MOODY'S ANALYTICS

# WEEKLY MARKET OUTLOOK

Moody's Analytics Research

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# Equity Market Volatility Resembles 2008's Final Quarter

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

Equity Market Volatility Resembles 2008's Final Quarter

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

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## The Long View

Full updated stories and key credit market metrics: Having soared by 82% annually during Jan-Feb-2020, US$-denominated high-yield bond offerings may sink by 40% yearly during Mar-Dec-2020.

| | |
|---|---|
| Credit Spreads | Investment Grade: We see the year-end 2020's average investment grade bond spread under its recent 264 basis points. High Yield: Compared with a recent 998 bp, the high-yield spread may approximate 650 bp by year-end 2020. |
| Defaults | US HY default rate: According to Moody's Investors Service, the U.S.' trailing 12-month high-yield default rate jumped up from February 2019's 2.8% to February 2020's 4.5%. |
| 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 drop by 5.1% for IG to $1.243 trillion, while high-yield supply may sink by 19.2% to $349 billion. |

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## Credit Markets Review and Outlook

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

# Equity Market Volatility Resembles 2008's Final Quarter

From the perspective of the U.S. equity market, COVID-19 is the worst natural disaster ever. After setting a record high on February 19, the market value of U.S. common stock has subsequently plummeted by $10.8 trillion, or by 31.2%, to its lowest close since January 30, 2017.

A prospective swelling of the U.S. government budget deficit in response to a COVID-19-inspired surge in federal spending now menaces the outlook for Treasury bond yields. However, the Fed has the power to counter any unwanted climb by Treasury bond yields by purchasing Treasury bonds, which is also known as quantitative easing. Both the European Central Bank and the Bank of England recently announced new quantitative easing programs. Perhaps, the Fed will soon do likewise.

Regarding federal spending, some liken the current battle against COVID-19 to a wartime situation. Thus, it may be of interest that during the World War II years of 1942 through 1945, the U.S. government's budget deficit averaged 22.2% of nominal GDP, wherein the annual budget deficit peaked at 1943's 30.3% of GDP. For now, it's doubtful that the ratio of the federal budget deficit to GDP will approach the extremes of the Second World War.

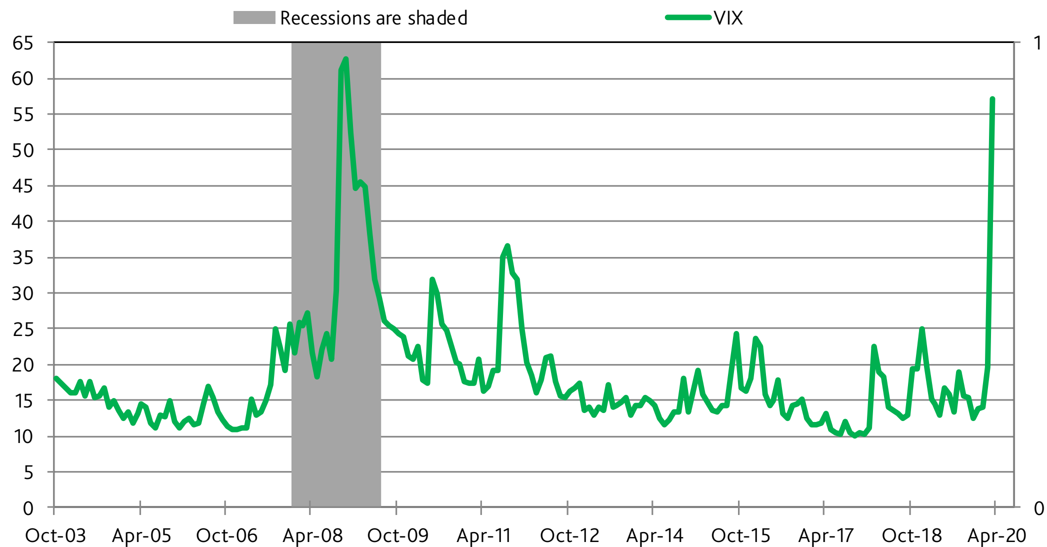
The U.S. government budget deficit of calendar-year 2019 approximated 4.8% of GDP. An early March Bloomberg consensus forecast had 2020's federal budget deficit edging up to 4.9% of GDP, but that projection is likely to be very much on the low side.

During World War II, outstanding U.S. government debt peaked at 120% of GDP. Currently, U.S. government debt approximates 80% of GDP, where the latest Bloomberg consensus expected federal debt to edge up to 81.3% of GDP by 2020's final quarter. That projection is also likely to prove to be too low.

Speaking of government budgets, the tax revenues of many state and local governments are likely to be reduced by declines in business activity and incomes. For example, sales tax revenues may drop considerably. Some state and local governments may ask Washington to help them bridge a temporary loss of tax revenues.

The VIX was at an alarmingly high 69.2 points during the afternoon of March 19. To date in March, the VIX has averaged 57.6 points. Since VIX's estimation methodology was revised in September 2003, a recession overlapped each of the three earlier months when the VIX averaged more than 50 points, namely November 2008 (62.6 points), October 2008 (61.2 points), and December 2008 (52.4 points).

**Figure 1: VIX's Recent March-to-Date Average of 57 Points Was Last Observed During Worst of Great Recession**
*month-long averages*
*sources: CBOE, NBER, Moody's Analytics*




Nevertheless, the U.S. equity market was substantially higher one year later for 13 of the 14 months where the VIX averaged more than 30 points.

For the six months showing a month-long average for the VIX above 40 points, the monthly average for the market value of U.S. common stock 12 months later was higher by 33% year-to-year, on average.

For the nine months showing a month-long average for the VIX above 35 points, the monthly average for the market value of U.S. common stock 12 months later was higher by 32%, on average.

Finally, for the 14 months showing a month-long average for the VIX above 30 points, the monthly average for the market value of U.S. common stock 12 months later was higher by 25%, on average. Only one of the 14 months showed a yearly decline by the market value of U.S. common stock 12 months later. Twelve months after the VIX averaged 30.2 points in September 2008, September 2009's month-long average for the market value of U.S. common equity fell by 13% year-to-year.

### Persistently High VIX Warns of Much Wider Spreads

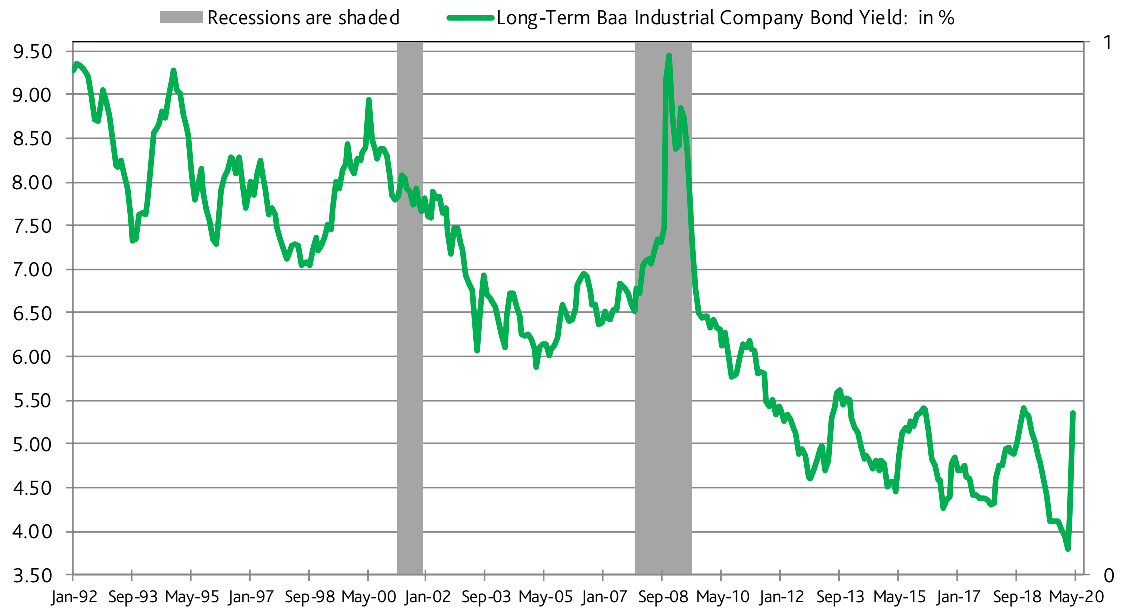
Corporate bond yield spreads will widen considerably from their already very broad bands if a now ultra-high VIX does not plunge by more than 40 points from its recent 69 points.

When the VIX averaged 58.7 points during 2008's final quarter, the accompanying averages were 545 basis points for Moody's Analytics' long-term Baa industrial company bond yield spread and 1,700 bp for a composite high-yield bond spread.

Though VIX's average fell to 45.0 points during 2009's first quarter, the accompanying averages barely dipped to 510 bp for the long-term Baa industrial company bond spread and to 1,627 bp for the high-yield bond spread.

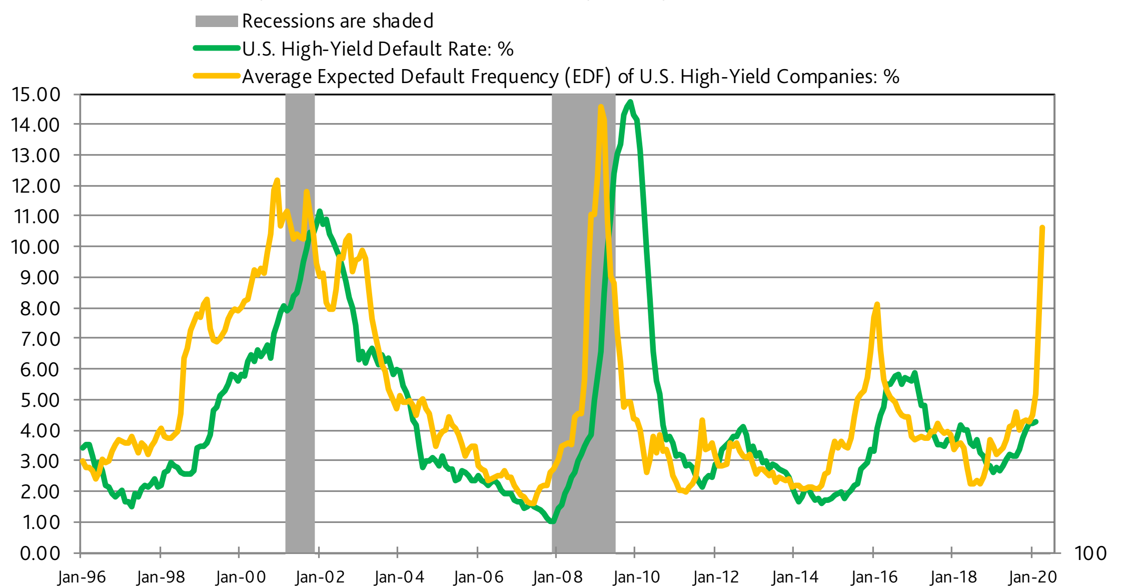
As of March 18, the long-term Baa industrial company bond yield spread was at 357 bp, which was the widest since the spring of 2009, while the composite high-yield bond spread of 988 bp was the broadest since June 2009.

After setting a 64-year low at the 3.56% of March 6, MA's long-term Baa industrial company bond yield quickly shot up to March 18's 5.36%. The latter was the highest since the 5.37% of January 18, 2019. The rapid ascent by the Baa industrial bond yield adds to business cycle risks.




## Average High-Yield EDF Metric Breaks Above 10%

A now weak and volatile U.S. equity market helps to explain the lift-off by MA's average high-yield expected default frequency metric from year-end 2019's 4.18% to March 18's 10.62%. The high-yield EDF last broke above 10% in October 2008. During the Great Recession, the month-long average of the high-yield EDF eventually crested at the 14.6% of February 2009. Ultimately, the U.S. high-yield default rate peaked at November 2009's 14.7%.



## Credit Markets Review and Outlook

When the market value of U.S. common stock had set a record high on February 19, 2020, the average high-yield EDF had already climbed to 5.08%, which was well above its post-September 2003 median of 3.48%. Meanwhile, the VIX had increased from year-end 2019's 13.8 points to February 19's 14.4 points. Unlike the average high-yield EDF, February 19's VIX was less than its post-September 2003 median of 15.7 points. Coincidentally, the VIX's 2020-to-date bottom is the 12.1 points of January 17, or the final close before COVID-19 fears first rattled U.S. financial markets.

### A Brief Look at the History of the One-Year Baa Default Rate

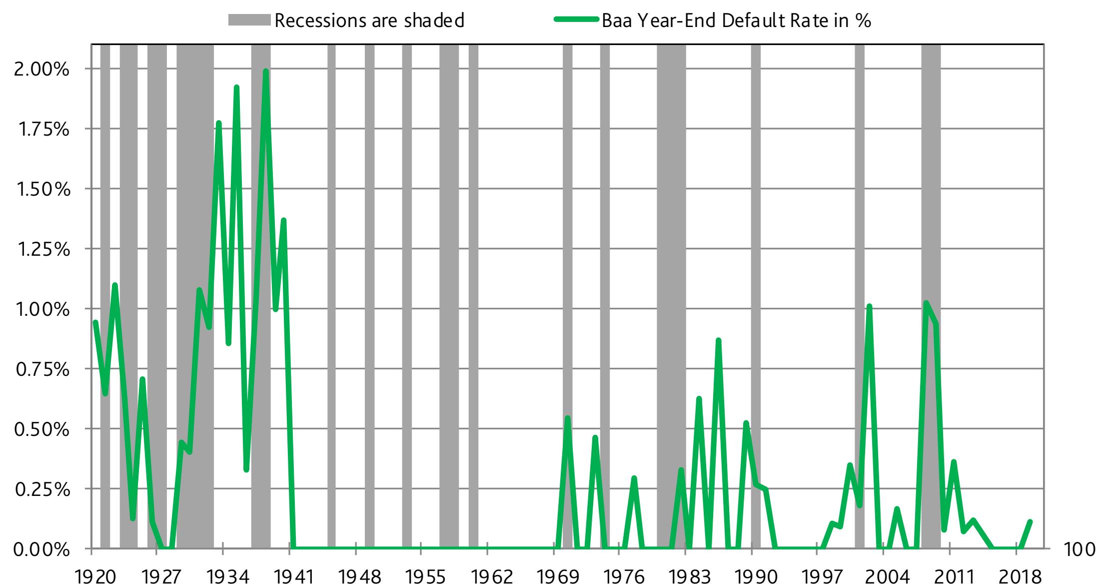
During the 35-years-ended 2019, the one-year Baa default rate averaged 0.19%. After remaining at 0.00% for each of the four-years-ended 2018, the one-year default rate of Baa-grade bonds edged up to 0.11% in 2019.

During the Great Recession, the one-year Baa default rate equaled 1.03% in 2008 and 0.94% in 2009. Prior to the Great Recession, the Baa default rate averaged 0.03% during 2003 through 2007. Earlier, the one-year Baa default rate rose from the 0.18% of 2001's recession year to 1.01% in 2002.

Before 2002, one needs to go back to 1940's 1.37% to uncover the last time the Baa one-year default rate was at least 1%. The record high one-year Baa default rate was 1938's 1.99%.

The moving 10-year average for the one-year Baa default rate peaked at the 1.23% of the span-ended 1940, which overlapped the Great Depression. The two subsequent peaks for the moving 10-year average of the Baa default rate were the 0.29% of 1991 and the 0.37% of 2011. The one-year Baa default rate averaged 0.08% during the 10-years ended 2019.

**Figure 4: For the Last 100 Years, One-Year Default Rate of Baa-Rated Issuers Averaged 0.26%, Wherein the Peak Was 1938's 1.99%**
*sources: Moody's Investors Service, NBER, Moody's Analytics*



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

### THE U.S.

By Ryan Sweet of Moody's Analytics

## Daily Data Shows COVID-19 Has Slammed the U.S. Economy

COVID-19 is delivering a heavy blow to the U.S. economy. We are closely monitoring daily measures to gauge the coronavirus' impact. Morning Consult's consumer confidence index has been declining since March 6. U.S. box-office gross sales for the top 10 movies are running more than 50% of the average for 2018 and 2019. Also, data from OpenTable show enormous year-over-year declines in seated restaurant diners across a large number of cities, including being down 100% on a year-ago basis in Boston, Dallas, Los Angeles, Philadelphia and Seattle.

To assess the impact on U.S. GDP, we are estimating daily lost output. Using the details of National Income and Product accounts data, we calculated daily output. Assumptions are made about the extent to which work can be made up or done remotely. For example, some office workers can telecommute, but manufacturing, restaurants, and manufacturing transportation and logistics are being completely or partially shut down in many parts of the U.S.

Once these calculations have been made, lost output is calculated based on the severity of the coronavirus and industries are divided into three categories: high, moderate and low risk. Information about store and plant closures also factors into the estimate of lost output. For example, the U.S.'s three largest automakers plan to shut down their plants later this week and this will then be factored into our lost output estimate.

To date, our cumulative lost output estimate is 0.3% at an annualized rate. To put this into perspective, if the status quo remains for the remainder of March, lost output would be 4%. Our high-frequency GDP model has first-quarter GDP tracking 1.8% at an annualized rate, but if the status quo remains through the end of this quarter, lost output would put the change in GDP at -2.2% at an annualized rate. We will continue to update our estimate of daily lost output for the U.S. because it could color our forecasts for first- and second-quarter GDP. The lost output estimate will be included in the U.S. COVID-19 Tracker.

The economic costs are rising quickly. If conditions remain as they are today for an entire month, that reduces GDP growth by 7 percentage points. The rising costs have led lawmakers to accelerate and increase the size of their response. Wednesday, the Senate passed a bill to expand paid leave and unemployment benefits in response. The bill now only requires Trump's signature, but this package is only step one. The Trump administration is discussing another package that could total $1.3 trillion. Some details about the plan have been floated and include $50 billion in funds for the airline industry, $300 billion for small businesses, $150 billion in relief for other distressed sectors, and two rounds of direct payments that will total $500 billion.

### Next week

The key data next week will be initiail claims for unemployment insurance benefits and they will likely surge. We also get durable goods orders, advance goods deficit, wholesale inventories, GDP, personal income, personal spending, PCE deflator and Michigan consumer sentiment.

EUROPE
By Barbara Teixeira Araujo of Moody's Analytics

## Another Grim Week Ahead

The week ahead should be as grim as the past one. Markets' focus will remain on developments on the COVID-19 front, especially as the coronavirus continues to quickly spread across Europe. Total cases and deaths on the Continent have already surpassed those in China, and estimates are that they will continue to surge in the coming days and weeks. While infections in Italy could be starting to level off—the country was the first to put in place quarantine measures—they continue to rise exponentially in Germany, France and Spain. While it is still impossible to pinpoint when the infections will peak in Europe, estimates that use Italy and China as benchmarks suggest we might be weeks or months from that moment. Lockdown and self-distancing measures are thus likely to remain in place for yet another month or two, and for the economy this is nothing short of a disaster. Consumer spending on nonessential items will fall off a cliff, while even worse is that several factories have already announced they are closing their plants in Europe for periods ranging from two to four weeks. The European economies are essentially shutting down, with only a few sectors remaining open for business. But we estimate that every sector will ultimately feel the pain, as the current shocks are likely to morph into a full-blown economic downturn with significant job losses.

At least we aren't too much worried about the health of our financial system, which was the culprit of the 2008-2009 financial crisis. This time around, the financial system is coming to the support of the economy and will likely help prevent it from collapsing. Central banks are slashing interest rates and putting in place liquidity programmes aimed at providing cheap and widely available credit to companies—especially those small and medium-size enterprises hit hardest by the crisis—while governments are offering unconditional guarantees on those loans, so banks don't have to worry about not getting repaid. As of now, it looks as though the transmission of monetary policy to the real economy will continue to run smoothly. But we have to be careful; the deeper the downturn, the higher the odds that the economic crisis will morph into a financial one.

The highlight of next week will be the Bank of England, as its March monetary policy meeting is scheduled for Thursday. While the bank already flooded markets with liquidity in two unscheduled moves in less than 10 days, more could be coming. But we think the BoE will announce further stimulus next Thursday only if financial conditions worsen considerably, as it will want to keep any firepower it has left for wartime-like emergencies. With rates now already at the bank's estimated effective lower bound, one option would be for it to further increase its asset purchases or broaden the pool of eligible assets. It could also further ease the provisions of its Term Funding Scheme with additional incentives to SMEs. A rate cut to zero can't be ruled out either, but we think that this would be the bank's less preferred option. In any case, we expect that markets' focus next week will be on the press conference, as BoE Governor Andrew Bailey will be asked to clarify all the aspects regarding the already announced liquidity programmes. We will also be watching for more details regarding the recent increase in scope of the Term Funding Scheme.

Also important next week will be the publication of a barrage of leading data for March. In the pipeline are the PMIs and several national confidence surveys. We expect them to state the obvious, which is that business and household sentiment collapsed since the start of the month as Europe gradually became the epicenter of the virus. But these surveys were likely carried out between March 2 and March 23, which means that a big share of the responses were likely received before the situation got out of control in Italy, and before most other European countries started to put in place containment measures. This means that, unless a vaccine is developed in the next few weeks, April's numbers are likely to be even worse than May's.

Elsewhere, we will get a few hard datapoints for January and February. But we might as well ignore them, as it would be futile to extrapolate anything from them given the current economic shutdown. As of now, most of the hard data published has shown that the European economies had an excellent

start to 2020. Unfortunately, this didn't last long, as we expect that activity started to be hit by mid-February and then collapsed in March, as COVID-19 cases surged across Europe, leading most countries to put in place forceful lockdown and quarantine measures. On the bright side, the economic upside in January will likely ensure that the figures for the first quarter as a whole won't be as bad as they would otherwise have been. We nonetheless expect a sharp contraction in euro zone GDP of as much as 1.5% q/q. But, given that the U.K. followed a different initial strategy regarding containment measures, U.K. GDP could have held steady or only slightly contracted. But with 10 days to go until the end of the month, risks are clearly tilted heavily to the downside.

| | Key indicators | Units | Moody's Analytics | Last |
|---|---|---|---|---|
| Wed @ 9:30 a.m. | U.K.: Consumer Price Index for February | % change yr ago | 1.6 | 1.8 |
| Wed @ 11:00 a.m. | France: Job Seekers for February | mil, SA | 3.25 | 3.26 |
| Thur @ 9:30 a.m. | U.K.: Retail Sales for February | % change yr ago | -0.7 | 0.9 |
| Thur @ 12:00 p.m. | U.K.: Monetary Policy and Minutes for March | % | 0.1 | 0.3 |
| Wed @ 9:30 a.m. | U.K.: Consumer Price Index for February | % change yr ago | 1.6 | 1.8 |

## ASIA-PACIFIC

By Katrina Ell of Moody's Analytics

## Thailand Expected to Follow the Wave of Central Bank Policy Actions

The Bank of Thailand is expected to cut its policy rate by 25 basis points to 0.75%, following on from its reduction of the same magnitude in February. BoT Governor Veerathai Santiprabhob recently noted that it was essential to "act early" when it comes to injecting stimulus. This is particularly the case for monetary policy rate reductions given the lag to full potency. The Thai baht has fallen by 8.4% YTD against the dollar so far this year and is expected to remain volatile to the downside given the global wave of risk aversion that has swept through emerging markets. Like most of Southeast Asia, Thailand is exposed to the global coronavirus pandemic via a number of channels including exports, which are an important stimulant for GDP. Consumption and tourism are also important, and they have lost significant momentum since restrictions were placed on domestic and international travel.

Thailand is following the wave of central bank policy actions through Asia in March, including emergency meetings in South Korea, New Zealand and Japan that released additional monetary stimulus of varying degrees of aggressiveness to help manage the COVID-19 situation.

South Korea's consumer sentiment index will continue to fall sharply in March, after falling by 7.3 points to 96.9 in February. South Korea had a spike in the number of local COVID-19 cases, which alongside the subsequent quarantine would have continued to dent consumer sentiment and spending. While the growth rate in new cases in South Korea has cooled substantially, it will take some time before households get their confidence back and return to pre-virus spending patterns. Improvement will also be held back by developments offshore, and with the number of cases in the U.S. and Europe continuing to rise, Korean households will continue to remain cautious.

| | Key indicators | Units | Confidence | Risk | Moody's Analytics | Last |
|---|---|---|---|---|---|---|
| Thurs @ Unknown | Thailand Monetary policy for March | % | 4 | ↓ | 0.75 | 1.0 |
| Fri @ 8:00 a.m. | South Korea Consumer sentiment survey for March | Index | 2 | ← | 90.3 | 96.9 |

# The Long View

## Having soared by 82% annually during Jan-Feb-2020, US$-denominated high-yield bond offerings may sink by 40% yearly during Mar-Dec-2020.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group
March 19, 2020

### CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 246 basis points doubled its 122-point mean of the two previous economic recoveries. This spread may be no wider than 155 bp by year-end 2020.

The recent high-yield bond spread of 988 bp is thinner than what is suggested by the accompanying long-term Baa industrial company bond yield spread of 357 bp and the recent VIX of 71.1 points. The latter has been statistically associated with a wider than 1,500 bp midpoint for the high-yield bond spread.

### DEFAULTS

February 2020's U.S. high-yield default rate of 4.5% was up from February 2020's 2.8%.

### 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.

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 changes for 2020's worldwide corporate bond offerings are -24.6% for IG and -26.4% 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 1.75% for long. A fundamentally excessive climb by Treasury bond yields and a pronounced slowing by expenditures in dynamic emerging market countries are among the biggest threats to the adequacy of economic growth and credit spreads.

## EUROPE

By Barbara Teixeira Araujo of Moody's Analytics
March 19, 2020

### EUROPEAN CENTRAL BANK

Those who went to bed early Wednesday night missed the European Central Bank's shock policy announcement. The bank stepped up to the plate and delivered a historic €750 billion quantitative easing package aimed at supporting the currency area's economies though the current COVID-19 crisis. The bank's actions are more than warranted: With an increasing number of European countries shutting their economies down so as to contain the spread of the virus, the hit to activity will likely be devastating and odds are it could turn into a recession worse than the one in 2008-2009.

The good news is that governments are also going big in their fiscal responses to the crisis. The bad news is that this is causing spreads to widen significantly in the periphery, as investors start to fear the building of another euro zone debt crisis. This is a vicious circle; the more markets doubt the debt sustainability of countries such as Italy and Spain, the more expensive it becomes for those countries to borrow money, further raising the odds that they won't manage to service their debt costs. What the ECB did on Wednesday is ensure that any euro zone country will manage to borrow as much as it wants at ultra-low costs. It will do that by buying an unprecedented amount of sovereign debt, which will keep a lid on yields and spreads. And in fact, bond-yield spreads narrowed dramatically across the currency area on Thursday. In short, the ECB stepped up to its role as lender of last resort.

On the data front, we got another leading survey that covered the post-coronavirus period. It was grim. The Ifo business climate index plunged to 87.7 in March from 96.1 in February, marking its biggest monthly decline since 1991. The Ifo index is now reading at its lowest since August 2009, and it could fall even further in April given developments on the COVID-19 front. The survey responses were collected between March 2 and March 18, meaning that some of the responses were likely received before the number of cases and deaths escalated in Europe. Sentiment declined across sectors, corroborating our view that the upcoming recession will be deep and broad-based.

Given that the outbreak in Europe is far from peaking, we have to assume that containment measures will stay in place for at least another month or two. We thus expect activity to take a serious hit in the second quarter as well; we are penciling in a 1.5% q/q contraction in GDP in the first stanza, followed by a 2% slump in the second, with risks tilted to the downside. This will lead to nearly a 3% contraction in GDP in 2020.

The irony continued on the hard data from early this year. Construction output surged by 3.6% m/m in January and fully reversed December's 2.1% fall, adding to evidence that the euro zone had a rosy start to 2020. Had the coronavirus outbreak not happened, the euro zone's GDP would likely have grown solidly in the first stanza, ending a streak of disappointing data for 2019. But this is old news now.

### GERMANY

The ZEW Indicator of Economic Sentiment for Germany cratered in March, down 58.2 points to a reading of -49.5. This means that a majority of the 170 financial analysts surveyed were pessimistic about the German economy for the coming six months. This was the sharpest drop in the history of the survey, which started in 1991. The ZEW results are some of the first datapoints we have about conditions in the European economy since COVID-19 began to spread significantly in Europe. But while the results are appalling and came in well below consensus expectations, they are hardly a major surprise.

### EURO ZONE

The results of the survey were just as bad for the euro zone as a whole. The balance among positive, neutral and negative outlooks about the currency bloc's economy fell 59.9 points to -49.5 in March. The Italian and British readings were the lowest in Europe, with the former dropping 46.9 points to
-57.6 and the latter down 21 points to -58.5. France's balance tumbled by 54.4 points to -53.5.

The slump in investor confidence reflects the storm that has been raging in European equity markets. The survey was collected from March 9 to March 16, a period in which the German DAX shed 17.7%. The Euro Stoxx 50 was down 17.1% over the same period.

The results imply, however, that investors are confident the shock to stock markets is temporary. The majority are optimistic that in six months stock markets across Europe will be on firmer footing. This is consistent with our

expectation that the coronavirus crisis will be followed by a recovery in the second half of the year. But we caution against overestimating the rebound; there won't be a clear end date to the crisis, meaning consumers and businesses won't shed their fears from one day to the next.

Right now, there are no concrete signs that the virus is abating in Europe. The total number of cases is growing fast, with Spain appearing particularly at risk. At the current speed of spread, we expect more countries will need to impose quarantine and lockdown measures in coming days, which should bring the European economies to a halt. Policymakers are coming to the rescue, easing both fiscal and monetary stimulus aggressively, but this won't be enough to prevent the economy from falling off a cliff. With social distancing becoming the norm, consumers will likely spend only on essential items, investment should collapse, and trade will wither. It looks like the current crisis could morph into a deep downturn, far worse than the 2008 crisis. One relevant comparison is that during the 2008 downturn, at least life went on outside financial markets. This time around, most sectors of the economy are shutting down.

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## ASIA PACIFIC

By Katrina Ell of Moody's Analytics
March 19, 2020

### ASIA'S CENTRAL BANKS

The blow COVID-19 has dealt to the global economy is now reverberating throughout Asia even more strongly. China's data for the combined January-February period showed more pronounced falls across industrial production, fixed asset investment, and retail trade than expected, with double-digit declines in yearly terms across the three indicators. The People's Bank of China cut the reserve requirement ratio again in mid-March. Policymakers are expected to keep releasing monetary stimulus measures, in addition to measures encouraging and facilitating the resumption of work.

### China's COVID-19 blow

Fixed asset investment plummeted by 24.5% y/y in January-February, a significant downturn from the 6.1% growth during the same period the previous year. Declines were registered across the board, though investment in the manufacturing sector suffered the most, down 31.5%, while the agricultural sectors were collectively down 23.7%. Investment in the state-owned and private sectors shed more than 20%.

China's industrial production fell 13.5% y/y in January-February, after growing by 6.9% in December. Manufacturing output tumbled by 15.7% after gaining 7% in December, while mining production was down 6.5% in January-February following the 5.6% growth in December. By major industry, auto manufacturing plummeted by 31.8% y/y after rising by 10.4% previously, while metal production dropped by 26.9% after a 6.3% gain in December. Electrical machinery and equipment manufacturing declined 24.7%, reversing the 12.4% rise in the prior month, and pharmaceuticals fell 12.3% after adding 5.3% previously. The appalling results corroborate the record low manufacturing PMI surveys in February, which foreshadowed this weakness.

Retail sales in China in January-February plummeted 20.5% y/y from a year earlier, well down from the 8% growth in December. Other than food and beverages, there were sharp drops across product categories, including household appliances and audiovisual equipment (down 30%) and autos (down 37%). Online sales were not able to offset the losses in physical stores, as they were up only 3%.

### Aggressive response

The Federal Reserve's aggressive monetary response contributed to the fresh wave of policy action throughout Asia in Monday.

The Reserve Bank of New Zealand cut the Official Cash Rate at an unscheduled policy meeting by 75 basis points to a record low 0.25%. This unprecedented move is in response to the significant economic shock that COVID-19 has caused to the global and New Zealand economies. The RBNZ signalled that the OCR will remain at 0.25% for at least a year, squashing speculation that the policy rate will imminently move even lower. Instead, the RBNZ flagged that if further monetary stimulus is needed, it will be via an asset-purchase program. This will work alongside the government's fiscal stimulus package, which will shortly be announced. New Zealand's economy is heavily exposed to COVID-19 via a number of channels, including a slump in exports, consumption, investment and equity prices.

## The Long View

Elsewhere, the Bank of Korea held an emergency meeting and cut the policy rate by 50 basis points to 0.75%. South Korea is highly exposed to COVID-19 given the importance of exports to its economy, as well as the surge in the number of local cases, causing a quarantine and having further impacts on already-weakened consumption. The BoK was widely criticised in February for not reducing the policy rate but instead preferring more targeted measures to shore up liquidity. It justified the surprise March rate cut, citing the more significant economic toll that COVID-19 has had on current conditions and the outlook since February.

The Bank of Japan's emergency meeting on Monday resulted in the central bank saying it would increase the upper limit of its annual purchases of exchange traded funds to ¥12 trillion. The move failed to excite markets as the central target was maintained at ¥6 trillion per year. Increasing the upper limit on ETF purchases gives the BoJ the flexibility to double its current target purchases but doesn't oblige it to do so. It also stated that it was prepared to cut interest rates further into negative territory.

## Ratings Round-Up

# Downgrades Dominate U.S. and European Changes

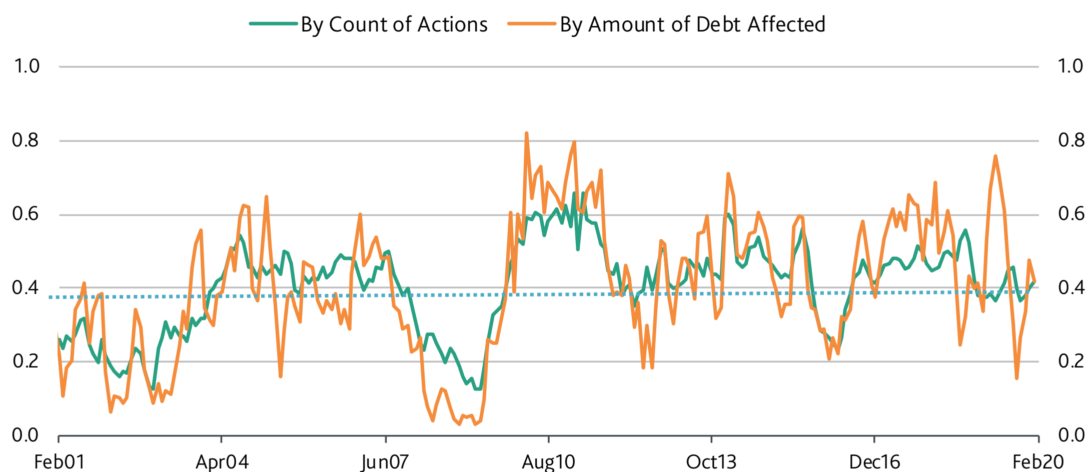
By Michael Ferlez

U.S. rating changes were again overwhelmingly negative as the fallout from the COVID-19 continues to darken the global economic outlook. For the week ended March 17, downgrades accounted for all but one of the 13 total rating changes. Notable changes for the period included three investment-grade companies: Consolidated Edison Inc., Carnival Corp., and Southwest Airlines Co. Moody's Investors Services downgraded Consolidated Edison's senior unsecured credit rating one-notch to Baa2, impacting $15 billion in debt. Moody's downgrade of ConEd reflects the expectation for weaker financial metrics at its primary subsidiary Consolidated Edison Company of New York and the structural subordinations of its debt relative to its subsidiaries. Moody's also downgraded the senior unsecured debt for Carnival Corp. and Southwest Airlines. The cruise and airline industries are expected to be hit hard by the spread of the COVID-19.

European rating changes were similarly dour, with upgrades accounting for one of the eight total changes. Investment-grade firms accounted for 75% of the total rating activity and all of the $15 billion of affected debt. Moody's Investors Service downgraded Centrica PLC's senior unsecured credit rating from Baa1 to Baa2, impacting $6.8 billion in debt. Moody's downgrade of Centrica PLC accounts for the challenging environment in the firm's markets of operation along with a deterioration in the firm's credit metrics. Other notable downgrades included Continental AG and EasyJet PLC, with both firm's seeing their senior unsecured credit downgraded from Baa1 to Baa2.

FIGURE 1

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




* Trailing 3-month average

*Source: Moody's*

## Ratings Round-Up

FIGURE 2

### Rating Key

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

FIGURE 3

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

| Date | Company | Sector | Rating | Amount ($ Million) | Up/ Down | Old LTD Rating | New LTD Rating | IG/SG |
|---|---|---|---|---|---|---|---|---|
| 3-11-20 | CARNIVAL CORPORATION | Industrial | SrUnsec | 3,043 | D | A3 | Baa1 | IG |
| 3-11-20 | DENBURY RESOURCES INC. | Industrial | SrSec/LTCFR /SrSub/PDR | 5,556 | D | B3 | Caa2 | SG |
| 3-11-20 | SIRVA, INC.-SIRVA WORLDWIDE, INC. | Industrial | SrSec/BCF /LTCFR/PDR | | D | B1 | B3 | SG |
| 3-11-20 | JP INTERMEDIATE B, LLC | Industrial | SrSec/BCF /LTCFR/PDR | | D | B2 | Caa2 | SG |
| 3-12-20 | KOREAN AIR LINES CO., LTD. -HANJIN INTERNATIONAL CORP. | Industrial | SrSec /BCF/LTCFR | | D | Ba3 | B1 | SG |
| 3-12-20 | MURRAY ENERGY CORPORATION -FORESIGHT ENERGY, LLC | Industrial | SrSec/BCF /LTCFR/PDR | 425 | D | Caa3 | C | SG |
| 3-12-20 | DONNELLEY FINANCIAL SOLUTIONS, INC. | Industrial | SrSec/BCF | | U | Ba2 | Ba1 | SG |
| 3-12-20 | CARLSON TRAVEL, INC. | Industrial | SrUnsec /LTCFR/PDR | 250 | D | Caa1 | Caa2 | SG |
| 3-13-20 | L BRANDS, INC. | Industrial | SrUnsec /LTCFR/PDR | 5,722 | D | Ba2 | Ba3 | SG |
| 3-16-20 | FERRELL COMPANIES-FERRELLGAS, L.P. | Industrial | SrUnsec /LTCFR/PDR | 1,832 | D | Caa2 | Caa3 | SG |
| 3-17-20 | SOUTHWEST AIRLINES CO. | Industrial | SrUnsec | 2,403 | D | A3 | Baa1 | IG |
| 3-17-20 | CONSOLIDATED EDISON, INC. | Utility | SrUnsec/LTIR | 15,205 | D | Baa1 | Baa2 | IG |
| 3-17-20 | CARROLS RESTAURANT GROUP, INC. | Industrial | SrSec/BCF /LTCFR/PDR | | D | B2 | B3 | SG |

*Source: Moody's*

## Ratings Round-Up

FIGURE 4

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

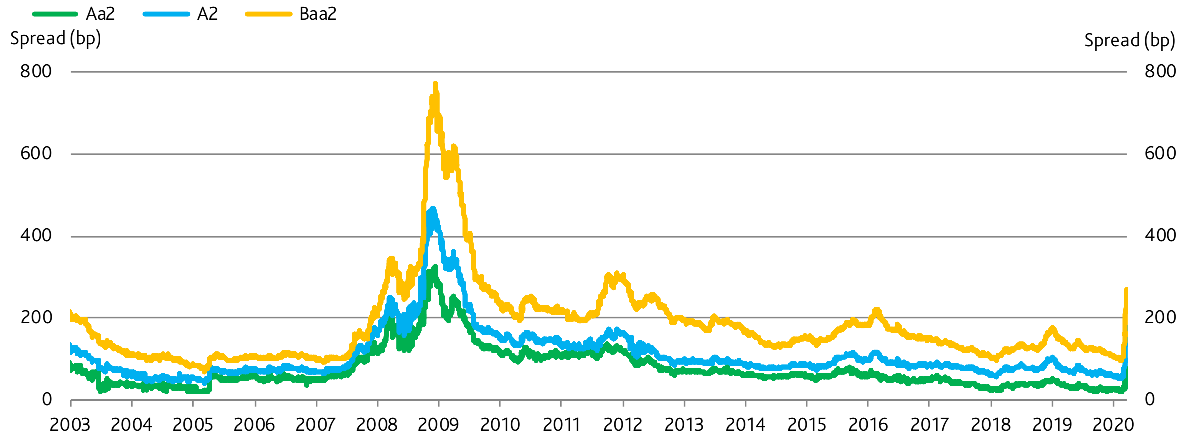
| Date | Company | Sector | Rating | Amount ($ Million) | Up/ Down | Old LTD Rating | New LTD Rating | IG/ SG | Country |
|---|---|---|---|---|---|---|---|---|---|
| 3-11-20 | FUNDACION BANCARIA, LA CAIXA-BANCO BPI S.A. | Financial | LTIR/MTN | | U | Ba1 | Baa3 | SG | PORTUGAL |
| 3-11-20 | BRISTOL WATER CORE HOLDINGS LIMITED-BRISTOL WATER PLC | Industrial | SrSec | 50 | D | Baa1 | Baa2 | IG | UNITED KINGDOM |
| 3-13-20 | KELDA GROUP LIMITED-YORKSHIRE WATER FINANCE PLC | Utility | SrSec/MTN | 3,972 | D | Baa1 | Baa2 | IG | UNITED KINGDOM |
| 3-13-20 | CONTINENTAL AG | Industrial | SrUnsec /LTIR/MTN | 2,380 | D | Baa1 | Baa2 | IG | GERMANY |
| 3-13-20 | CENTRICA PLC | Industrial | SrUnsec/BCF /LTIR/JrSub/MTN | 6,871 | D | Baa1 | Baa2 | IG | UNITED KINGDOM |
| 3-13-20 | CASSINI SAS | Industrial | SrSec/BCF /LTCFR/PDR | | D | B2 | B3 | SG | FRANCE |
| 3-17-20 | DEUTSCHE LUFTHANSA AKTIENGESELLSCHAFT | Industrial | SrUnsec/MTN | 553 | D | Baa3 | Ba1 | IG | GERMANY |
| 3-17-20 | EASYJET PLC | Industrial | SrUnsec /LTIR/MTN | 1,670 | D | Baa1 | Baa2 | IG | UNITED KINGDOM |

*Source: Moody's*

# Market Data

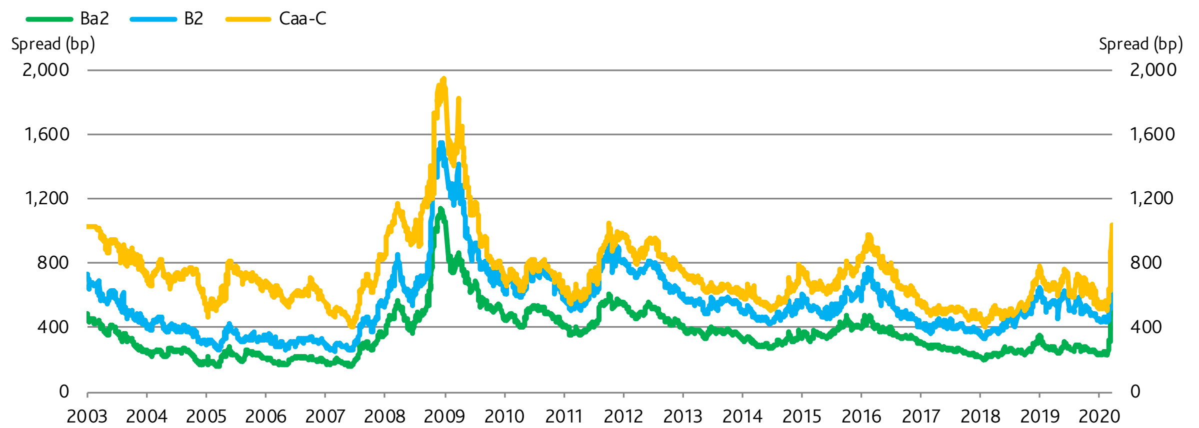
## Spreads

**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 (March 12, 2020 – March 18, 2020)**

| CDS Implied Rating Rises | CDS Implied Ratings | | |
|---|---|---|---|
| Issuer | Mar. 18 | Mar. 11 | Senior Ratings |
| Williams Companies, Inc. (The) | Ba2 | B2 | Baa3 |
| DPL Inc. | Ba2 | B2 | Ba1 |
| NV Energy Inc. | A2 | Baa2 | Baa2 |
| Wendy's International, LLC | Ba2 | B2 | Caa1 |
| Valero Energy Corporation | Ba1 | Ba3 | Baa2 |
| Kinder Morgan, Inc. | Ba1 | Ba3 | Baa2 |
| Halliburton Company | Ba3 | B2 | Baa1 |
| Molson Coors Beverage Company | A3 | Baa2 | Baa3 |
| PPG Industries, Inc. | A2 | Baa1 | A3 |
| El Paso Holdco LLC | Ba1 | Ba3 | Baa2 |

| CDS Implied Rating Declines | CDS Implied Ratings | | |
|---|---|---|---|
| Issuer | Mar. 18 | Mar. 11 | Senior Ratings |
| Hilton Worldwide Finance, LLC | B2 | Baa3 | Ba2 |
| Walt Disney Company (The) (Old) | Baa2 | A1 | A2 |
| Calpine Corporation | B2 | Ba2 | B2 |
| CIT Group Inc. | B2 | Ba2 | Ba1 |
| Gap, Inc. (The) | B2 | Ba2 | Baa2 |
| Navistar International Corp. | B3 | Ba3 | B3 |
| JPMorgan Chase Bank, N.A. | Baa3 | Baa1 | Aa2 |
| Ally Financial Inc. | B2 | Ba3 | Ba1 |
| Verizon Communications Inc. | Baa3 | Baa1 | Baa1 |
| General Motors Company | B2 | Ba3 | Baa3 |

| CDS Spread Increases | | CDS Spreads | | |
|---|---|---|---|---|
| Issuer | Senior Ratings | Mar. 18 | Mar. 11 | Spread Diff |
| Chesapeake Energy Corporation | Caa3 | 14,704 | 10,056 | 4,648 |
| Penney (J.C.) Corporation, Inc. | Caa3 | 8,843 | 4,462 | 4,381 |
| Neiman Marcus Group LTD LLC | Ca | 10,309 | 6,251 | 4,058 |
| Nabors Industries, Inc. | B1 | 4,737 | 3,952 | 786 |
| Hertz Corporation (The) | B3 | 1,684 | 919 | 765 |
| Avis Budget Car Rental, LLC | B1 | 1,213 | 542 | 671 |
| Diamond Offshore Drilling, Inc. | Caa2 | 3,557 | 2,901 | 657 |
| International Game Technology | Ba2 | 1,150 | 495 | 655 |
| Murphy Oil Corporation | Ba2 | 1,118 | 612 | 506 |
| Royal Caribbean Cruises Ltd. | Baa2 | 1,221 | 726 | 495 |

| CDS Spread Decreases | | CDS Spreads | | |
|---|---|---|---|---|
| Issuer | Senior Ratings | Mar. 18 | Mar. 11 | Spread Diff |
| Frontier Communications Corporation | Caa3 | 11,975 | 22,626 | -10,651 |
| R.R. Donnelley & Sons Company | B3 | 973 | 1,000 | -27 |
| Enbridge Energy Limited Partnership | Baa2 | 188 | 200 | -12 |
| NV Energy Inc. | Baa2 | 71 | 83 | -12 |
| American Express Credit Corporation | A2 | 53 | 62 | -9 |
| PPG Industries, Inc. | A3 | 66 | 73 | -7 |
| Arrow Electronics, Inc. | Baa3 | 108 | 110 | -2 |
| Avnet, Inc. | Baa3 | 118 | 120 | -2 |
| NextEra Energy Capital Holdings, Inc. | Baa1 | 55 | 56 | -1 |
| Kroger Co. (The) | Baa1 | 57 | 58 | -1 |

*Source: Moody's, CMA*

## Market Data

**Figure 4. CDS Movers - Europe (March 12, 2020 – March 18, 2020)**

| CDS Implied Rating Rises | CDS Implied Ratings | | |
|---|---|---|---|
| Issuer | Mar. 18 | Mar. 11 | Senior Ratings |
| Novo Banco, S.A. | Ba2 | B2 | Caa2 |
| Permanent tsb p.l.c. | Ba2 | B2 | Baa2 |
| RCI Banque | Ba2 | B1 | Baa1 |
| Renault S.A. | Ba2 | B1 | Ba1 |
| Iceland, Government of | A2 | Baa1 | A2 |
| Ziggo Bond Company B.V. | Ba2 | B1 | B3 |
| Ziggo Secured Finance B.V. | Ba2 | B1 | Caa1 |
| Marks & Spencer p.l.c. | Ba2 | B1 | Baa3 |
| Deutsche Lufthansa Aktiengesellschaft | Ba3 | B2 | Ba1 |
| Legrand France S.A. | A2 | Baa1 | A3 |

| CDS Implied Rating Declines | CDS Implied Ratings | | |
|---|---|---|---|
| Issuer | Mar. 18 | Mar. 11 | Senior Ratings |
| Selecta Group B.V. | C | Caa1 | Caa1 |
| Bankia, S.A. | Baa3 | A3 | Baa3 |
| Spain, Government of | Baa3 | Baa1 | Baa1 |
| BNP Paribas | Baa1 | A2 | Aa3 |
| Societe Generale | Baa1 | A2 | A1 |
| Portugal, Government of | Baa3 | Baa1 | Baa3 |
| CaixaBank, S.A. | Baa3 | Baa1 | Baa1 |
| Fiat Chrysler Automobiles N.V. | B2 | Ba3 | Ba2 |
| Fresenius SE & Co. KGaA | Baa1 | A2 | Baa3 |
| Vinci S.A. | Baa1 | A2 | A3 |

| CDS Spread Increases | | CDS Spreads | | |
|---|---|---|---|---|
| Issuer | Senior Ratings | Mar. 18 | Mar. 11 | Spread Diff |
| PizzaExpress Financing 1 plc | Ca | 12,623 | 7,941 | 4,682 |
| Selecta Group B.V. | Caa1 | 2,481 | 859 | 1,622 |
| CMA CGM S.A. | Caa1 | 3,578 | 2,184 | 1,393 |
| Boparan Finance plc | Caa1 | 3,538 | 2,439 | 1,099 |
| Novafives S.A.S. | Caa2 | 2,284 | 1,322 | 962 |
| TUI AG | Ba3 | 1,692 | 741 | 951 |
| Vue International Bidco plc | Caa2 | 1,058 | 600 | 458 |
| Jaguar Land Rover Automotive Plc | B1 | 1,400 | 960 | 440 |
| Stena AB | B3 | 1,262 | 850 | 413 |
| Premier Foods Finance plc | Caa1 | 710 | 399 | 311 |

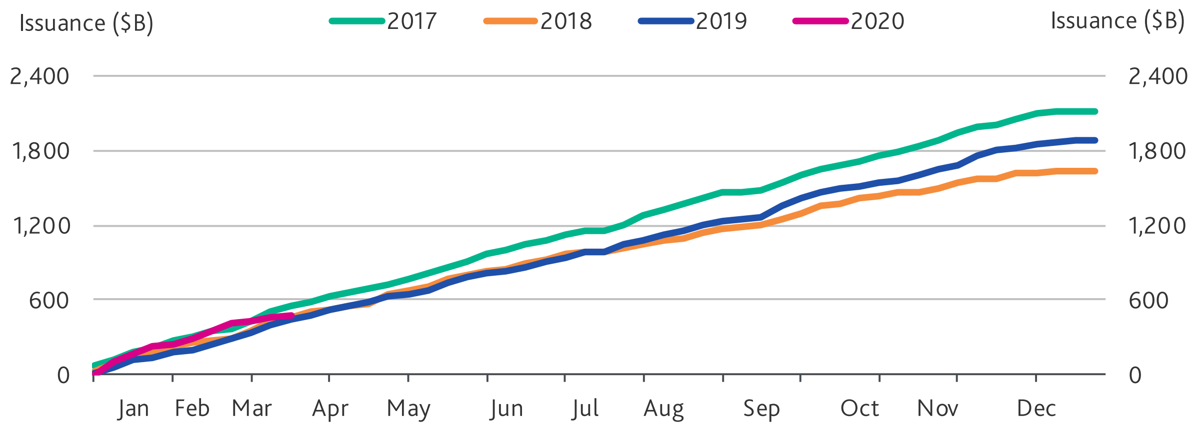
| CDS Spread Decreases | | CDS Spreads | | |
|---|---|---|---|---|
| Issuer | Senior Ratings | Mar. 18 | Mar. 11 | Spread Diff |
| EWE AG | Baa1 | 115 | 130 | -14 |
| Legrand France S.A. | A3 | 63 | 73 | -10 |
| Nationwide Building Society | Aa3 | 58 | 61 | -3 |
| Alpha Bank AE | Caa1 | 616 | 616 | 0 |
| National Bank of Greece S.A. | Caa1 | 553 | 553 | 0 |
| Valaris plc | Caa2 | 1,794 | 1,794 | 0 |
| Eurobank Ergasias S.A. | Caa1 | 699 | 699 | 0 |
| Piraeus Bank S.A. | Caa2 | 821 | 821 | 0 |
| Novo Banco, S.A. | Caa2 | 339 | 339 | 0 |
| Eksportfinans ASA | Baa1 | 475 | 475 | 0 |

*Source: Moody's, CMA*

## Market Data

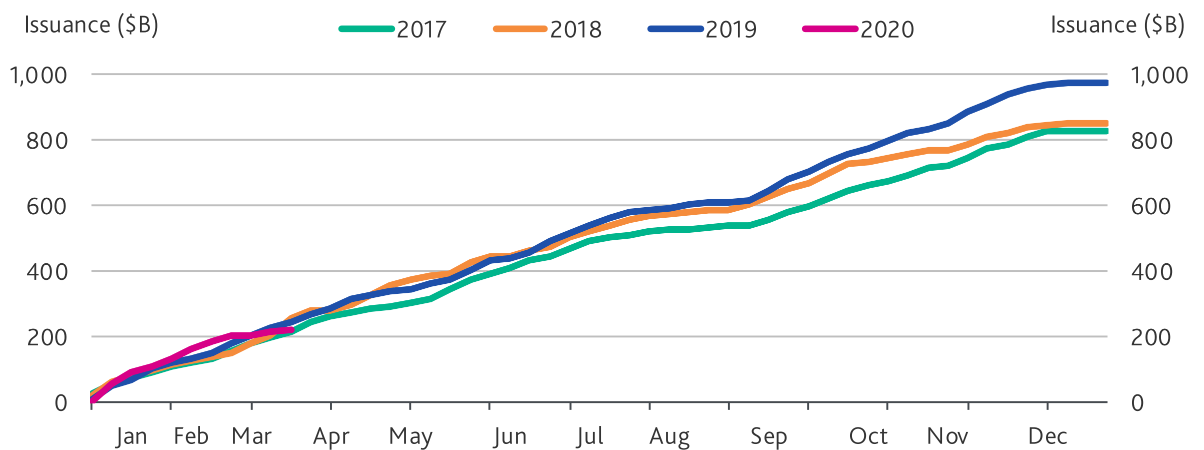
# Issuance

### 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*

Figure 7. Issuance: Corporate & Financial Institutions

| | USD Denominated | | |
|---|---|---|---|
| | Investment-Grade | High-Yield | Total* |
| | Amount $B | Amount $B | Amount $B |
| Weekly | 10.230 | 0.000 | 12.945 |
| Year-to-Date | 318.033 | 129.944 | 475.268 |

| | Euro Denominated | | |
|---|---|---|---|
| | Investment-Grade | High-Yield | Total* |
| | Amount $B | Amount $B | Amount $B |
| Weekly | 2.498 | 0.000 | 2.515 |
| Year-to-Date | 178.269 | 35.572 | 218.541 |

* Difference represents issuance with pending ratings.

*Source: Moody's/ Dealogic*

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