MOODY'S ANALYTICS

WEEKLY MARKET OUTLOOK

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Ultra-Low Treasury Yields and Very High VIX Warn of Credit Stress Ahead

Credit Markets Review and Outlook *by John Lonski*

Ultra-Low Treasury Yields and Very High VIX Warn of Credit Stress Ahead

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The Week Ahead

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: A now ultra-high VIX may overstate COVID-19's long-term impact on financial markets.

Credit Spreads	Investment Grade: We see the year-end 2020's average investment grade bond spread just under its recent 127 basis points. High Yield: Compared with a recent 525 bp, the high-yield spread may approximate 550 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 January 2020's actual 4.2% to a baseline estimate of 3.8% for January 2021.
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 0.3% for IG to $1.314 trillion, while high-yield supply may grow by 3.9% to $449 billion.

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Ratings Round-Up

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Credit spreads, CDS movers, issuance.

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Moody's Capital Markets Research *recent publications*

Links to commentaries on: Rate cuts, optimism, coronavirus, corporate credit, spreads, leverage, rate sensitivity, sentiment, VIX, fundamentals, next recession, liquidity and defaults, cheap money, fallen angels, yields, inversions, unmasking danger, divining markets.

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Credit Markets Review and Outlook

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

Ultra-Low Treasury Yields and Very High VIX Warn of Credit Stress Ahead

The longer negative sentiment dominates the financial markets, the greater is the danger the loss of confidence will spread to businesses and consumers. At least through February 29, a still near record low number of first-time applications for state unemployment benefits suggests that companies have yet to pare staff in reaction to either an actual or expected loss of sales to COVID-19.

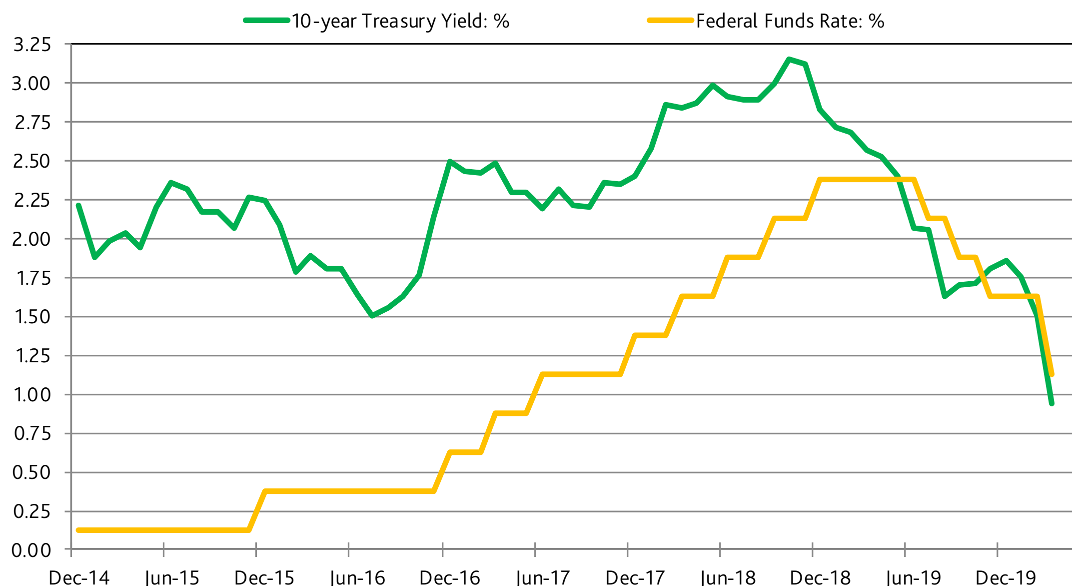
For now, virus-driven declines in business activity appear to be most severe for travel and leisure. Moreover, high-technology and other industries are and may continue to suffer from interruptions in global supply chains.

On Tuesday, March 3, the Federal Reserve responded to the high anxiety of financial markets and lowered the federal funds rate's target range by 50 basis points. A recent 10-year Treasury yield of 0.92% and the return of an inverted Treasury yield curve imply more Fed rate cuts are very likely.

As inferred from the CME Group's FedWatch Tool, the futures market recently assigned a 100% implied probability to a cutting of fed funds at the next March 18 meeting of the Federal Open Market Committee, where the only question remaining is whether the rate cut will be 25 bp (which was assigned a 35% probability) or 50 bp (which gets a 65% likelihood). By the FOMC's June 10 meeting, the futures market implicitly assigns a 67% probability to a fed funds' midpoint that is no greater than 0.38%.

It's hard to believe that as recently as June 2019, fed funds' midpoint was 2.38%. Who would have thought back then that fed funds would be lowered by 200 bp over the next 12 months?

Figure 1: Ten-Year Treasury Yield of 0.94% Is Less Than Fed Funds' New Midpoint of 1.13% ... Possible 0.88% Midpoint by End of April
sources: Federal Reserve, Moody's Analytics



Like it or not, the Treasury yield curve and fed funds futures now assign an uncomfortably high implied probability to a painful contraction of corporate earnings and a pronounced worsening of the corporate default outlook arriving by the end of 2020. In turn, the high-yield bond market is now susceptible to a 500 bp ballooning of the average spread over Treasuries. These dangers may persist until COVID-19 risks subside convincingly.

Credit Markets Review and Outlook

For now, the good news is that the plunge in benchmark Treasury yields has facilitated a drop by investment-grade corporate bond yields to either record lows or to lows last observed during the early- to mid-1950s. Moody's Analytics' recent long-term Baa industrial-company bond yield of 3.73% was less than each of its prior month-long average going back to June 1956's 3.71%.

The widening of the long-term Baa industrial spread from year-end 2019's 164 bp to March 4's 203 bp matters less because spreads have not broadened by enough to prevent a constructive decline by investment-grade corporate bond yields. However, Baa-rated bond yields climb higher amid a slide by benchmark Treasury yields, both the corporate-credit and business cycles will be under considerable stress.

Figure 2: Financial Market Metrics since End of 2019 and January 17's Last Trading Day Prior to Arrival of COVID-19 Fears

Date	Federal Funds Rate: Midpoint in %	10-year Treasury Yield: %	Moody's Long-Term Baa Industrial Company Bond Yield: %	Moody's Long-Term Baa Industrial Company Bond Yield Spread: basis points	BoAML/ICE Investment-Grade Bond Yield: %	BoAML/ICE Investment-Grade Bond Yield Spread: basis points	BoAML/ICE Speculative-Grade Bond Yield: %	BoAML/ICE Speculative-Grade Bond Yield Spread: basis points	Average High-Yield Expected Default Frequency (EDF) Metric: %	Median High-Yield Expected Default Frequency (EDF) Metric: %	VIX: points
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
12/31/2019	1.63	1.92	4.03	164	2.90	101	5.40	358	4.18	0.35	13.8
1/17/2020	1.63	1.82	3.99	171	2.82	99	5.14	337	4.40	0.30	12.1
3/4/2020	1.13	1.03	3.73	203	2.33	132	5.69	474	6.02	0.50	32.0

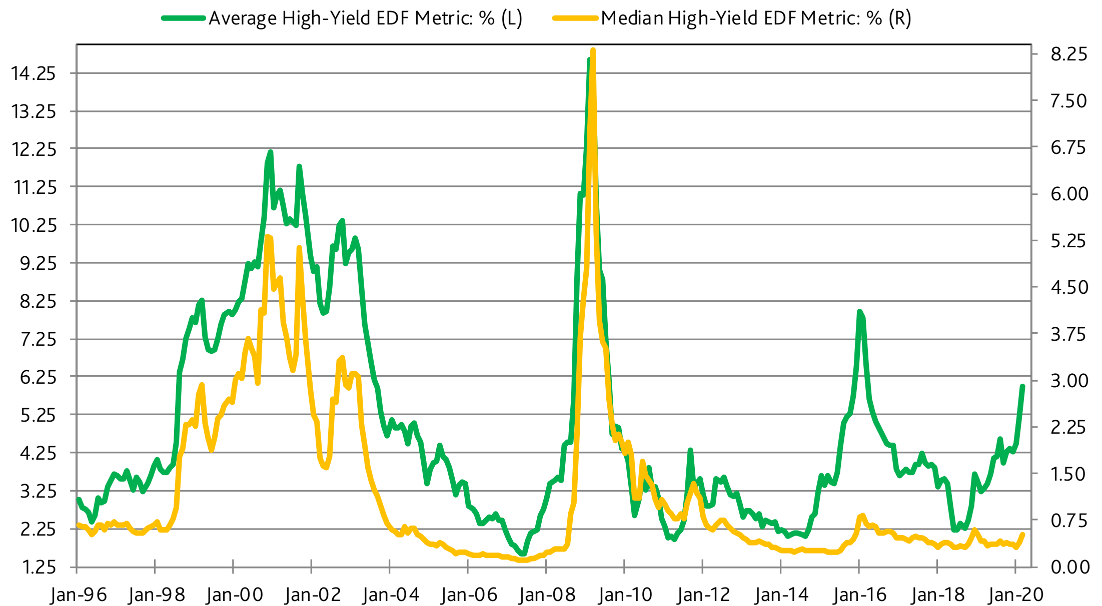
Not All High-Yield Bonds Show Negative Returns for 2020-to-Date

According to Credit Suisse, high-yield corporate bonds incurred a total return of -0.86% since year-end 2019 through March 3. However, only four of the 18 corporate categories making up the Credit Suisse index incurred a negative total return that was deeper than -0.86%. The four 2020-to-date total returns through March 3 that were less than -0.86% included energy's -7.88%, gaming/leisure's -1.99%, metals/minerals' -1.33%, and chemical's -1.17%.

Despite the seemingly deep negative total return for all high-yield bonds, nine of the 18 categories achieved positive total returns since year-end 2019. Here, the four largest total returns included health care's 1.34%, utilities' 0.98%, information technology's 0.95%, and housing's 0.52%.

The gap between the index's total return of -0.86% and the median total return of +0.09% for the index's 18 categories brings attention to March 4's wide gap between the average high-yield expected default frequency metric of 6.02% and the median high-yield EDF of 0.50%. By contrast, the historical medians for the two metrics are a much lower 3.82% for the average high-yield EDF and a higher 0.60% for the median EDF. Over time, a roughly 6% average EDF has been associated with a median EDF of 1.1%.

Figure 3: Median High-Yield EDF Metric Lags Far Behind Its Historical Relation with Average High-Yield EDF
source: Moody's Analytics

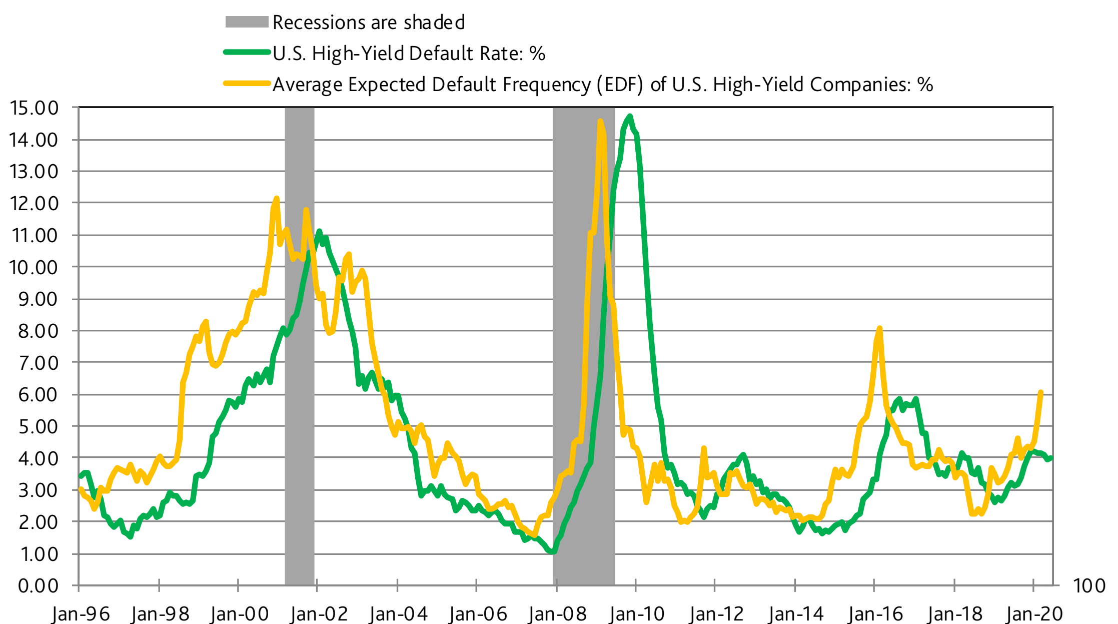


Average High-Yield EDF Climbs Above 6% for Only Fourth Time

After rising from year-end 2019's 4.18% to the 4.40% of January 17, or the last close prior to the financial market's first negative shot from COVID-19, Moody's Analytics' average expected default frequency metric for U.S./Canadian high-yield issuers subsequently soared to the 6.02% of March 4. This marks only the fourth time since the average high-yield EDF commenced in 1996 that the metric climbed above 6.00%. The three previous incidents occurred in December 2015, October 2008 and August 1998.

Over the next nine to 12 months, the median year-to-year increase by the U.S. high-yield default rate was 2.8 percentage points. The combination of a now 6.02% average high-yield EDF and the 4.2% default rates of December 2019 and January warn of a roughly 7% default rate for December and January 2021.

Figure 4: March 2020 Marks Fourth Time Average High-Yield EDF Metric Climbs Above 6%
sources: Moody's Investors Service, NBER, Moody's Analytics



Credit Markets Review and Outlook

However, Median EDF Mitigates Warning of High Average EDF

Nevertheless, MA also calculates a median high-yield EDF metric, whose upturn has been much milder than that of the average high-yield EDF. After dipping from year-end 2019's 0.35% to January 17's 0.30%, the median high-yield EDF metric has since risen to March 4's 0.50%.

However, the last three times the average high-yield EDF climbed above 6%, the accompanying median high-yield EDF averaged 1.49%. Moreover, the latter was skewed lower by the 0.55% median of December 2015. By contrast, the median high-yield EDF posted significantly higher month-long averages of 2.15% in October 2008 and 1.77% in August 1998.

Note how the latest median high-yield EDF metric of 0.50% nearly matches the 0.55% of December 2015. For both March 4 and December 2015, the median EDFs are atypically low vis-a-vis the average EDF because of how the averages have been skewed higher by a swelling of high-yield credit risks specific to just a few industries.

Credit Suisse has not been alone at detecting only a limited number of industries subject to considerable stress. For example, February 28's 528-basis points yield spread over Treasuries for Barclays Capital's U.S. high-yield bond index showed that only three of the index's 18 corporate categories supplied a yield spread that exceeded 528 bp. The three categories and their respective spreads were 1,034 bp for energy, 710 bp for transportation, and 614 bp for retailing. February 28's median spread of the 18 categories was 460 bp.

Because worrisome deteriorations of high-yield credit quality have been limited to relatively few industries, the latest jump by the average high-yield EDF metric may now overstates any forthcoming ascent by the high-yield default rate. However, a deeper-than-5% broad-based shrinkage of core pretax profits would probably drive the default rate above 6% by early 2021.

What becomes of core profits will have much to say about the fate of corporate credit quality. Unfortunately, the ongoing inversion of the Treasury yield curve and March-to-date's average VIX of 35.8 points warn of a disruptive climb by the high-yield default rate.

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

THE U.S.
By Ryan Sweet of Moody's Analytics

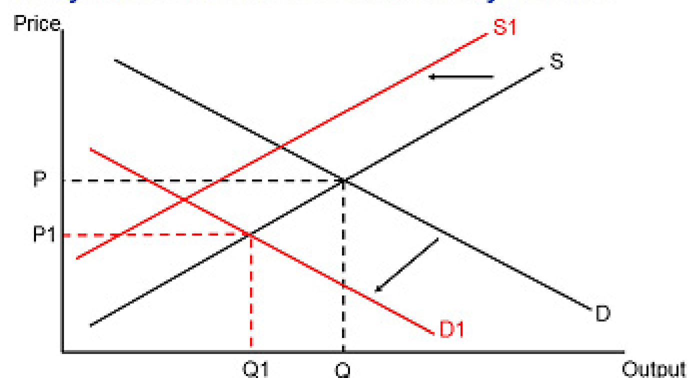
Dual Shock requires a Dual Policy Response

Business cycles are recurrent but unpredictable, because the length of expansions and contractions vary. Most economists think that economic cycles are the result of multiple shocks, although a single shock may dominate specific episodes. The reason that COVID-19 will require a dual policy response in the U.S. is that it is both a supply and demand shock.

COVID-19 is a negative short-run supply shock because of the significant disruptions to global supply chains. The plunge in China's manufacturing PMIs and drop in South Korea's imports from China in February all indicate significant supply chain issues. The impact of supply chain issues is already visible in the U.S. soft data, including in the anecdotes of the ISM surveys and Fed's latest Beige Book.

Negative supply shocks are inflationary, all else being equal. However, financial markets view COVID-19 as a demand shock, which is disinflationary. Market expectations for the consumer price index over the next year have dropped recently, and the 10-year Treasury yield is near historic lows. Monetary policy is better equipped to address a demand, rather than supply, shock.

A combination of negative supply and demand shocks is problematic and will require both the Fed and fiscal policy to respond. We use a simple example of both a supply and demand shock, which causes a decline in output and is disinflationary. The exact slope of the supply and demand curves needs to be estimated econometrically.



We are in the process of updating our March baseline, and it will likely include a 25-basis point rate cut at the March Federal Open Market Committee meeting. We wouldn't rule out additional rate cuts this year along with the central bank deploying other tools, considering the fed funds rate's close proximity to the zero lower bound. Another option for the Fed is to ease credit standards on banks. There is flexibility in the Fed's guidance to banks during natural disasters, allowing banks to provide temporary relief to borrowers under the Community Reinvestment Act. The Fed could use forward guidance, signaling that it will keep rates low for an extended period of time and/or use quantitative easing. QE will likely pack less of a punch, since long-term rates in the U.S. are already near record lows. The Fed could also use yield curve control.

Another option would be to restart the Fed's reinvestments in mortgage-backed securities in an effort to reduce mortgage rates. The spread between the 30-year fixed mortgage rate and the 10-year Treasury yield has widened noticeably. Fed reinvestment of its MBS securities should put downward pressure on mortgage rates, fueling even more refinancing, which would put more income in households' pockets.

The Fed shouldn't be alone, and the fiscal policy response has been slow. Lawmakers struck a deal Wednesday on $8.3 billion in emergency funding. For perspective, this pales in comparison with the funding provided after recent natural disasters. One can think about the economic disruption caused by epidemics along the same lines as natural disasters. The most immediate government aid should provide income and other financial support to the affected residents and businesses along with development of a vaccine. Aid could include unemployment insurance, health and medical support, aid to state and local governments, and corporate tax breaks to provide paid sick leave for those without it.

Next week

The key data next week include consumer prices, jobless claims, producer prices, import prices, Michigan confidence and the NFIB small business optimsim index.

EUROPE

By Barbara Teixeira Araujo of Moody's Analytics

Policy Response to Coronavirus Will Determine Economic Fate

Next week will be extremely busy on the data front, but what will matter for markets are the daily counts of COVID-19's cases and deaths across Europe and elsewhere in the world. The virus, which we hoped would be mostly contained to China, has spread quickly across the Continent over the past week, with Italy now recording over 3,000 cases and several countries recording their first deaths. Financial markets tanked on fears that widespread containment measures would be put in place, leading to a shutdown in economic activity. As of this writing, only the Italian government has adopted such measures—lockdown of entire towns, restriction of movement and closure of public spaces, as well as a nationwide closing of schools and universities—but other countries are expected to soon follow suit if the virus continues to spread at the current rate. We have thus revised down our 2020 growth baseline significantly to the downside; we expect that Italy will enter recession in the first quarter and that the other euro zone economies will barely grow, while second quarter growth will also be hit as infections should peak only in April or May. Overall, we expect that the currency area will ultimately avoid recession in 2020, but risks are clearly tilted to the downside.

Whether the economy manages to stay afloat or not ultimately hinges on the response of policy makers. COVID-19 is both a supply and demand shock, so it requires a dual-policy response in Europe. Monetary policy is better equipment to address a drop in demand, while fiscal policy can help offset the negative effects of a disruption to supply. One can think about the economic disruptions caused by epidemics along the same lines as natural disasters. The most immediate government aid should provide income and other financial support to the affected residents and businesses along with development of a vaccine. Aid could include unemployment insurance, health and medical support, aid to state and local governments, and corporate tax breaks to provide paid sick leave for those without it.

The European Central Bank, meanwhile, can come to the help of the economy by loosening financial conditions and making it easier for the sectors and firms most affected to have access to the liquidity they need, offering temporary relief to borrowers. This means that a deposit rate cut by the ECB next week is on the table, and so is an increase in monthly quantitative easing purchases. But our view is that the bank's focus will be on target liquidity operations, such as TLTROs for small and medium-sized enterprises. This would ensure that more and probably cheaper loans will be available for commercial

banks to lend to affected regions and sectors. If the situation deteriorates sharply in coming days, we wouldn't rule out an emergency move by the ECB—such as that of the Fed—before next Thursday.

Elsewhere, we expect the hard data to be released next week to confirm that the U.K. and the euro zone economies were doing fine at the start of the year before the coronavirus hit. We expect that activity was strong in January—for instance, we expect that industrial production rose across all the main European countries, and so did retail sales—and risks are also tilted to the upside for February. Unfortunately, this is old news, as we expect activity to take a hit in March—industrial production will be depressed by the significant supply-chain disruptions, while discretionary consumer spending will also be dented. Stockpiling by households will provide some relief to retailers in the short term, but we don't think it will manage to fully offset the drag from declining spending with travel, eating out and entertainment.

	Key indicators	Units	Moody's Analytics	Last
Mon @ 8:00 a.m.	Germany: Industrial Production for January	% change	2.2	-3.5
Mon @ 11:00 a.m.	OECD: Composite Leading Indicators for January		99.5	99.4
Tues @ 8:45 a.m.	France: Industrial Production for January	% change	1.4	-2.8
Tues @ 10:00 a.m.	Euro Zone: GDP for Q4	% change	0.1	0.3
Tues @ 10:00 a.m.	Italy: Industrial Production for January	% change	1.0	-2.7
Wed @ 9:00 a.m.	Spain: Retail Sales for January	% change	0.6	-0.7
Wed @ 9:30 a.m.	U.K.: Monthly GDP for January	% change	0.2	0.3
Thur @ 10:00 a.m.	Euro Zone: Industrial Production for January	% change	1.2	-2.1
Thur @ 12:45 p.m.	Euro zone: Monetary Policy for March	%	0.0	0.0
Fri @ 7:00 a.m.	Germany: Consumer Price Index for February	% change yr ago	1.7	1.7
Fri @ 7:45 a.m.	France: Consumer Price Index for February	% change yr ago	1.6	1.7
Fri @ 8:00 a.m.	Spain: Consumer Price Index for February	% change yr ago	0.8	1.1
Fri @ 2:00 p.m.	Russia: Foreign Trade for January	$ bil	15.8	15.5

ASIA-PACIFIC

By Katrina Ell of Moody's Analytics

Q4 Data Won't Lessen the Odds That Japan Enters Technical Recession

The second estimate of Japan's December quarter GDP likely showed a 1.4% q/q contraction, an improvement on the 1.6% contraction initially reported. This result remains meaningfully weaker than the September quarter's 0.1% expansion. We expect residential investment expenditure to show some upward revisions, after initially being reported as a 2.7% q/q fall. Japan's growth was underwhelming in the final quarter, as the effects of the sales tax hike, weak global demand, and Typhoon Hagibis weighed on the domestic economy. The December quarter data will not allay elevated odds that Japan will slip into a technical recession in the March quarter in the wake of the coronavirus outbreak, which has hurt already weakened exports, consumption and tourism in the opening months of 2020.There is added risk that the Tokyo Summer Olympics, planned for late July and into August, will be cancelled or delayed. This would cause added pain to Japan's economy, which under normal circumstances would benefit from an improvement in business investment in the lead-up to the Games and then in the influx of short-term visitors.

China's headline CPI growth likely came in at 5.5% y/y in February, following the 5.4% reading in January. Headline CPI has been climbing over 2019 because the African swine flu has severely dented pork supplies and caused prices to skyrocket. The Lunar New Year holiday was extended in February in a bid to contain the spread of COVID-19. While there was some panic buying, it is unclear whether this meaningfully pushed consumer prices higher and overwhelmed government directions in many cities to stay indoors and avoid public places including shopping centres.

China's money supply growth likely picked up in February as a direct result of stimulus measures unveiled by the People's Bank of China to directly assist businesses impacted by COVID-19. The virus initially had a significant adverse impact on consumer-facing sectors including tourism, and as forced

business closures and travel restrictions continued in February factories experienced rising supply chain disruptions. The central bank delivered a reduction in the loan-prime rate, in addition to targeted measures aimed at improving access to credit, especially for small to medium-size businesses.

	Key indicators	Units	Confidence	Risk	Moody's Analytics	Last
Mon @ 10:50 a.m.	Japan GDP for Q4 - second estimate	% change	3	↓	-1.4	-1.6
Tues @ 12:30 p.m.	China CPI for February	% change yr ago	3	↑	5.5	5.4
Tues @ 12:30 p.m.	China PPI for February	% change yr ago	2	←	-0.3	0.1
Tues @ Unknown	China M2 for February	% change yr ago	3	↑	8.7	8.4
Wed @ 10:00 a.m.	South Korea Unemployment rate for February	%	3	←	4.1	4.0
Thurs @ 11:00 p.m.	India Industrial production for January	% change yr ago	2	↓	0.1	-0.3

The Long View

A now ultra-high VIX may overstate COVID-19's long-term impact on financial markets.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group
March 5, 2020

CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 127 basis points was wider than its 122-point mean of the two previous economic recoveries. This spread may be no wider than 125 bp by year-end 2020.

The recent high-yield bond spread of 525 bp is thinner than what is suggested by the accompanying long-term Baa industrial company bond yield spread of 203 bp and the recent VIX of 41.9 points. By the way, the latter has been statistically associated with a 1,200 bp midpoint for the high-yield bond spread.

DEFAULTS

January 2020's U.S. high-yield default rate of 4.2% was up from January 2019's 2.6% and may average 3.8% 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.

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 -3.4% for IG and 3.6% 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 5, 2020

EURO ZONE

The euro zone received a number of good economic reports this week suggesting an uptick in the economy. Although, we fear this is old news in light of the coronavirus outbreak as these reports were all based on data before the spread of COVID-19 on the Continent.

January's rise in euro zone retail sales together with the upward revisions to December's results was more than welcome, confirming our view that the economy started the year on a strong note. However, anecdotal evidence suggests that sales will suffer in February, March and April, owing to a drop in tourism—mainly from Asia but not only—and to consumers avoiding crowded shopping centers and staying at home more.

The recent data show that the number of COVID-19 cases in Europe has exceeded 3,370, with the virus spreading to most of the currency area's countries. Italy has been the hardest hit, and the Italian government was forced to enact severe containment measures in the north of the country as infections and deaths spiked in the space of a few days. Although no other country has implemented containment measures yet, they are likely to follow suit soon if the virus continues to spread at its current speed. Combined with a plunge in overall confidence, such measures are expected to hit consumer spending hard. Granted, precautionary spending and stockpiling are likely to give a boost to sales in supermarkets and online shops, but this shouldn't be enough to offset weakness elsewhere. We are bracing for a very disappointing first and second quarter for euro zone retailers.

The travel bans and the decline in tourist arrivals from China and other Asian countries should only add to the misery. Some European countries are expected to be hit harder than others, but our view is that tourism will suffer across the board. Italy is a case in point; not only did it suffer from a drop in Chinese arrivals in February, but since the start of March, people from all nationalities are avoiding the major Italian destinations. It is hard to remain optimistic about the outlook of euro zone retailers for the first half of 2020, even if the truth is that the euro zone's consumer fundamentals remain strong, as the labour market is tight and wage growth is strong. Brick-and-mortar retailers are expected to feel the pain from the virus in coming months, suggesting that clothing, household goods and recreational goods purchases will remain depressed. By contrast, supermarkets and online retailers should benefit from stockpiling and consumers avoiding crowded places and staying at home.

Manufacturing PMI rose

Final numbers confirmed that the euro zone's manufacturing PMI rose sharply in February, to a one-year high of 49.2 from 47.9 in January. This defied expectation of a decline due to coronavirus-related fears and disruptions. We caution nonetheless against reading too much into the increase, as it was largely due to a counterintuitive boost from suppliers' delivery times—mainly owing to the supply-chain disruptions caused by factory closures in China. Usually increases in lead times for the delivery of inputs is seen as a positive for the PMIs, as they point to a pickup in demand that leads to supply constraints. In this case, however, the increase was entirely due to a negative supply shock, and even worse is that this was observed in all euro zone countries. This confirms our view that we should take the improvement in the headline with a huge pinch of salt. We expect that the disruptions to supply chains will take a heavy toll on euro zone growth in the first quarter—it will likely lead to a contraction in industrial production as well as inventories across the currency area's economies.

The sharp pullback in euro zone headline CPI inflation in February wasn't completely unexpected. Base effects in oil prices were largely behind the decline, as they caused energy prices to plunge back into deflation following only two months of growth. By contrast, food, services and nonenergy goods inflation each rose over the month, in line with our expectations of a rebound after one-off declines in January.

The impact of coronavirus on inflation

We are sticking with our view that the trend in core inflation is to the upside, but we caution that downside risks to the outlook have increased due to the coronavirus. Although the tight labour market and the strong wage numbers would normally suggest the outlook for overall services inflation is well grounded, the risk now is that domestic demand slows significantly in response to the sharp rise in uncertainty and to any containment measures put in place by euro zone governments. But even if further containment measures are not implemented, we still expect household discretionary spending will fall, as fears of contagion will mean consumers are likely to refrain from spending on travel, eating out and entertainment.

The recent decline in oil prices suggests that headline inflation is likely to be a bit weaker in 2020 than we had expected. Brent prices fell sharply in the past month and are expected to remain depressed for as long as the coronavirus is not contained. This supports the case for a policy response. The European Central Bank on Monday pledged to act to protect the euro zone economies from the worst of the virus. Fiscal policy is also expected to come to the rescue, likely through concerted action by euro zone finance ministers. Our view is that the ECB will announce some emergency stimulus next week. It could range from a 0.1-basis point deposit rate cut to an increase in monthly quantitative easing purchases to more target liquidity operations. One option is that the ECB will enact a special targeted longer-term refinancing operation directed at small and medium-size enterprises, especially those in sectors that have been hard-hit by the virus. In any case, we expect that this injection of stimulus would be a one-off and wouldn't be followed by further measures later in the year, provided the economy doesn't fall off a cliff.

ASIA PACIFIC

By Katrina Ell of Moody's Analytics
March 5, 2020

CHINA

China's February PMI data confirm that the economy has been engulfed by the coronavirus outbreak. The official manufacturing PMI sank to a record-low 35.7 in February, from the 50 reading in January. All the major subcategories plummeted. In particular, production dropped by 23.5 points to 27.8, new orders fell by 22.1 points to 29.3, and new export orders dropped by 20 points to 28.7.

Nonmanufacturing wasn't immune to record slump

The major sectors and components of China's economy have been impacted by the outbreak, and the official nonmanufacturing PMI illuminates this. The nonmanufacturing index hit a record-low 29.6 in February, following from 53.9 in January. The bottom line is that services rely heavily on the transactions of people, and citizens have been directed to stay indoors to limit contact in an effort to contain the further spread. This has included restrictions on transport, travel plans, and planned public gatherings.

Following the release of February's official PMI data, the National Bureau of Statistics announced that as of 25 February, the work resumption rate at medium to large enterprises was 78.9% and is expected to rise to 90.8% by the end of March. Meanwhile, at medium to large manufacturers the work resumption rate on 25 February was 85.9% and scheduled to rise to 94.7% by the end of March. The work resumption rate does not imply that manufacturing facilities would be operating at this capacity given that supply chains and broader logistics services have not normalized. The forecast improvement by the end of March to over 90% for both enterprises and manufacturers seems optimistic, since the number of confirmed cases in China is still rising so containment efforts are still in place.

What's important about the China PMI data?

China's PMI data are a useful and timely barometer of turning points. In this way, the PMI data provide the first insight into the hit that COVID-19 has caused, and the early takeaway is that it is an unprecedented slide. During the height of the U.S.-China trade war, the manufacturing PMI was amongst the most responsive indicators as the impacts of higher tariffs on Chinese goods imports materialised. It captured turning points in sentiment as a consequence of changes in applied tariffs on China's various goods imports. But the relationship between China's other activity data and the manufacturing PMI is not overly strong.

Manufacturing in Asia being hit

Asia's manufacturing PMI data for February were weak across the board, a symptom of how COVID-19 has hurt supply chains and regional demand. In particular, the Markit PMI for Vietnam dropped to 49 in February, its lowest level in six years and following from 50.6 in January. The Markit Malaysia PMI was down by 0.3 point to 48.5; South Korea's fell by 0.9 point to a four-month low 48.7; Thailand dropped by 0.4 point to 49.5; and Taiwan was down by 0.9 point to 49.9.

Indonesia was a rare bright spot, with the Markit manufacturing PMI rising by 2.6 points to 51.9 in February, its first improvement since June. Although Indonesia is exposed to weakened global demand via the resulting slump in

commodity prices, it is less integrated with regional manufacturing supply chains compared with its Southeast Asian neighbours, including Vietnam and Malaysia.

What are the economic implications?

Global recession odds have increased with the number of countries and confirmed patients continuing to rise in recent days. Financial markets across the globe have had a terrible run in recent weeks, with equities falling and emerging market currencies mostly retreating as global risk aversion found favour. Sentiment is an important input into real economic performance, and there's no doubt that sentiment is fragile for investors and consumers. Businesses had hoped that with the signing of the Phase One trade deal in mid-January global growth would fare a bit better in 2020, after 2019 was hurt by the escalation of tariffs between Washington and Beijing. The hope never translated to reality as the number of coronavirus cases escalated exponentially soon after. The global economy was already in a weak spot and under potential, so COVID-19 is a further and significant hit.

Households are also feeling the pain, and after the panic-buying wears off, household discretionary spending could retreat further. The concern about future conditions could become a self-fulfilling prophecy, a worrying risk given that in Asia's large developed economies, including Japan, South Korea and Australia, the consumer was already in a fragile place and household final consumption makes up more than half of GDP.

The slump in Australia's bond yields encapsulates how bets on interest rate cuts have increased, alongside downward revisions to growth due to the demand hit. The Reserve Bank of Australia reduced its cash rate by 25 basis points to 0.5% at its meeting Tuesday; the odds of that happening jumped over the weekend to be fully priced in.

What is the policy response?

Policymakers throughout Asia have already responded in a number of ways to cushion the impact. There have been policy rate reductions in the case of Thailand and Indonesia, while the Bank of Korea has improved credit access. Increased government spending has been announced by Singapore, Hong Kong, Malaysia and Thailand. The Australian government has announced it will soon unveil targeted support.

The question of whether monetary policy is an effective tool should be asked given that COVID-19 is not just a demand shock but is also a supply shock. Monetary policy will help with the hit to demand, with a lag, but it will not help with the supply disruptions. That's where fiscal policy plays an important role.

This likely contributed to the Bank of Korea holding off at its late-February meeting with a policy reduction and instead announced targeted support to those impacted businesses and employees, and the government said it was preparing a supplementary budget. The structure of South Korea is that small and medium-size enterprises make up around 90% to 95% of total firms and employ around 85% of the workforce, so the targeted response via supplementary budget and lending support rather than a rate cut is aimed at those who may not have the same access to credit as the bigger firms, and they and they would be feeling the pain now.

Ratings Round-Up

Energy Producers Headline U.S. Downgrades

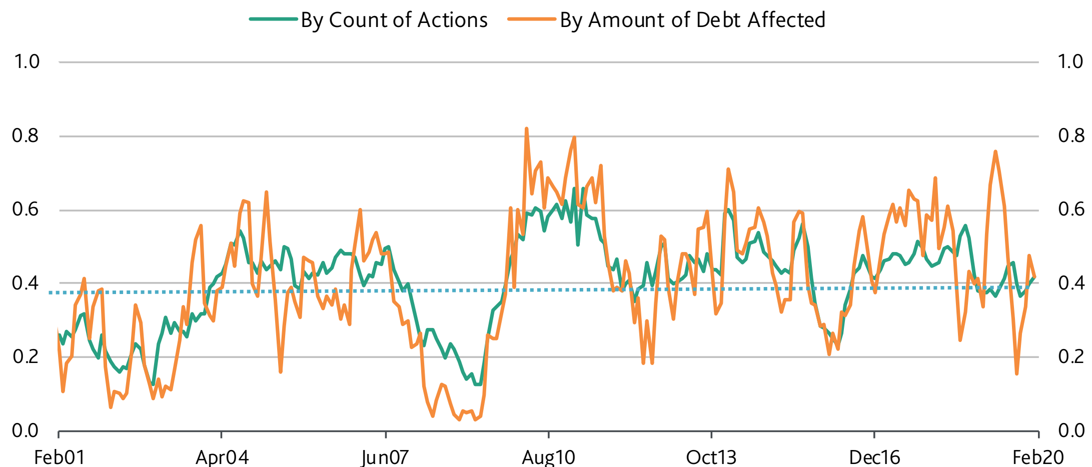
By Steven Shields

U.S. credit downgrades outstripped upgrades with 16 firms receiving a credit rating change this week. For the period ending March 3, negative rating changes accounted for nearly two-thirds of all activity and roughly three-quarters of total debt affected in the period. Negative ratings changes were headlined by several energy producers. Gulfport Energy Corp.'s senior unsecured notes were downgraded to Caa2 from B3, reflecting Moody's Investors Service's expectations of lower operating cash flow generation through the medium term given limited protections provided by the company's existing hedging arrangements. Gulfport's financial risks are rising, and it has limited access to capital and weak liquidity. Similarly, natural gas transmission company Equitrans Midstream Corp. also received a downgrade to Ba2 from Ba1 on its senior unsecured notes, reflecting a combination of factors including EQM's elevated debt leverage from proposed transactions, EQT Corp.'s weakening credit profile, and execution risk in improving its debt leverage. EQM's credit downgrade affected approximately $3.5 billion in debt. Meanwhile, several homebuilders and building materials firms received upgrades due in part to sound fundamentals in residential homebuilding. Builders Firstsource Inc. received an upgrade to B1 from B2 on its senior secured notes, reflecting Moody's expectations of improving credit metrics and lower debt leverage in the coming year. Topbuild Corp.'s senior unsecured notes were lifted to Ba3 from B1 previously, with Moody's citing the company's solid improvement in operating results over the past three years and expectations that these trends will continue through the medium term.

Rating revisions across Europe were widely negative in the period with just two upgrades across eleven total changes. The largest downgrade in terms of total debt affected was made to Atlantia S.P.A.'s senior unsecured notes. The change from Ba2 to Ba3 impacted approximately $10.4 billion in debt. The rating action reflects the increasing political pressure on the Atlantia's group and downside risks following the conversion into law of the Decree-Law No 162 by which the Italian government retroactively and unilaterally changed the terms and conditions of toll road concessions in the country. Moody's also downgraded Vedanta Resources Limited's corporate family rating to B1 from Ba3 following the sustained deterioration of its credit profile and expectation that credit metrics will remain weak.

FIGURE 1

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



* Trailing 3-month average

Source: Moody's

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
2/26/20	BUILDERS FIRSTSOURCE, INC.	Industrial	SrSec/BCF	428	U	B2	B1	SG
2/26/20	AMNEAL PHARMACEUTICALS HOLDING COMPANY, LLC-AMNEAL PHARMACEUTICALS, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
2/26/20	INNOVATIVE WATER CARE GLOBAL CORPORATION	Industrial	SrSec/BCF /LTCFR/PDR		D	Caa2	Caa3	SG
2/27/20	CLEVELAND-CLIFFS INC.	Industrial	SrSec/SrUnsec	2,322	D	Ba2	Ba3	SG
2/27/20	TUPPERWARE BRANDS CORPORATION	Industrial	SrUnsec	600	D	Baa3	B1	IG
2/27/20	GNC PARENT CORPORATION-GENERAL NUTRITION CENTERS, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
2/27/20	LDC HOLDINGS LLC -PNG COMPANIES LLC	Utility	SrSec	933	U	Baa2	Baa1	IG
2/27/20	LD TOPCO, INC.-LD INTERMEDIATE HOLDINGS, INC.	Industrial	SrSec/BCF		U	B3	B2	SG
2/27/20	CONTURA ENERGY, INC.	Industrial	SrSec/BCF /LTCFR/PDR/SGL		D	B3	Caa1	SG
2/27/20	EQUITRANS MIDSTREAM CORPORATION	Industrial	SrUnsec/SrSec /BCF/LTCFR/PDR	3,500	D	Ba1	Ba2	SG
2/28/20	CATALENT, INC.-CATALENT PHARMA SOLUTIONS, INC.	Industrial	SrSec/BCF		U	Ba3	Ba2	SG
3/2/20	BOARDRIDERS, INC.	Industrial	SrSec/BCF/LTCFR /PDR		D	B3	Caa1	SG
3/2/20	GULFPORT ENERGY CORPORATION	Industrial	SrUnsec /LTCFR/PDR	2,050	D	B3	Caa2	SG
3/3/20	LIBBEY INC.-LIBBEY GLASS INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
3/3/20	METROPISTAS	Industrial	SrSec	435	U	Ba3	Ba2	SG
3/3/20	TOPBUILD CORP.	Industrial	SrUnsec /LTCFR/PDR	400	U	B1	Ba3	SG

Source: Moody's

Ratings Round-Up

FIGURE 4

Rating Changes: Corporate & Financial Institutions – Europe

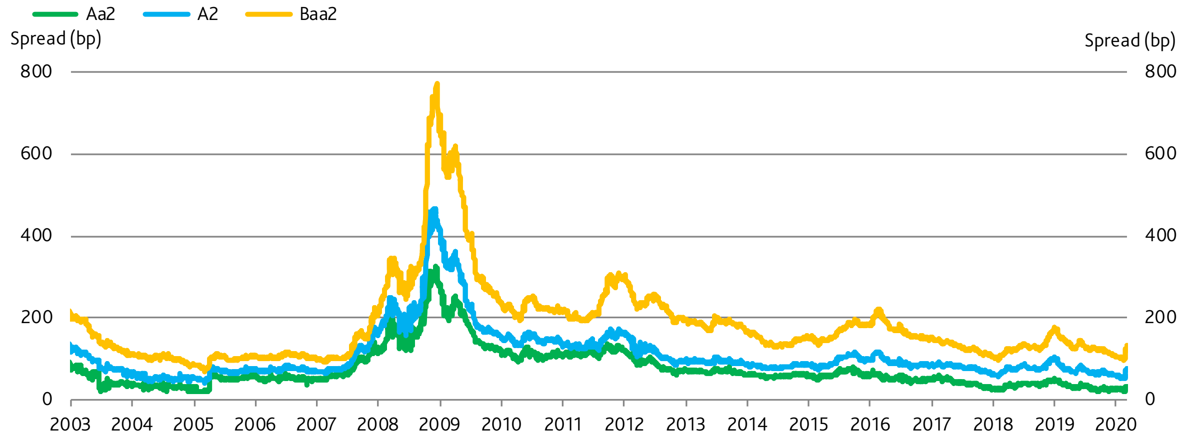
Date	Company	Sector	Rating	Amount ($ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/ SG	Country
2/26/20	SUTTON AND EAST SURREY WATER PLC	Utility	SrSec	128	D	Baa1	Baa2	IG	UNITED KINGDOM
2/26/20	NOSTRUM OIL & GAS PLC	Industrial	SrUnsec /LTCFR/PDR	1,125	D	Caa2	Caa3	SG	NETHERLANDS
2/26/20	OSPREY ACQUISITIONS LIMITED-ANGLIAN WATER (OSPREY) FINANCING PLC	Utility	SrSec	575	D	Ba3	B1	SG	UNITED KINGDOM
2/27/20	ERSTE GROUP BANK AG-BANCA COMERCIALA ROMANA S.A.	Financial	LTD		U	Baa2	Baa1	IG	ROMANIA
2/27/20	BAHIA DE LAS ISLETAS, S.L.	Industrial	SrSec /LTCFR/PDR	639	D	B2	B3	SG	SPAIN
2/28/20	SOCIETE GENERALE-BRD - GROUPE SOCIETE GENERALE	Financial	LTD		U	Baa2	Baa1	IG	ROMANIA
2/28/20	TECHNICOLOR S.A.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG	FRANCE
2/28/20	JULIUS BAER GROUP LTD.	Financial	LTIR/LTD/PS	362	D	A3	Baa1	IG	SWITZERLAND
2/28/20	SAPHILUX S.A.R.L.	Industrial	PDR		D	B2	B3	SG	LUXEMBOURG
3/2/20	ATLANTIA S.P.A.	Industrial	SrUnsec /LTCFR/MTN	10,412	D	Ba2	Ba3	SG	ITALY
3/2/20	GLOBAL YATIRIM HOLDING A S-GLOBAL LIMAN ISLETMELERI A.S.	Industrial	SrUnsec /LTCFR/PDR	250	D	B2	Caa1	SG	TURKEY
3/2/20	NMC HEALTH PLC	Industrial	SrUnsec /LTCFR/PDR	400	D	Ba2	Caa1	SG	UNITED KINGDOM
3/3/20	VEDANTA RESOURCES LIMITED	Industrial	SrUnsec/LTCFR	4,170	D	B2	B3	SG	UNITED KINGDOM

Source: Moody's

Market Data

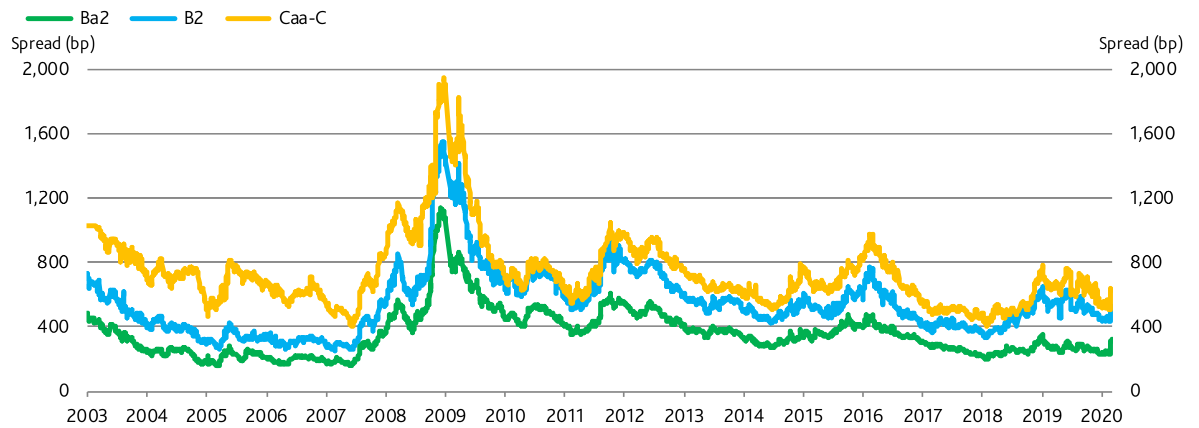
Spreads

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 (February 27, 2020 – March 4, 2020)

CDS Implied Rating Rises	CDS Implied Ratings		
Issuer	Mar. 4	Feb. 26	Senior Ratings
Enbridge Energy Limited Partnership	Ba1	B1	Baa2
CVS Health	Baa1	Baa3	Baa2
Oracle Corporation	Aa3	A2	A1
Intel Corporation	A2	Baa1	A1
Waste Management, Inc.	A2	Baa1	Baa1
General Mills, Inc.	Aa3	A2	Baa2
Caterpillar Inc.	Aa2	A1	A3
Abbott Laboratories	Aa3	A2	A3
Boston Scientific Corporation	Aa2	A1	Baa2
Kimberly-Clark Corporation	A2	Baa1	A2

CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	Mar. 4	Feb. 26	Senior Ratings
Southwest Airlines Co.	Ba1	A2	A3
MGM Resorts International	B2	Ba2	Ba3
Royal Caribbean Cruises Ltd.	B3	Ba3	Baa2
Burlington Resources, Inc.	Baa1	A1	A3
Occidental Petroleum Corporation	B1	Ba2	Baa3
Marriott International, Inc.	Baa3	Baa1	Baa2
Delta Air Lines, Inc.	Ba3	Ba1	Baa3
Applied Materials Inc.	A3	A1	A3
Expedia Group, Inc.	Ba2	Baa3	Baa3
Devon Energy Corporation	Ba3	Ba1	Ba1

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Mar. 4	Feb. 26	Spread Diff
Chesapeake Energy Corporation	Caa3	6,122	4,090	2,032
Frontier Communications Corporation	Caa3	7,470	7,054	416
Hertz Corporation (The)	B3	606	368	238
Neiman Marcus Group LTD LLC	Ca	4,812	4,593	219
American Airlines Group Inc.	B1	486	297	188
Liberty Interactive LLC	B2	356	221	135
United Airlines, Inc.	Ba3	374	246	127
Diamond Offshore Drilling, Inc.	B3	1,261	1,139	121
United Airlines Holdings, Inc.	Ba3	343	226	117
Royal Caribbean Cruises Ltd.	Baa2	258	143	115

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Mar. 4	Feb. 26	Spread Diff
Penney (J.C.) Corporation, Inc.	Caa3	3,144	3,298	-155
Enbridge Energy Limited Partnership	Baa2	115	156	-41
Rite Aid Corporation	Caa3	878	904	-26
Office Depot, Inc.	B3	518	535	-16
Xerox Corporation	Ba1	120	133	-14
Noble Energy, Inc.	Baa3	110	122	-12
Cablevision Systems Corporation	B3	443	453	-11
Healthpeak Properties, Inc.	Baa1	88	97	-9
International Game Technology	Ba2	167	176	-9
Qwest Corporation	Ba2	221	228	-7

Source: Moody's, CMA

Market Data

Figure 4. CDS Movers - Europe (February 27, 2020 – March 4, 2020)

CDS Implied Rating Rises	CDS Implied Ratings		
Issuer	Mar. 4	Feb. 26	Senior Ratings
Piraeus Bank S.A.	Caa2	C	Caa2
UniCredit Bank AG	A3	Baa2	A2
Swedish Match AB	Aa2	A1	Baa2
Natixis	Aa3	A1	A1
Ireland, Government of	Aaa	Aa1	A2
Lloyds Bank plc	Aa2	Aa3	Aa3
Credit Agricole Corporate and Investment Bank	Aa1	Aa2	Aa3
Vodafone Group Plc	Baa1	Baa2	Baa2
Bayerische Landesbank	Aa2	Aa3	Aa3
Nationwide Building Society	Aa2	Aa3	Aa3

CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	Mar. 4	Feb. 26	Senior Ratings
Iceland Bondco plc	C	Caa2	Caa2
Portugal, Government of	A1	Aa2	Baa3
ING Groep N.V.	Baa1	A2	Baa1
Anheuser-Busch InBev SA/NV	Baa1	A2	Baa1
Eni S.p.A.	A3	A1	Baa1
Bayer AG	Baa2	A3	Baa1
ArcelorMittal	B2	Ba3	Baa3
Solvay SA	Baa1	A2	Baa2
Spain, Government of	A1	Aa3	Baa1
Barclays Bank PLC	A3	A2	A1

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Mar. 4	Feb. 26	Spread Diff
PizzaExpress Financing 1 plc	Ca	5,768	5,154	613
TUI AG	Ba3	540	348	192
CMA CGM S.A.	Caa1	1,893	1,733	160
Iceland Bondco plc	Caa2	921	773	148
Matalan Finance plc	Caa1	1,098	976	122
Boparan Finance plc	Caa1	1,736	1,621	115
Novafives S.A.S.	Caa2	940	832	109
Vue International Bidco plc	Caa2	381	283	99
Jaguar Land Rover Automotive Plc	B1	584	510	74
Stena AB	B3	494	420	74

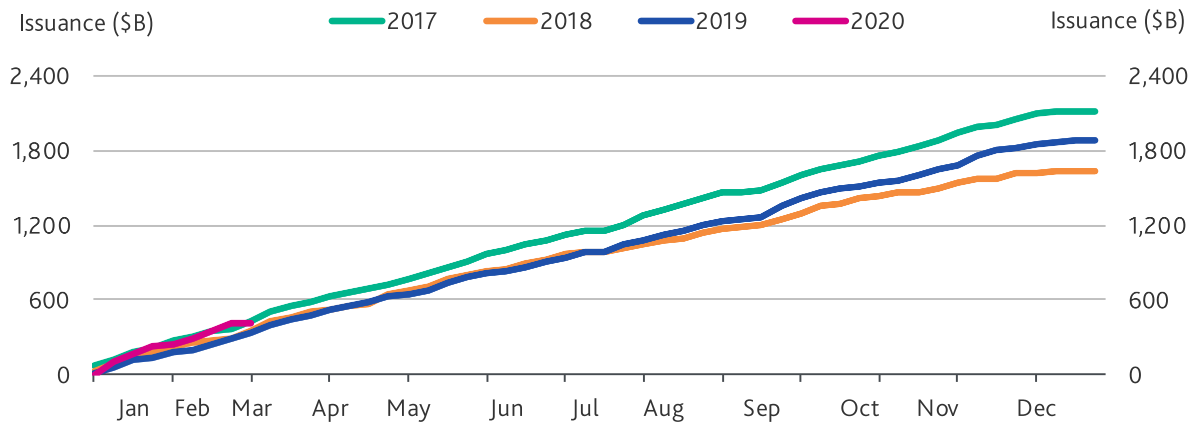
CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Mar. 4	Feb. 26	Spread Diff
thyssenkrupp AG	B1	207	230	-23
Stagecoach Group Plc	Baa3	76	81	-5
UniCredit Bank AG	A2	54	58	-3
UniCredit Bank Austria AG	Baa1	48	51	-3
KBC Group N.V.	Baa1	46	49	-3
Valaris plc	Caa2	1,794	1,797	-3
Legrand France S.A.	A3	63	64	-2
Banco Sabadell, S.A.	Baa3	77	77	-1
KBC Bank N.V.	Aa3	20	21	-1
Alpha Bank AE	Caa1	616	616	0

Source: Moody's, CMA

Market Data

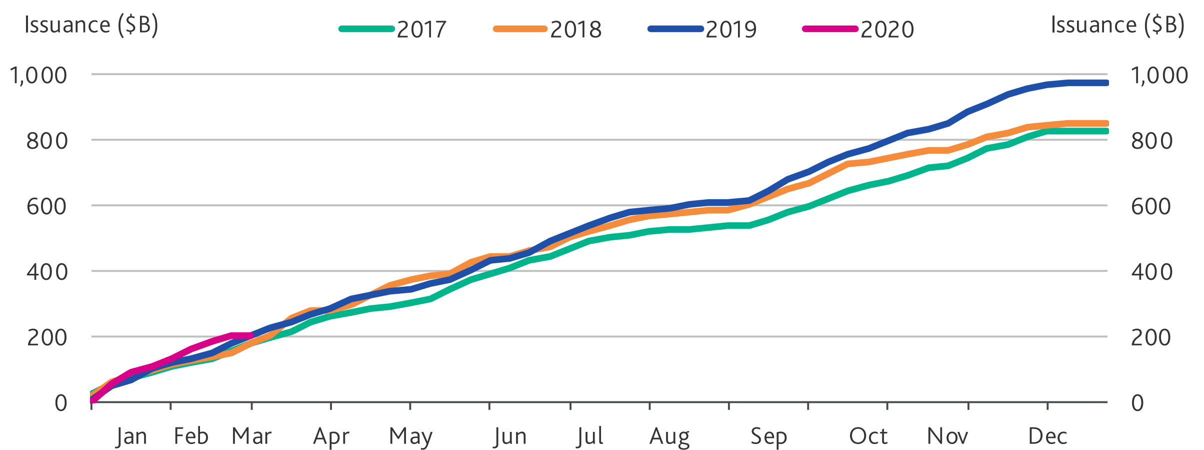
Issuance

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	5.830	5.345	12.632
Year-to-Date	273.141	124.204	419.089

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount $B	Amount $B	Amount $B
Weekly	0.326	0.000	0.348
Year-to-Date	164.323	34.681	204.506

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

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