

WEEKLY MARKET OUTLOOK

Moody's Analytics Research

Weekly Market Outlook Contributors:

Moody's Analytics/New York:

John Lonski
Chief Economist
1.212.553.7144
john.lonski@moodys.com

Yukyung Choi
Quantitative Research

Moody's Analytics/Asia-Pacific:

Katrina Ell
Economist

Moody's Analytics/Europe:

Barbara Teixeira Araujo
Economist

Moody's Analytics/U.S.:

Ryan Sweet
Economist

Steven Shields
Economist

Editor
Reid Kanaley

Contact: help@economy.com

Ample Liquidity Shores Up Investment-Grade Credits

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

Ample Liquidity Shores Up Investment-Grade Credits

>> FULL STORY PAGE 2

[The Week Ahead](#)

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

>> FULL STORY PAGE 6

[The Long View](#)

Full updated stories and key credit market metrics: Very wide investment-grade bond yield spreads are offset by still historically attractive yields.

Credit
Spreads

Investment Grade: We see the year-end 2020's average investment grade bond spread under its recent 236 basis points. High Yield: Compared with a recent 981 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 grow by 13.3% for IG to \$1.484 trillion, while high-yield supply may sink by 26.1% to \$319 billion.

>> FULL STORY PAGE 10

[Ratings Round-Up](#)

Pandemic Infects Corporate Credit Quality

>> FULL STORY PAGE 14

[Market Data](#)

Credit spreads, CDS movers, issuance.

>> FULL STORY PAGE 20

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

Links to commentaries on: Default risk, credit stress, rate cuts, optimism, coronavirus, corporate credit, spreads, leverage, rate sensitivity, sentiment, VIX, fundamentals, next recession, liquidity and defaults, cheap money, fallen angels, yields, inversions.

>> FULL STORY PAGE 25

[Click here for Moody's Credit Outlook, our sister publication containing Moody's rating agency analysis of recent news events, summaries of recent rating changes, and summaries of recent research.](#)

Credit Markets Review and Outlook

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

Ample Liquidity Shores Up Investment-Grade Credits

Investment-grade corporations have rushed to boost their liquidity through the issuance of longer-term fixed-rate corporate bonds. The funds obtained from March's investment-grade corporate bond issues either directly added to cash or refinanced outstanding debt. The latter helped to reduce the risk that a future tightening of credit markets might prevent the refinancing of near-term maturities, especially the refinancing of commercial paper and bank loans.

U.S. corporations issued a record high \$253.5 billion of investment-grade corporate bonds in March. The former zenith for IG bond offerings from U.S. companies was May 2017's much lower \$165.2 billion.

March 2020's issuance of IG bonds by U.S. corporations soared higher by 153% from March 2019. In stark contrast, September–October 2008's intensification of the financial crisis brought on by Lehman's collapse showed a 72% year-over-year plunge by such issuance to a monthly average pace of only \$23.2 billion.

First-quarter 2020's issuance of investment-grade bonds from U.S. companies increased by 52.4% yearly to a record \$433.7 billion. The former calendar-quarter record for IG bond offerings from U.S. companies was the \$320 billion of 2017's first quarter. During the most difficult stretch of the Great Recession, investment-grade bond issuance by U.S. companies incurred back-to-back yearly setbacks of 53% in 2008's third quarter and 11% for 2008's final quarter.

Despite a deep 74% year-to-year plunge by March's offerings to \$4.2 billion, first-quarter 2020's issuance of high-yield bonds from U.S. companies grew by 45.0% year-over-year to \$75.5 billion. Second-quarter 2015's \$93.7 billion serves as the record high for the calendar quarter issuance of high-yield bonds from U.S. companies.

For September–October 2008, high-yield bond offerings from U.S. issuers plummeted by 87% yearly to an average monthly pace of \$500 million. Following back-to-back year-over-year contractions of 37% for 2008's third quarter and 78% for 2008's final quarter, high-yield bond offerings from U.S. companies would soar higher year-over-year by 66% and 51%, respectively, for the first and second quarters of 2009.

First-half 2009's recovery by high-yield bond issuance was remarkable given the span's accompanying averages of 15.90% for the speculative-grade bond yield and 1,283 basis points for the high-yield bond spread as derived from Barclays data.

Thus far, the yields and spreads of high-yield bonds compare most favorably relative to 2009's first half, never mind fourth-quarter 2008's stratospheric averages of 19.79% for the speculative-grade yield and 1,627 bp for the high-yield bond spread. For example, after climbing up to March 23's 11.69%, Bloomberg/Barclays speculative-grade bond yield subsequently eased to April 1's 9.73%. According to the same serial comparison, the high-yield bond spread narrowed from a current crisis high of 1,100 bp to 909 bp.

March 2009's bottoming of the equity market helped lift high-yield bond issuance. Of special importance to high-yield bond issuance was the drop by the VIX from a debilitating fourth-quarter 2008 average of 58.7 points to the 45.0 points of 2009's first quarter and 33.1 points for the second quarter. By 2009's second half, the Great Recession was over and the VIX averaged a very manageable 24.3 points, while the high-yield bond spread thinned to a still historically wide 706 bp, on average.

Also, during 2009's second half, the pace of high-yield bond issuance from U.S. companies matched its pace of the 12-months-ended June 2007 despite the latter span's much thinner 288 bp spread for high-yield bonds. Also, the high-yield bond offerings of 2009's second half overcame July–December 2009's much higher average speculative-grade yield of 9.75% compared with its 7.86% average of July 2006 through June 2007.

Credit Markets Review and Outlook

Though corporate bond yield spreads have thus far fallen considerably short of the ultra-wide readings of 2008-2009, the VIX continues to rival its most troublesome readings of 2008-2009. The VIX's recent 20-day average of 61.1 points was the highest since the 62.0 points of the 20-days-ended December 16, 2008. Persistently high readings for the VIX preserve the possibility of new highs for corporate bond yield spreads.

Ultra-High VIX Bodes Well for Equity Returns 12 Months Hence

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).

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.

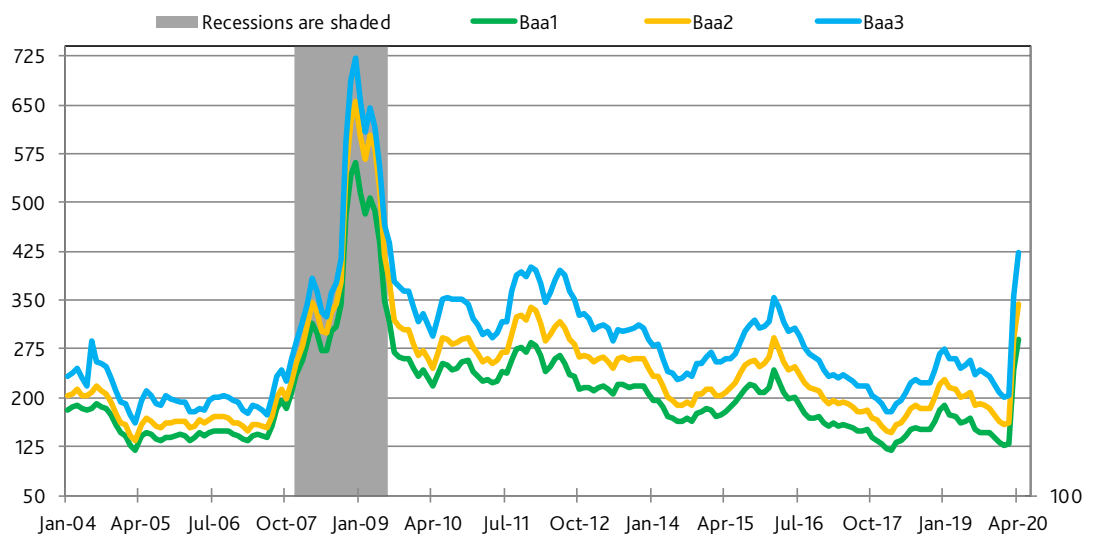
For the nine months showing a month-long average for the VIX above 35 points, the monthly average for the market value of U.S. common stock 12 months later was higher by 32%, on average.

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. For only one of the 14 months was the market value of U.S. common stock lower 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.

Baa-Grade Credit Risk Measures Compare Favorably with 2008-2009's Financial Crisis

After rising from a February 2020 average of 204 bp to a March 24 high of 449 bp, the estimated median yield spread of Baa3-rated corporate bonds at the 7-year maturity has since declined to March 31's 423 bp. The recent median yield spread for Baa3-rated bonds has yet to remotely approach its 651 bp average of October 2008 through March 2009, never mind December 2008's record-high month-long average of 721 bp. Similarly, compared to their respective October 2008-March 2009 averages, the recent 345 bp median spread for Baa2-rated bonds was less than its earlier 598 bp average, while the recent 290 bp spread for Baa1-grade bonds hardly resembled its earlier average of 514 bp.

Figure 1: March 31's Median 423 Basis Points (bp) Spread for Baa3 Corporate Bonds Lags 651 bp Average of October 2008 through March 2009
estimated median bond yield spreads at the 7-year maturity in basis points
source: Moody's Analytics



Credit Markets Review and Outlook

The average expected default frequency metric of Baa3 companies most recently peaked at March 17's 1.86% and has since eased to April 1's 1.51%. At the next step above the bottom rung of the investment-grade credit ratings ladder, April 1's average EDF metric for Baa2-grade issuers of 1.02% hardly differed from March 23's latest top of 1.04%. Finally, after rising as high as March 23's 0.27%, the average EDF of Baa1-rated companies has since slipped to April 1's 0.22%.

Each of the latest peaks for the three Baa average EDFs was less than its respective top of 2008-2009. During 2008-2009, the average EDFs crested at 2.51% for Baa3, 1.66% for Baa2, and 0.96% for Baa1.

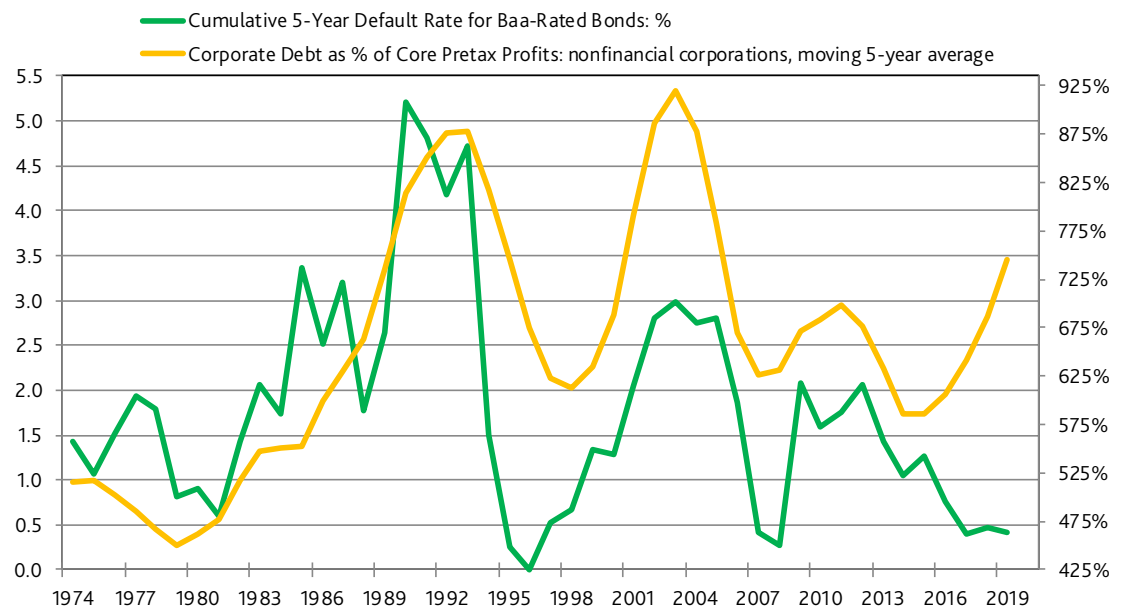
Nevertheless, the ongoing contraction of core pretax profits warns of a higher incidence of defaults for Baa-rated corporations. Notwithstanding a climb by the moving five-year ratio of U.S. nonfinancial-corporate debt to core pretax profits from a low of 586% for the span-ended 2014 to the 745% of the span-ended 2019, the cumulative five-year default rate for Baa-grade issuers fell from 2014's 1.04% to 2019's 0.41%. The latter percent means that only 0.41% of all Baa issuers as of year-end 2014 defaulted on their debt obligations during the next five years, or as of the end of 2019. By comparison, the cumulative five-year default rate of Baa-rated issuers averaged 1.37% during the 25-years-ended 2019.

Since 1973, the cumulative five-year default rate of Baa-grade issuers showed a record low of 0.0% for the span-ended 1996 and a record high of 5.20% for the span-ended 1990. It is noteworthy that the record low was established only six years after the record high.

The calendar-year ratio of corporate debt to core profits has climbed up from a 2014 low of 579% to the 881% of 2019, which was the highest since 2009's 902%. A forthcoming contraction of core profits is likely to push this aggregate leverage ratio well above 902%.

Figure 2: Cumulative Five-Year Default Rate of Baa-Rated Corporate Bonds Is Likely to Turn Higher from Low 0.41% of Five-Years-Ended 2019

sources: Moody's Investors Service, Federal Reserve, BEA, Moody's Analytics



Rating Revisions Signal Higher Default Rate

A preliminary examination of first-quarter 2020's credit rating revisions of U.S. high-yield issuers shows 243 downgrades and 55 upgrades. (This count excludes rating changes that apply only to "loss given default" ratings.) First-quarter 2009's 313 high-yield downgrades will retain its top spot.

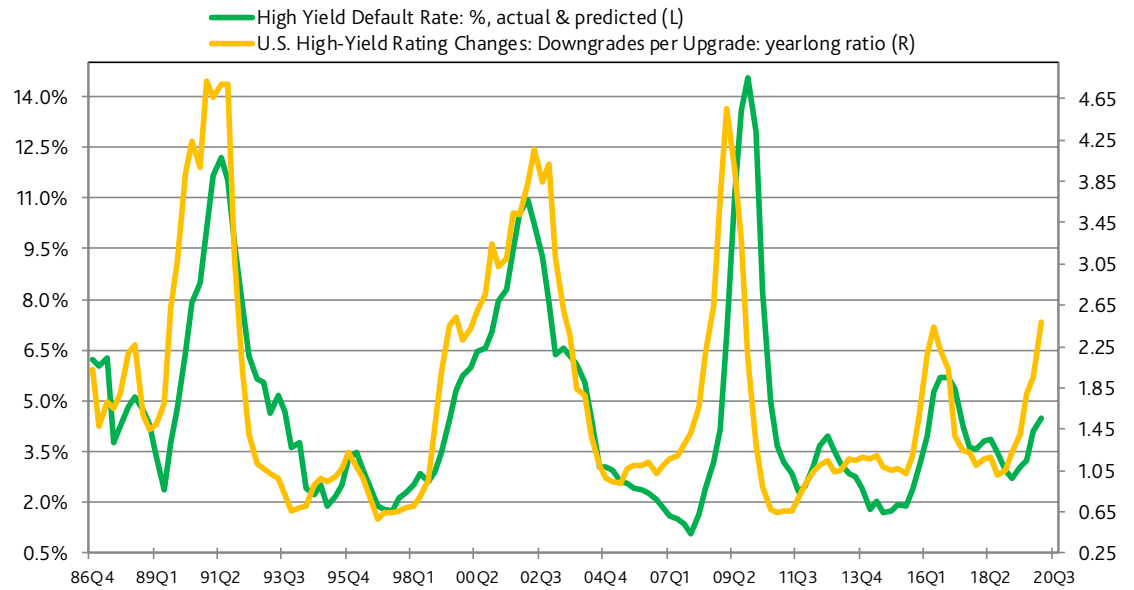
First-quarter 2020's U.S. high-yield downgrade per upgrade ratio of 4.42:1 was the highest since the 4.50:1 of 2016's first quarter. The record high U.S. high-yield downgrade per upgrade ratio is the 8.00:1 of 1990's final quarter.

Credit Markets Review and Outlook

In terms of moving four quarter sums, fourth-quarter 1990's 4.82:1 serves as the record high. During the Great Recession, the moving four-quarter U.S. high-yield downgrade per upgrade ratio peaked at the 4.55:1 of the span-ended March 2009. The ongoing climb by the moving yearlong high-yield downgrade per upgrade ratio signals a forthcoming climb by the high-yield default rate.

Figure 3: Further Upturn by the Yearlong U.S. High-Yield Downgrade per Upgrade Ratio Is Likely to Lead the Default Rate Higher

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



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

THE U.S.

By Ryan Sweet of Moody's Analytics

Adopting a Recession as the Baseline

A U.S. recession is now the baseline forecast. The catalysts are the COVID-19 crisis, turmoil in equity markets, and the plunge in global oil prices. The economy contracted in March and unemployment spiked, according to initial claims for unemployment insurance benefits.

The forecast is for U.S. GDP to decline 2.5% at an annualized rate in the first quarter and 18.3% at an annualized rate in the second quarter. Aided by the fiscal stimulus and the assumption that COVID-19 infections peak in May and begin to abate by July, GDP growth is forecast to bounce back in the second half of the year. For 2020, GDP is forecast to decline 2.2%, the second largest annual decline since 1948, trailing only the 2.5% drop in 2009.

To put this recession into perspective, the forecast is for a peak-to-trough decline in GDP of 5.8% in just two quarters, from the fourth quarter of 2019 to the second quarter of 2020. Since World War II, the average peak-to-trough decline in U.S. GDP is 1.8%. The largest decline was the 4% during the Great Recession and the smallest was 0.1%.

The forecast is now for employment to fall by an average of 248,000 per month, compared with the 144,000 in the prior baseline. The bulk of the decline in employment will occur in the second quarter. We look for a significant increase in the unemployment rate during the second quarter, with it averaging 8.7% but we will likely be revising this higher given the recent data on initial claims.

U.S. initial claims for unemployment insurance benefits highlight the damage COVID-19 has caused in the labor market and broader economy. New filings totaled 6.648 million in the week ended May 28, up from the 3.3307 million in the prior week and by far the most on record. Before the past two weeks, the highest new filings have been since the inception of the series was just south of 700,000 in 1982.

Initial claims over the past two weeks total 9.955 million, more than total employment in Florida. The preliminary state estimates for the week ended May 28 showed new filings in California were 878,727, compared with the 186,333 in the prior week. Filings in Pennsylvania 405,880 following 377,451 in the prior week. Both California and Pennsylvania filings were state estimates. Initial claims in New York jumped totaled 366,403, compared with the 79,999 in the prior week. Filings will remain elevated as there is likely a backlog of filings. Also, Florida announced a stay-at-home order last night. Therefore, we should see a one-time spike in initial claims as a wave of people file for benefits after being laid-off.

Take at face value, initial claims would imply a 6-percentage point increase in the unemployment rate in April and there are still couple of weeks until the reference period. A disconnect between initial claims and the unemployment rate could emerge soon. In contrast to the emergency assistance to workers during past recessions, the stimulus bill also provides unemployment insurance benefits to idled self-employed, contract, nonprofit and part-time workers, workers who typically are not eligible for benefits. In addition, workers who had not been employed long enough to receive benefits would now qualify, as will workers who quit their job or were not able to get to work because of the COVID-19 restrictions.

Real consumer spending is now forecast to drop 0.8% annualized in the first quarter and 13.7% in the second. The decline in the second quarter would be the largest at any time since 1948. There are clearly segments of consumer spending at risk because of COVID-19, and there are some potential parts of spending that could get a temporary boost. The industries that are most heavily affected are air transportation, amusement parks, spectator amusements, and restaurants and bars—these parts of consumer spending account for 7% of GDP. For example, based on Bureau of Economic Analysis data, a month of lost spending on admissions to spectator sports amounts to \$62.4 billion at an annual rate.

The Week Ahead

We expect the Fed to keep the federal funds rate unchanged at the effective zero lower bound until 2022, but risks are weighted toward the central bank waiting longer before raising the target range for the fed funds rate. The Fed waited seven years before raising rates following the Great Recession and it could wait longer than we anticipate, particularly considering the unemployment rate can fall a lot more than many had expected without stoking inflation.

Next week

The key data next week will be initial claims for unemployment insurance benefits along with consumer and producer prices. The minutes of the last FOMC meeting will be released.

EUROPE

By Barbara Teixeira Araujo of Moody's Analytics

Euro Zone Policymakers Reach for Answers

The coming week will again be dominated by developments related to the spread of COVID-19, and to any further policy responses. While we think that most governments have already gone big in their fiscal packages, there is scope for additional measures in countries such as Italy and Spain, which so far have been hardest-hit by the virus. Also, chances are high that euro zone policymakers will finally announce a coordinated fiscal package following some disappointment this week. There is the option of precautionary European Stability Mechanism credit lines for euro zone countries (which could be combined with the European Central Bank's Outright Monetary Transactions). But member states could also put in place a common euro zone debt-management office—such as a 'beefed-up ESM', which would mutualize borrowing costs—or they could go for the option of issuing so-called corona bonds.

Given that the political and legal hurdles to the second and the third options are many, we expect that member states would more readily agree to something in line with the first option. However, the scope of ESM credit lines is limited, and the agency's lending capacity pales in comparison with the potential costs of this crisis. Worth mentioning is that ESM credit lines come with strings attached, which suggests that countries making use of them are likely to be required to put in place austerity measures once the crisis is over. This would only increase the risk of another debt crisis and put any recovery at risk. A fourth option was floated this week by Dutch Prime Minister Mark Rutte—creation of a COVID-19 rescue fund for euro zone countries. We still don't have any information on such a mechanism, but the amounts put forward by Rutte look extremely paltry, suggesting they would not be enough to help the countries in need. Euro zone finance ministers have until April 9 to come up with a solution.

On the data front, we will get a handful of releases for the European countries. Most of them will relate to the period preceding the spike in COVID-19 cases and deaths in Europe, which means they will be old news. As of now, the data for January and February have largely beat expectations, showing that the U.K. and the euro zone economies were performing rather well before the virus hit. For the U.K., we expect that GDP rose by 0.1% m/m in February after no growth in January, but risks are tilted to the upside. While we expect that some sectors took a hit from storms Ciara and Denis—the construction sector was likely the hardest hit, while retailers also suffered from lower footfall—we expect that services and manufacturing activities held up rather well.

We have to account for the fact that global supply chains were already extremely disrupted in February, as Chinese factories shut because of COVID-19 containment measures. Survey data suggest that manufacturing delivery times skyrocketed over the month as businesses were faced with a shortage of inputs. Even so, we expect that industrial production still rose slightly in February, following a 0.1% m/m fall in the previous month. Manufacturing output was likely flat or rose slightly, while electricity output should have increased solidly. For the services sector, we expect that retail sales declined—a drop in tourism from China is expected to have compounded the weather-related decline in footfall—but output in the remaining services subsectors likely rose solidly following a meagre 0.1% m/m increase in January.

The Week Ahead

Unfortunately, any small increase in U.K. GDP in February will be eclipsed by the large decline we are penciling in for March. The lockdown measures came into effect on March 23, later than elsewhere in Europe. This likely meant that the U.K. economy performed better than its European peers over the month. But, tourism had already collapsed since mid-month, while people began to avoid eating out and going to shopping malls or the high street even before the government officially adopted stay-at-home measures. While food sales are likely to have surged due to stockpiling, we expect that all other discretionary spending collapsed over the month, which will hurt services activities. Clothing sales are likely to be hit the hardest, but sales of major-ticket items are also expected to have collapsed, as consumers likely raised their precautionary savings. The story for industrial production is not any better. While the government did not order factories to shut, several large manufactures decided to close their plants (either because they cared about the health of their employees or because demand for their products fell off a cliff). Most construction sites also closed, as employers couldn't guarantee a safe distance between employees.

All in, we are penciling in a 3.5% m/m drop in overall U.K. output in March, which should lead GDP to fall by around 1% q/q in the first quarter. This will nonetheless look like peanuts when compared with the double-digit fall in output that we anticipate for the second quarter. Our assumption is that containment measures will remain in place until at least mid-month, with risks tilted toward a further extension. The services sector is going to be hit hardest, especially the travel- and leisure-related subsectors.

	Key indicators	Units	Moody's Analytics	Last
Mon @ 2:00 p.m.	Russia: Consumer Price Index for March	% change yr ago	3.0	2.3
Tues @ 8:00 a.m.	Germany: Industrial Production for February	% change	-0.7	3.0
Tues @ 9:00 a.m.	Italy: Retail Sales for February	% change	0.4	0.0
Wed @ 11:00 a.m.	OECD: Composite Leading Indicators for February		95.0	96.5
Thur @ 9:30 a.m.	U.K.: Monthly GDP for February	% change	0.1	0.0
Thur @ 10:00 a.m.	Italy: Industrial Production for February	% change	-2.1	3.7
Fri @ 8:45 a.m.	France: Industrial Production for February	% change	1.0	1.2
Fri @ 2:00 p.m.	Russia: Foreign Trade for February	\$ bil	12.8	12.5

ASIA-PACIFIC

By Katrina Ell of Moody's Analytics

China's Consumer Prices Likely Continued to Cool

China's consumer prices likely continued to cool in March, coinciding with a rise in hog production and softer demand. The government has been taming pork prices via a number of methods, including raising subsidies to encourage greater production, releasing frozen reserves, and increasing imports. Elevated pork prices were the primary reason that China's consumer price growth soared in 2019 as the outbreak of African swine flu decimated supplies.

China's underlying inflation is expected to pick up a little pace in March, as the economy began resuming operations after the bid to contain the further spread of COVID-19 decimated economic activity from late January through February. But it will take time for domestic demand to return to pre-COVID-19 levels. The output gap is expected to persist through 2020, not least because of the devastating impact the virus has had on the global economy, which will have negative feedback on manufacturing, exports and China's broader economic performance.

Japan's consumer sentiment index is forecast to have continued deteriorating in March as the COVID-19 outbreak caused fear and panic across the globe, including in Japan. While we expect to see a temporary lift in some consumer spending segments from panic buying, the underlying trend in Japan's household sector is of extreme weakness. The economy returned to recession in early 2020 and due to COVID-19, and the household sector never had time to recover from the consumption tax hike on 1 October. With the Tokyo Olympics being postponed from late July until 2021, there will not be the influx of tourists and temporary lift to household spending, that the consumer sector desperately needs.

The Week Ahead

	Key indicators	Units	Confidence	Risk	Moody's Analytics	Last
Tues @ 11:30 a.m.	Australia Foreign trade for February	A\$ bil	3	↔	4.8	5.2
Thurs @ 4:00 p.m.	Japan Consumer sentiment survey for March	Index	3	↓	37.3	38.4
Thurs @ 11:20 p.m.	India Industrial production for February	% change yr ago	2	↓	1.5	2.0
Fri @ 12:30 p.m.	China Consumer price index for March	% change yr ago	3	↑	4.9	5.2
Fri @ 12:30 p.m.	China Producer price index for March	% change yr ago	2	↓	0.4	0.1

The Long View

Very wide investment-grade bond yield spreads are offset by still historically attractive yields.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group
April 2, 2020

CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 236 basis points far exceeded its 122-point mean of the two previous economic recoveries. This spread may be no wider than 160 bp by year-end 2020.

The recent high-yield bond spread of 981 bp is thinner than what is suggested by the accompanying long-term Baa industrial company bond yield spread of 362 bp and the recent VIX of 57.1 points. The latter has been statistically associated with a wider than 1,250 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 2019'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 -11.7% for IG and -29.5% for high yield.

US ECONOMIC OUTLOOK

An unfolding global recession will rein in Treasury bond yields. As long as the global economy operates below trend, the 10-year Treasury yield may not remain above 1.25% for long. Until COVID-19 risks fade substantially, wider credit spreads are possible.

The Long View

EUROPE

By Barbara Teixeira Araujo of Moody's Analytics
April 2, 2020

COVID-19

Thursday was light on the European data front. This doesn't mean it was a calm day, though, as COVID-19 developments continued to dominate the headlines. Total known infections in Europe have exceeded half a million, with deaths rising above 12,000. Italy and Spain have recorded over 110,000 cases each, with Germany not far behind with 80,641. On the upside, there are tentative signs that the rate of spread might be slowing in those hardest-hit countries and that the infection might be reaching its peak. But it is still early days, so we expect that cases will continue to rise exponentially in coming days across the Continent. The U.K. will be closely watched, as the country was one of the last to enforce lockdown and quarantine measures. Cases in Britain are surging, and the number of fatalities is rising.

The economic costs of the virus are mounting in Europe but also across the globe, with millions of people having already lost their jobs as businesses are forced to shut down and people are confined at home. While most European governments enacted fiscal packages aimed at protecting jobs, incomes, and firms' working capital—policies that include wage subsidies, tax and rent deferrals, and outright cash grants—the unemployment claims data for March confirm our fears that the labour market will take a body blow from the crisis. We have data only for a handful of countries, however, so more bad news may come in the days ahead. Italy's figures, which are not out yet, should be very sobering.

We will focus on the U.K.'s universal credit claims figures. Nearly 950,000 applied for the benefit between March 16 and March 31, the highest increase on record. For the sake of comparison, there are usually 100,000 applicants in any given two-week period. This builds on the 477,000 claims made in the nine days to March 9. Granted, not all claims are likely to be upheld (as some people make multiple claims) while some claims are made by people not searching for work (those related to child tax credit and housing benefits). But in any case, this suggests that unemployment is rising sharply in the U.K., and that's despite the government pledging to pay 80% of workers' salaries. At this rate, unemployment could peak at 7% to 8% by the summer, up from 3.9% in January, with chances of it rising even higher. The takeaway is clear: The government's support was not enough, or it came too late. And given that the U.K.'s fiscal package was one of Europe's most generous, chances are that the losses in other countries will be even greater.

EURO ZONE

On balance, the economic data released Wednesday surprised to the upside. Germany's retail sales rose a sharp 1.2% m/m in February, building on an already-strong 1% increase in January, while the euro zone's unemployment rate fell further to a 12-year low of 7.3% in February from 7.4% in January. But we shouldn't place too much stock into these datapoints. They are old news and tell us nothing about the current momentum in the currency area. With large swaths of the euro zone completely shut, job losses are expected to surge in March and April, while retail sales will slump as most nonessential retail stores are now shuttered. Only food and online retail remain up and running, but the strong results for both sectors aren't expected to offset the nosedive elsewhere. Our view is that euro zone retail sales will decline by around 30% m/m in March, with an even steeper drop penciled in for April.

The final euro zone manufacturing PMIs for March also beat expectations. They roughly matched the flash estimates published last week, defying our expectation that they would worsen given that most of the responses received in the preliminary releases pre-dated the lockdown measures. For instance, Germany's manufacturing PMI read at 45.4 in March, which is still better than any reading recorded between March 2019 and January 2020. The euro zone's manufacturing PMI was 44.5, not much worse than the recent low of 45.7 recorded in September 2019. But inflating the manufacturing PMIs is an increase in delivery times given the supply-chain disruptions, as several factories scaled back production or shut down entirely. In normal circumstances, higher delivery times boost the PMI because they signal an increase in demand. This is clearly not the case now, and the PMI details are more alarming. They showed that output and new orders tumbled in March across all euro zone countries, while jobs were cut at their fastest pace in over a decade. This is bad news, but it doesn't tell us anything we didn't know. Unfortunately, the situation is expected to deteriorate in April.

We weren't surprised that Italy's results were the worst since the country was hit hard by the virus outbreak. Italy's manufacturing PMI dropped to 40.3 from 48.7, with output, new orders and employment each plummeting.

The Long View

ASIA PACIFIC

By Katrina Ell of Moody's Analytics
April 2, 2020

AUSTRALIA

Australia's economic landscape has darkened. The Australian economy has entered a period of "hibernation", according to Prime Minister Scott Morrison, as it tries to contain the spread of COVID-19. This situation is being replicated across the globe. The economic toll of hibernation is significant. The Australian economy had avoided recession for almost 30 years, but in 2020 the economy will be in recession. Full-year GDP will fall by 0.7%, after the already-soft 1.9% expansion in 2019. This will mark the first annual contraction since 1991. The unemployment rate will rise to at least 7.5% by May, its highest since 1998, markedly higher than the 5.1% recorded in February. Odds that the unemployment rate will be at double digits by June stand at 40%.

The Reserve Bank of Australia has released a suite of unprecedented measures to cushion the blow, while the government has released three separate fiscal packages in the past month.

Prior to the COVID-19 outbreak and the summer bushfires, our expectation was that Australia's GDP growth would rise by 2.6% in 2020. It has been a sudden and rude awakening away from this relatively sanguine outlook.

Countercyclical policy response

The RBA has released a suite of measures to cushion the COVID-19 economic blow. The level of support that the RBA has offered the Australian economy through this crisis is unprecedented. The cash rate was reduced by 25 basis points to its effective lower bound at 0.25%. A target for the yield on three-year government bonds of around 0.25% was introduced; purchasing to achieve the target began on 20 March. A term funding facility for the banking system with particular support for credit to small- and medium-size enterprises was introduced. The RBA will also remunerate exchange settlement balances at 10 basis points (instead of zero).

But monetary policy has its limitations, and so it is working alongside the evolving fiscal response, but neither of these, no matter how generous, can directly address the suppressed demand from containment measures. Monetary and fiscal policy can only help cushion the economic blow; they cannot overwhelm it. Ultimately, the economic toll will be determined by how many become infected and how long it takes to contain the spread.

Under the hood of the fiscal response

The government has pivoted so that countercyclical fiscal policy is in motion to cushion the COVID-19 blow, abandoning its quest of 2018 and 2019 to return the budget to surplus. So far, the government has announced total fiscal spending of around A\$320 billion (approximately 15% of GDP) to manage the COVID-19 blow. But how fiscal stimulus is deployed has significant economic implications.

Initially, the government's fiscal packages were focused on supporting those who had lost their jobs. This included increasing the payment for unemployment benefits. But as of 30 March, the government made an important shift, announcing a wage subsidy program worth A\$1,500 per fortnight per employee. It will be paid to businesses for keeping employees who have faced a downturn in revenue of at least 30%. The payment will be delivered from May but backdated to 1 March. Employees who have already been stood down would be eligible for the payment, while their employers would be eligible to rehire them in order to receive the payment. Treasury estimates that 6 million will access the wage subsidy.

The benefit of the program is that it keeps people employed (even if they are idle), so that when the economy comes out of hibernation employees are ready to meet the uptick in demand, and there are fewer inefficiencies including transaction costs with finding appropriate staff. The economic costs of becoming unemployed are significant, so it is often better to find other avenues to overcome that. Some costs include lower productivity because workers are not retaining the skills they learned in the job. Mental health impacts from not earning an income can also have secondary costs on the health sector. Subsequent transaction costs exist in looking for work, finding suitable employees, and training them. The longer a person is out of the labour market, the harder it can be to get back in. This can lead to rising income and wealth inequality.

Long-lasting damage

Significant economic crises tend to have long-lasting economic consequences partly due to the resulting structural unemployment. COVID-19 is looking as though it will be at least the worst shock to the Australian economy since the last recession in 1991.

The Long View

The economy is unlikely to come out the other side of this crisis looking and functioning the same way that it went in. The new normal that results will leave some labour market participants behind, and if there is permanently higher unemployment, the economic consequences are significant and include higher wealth inequality and potentially lower productivity growth.

Australia's last significant economic shock was during the 2009 global financial crisis. During that time, the underemployment rate peaked at 7.6% in November 2009 (on a trend basis), but since mid-2014 the underemployment rate has not recovered to pre-financial crisis levels. Instead it has hovered over 8%.

Ratings Round-Up

Ratings Round-Up

Pandemic Infects Corporate Credit Quality

By Steven Shields

The deteriorating global economic outlook caused by the COVID-19 pandemic has left a momentous impact on corporate credit quality. Over the reference period there were a total of 84 rating changes, all them downgrades. This marks a further increase in rating volume following the previous week's total of 66 credit downgrades. Rating volume will remain elevated in the weeks ahead. Nearly all sectors were impacted during the period with automotive manufacturers and travel-related firms among the greatest hit. The automotive industry has been one of the sectors most significantly affected by the shock given its sensitivity to consumer demand and sentiment. Moody's Investors Service lowered Ford Motor Company's senior debt rating to Ba2 from Ba1, reflecting an already-stressed credit profile and very long-term restructuring program. The ratings were placed under review for further downgrades. The rating change impacted the firm's approximately \$81 billion in outstanding debt.

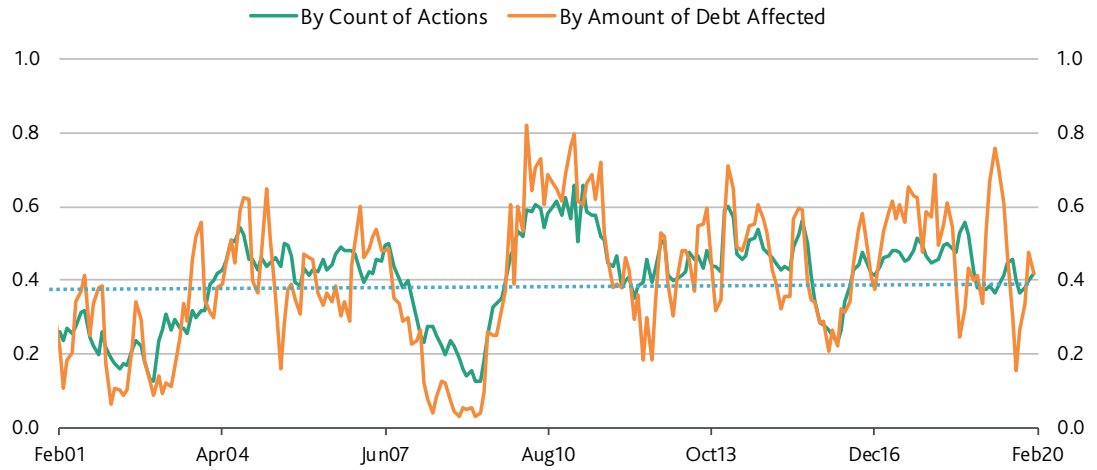
Similarly, BMW Bank of North America's long-term bank deposit rating was downgraded from Aa3 to Aa2, while all long-term ratings were placed on review for downgrade, impacting nearly \$65 billion in outstanding debt. American Honda Finance Corp., Winnebago Industries Inc., and The Goodyear Tire & Rubber Company were among the other automotive-related downgrades in the period. Moody's Investors Service downgraded several casinos, including Sugarhouse HSP Gaming Prop. Mezz, L.P. The downgrade to a B3 CFR, from B2, in response to the disruption in casino visitation resulting from efforts to contain the spread of the coronavirus. Mohegan Tribal Gaming Authority, Affinity Gaming Corp., Century Casinos Inc, and Scientific Games International Inc. also received credit downgrades. Oracle Corp. was among the largest downgrades in terms of debt affected (\$52.5 billion), with its senior unsecured rating lowered to A3 from A1. The downgrade was prompted by Oracle's plans to raise new debt and use proceeds for general corporate purposes, including share repurchases, payment of dividends and debt repayments.

Like the United States, European rating change activity was limited to credit downgrades. For the week ended March 31, there were a total of 35 European credit downgrades and 0 upgrades. The changes were largely made to companies operating in the United Kingdom (11), Spain (6), Netherlands (5), and Germany (4). However, French commercial real estate company, Unibail-Rodamco-Westfield SE, was the largest change in terms of debt affected with its senior unsecured rating lowered to A3 from A2. The downgrade reflects URW's deteriorating operating environment caused by coronavirus-related closures and social distancing, and the resulting uncertainty around cash flow generation and the financial health of its tenant base. Moody's Investors Service also placed the rating of 14 European automotive parts suppliers under review for downgrade, including Aptiv Plc, Autoliv Inc, Faurecia, Hella GmbH & Co KGaA, Kongsberg Automotive ASA, Novem Group GmbH, Schaeffler AG and Valeo S.A. Additionally, Moody's downgraded the ratings of the following six issuers: Adler Pelzer Holding GmbH's CFR from B1 to B2, Garrett Motion's CFR from Ba3 to B1, Gestamp Automocion, S.A.'s CFR from Ba2 to Ba3, Grupo Antolin's CFR from B2 to B3, IHO-Verwaltungs GmbH's CFR from Ba1 to Ba2, and ZF Friedrichshafen AG from Baa3 to Ba1.

Ratings Round-Up

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

Ratings Round-Up

FIGURE 3

Rating Changes: Corporate & Financial Institutions – US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG
3/25/20	BAYERISCHE MOTOREN WERKE AKTIENGESELLSCHAFT -BMW BANK OF NORTH AMERICA	Financial	LTD	64,497	D	Aa2	Aa3	IG
3/25/20	FORD MOTOR COMPANY	Industrial	SrUnsec/BCF/LTCFR /Sub/PDR/MTN	81,001	D	Ba1	Ba2	SG
3/25/20	GOODYEAR TIRE & RUBBER COMPANY (THE)	Industrial	SrUnsec/BCF /LTCFR/PDR	3,309	D	B1	B2	SG
3/25/20	METRO-GOLDWYN-MAYER INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	Ba2	Ba3	SG
3/25/20	MOHEGAN TRIBAL GAMING AUTHORITY	Industrial	SrSec/BCF /LTCFR/PDR	1,000	D	B1	B2	SG
3/25/20	JACOBS ENTERTAINMENT, INC	Industrial	SrSec/LTCFR/PDR	385	D	B2	B3	SG
3/25/20	AHERN RENTALS INC.	Industrial	SrSec/LTCFR/PDR	550	D	B3	Caa1	SG
3/25/20	CCM MERGER, INC.	Industrial	SrUnsec /LTCFR/PDR	200	D	B3	Caa1	SG
3/25/20	DOWNSTREAM DEVELOPMENT AUTHORITY	Industrial	SrSec/LTCFR/PDR	555	D	B3	Caa1	SG
3/25/20	SUGARHOUSE HSP GAMING PROP. MEZZ, L.P.	Industrial	SrSec/BCF /LTCFR/PDR	300	D	B3	Caa1	SG
3/25/20	DAYCO, LLC-DAYCO PRODUCTS, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
3/25/20	BUENA VISTA GAMING AUTHORITY	Industrial	SrSec /LTCFR/PDR	410	D	Caa1	Caa2	SG
3/25/20	COOPER-STANDARD HOLDINGS INC. -COOPER-STANDARD AUTOMOTIVE INC.	Industrial	SrUnsec /LTCFR/PDR	400	D	B3	Caa1	SG
3/25/20	CHURCHILL DOWNS INCORPORATED	Industrial	SrUnsec /LTCFR/PDR	1,100	D	Ba3	B1	SG
3/25/20	LIFETIME BRANDS, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/25/20	QUESO HOLDINGS, INC.-CEC ENTERTAINMENT, INC.	Industrial	SrUnsec/SrSec/BCF /LTCFR/PDR	255	D	Caa2	Caa3	SG
3/25/20	NN, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/25/20	BLUE RIBBON, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/25/20	USF HOLDINGS, LLC-U.S. FARATHANE, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa3	SG
3/25/20	PETROCHOICE HOLDINGS, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/25/20	ADIENT GLOBAL HOLDINGS LTD -ADIENT US LLC	Industrial	SrSec/BCF	800	D	Ba2	Ba3	SG
3/25/20	LIMETREE BAY TERMINALS, LLC	Industrial	SrSec/BCF		D	B1	B2	SG
3/25/20	TAILORED BRANDS, INC. -MEN'S WEARHOUSE, INC. (THE)	Industrial	SrUnsec/SrSec/BCF /LTCFR/PDR	236	D	B2	Caa2	SG
3/25/20	FETCH ACQUISITION LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B1	B2	SG
3/25/20	ENTERPRISE DEVELOPMENT AUTHORITY (THE)	Industrial	SrSec/PDR	450	D	B3	Caa1	SG
3/25/20	BRUIN E&P PARTNERS, LLC	Industrial	SrUnsec /LTCFR/PDR	600	D	Caa1	C	SG
3/25/20	PENINSULA PACIFIC ENTERTAINMENT LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/25/20	TWIN RIVER WORLDWIDE HOLDINGS, INC.	Industrial	SrUnsec/SrSec /BCF/LTCFR/PDR	400	D	B3	Caa1	SG

Source: Moody's

Ratings Round-Up

FIGURE 3

Rating Changes: Corporate & Financial Institutions – US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG
3/25/20	SPECTACLE GARY, LLC -SPECTACLE GARY HOLDINGS, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/26/20	MACY'S, INC.	Industrial	SrUnsec/CP	4,865	D	Baa3	Ba1	IG
3/26/20	GAP, INC. (THE)	Industrial	SrUnsec	1,250	D	Baa2	Ba1	IG
3/26/20	OLIN CORPORATION -BLUE CUBE SPINCO INCORPORATED	Industrial	SrUnsec	3,220	D	Ba1	Ba2	SG
3/26/20	OLIN CORPORATION	Industrial	SrUnsec/BCF /LTCFR/PDR	3,220	D	Ba1	Ba2	SG
3/26/20	SALEM MEDIA GROUP, INC.	Industrial	SrSec/LTCFR/PDR	255	D	B3	Caa1	SG
3/26/20	DYCOM INDUSTRIES, INC.	Industrial	SrUnsec /LTCFR/PDR	485	D	B1	B2	SG
3/26/20	SANDY CREEK ENERGY ASSOCIATES, LP	Industrial	SrSec/BCF		D	B3	Caa2	SG
3/26/20	AFFINITY GAMING CORPORATION	Industrial	SrSec/BCF /LTCFR/PDR		D	B1	B2	SG
3/26/20	HUBBARD RADIO, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B1	B2	SG
3/26/20	FORUM ENERGY TECHNOLOGIES, INC.	Industrial	SrUnsec /LTCFR/PDR	800	D	B3	Caa2	SG
3/26/20	CENTURY CASINOS, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/26/20	CAPRI HOLDINGS LIMITED -MICHAEL KORS (USA), INC.	Industrial	SrUnsec/LTIR	450	D	Baa3	Ba1	IG
3/26/20	AGROFRESH, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/26/20	AFFORDABLE CARE HOLDING CORP.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/26/20	HOYA MIDCO, LLC	Industrial	SrSec/BCF		D	B2	B3	SG
3/26/20	GOLDEN ENTERTAINMENT, INC.	Industrial	SrUnsec /LTCFR/PDR	375	D	Caa1	Caa2	SG
3/26/20	EXACTECH, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/26/20	HEARTLAND DENTAL, LLC	Industrial	SrSec/BCF /LTCFR/PDR	310	D	B2	B3	SG
3/26/20	BULLDOG PURCHASER INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/26/20	GARRETT MOTION INC.	Industrial	SrUnsec/SrSec/BCF /LTCFR/PDR	387	D	B2	B3	SG
3/26/20	HOLLEY PURCHASER, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/26/20	NINE ENERGY SERVICE, INC.	Industrial	SrUnsec /LTCFR/PDR	400	D	B3	Caa2	SG
3/26/20	18 FREMONT STREET ACQUISITION, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/26/20	AMERICAN TIRE DISTRIBUTORS, INC. (NEW)	Industrial	SrSec/BCF /LTCFR/PDR		D	Caa1	Caa3	SG
3/26/20	ONE SKY FLIGHT, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/27/20	HONDA MOTOR CO., LTD.-AMERICAN HONDA FINANCE CORPORATION	Financial	SrUnsec/MTN/CP	29,483	D	A2	A3	IG
3/27/20	SCIENTIFIC GAMES CORPORATION- SCIENTIFIC GAMES INTERNATIONAL, INC.	Industrial	SrUnsec /LTCFR/PDR	2,926	D	Caa1	Caa2	SG

Source: Moody's

Ratings Round-Up

FIGURE 3

Rating Changes: Corporate & Financial Institutions – US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG
3/27/20	EVERI PAYMENTS INC.	Industrial	SrUnsec/SrSec/BCF /LTCFR/PDR	375	D	B3	Caa1	SG
3/27/20	HGIM CORP.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/27/20	JASON PARTNERS HOLDINGS INC.-JASON INCORPORATED	Industrial	SrSec/BCF /LTCFR/PDR		D	Caa1	Caa3	SG
3/27/20	WATCO COMPANIES, L.L.C.	Industrial	SrUnsec /LTCFR/PDR	400	D	B3	Caa1	SG
3/27/20	FOSSIL GROUP, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	Ba3	B2	SG
3/27/20	SHAPE TECHNOLOGIES GROUP, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
3/27/20	THOR INDUSTRIES, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	Ba3	B2	SG
3/27/20	WINNEBAGO INDUSTRIES, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B1	B2	SG
3/27/20	AVSC HOLDING CORP.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	Caa2	SG
3/27/20	24 HOUR FITNESS WORLDWIDE, INC.	Industrial	SrUnsec/SrSec /BCF/LTCFR/PDR	1,000	D	Caa2	C	SG
3/27/20	RED LOBSTER INTERMEDIATE HOLDINGS LLC.-RED LOBSTER MANAGEMENT LLC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/27/20	PLAYAGS, INC.-AP GAMING I, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/27/20	NEP GROUP, INC-NEP/NCP HOLDCO, INC	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	Caa1	SG
3/27/20	K&N PARENT, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	Caa2	SG
3/27/20	MAH HOLDING CORPORATION-MILLER'S ALE HOUSE, INC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/27/20	SV HOLDCO, LLC-SCREENVISION, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B1	B2	SG
3/27/20	PROFRAC HOLDINGS, LLC-PROFRAC SERVICES, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
3/27/20	TIVITY HEALTH, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B1	B3	SG
3/27/20	MAIN EVENT ENTERTAINMENT INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
3/27/20	ASP NAPA HOLDINGS, LLC.-NAPA MANAGEMENT SERVICES CORPORATION	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/27/20	WOK HOLDINGS INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
3/30/20	ORACLE CORPORATION	Industrial	SrUnsec/CP	52,462	D	A1	A3	IG
3/30/20	OCEANEERING INTERNATIONAL, INC.	Industrial	SrUnsec/BCF /LTCFR/PDR	800	D	Ba2	B1	SG
3/30/20	UNITED STATES STEEL CORPORATION	Industrial	SrUnsec /LTCFR/PDR	2,100	D	B3	Caa2	SG
3/30/20	CPK HOLDINGS, INC. -CALIFORNIA PIZZA KITCHEN, INC. (CPK)	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
3/30/20	DASEKE, INC.-DASEKE COMPANIES, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG
3/30/20	GPS HOSPITALITY HOLDING COMPANY LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG
3/30/20	FGI ACQUISITION CORP.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	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
3/25/20	ESSELUNGA S.P.A.	Industrial	SrUnsec	1,106	D	Baa2	Ba1	IG	ITALY
3/25/20	TULLOW OIL PLC	Industrial	SrUnsec/LTCFR/PDR	1,450	D	Caa1	Caa2	SG	UNITED KINGDOM
3/25/20	DUFREY AG	Industrial	SrUnsec/LTCFR/PDR	1,714	D	Ba2	Ba3	SG	NETHERLANDS
3/25/20	OCADO GROUP PLC	Industrial	LTCFR/PDR		D	Ba3	B2	SG	UNITED KINGDOM
3/25/20	OCADO GROUP PLC	Industrial	SrSec	618	U	Ba3	Ba2	SG	UNITED KINGDOM
3/25/20	ENQUEST PLC	Industrial	SrUnsec/LTCFR/PDR	677	D	B3	Caa1	SG	UNITED KINGDOM
3/25/20	PLAYTECH PLC	Industrial	SrSec/LTCFR/PDR	973	D	Ba2	Ba3	SG	ISLE OF MAN
3/25/20	BAHIA DE LAS ISLETAS, S.L.	Industrial	SrSec/LTCFR/PDR	644	D	B3	Caa2	SG	SPAIN
3/25/20	DELPHI TECHNOLOGIES PLC	Industrial	SrUnsec/LTCFR/PDR	800	D	B2	B3	SG	UNITED KINGDOM
3/25/20	NEW VAC ULTIMATE HOLDINGS B.V.-VAC GERMANY HOLDINGS GMBH	Industrial	SrSec/BCF/LTCFR/PDR		D	B3	Caa1	SG	GERMANY
3/26/20	MARKS & SPENCER P.L.C.	Industrial	SrUnsec/MTN	2,153	D	Baa3	Ba1	IG	UNITED KINGDOM
3/26/20	ZF FRIEDRICHSHAFEN AG -ZF EUROPE FINANCE B.V.	Industrial	SrUnsec	6,596	D	Baa3	Ba1	IG	NETHERLANDS
3/26/20	IHO VERWALTUNGS GMBH	Industrial	SrSec/LTCFR/PDR	3,617	D	Ba1	Ba2	SG	GERMANY
3/26/20	TAKKO FASHION S.A R.L.	Industrial	SrSec/LTCFR/PDR	564	D	B2	B3	SG	GERMANY
3/26/20	GATEGROUP HOLDING AG	Industrial	LTCFR/PDR		D	B1	B3	SG	SWITZERLAND
3/26/20	GESTAMP AUTOMOCION, S.A.	Industrial	SrSec/LTCFR/PDR	995	D	Ba3	B1	SG	SPAIN
3/26/20	GRUPO ANTOLIN-IRAUSA, S.A.	Industrial	SrSec/LTCFR/PDR	719	D	B2	B3	SG	SPAIN

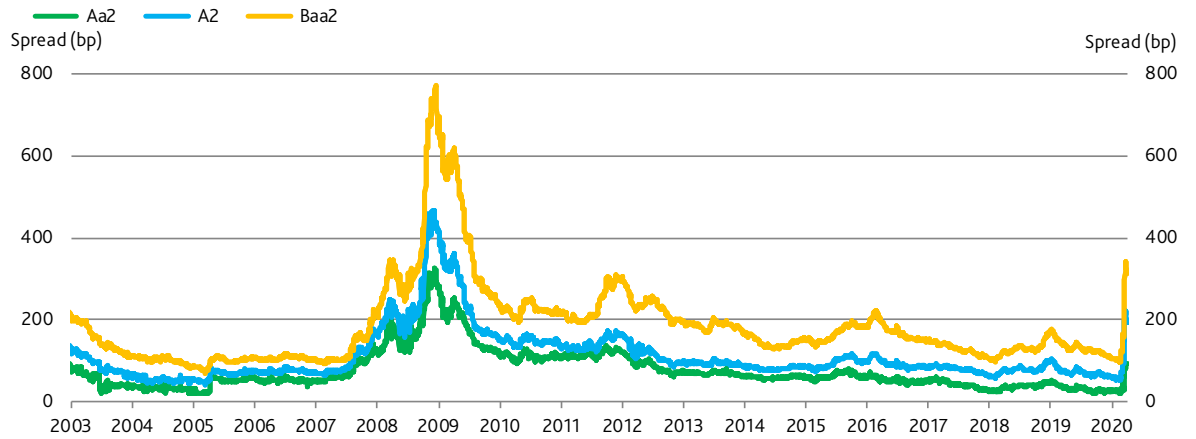
Source: Moody's

Market Data

Market Data

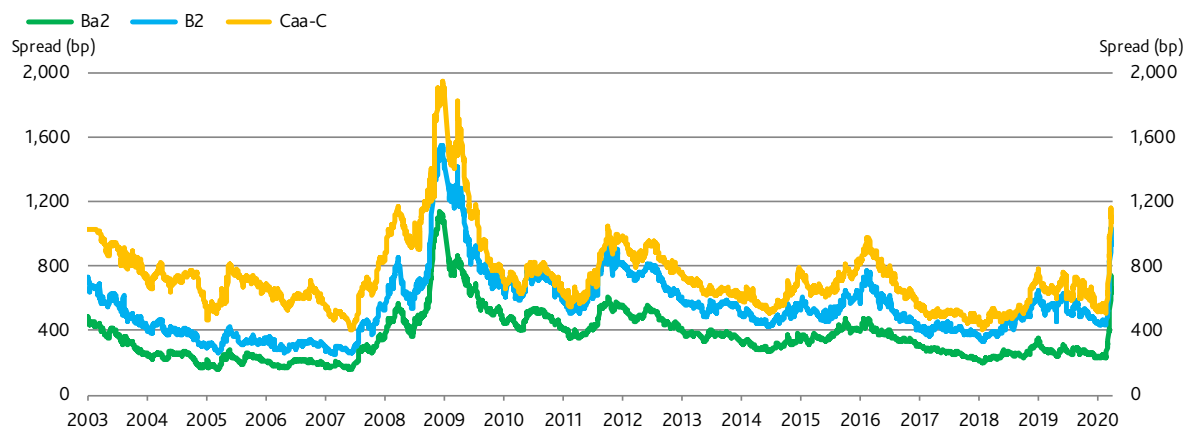
Spreads

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



Source: Moody's

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



Source: Moody's

Market Data

CDS Movers

Figure 3. CDS Movers - US (March 25, 2020 – April 1, 2020)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer	Apr. 1	Mar. 25	Senior Ratings	
Huntsman International LLC	Aa3	A3	Baa3	
ServiceMaster Company, LLC (The)	Ba2	B2	B2	
JPMorgan Chase Bank, N.A.	A3	Baa2	Aa2	
Calpine Corporation	Ba2	B1	B2	
Cargill, Incorporated	A2	Baa1	A2	
Praxair, Inc.	A1	A3	A2	
Sprint Communications, Inc.	Ba1	Ba3	B3	
EOG Resources, Inc.	A3	Baa2	A3	
HP Inc.	A2	Baa1	Baa2	
AES Corporation, (The)	Baa3	Ba2	Ba1	

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer	Apr. 1	Mar. 25	Senior Ratings	
UDR, Inc.	B2	Baa2	Baa1	
Exelon Corporation	A2	Aa1	Baa2	
Pepco Holdings, LLC	Baa1	Aa3	Baa2	
Southern Company (The)	Aa3	Aaa	Baa2	
Nissan Motor Acceptance Corporation	B2	Ba2	Baa3	
Marathon Oil Corporation	B3	Ba3	Baa3	
Federal Realty Investment Trust	Baa3	A3	A3	
WEC Energy Group, Inc.	Baa2	A2	Baa1	
Altria Group Inc.	Baa1	A2	A3	
Dominion Energy, Inc.	A1	Aa2	Baa2	

CDS Spread Increases		CDS Spreads			
Issuer	Senior Ratings	Apr. 1	Mar. 25	Spread Diff	
Frontier Communications Corporation	Caa3	18,905	13,593	5,311	
Penney (J.C.) Corporation, Inc.	Caa3	13,750	10,918	2,832	
Pride International, Inc.	Ca	2,993	1,598	1,395	
Nabors Industries, Inc.	B3	4,475	3,552	923	
Hertz Corporation (The)	Caa1	2,252	1,487	765	
Diamond Offshore Drilling, Inc.	Caa2	4,464	3,797	667	
Occidental Petroleum Corporation	Ba1	2,339	1,710	629	
Carnival Corporation	Baa1	1,175	579	596	
American Airlines Group Inc.	B1	1,813	1,377	436	
Royal Caribbean Cruises Ltd.	Baa2	1,301	957	343	

CDS Spread Decreases		CDS Spreads			
Issuer	Senior Ratings	Apr. 1	Mar. 25	Spread Diff	
International Game Technology	B3	860	1,083	-222	
Ford Motor Credit Company LLC	Ba2	819	1,036	-217	
ServiceMaster Company, LLC (The)	B2	271	478	-208	
SLM Corporation	Ba1	631	816	-185	
Sprint Communications, Inc.	B3	207	381	-174	
Springleaf Finance Corporation	Ba3	660	824	-164	
Embarq Corporation	Ba2	576	708	-133	
KB Home	Ba3	503	627	-124	
Chesapeake Energy Corporation	Caa3	13,325	13,447	-122	
Pitney Bowes Inc.	Ba3	1,056	1,170	-113	

Source: Moody's, CMA

Market Data

Figure 4. CDS Movers - Europe (March 25, 2020 – April 1, 2020)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer		Apr. 1	Mar. 25	Senior Ratings
Boparan Finance plc		Caa2	C	Caa1
TUI AG		Caa1	Ca	B2
ABN AMRO Bank N.V.		Aa3	A2	A1
Electrabel SA		A3	Baa2	Baa1
ENEL S.p.A.		Baa1	Baa2	Baa2
Vivendi SA		A1	A2	Baa2
United Utilities PLC		A1	A2	Baa1
Vattenfall AB		Aa3	A1	A3
Linde AG		Aa1	Aa2	A2
United Utilities Water Limited		A3	Baa1	A3

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer		Apr. 1	Mar. 25	Senior Ratings
Vedanta Resources Limited		C	B3	B3
Marks & Spencer p.l.c.		B2	Ba2	Ba1
BNP Paribas		Baa1	A2	Aa3
Societe Generale		Baa1	A2	A1
Banco Bilbao Vizcaya Argentaria, S.A.		Baa2	A3	A3
Banco Santander S.A. (Spain)		Baa1	A2	A2
HSBC Holdings plc		Baa2	A3	A2
NatWest Markets N.V.		A2	Aa3	Baa2
Standard Chartered Bank		A3	A1	A1
Raiffeisen Bank International AG		Baa2	A3	A3

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Apr. 1	Mar. 25	Spread Diff
PizzaExpress Financing 1 plc	C	10,486	6,641	3,845
Vedanta Resources Limited	B3	2,667	614	2,053
Valaris plc	Ca	3,335	1,783	1,552
Selecta Group B.V.	Caa1	2,225	1,820	405
Matalan Finance plc	Caa2	1,880	1,728	153
Marks & Spencer p.l.c.	Ba1	451	334	117
Jaguar Land Rover Automotive Plc	B1	1,139	1,030	109
Wienerberger AG	Ba1	355	257	98
Unibail-Rodamco-Westfield SE	A3	254	180	74
ArcelorMittal	Baa3	502	441	60

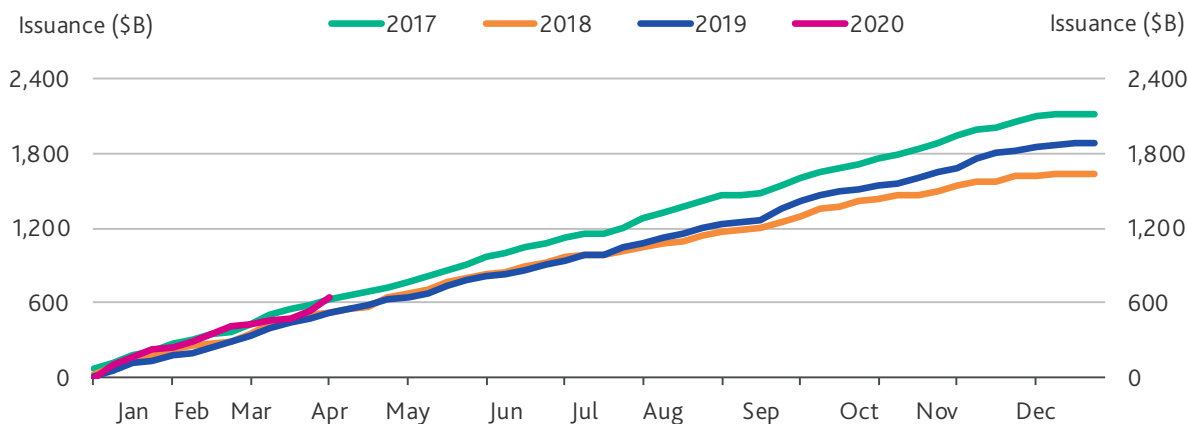
CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Apr. 1	Mar. 25	Spread Diff
Boparan Finance plc	Caa1	1,212	1,977	-765
TUI AG	B2	804	1,478	-674
Novafives S.A.S.	Caa2	2,079	2,695	-615
CMA CGM S.A.	Caa1	2,499	3,005	-506
Iceland Bondco plc	Caa2	1,109	1,255	-147
Casino Guichard-Perrachon SA	B3	724	864	-140
Sappi Papier Holding GmbH	Ba2	503	618	-115
Heathrow Finance plc	Ba1	228	333	-106
Permanent tsb p.l.c.	Baa2	218	291	-73
Deutsche Lufthansa Aktiengesellschaft	Ba1	223	292	-69

Source: Moody's, CMA

Market Data

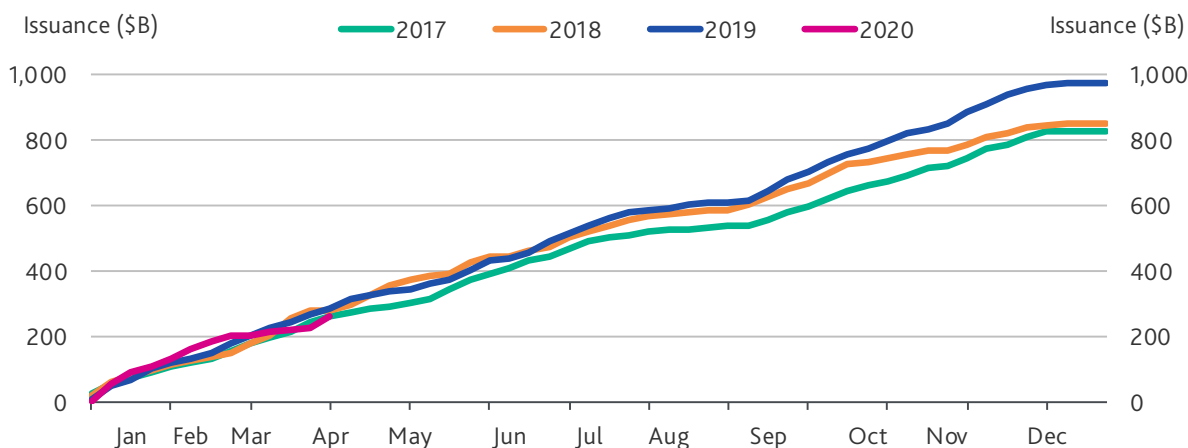
Issuance

Figure 5. Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated



Source: Moody's / Dealogic

Figure 6. Market Cumulative Issuance - Corporate & Financial Institutions: Euro Denominated



Source: Moody's / Dealogic

Market Data

Figure 7. Issuance: Corporate & Financial Institutions

	USD Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	109.100	0.200	111.856
Year-to-Date	489.823	130.144	650.655

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	34.731	0.000	35.191
Year-to-Date	222.794	35.572	263.690

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

Moody's Capital Markets Research recent publications

[Unlike 2008-2009, Few Speak of a Credit Crunch \(Capital Markets Research\)](#)

[Equity Market Volatility Resembles 2008's Final Quarter \(Capital Markets Research\)](#)

[High-Yield's Default Risk Metrics Still Trail Worst Stretch of Great Recession \(Capital Markets Research\)](#)

[Ultra-Low Treasury Yields and Very High VIX Warn of Credit Stress Ahead \(Capital Markets Research\)](#)

[Fed Rate Cuts May Fall Short of Stabilizing Markets \(Capital Markets Research\)](#)

[Optimism Rules Despite Unfinished Slowing of Core Business Sales \(Capital Markets Research\)](#)

[Baa-Rated Corporates Fared Better in 2019 \(Capital Markets Research\)](#)

[Richly Priced Stocks Fall Short of 1999-2000's Gross Overvaluation \(Capital Markets Research\)](#)

[Coronavirus May Be a Black Swan Like No Other \(Capital Markets Research\)](#)

[How Corporate Credit Might Burst an Equity Bubble \(Capital Markets Research\)](#)

[Positive Earnings Outlook Requires Flat to Lower Interest Rates \(Capital Markets Research\)](#)

[Overvalued Equities Increase Corporate Credit's Downside Risk \(Capital Markets Research\)](#)

[High-Yield Rating Changes Say High-Yield Bond Spread Is Too Thin \(Capital Markets Research\)](#)

[Return of Christmas Past Does Not Impend \(Capital Markets Research\)](#)

[Next Plunge by Profits to Drive Leverage Up to 2009 High \(Capital Markets Research\)](#)

[Corporate Bond Issuance Reflects Business Activity's Heightened Sensitivity to Rates \(Capital Markets Research\)](#)

[Equities Advanced for 95% of the Yearly Declines by High-Yield Bond Spread \(Capital Markets Research\)](#)

[Improved Market Sentiment Is Mostly Speculative \(Capital Markets Research\)](#)

[Loans Impart an Upward Bias to High-Yield Downgrade per Upgrade Ratio \(Capital Markets Research\)](#)

[VIX, EDF and National Activity Index Go Far at Explaining the High-Yield Spread \(Capital Markets Research\)](#)

[Worsened Fundamentals Lift Downgrades Well Above Upgrades \(Capital Markets Research\)](#)

[Next Recession May Lower 10-year Treasury Yield to Range of 0.5% to 1% \(Capital Markets Research\)](#)

[Abundant Liquidity Suppresses Defaults \(Capital Markets Research\)](#)

[Cheap Money in Action \(Capital Markets Research\)](#)

[Bond Implied Ratings Hint of More Fallen-Angel Downgrades \(Capital Markets Research\)](#)

[Leading Credit-Risk Indicator Signals A Rising Default Rate \(Capital Markets Research\)](#)

[Upon Further review, Aggregate Financial Metrics Worsen \(Capital Markets Research\)](#)

[Faster Loan Growth Would Bode Poorly for Corporate Credit Quality \(Capital Markets Research\)](#)

[Likelihood of a 1.88% Fed Funds Rate by End of July Soars \(Capital Markets Research\)](#)

[Market Implied Ratings Differ on the Likely Direction of Baa3 Ratings \(Capital Markets Research\)](#)

[Below-Trend Spreads Bank on Profits Growth, Lower Rates and Healthy Equities \(Capital Markets Research\)](#)

[Global Collapse by Bond Yields Stems from Worldwide Slowdown \(Capital Markets Research\)](#)

[Borrowing Restraint Likely Despite Lower Interest Rates \(Capital Markets Research\)](#)

[The Fed Cured 1998's Yield Curve Inversion \(Capital Markets Research\)](#)

[Extended Yield Curve Inversion Would Presage Wide Spreads and Many Defaults \(Capital Markets Research\)](#)

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

Report Number: 1222313

Editor
Reid Kanaley
help@economy.com

Contact Us

Americas: 1.212.553.4399
Europe: +44 (0) 20.7772.5588
Asia: 813.5408.4131

© 2020 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

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

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

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

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

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

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

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

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

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by its fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

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

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

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

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

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