to two Swiss banks: St. Galler Kantonalbank and Zuercher Kantonalbank. Both banks saw their preferred stock ratings upgraded one-notch to Baa2 and Baa1, respectively.

FIGURE 1

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



* Trailing 3-month average

Source: Moody's

Ratings Round-Up

FIGURE 2

Rating Key

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

Ratings Round-Up

FIGURE 3

Rating Changes: Corporate & Financial Institutions – US

| Date | Company | Sector | Rating | Amount (\$ Million) | Up/ Down | Old LTD Rating | New LTD Rating | IG/SG |
|---------|---|------------|---------------------------------|------------------------|-------------|----------------------|----------------------|-------|
| 1/22/20 | HECLA MINING COMPANY | Industrial | SrUnsec /LTCFR/PDR | 500 | U | Caa2 | Caa1 | SG |
| 1/22/20 | NVR INC. | Industrial | SrUnsec | 600 | U | Baa2 | Baa1 | IG |
| 1/22/20 | MCDERMOTT INTERNATIONAL, INC. -MCDERMOTT TECHNOLOGY (AMERICAS), INC. | Industrial | SrUnsec/SrSec /BCF/LTCFR/PDR | 1,300 | D | Ca | C | SG |
| 1/22/20 | FORUM ENERGY TECHNOLOGIES, INC. | Industrial | SrUnsec /LTCFR/PDR | 400 | D | B2 | B3 | SG |
| 1/22/20 | AEGIS TOXICOLOGY SCIENCES CORPORATION | Industrial | SrSec/BCF /LTCFR/PDR | | D | B3 | Caa1 | SG |
| 1/23/20 | OSHKOSH CORPORATION | Industrial | SrUnsec | 550 | U | Ba1 | Baa3 | SG |
| 1/23/20 | CASTLE US HOLDING CORPORATION | Industrial | SrSec/BCF /LTCFR/PDR | | D | B2 | B3 | SG |
| 1/24/20 | FAIRWAY GROUP HOLDINGS CORP. | Industrial | PDR | | D | Ca | D | SG |
| 1/24/20 | COOPER-STANDARD HOLDINGS INC. -COOPER-STANDARD AUTOMOTIVE INC. | Industrial | SrUnsec/SrSec /BCF/LTCFR/PDR | 400 | D | B2 | B3 | SG |
| 1/24/20 | SOLENIS HOLDINGS, L.P. -SOLENIS HOLDINGS LLC | Industrial | SrSec/BCF | | D | B2 | B3 | SG |
| 1/24/20 | RODAN & FIELDS, LLC | Industrial | SrSec/BCF /LTCFR/PDR | | D | B2 | B3 | SG |
| 1/27/20 | PYXUS INTERNATIONAL, INC. | Industrial | SrSec /LTCFR/PDR | 1,258 | D | Caa2 | Ca | SG |
| 1/27/20 | ZOTEC PARTNERS, LLC | Industrial | SrSec/BCF /LTCFR/PDR | | U | B3 | B2 | SG |
| 1/27/20 | ELANCO ANIMAL HEALTH INCORPORATED | Industrial | SrUnsec/BCF | 2,000 | D | Baa3 | Ba2 | IG |
| 1/27/20 | NATIONAL MENTOR HOLDINGS, INC. | Industrial | SrSec/BCF | | D | B1 | B2 | SG |
| 1/28/20 | SOLARWINDS HOLDINGS, INC. | Industrial | LTCFR/PDR | | U | B2 | B1 | SG |

Source: Moody's

Ratings Round-Up

FIGURE 4

Rating Changes: Corporate & Financial Institutions – Europe

| Date | Company | Sector | Rating | Amount (\$ Million) | Up/ Down | Old LTD Rating | New LTD Rating | Old LGD | New LGD | IG/ SG | Country |
|---------|----------------------------|------------|-----------------------------|------------------------|-------------|----------------------|----------------------|------------|------------|-----------|-------------|
| 1/22/20 | ST. GALLER KANTONALBANK | Financial | PS | 103 | U | Baa3 | Baa2 | | | IG | SWITZERLAND |
| 1/22/20 | ZUERCHER KANTONALBANK | Financial | PS | 773 | U | Baa2 | Baa1 | | | IG | SWITZERLAND |
| 1/22/20 | BANIJAY GROUP S.A.S. | Industrial | LTCFR /PDR | | D | B1 | B2 | | | SG | FRANCE |
| 1/24/20 | PGS ASA | Industrial | SrSec/BCF /LTCFR /PDR | | U | B3 | B2 | | | SG | NORWAY |
| 1/28/20 | MKB BANK NYRT. | Financial | LTD | | U | B1 | Ba3 | | | SG | HUNGARY |

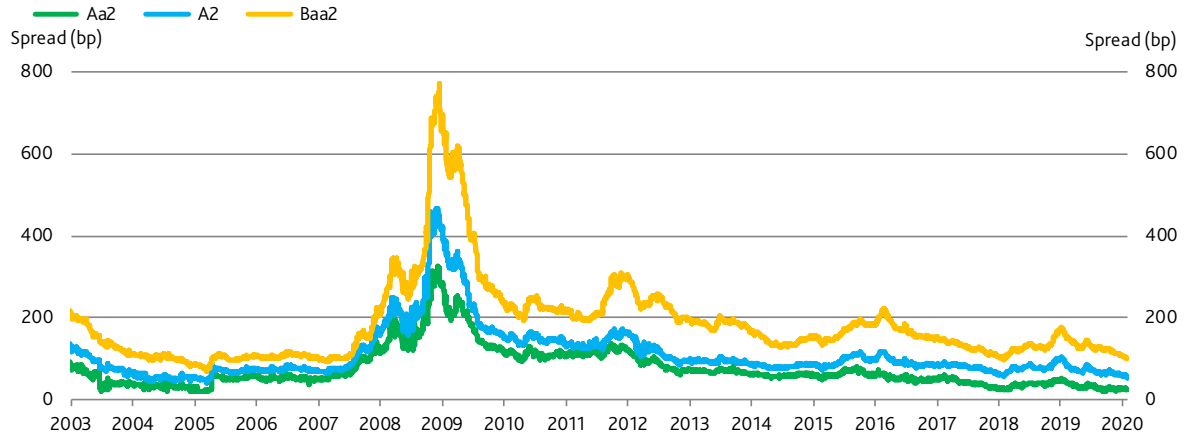
Source: Moody's

Market Data

Market Data

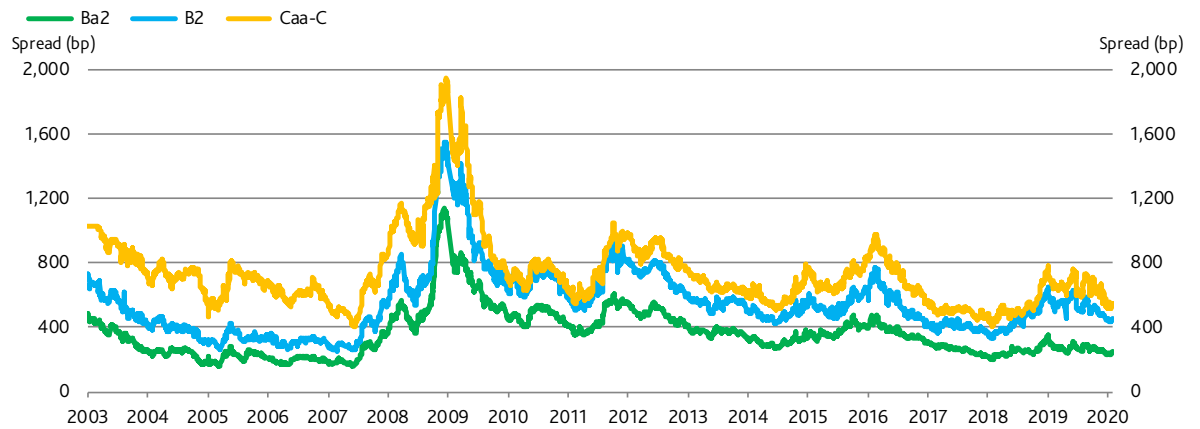
Spreads

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



Source: Moody's

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



Source: Moody's

Market Data

CDS Movers

Figure 3. CDS Movers - US (January 23, 2020 – January 29, 2020)

| CDS Implied Rating Rises | | CDS Implied Ratings | | |
|---|---------|---------------------|----------------|--|
| Issuer | Jan. 29 | Jan. 22 | Senior Ratings | |
| International Business Machines Corporation | Aa3 | A1 | A2 | |
| Bristol-Myers Squibb Company | Aa1 | Aa2 | A2 | |
| Johnson & Johnson | Aa1 | Aa2 | Aaa | |
| General Electric Company | Baa3 | Ba1 | Baa1 | |
| American Tower Corporation | B1 | B2 | Baa3 | |
| Norfolk Southern Corporation | Aa1 | Aa2 | Baa1 | |
| Abbott Laboratories | A2 | A3 | A3 | |
| Emerson Electric Company | Baa1 | Baa2 | A2 | |
| Molson Coors Brewing Company | Baa3 | Ba1 | Baa3 | |
| Sysco Corporation | Ba1 | Ba2 | A3 | |

| CDS Implied Rating Declines | | CDS Implied Ratings | | |
|---------------------------------|---------|---------------------|----------------|--|
| Issuer | Jan. 29 | Jan. 22 | Senior Ratings | |
| Talen Energy Supply, LLC | C | Caa2 | B3 | |
| Carnival Corporation | Baa1 | A1 | A3 | |
| Morgan Stanley | Baa1 | A2 | A3 | |
| United Airlines, Inc. | B1 | Ba2 | Ba3 | |
| Diamond Offshore Drilling, Inc. | Ca | Caa2 | B3 | |
| United Airlines Holdings, Inc. | Ba3 | Ba1 | Ba3 | |
| JPMorgan Chase & Co. | A1 | Aa3 | A2 | |
| Goldman Sachs Group, Inc. (The) | Baa1 | A3 | A3 | |
| JPMorgan Chase Bank, N.A. | Aa3 | Aa2 | Aa2 | |
| Toyota Motor Credit Corporation | Aa3 | Aa2 | Aa3 | |

| CDS Spread Increases | | CDS Spreads | | |
|---------------------------------|----------------|-------------|---------|-------------|
| Issuer | Senior Ratings | Jan. 29 | Jan. 22 | Spread Diff |
| Talen Energy Supply, LLC | B3 | 825 | 687 | 138 |
| Diamond Offshore Drilling, Inc. | B3 | 784 | 690 | 94 |
| Nabors Industries, Inc. | B1 | 681 | 622 | 59 |
| R.R. Donnelley & Sons Company | B3 | 672 | 613 | 59 |
| United Airlines, Inc. | Ba3 | 153 | 105 | 48 |
| United Airlines Holdings, Inc. | Ba3 | 140 | 96 | 44 |
| Penney (J.C.) Corporation, Inc. | Caa3 | 3,276 | 3,243 | 33 |
| American Airlines Group Inc. | B1 | 194 | 165 | 30 |
| AK Steel Corporation | B3 | 287 | 258 | 29 |
| Sprint Communications, Inc. | B3 | 367 | 339 | 28 |

| CDS Spread Decreases | | CDS Spreads | | |
|-------------------------------------|----------------|-------------|---------|-------------|
| Issuer | Senior Ratings | Jan. 29 | Jan. 22 | Spread Diff |
| Frontier Communications Corporation | Caa3 | 8,939 | 9,707 | -767 |
| McClatchy Company (The) | C | 1,822 | 2,114 | -292 |
| Neiman Marcus Group LTD LLC | Ca | 4,190 | 4,264 | -74 |
| Rite Aid Corporation | Caa3 | 953 | 989 | -36 |
| L Brands, Inc. | Ba2 | 220 | 250 | -30 |
| Realty Group LLC | B3 | 461 | 483 | -22 |
| International Game Technology | Ba2 | 138 | 160 | -22 |
| Chesapeake Energy Corporation | Caa3 | 2,779 | 2,800 | -21 |
| Univision Communications Inc. | Caa2 | 185 | 199 | -14 |
| General Electric Company | Baa1 | 77 | 88 | -11 |

Source: Moody's, CMA

Market Data

Figure 4. CDS Movers - Europe (January 23, 2020 – January 29, 2020)

| CDS Implied Rating Rises | | CDS Implied Ratings | | |
|---|---------|---------------------|----------------|--|
| Issuer | Jan. 29 | Jan. 22 | Senior Ratings | |
| Italy, Government of | Ba1 | Ba2 | Baa3 | |
| Spain, Government of | A1 | A2 | Baa1 | |
| Portugal, Government of | Aa3 | A1 | Baa3 | |
| Intesa Sanpaolo S.p.A. | Baa3 | Ba1 | Baa1 | |
| Credit Agricole Corporate and Investment Bank | Aa1 | Aa2 | Aa3 | |
| Santander UK plc | A2 | A3 | Aa3 | |
| Bankinter, S.A. | A1 | A2 | Baa1 | |
| KBC Group N.V. | A3 | Baa1 | Baa1 | |
| Banco Comercial Portugues, S.A. | Ba1 | Ba2 | Ba1 | |
| Atlantia S.p.A. | B2 | B3 | Ba2 | |

| CDS Implied Rating Declines | | CDS Implied Ratings | | |
|---|---------|---------------------|----------------|--|
| Issuer | Jan. 29 | Jan. 22 | Senior Ratings | |
| Lloyds Bank plc | A1 | Aa3 | Aa3 | |
| HSBC Holdings plc | Baa1 | A3 | A2 | |
| Electricite de France | A2 | A1 | A3 | |
| Standard Chartered PLC | Baa1 | A3 | A2 | |
| Landesbank Hessen-Thuringen GZ | A3 | A2 | Aa3 | |
| Total S.A. | Aa2 | Aa1 | Aa3 | |
| Bayerische Motoren Werke Aktiengesellschaft | A3 | A2 | A1 | |
| Standard Chartered Bank | Aa3 | Aa2 | A1 | |
| Anheuser-Busch InBev SA/NV | A2 | A1 | Baa1 | |
| Equinor ASA | Aa1 | Aaa | Aa2 | |

| CDS Spread Increases | | CDS Spreads | | |
|----------------------------------|----------------|-------------|---------|-------------|
| Issuer | Senior Ratings | Jan. 29 | Jan. 22 | Spread Diff |
| PizzaExpress Financing 1 plc | Ca | 4,968 | 4,587 | 380 |
| CMA CGM S.A. | Caa1 | 1,069 | 923 | 146 |
| Boparan Finance plc | Caa1 | 1,368 | 1,239 | 129 |
| Iceland Bondco plc | Caa2 | 729 | 673 | 56 |
| Matalan Finance plc | Caa1 | 881 | 837 | 44 |
| Novafives S.A.S. | Caa2 | 768 | 725 | 43 |
| Selecta Group B.V. | Caa1 | 312 | 290 | 23 |
| Casino Guichard-Perrachon SA | B3 | 648 | 630 | 18 |
| Jaguar Land Rover Automotive Plc | B1 | 436 | 420 | 17 |
| Ineos Group Holdings S.A. | B1 | 197 | 182 | 15 |

| CDS Spread Decreases | | CDS Spreads | | |
|--|----------------|-------------|---------|-------------|
| Issuer | Senior Ratings | Jan. 29 | Jan. 22 | Spread Diff |
| Atlantia S.p.A. | Ba2 | 188 | 242 | -54 |
| Stena AB | B3 | 378 | 401 | -23 |
| Eksportfinans ASA | Baa1 | 474 | 496 | -21 |
| Italy, Government of | Baa3 | 103 | 121 | -18 |
| Greece, Government of | B1 | 106 | 117 | -11 |
| UniCredit S.p.A. | Baa1 | 64 | 74 | -10 |
| Intesa Sanpaolo S.p.A. | Baa1 | 73 | 82 | -9 |
| Banca Monte dei Paschi di Siena S.p.A. | Caa1 | 245 | 253 | -9 |
| thyssenkrupp AG | Ba3 | 165 | 172 | -7 |
| Permanent tsb p.l.c. | Baa2 | 214 | 219 | -5 |

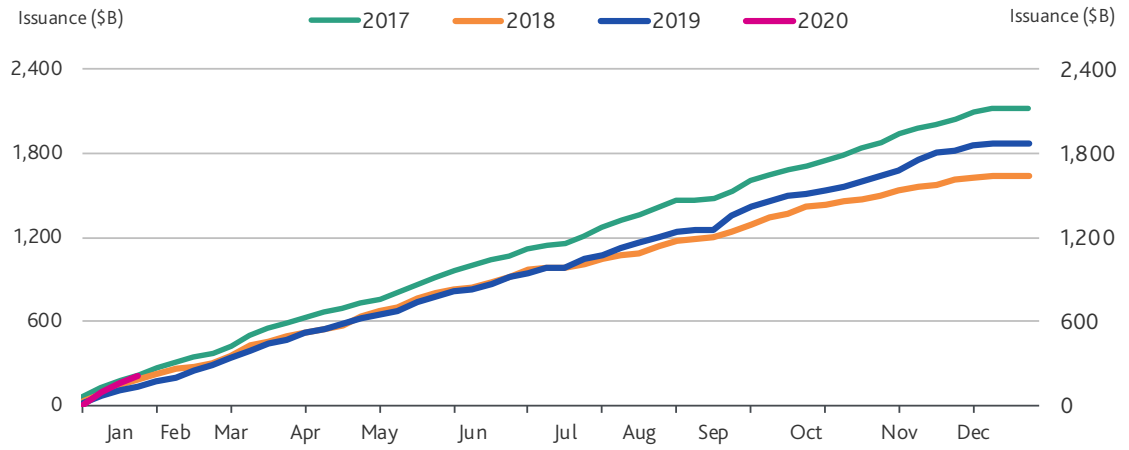
Source: Moody's, CMA

Market Data

Issuance

FIGURE 5

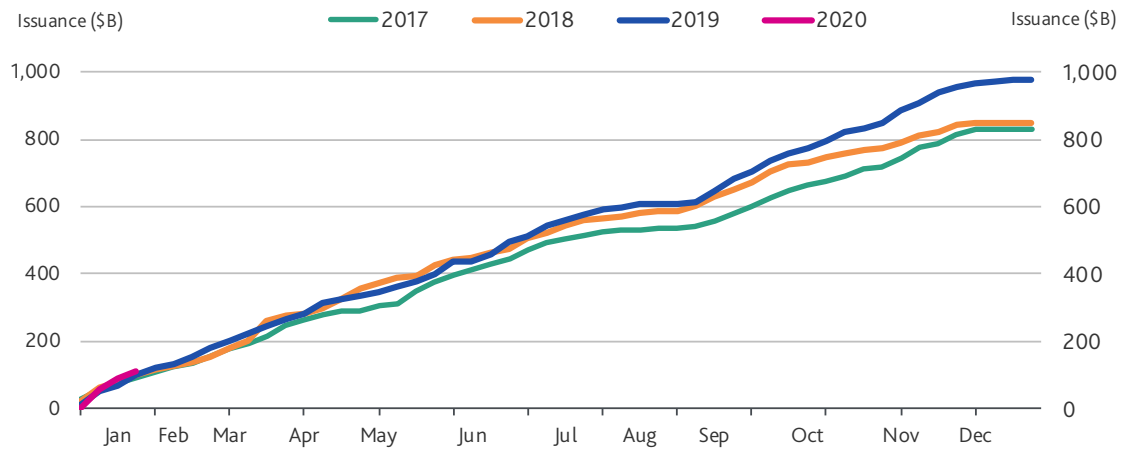
Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated



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 | 29.613 | 16.385 | 51.599 |
| Year-to-Date | 140.502 | 59.080 | 212.579 |

| | Euro Denominated | | |
|--------------|------------------|---------------|---------------|
| | Investment-Grade | High-Yield | Total* |
| | Amount \$B | Amount \$B | Amount \$B |
| Weekly | 10.953 | 5.819 | 18.503 |
| Year-to-Date | 87.532 | 15.265 | 108.232 |

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

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