

**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:

Shahana Mukherjee
Economist

Moody's Analytics/Europe:

Barbara Araujo Teixeira
Economist

Ross Cioffi
Economist

Moody's Analytics/U.S.:

Mark Zandi
Chief Economist

Michael Ferlez
Economist

Editor

Reid Kanaley

Contact: help@economy.com

Markets, Bankers and Analysts Differ on 2021's Default Rate

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

Markets, Bankers and Analysts Differ on 2021's Default Rate

» FULL STORY PAGE 2

[The Week Ahead](#)

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

» FULL STORY PAGE 7

[The Long View](#)

Full updated stories and key credit market metrics: On balance, 2020's bond issuance boom enhances financial flexibility by lengthening maturities and lowering interest expense.

Credit Spreads	Investment Grade: Year-end 2020's average investment grade bond spread may resemble its recent 135 basis points. High Yield: The high-yield spread may approximate its recent 534 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 from August 2019's 3.1% to August 2020's 8.7% and may average 10.6% during 2020's final quarter.
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 soar higher by 51.8% for IG to \$1.988 trillion, while high-yield supply may rise 21.5% to \$526 billion.

» FULL STORY PAGE 13

[Ratings Round-Up](#)

U.S. Upgrades Outnumber Downgrades

» FULL STORY PAGE 16

[Market Data](#)

Credit spreads, CDS movers, issuance.

» FULL STORY PAGE 19

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

Links to commentaries on: Unprecedented stimulus, bond yields, record savings rates, demographic change, high tech, complacency, Fed intervention, speculation, default risk, credit stress, rate cuts, optimism, coronavirus, corporate credit, spreads, leverage, VIX.

» FULL STORY PAGE 23

[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

Credit Markets Review and Outlook

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

Markets, Bankers and Analysts Differ on 2021's Default Rate

The default research analysts at Moody's Investors Service have lowered their baseline estimates for the U.S. high-yield default rate. The peak baseline estimate for the default rate was lowered from February 2021's 12.1% (as of early August 2020) to March-February 2021's 11.4% (as of early September).

From early August 2020 to early September, the average baseline projections for the default rate were lowered from 11.4% to 10.6% for 2020's fourth quarter, from 12.0% to 11.3% for 2021's first quarter, from 10.9% to 10.4% for 2021's second quarter, and from 9.4% to 8.9% for July 2021.

Helping to explain the downshifting of the baseline default outlook were an improved outlook for corporate earnings and a deep plunge by the net downgrades of U.S. high-yield issuers.

On the earnings front, the Blue-Chip consensus projection for the annual contraction by 2020's core pretax profits has narrowed from the 20.1% bottom of early June 2020 to early September's 13.4%.

Yearlong Sum of Net High-Yield Downgrades May Fall Short of 2009's Zenith

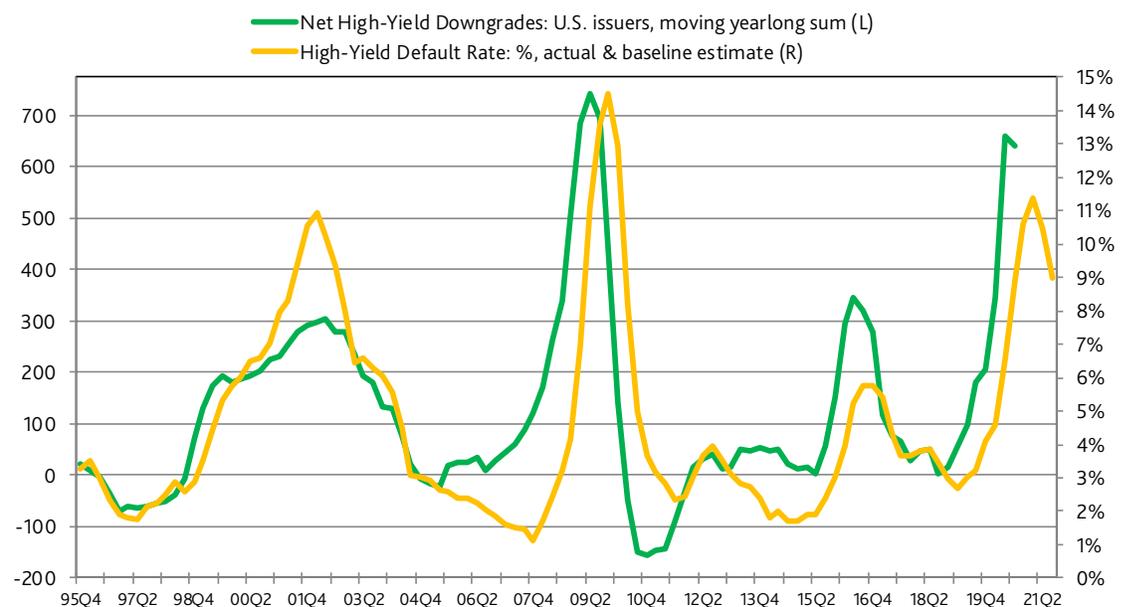
Regarding net high-yield downgrades, or the difference between the number of downgrades and upgrades of U.S. high-yield issuers, after soaring from the 54 of 2019's final quarter to the 194 of 2020's first quarter and the record high 369 of the second quarter, net high-yield downgrades have eased to merely 10 thus far in the third quarter.

Perhaps it is worth noting that the COVID-19 recession's moving year-long sum of net high-yield downgrades may fall short of the Great Recession's record 742 for the span ending with 2009's second quarter. To get to the record 742 net downgrades for the year ending with 2020's third quarter, third quarter net high-yield downgrades need to equal 125. Moreover, to match the 658 net downgrades of the year ending with 2020's second quarter, the third-quarter's net downgrades must equal 41.

Once the moving yearlong sum of net high-yield downgrades trends lower, the high-yield default rate will probably be in a pronounced decline. When high-yield net downgrades' yearlong sum plunged from June 2009's record-high 742 to the -156 of December 2010, the U.S. high-yield default rate sank from its 14.5% average of 2009's final quarter to the 2.5% of 2011's final quarter.

Figure 1: Further Slide by Net High-Yield Downgrades Would Presage a Lower Default Rate

sources: Moody's Investors Service, Moody's Capital Markets



Credit Markets Review and Outlook

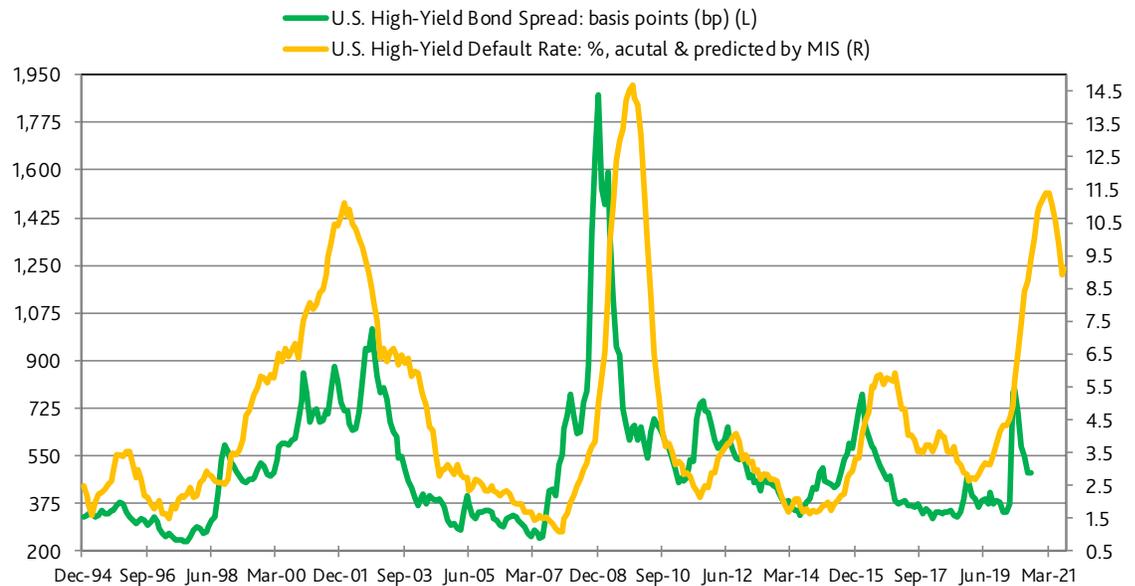
High-Yield Bond Spread Projects a Less-than-8% Default Rate by Spring 2021

The recent high-yield bond spread implicitly projects a drop by the high-yield default rate from August 2020's 8.7%. The month-long average of Bloomberg/Barclays high-yield bond spread most recently peaked at the 796 basis points of April 2020 and has averaged 487 bp since the end of July.

The record shows that similar declines by the high-yield bond spread were followed by median declines by the high-yield default rate of 1.3 percentage points nine months later and 2.1 points 12 months later. Thus, the high-yield bond spread's latest declining trend suggests August 2020's 8.7% high-yield default rate will ease to expected midpoints of 7.4% by May 2021 and 6.6% by August 2021.

Figure 2: High-Yield Bond Spread Implicitly Projects a Drop by the Default Rate from August 2020's 8.7% to Less-than-8% by Spring of 2021

sources: Bloomberg/Barclays, Moody's Investors Service (MIS), Moody's Analytics

**High-Yield EDF Foresees a Lower Default Rate Compared to Bond Spread's Prediction**

Another market-driven predictor of the default rate—Moody's Analytics' average expected default frequency metric for U.S./Canadian high-yield issuers—qualitatively agrees with the high-yield bond spread's forecast. In short, the high-yield EDF, or the risk of default, will be greater (i) the lower is the market value of a company's net worth and (ii) the more volatile is the market value of a company's business assets.

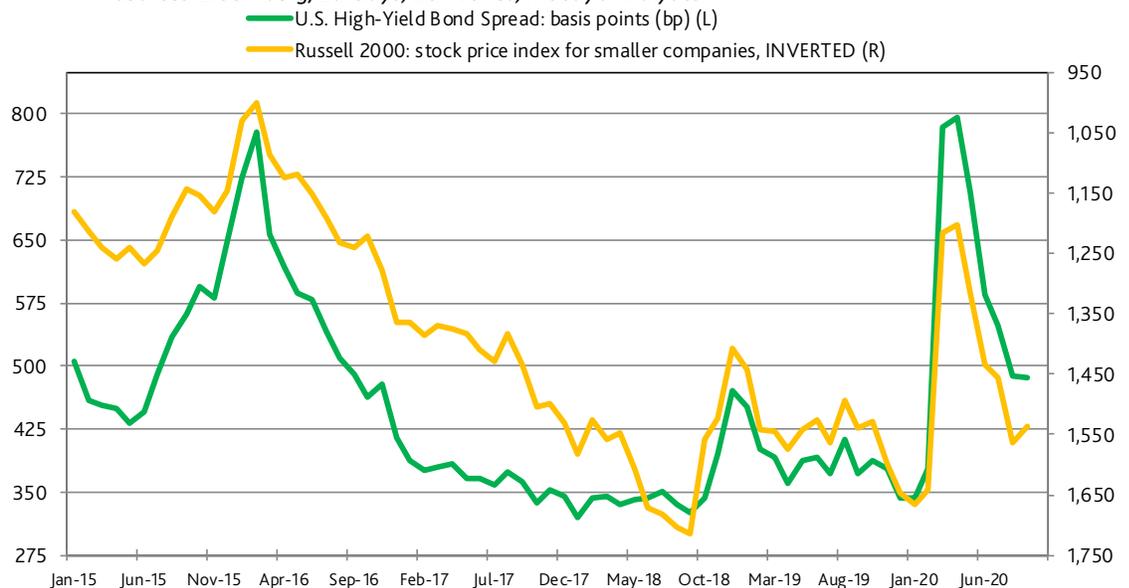
As inferred from the high-yield EDF metric, broadly distributed advances by the U.S. equity market lessen market-wide default risk. Though the U.S. equity market was recently up 3.3% since year-end 2019 and 10.8% year-to-year, the Russell 2000 stock price index for smaller companies showed accompanying declines of 7.5% for the year-to-date and 1.2% year-to-year.

Because the high-yield issuers tend to be smaller companies, high-yield bond spreads show a stronger inverse correlation with the Russell 2000 compared with the overall U.S. equity market. Thus, the lagging performance of the Russell 2000 helps to explain why the high-yield bond spread remains well above its readings of late 2019 and early 2020.

Credit Markets Review and Outlook

Figure 3: When Russell 2000 Stock Price Index (INVERTED) Peaked in September 2018, the High-Yield Bond Spread Formed a Now 32-Month Bottom at 325 Basis Points

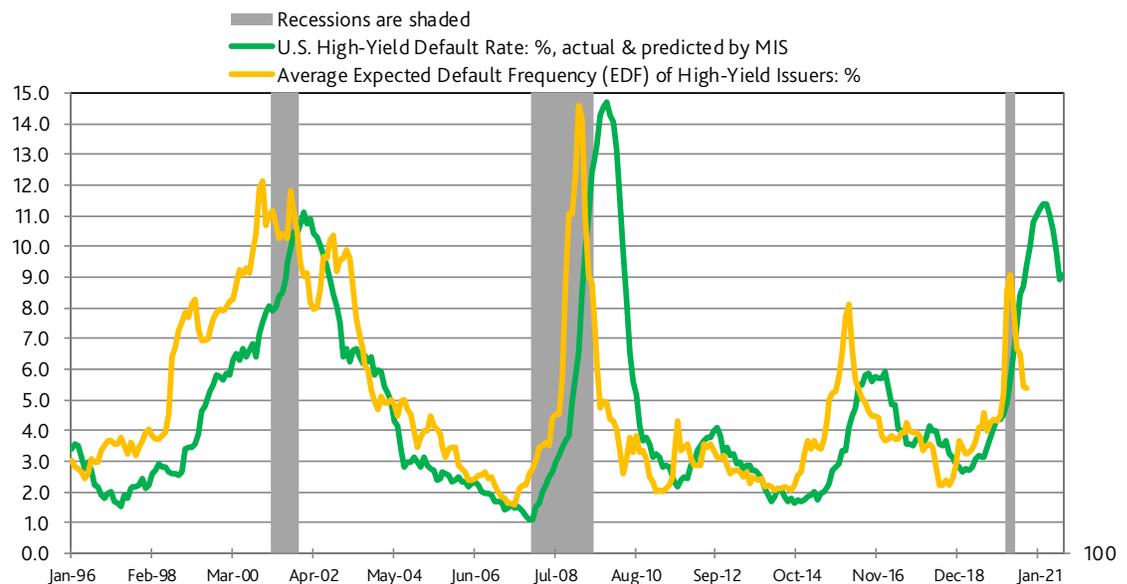
sources: Bloomberg/Barclays, Dow Jones, Moody's Analytics



The high-yield EDF's month-long average last peaked in April 2020 at 9.1% and has averaged 5.4% since the end of July. As inferred from the recent trend of the high-yield EDF, the high-yield default rate's projected midpoints are 6.6% for May 2021 and 6.0% for August 2021. Nevertheless, a pronounced and prolonged weakening of the equity market would be accompanied by an upwardly revised outlook for defaults.

Figure 4: Recent Average High-Yield Expected Default Frequency (EDF) Metric Suggests Default Rate Drops from August 2020's 8.7% to Less than 7% by Spring of 2021

sources: Moody's Investors Service (MIS), NBER, Moody's Analytics



For now, market-derived estimates of the future high-yield default rates remain less than the baseline estimates derived from credit analysts and bank loan officers. Who proves correct may largely depend on the future course of business revenues and earnings. Once recurring earnings growth is on firm footing, a declining default rate will become manifest.

Credit Markets Review and Outlook

Loan Officers Effectively Concur with Forecasts of a Higher-Than-11% Default Rate

Bank business lending becomes more selective as banks stiffen lending guidelines and widen the interest rate spread on business loans. The tightening of bank lending standards on business loans might include demanding more collateral for each dollar of business loans, hiking the minimum ratio of business income to business debt or simply refusing to increase loan exposure to businesses from adversely affected industries.

To assess the relationship of bank business loan practices to various measures of corporate credit conditions, the selectivity of bank business lending is approximated as the unweighted average of (i) the net percent of bank loan officers tightening standards on business, or commercial and industrial loans and (ii) the net percent of bank loan officers widening the interest rate spread on business loans.

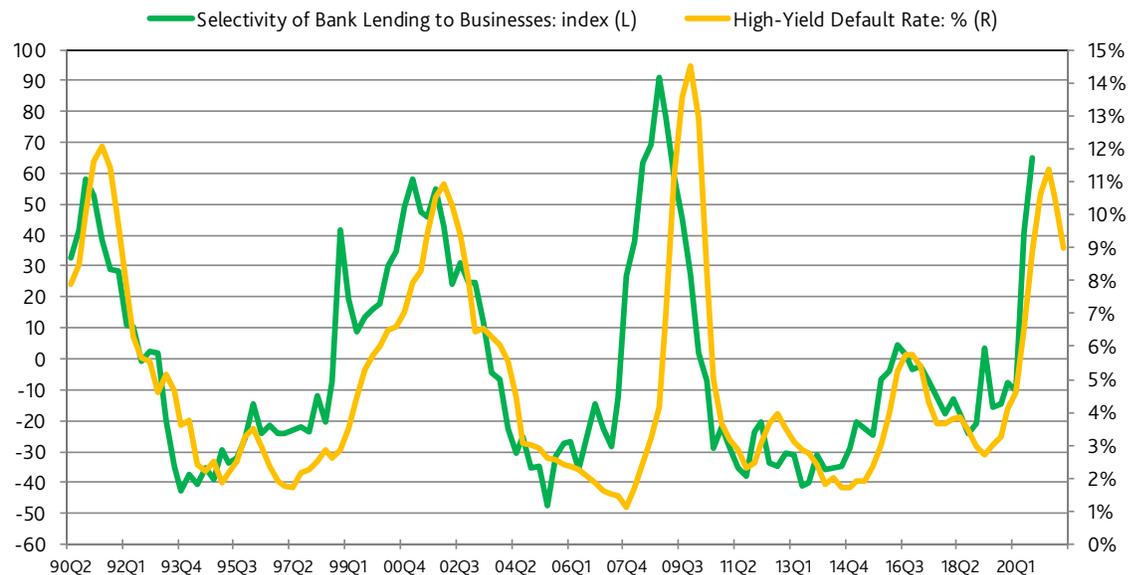
According to third-quarter 2020's Federal Reserve survey of senior bank loan officers, the net percent of banks tightening business loan standards soared from its 11.0 percentage point average of the year-ended June 2020 to a 71.2 points, while the net percent widening the rate spread on business loans increased from the -6.8-point average of the year-ended June 2020 to 58.9 points.

In turn, an index describing the selectivity of bank business lending rose from the 2.1-point averaged of the year-ended June 2020 to the 65.0 points of 2020's third quarter. The latter was the fourth highest reading ever for the proxy describing the selectivity of bank business lending.

As inferred from the historical record, third-quarter 2020's 65.0-point reading for the index of the selectivity of bank business lending favors an 11.4% midpoint for first-quarter 2021's high-yield default rate.

Figure 5: Third-Quarter 2020's Fourth Highest Reading Ever for Selectivity of Bank Business Lending Favors Climb by Default Rate from August 2020's 8.7% to an 11.4% Midpoint by 2021's First Quarter

sources: Federal Reserve, Moody's Investors Service, Moody's Capital Markets

**High-Yield Bond Issuance Boom Offsets Tighter Bank Loan Criteria**

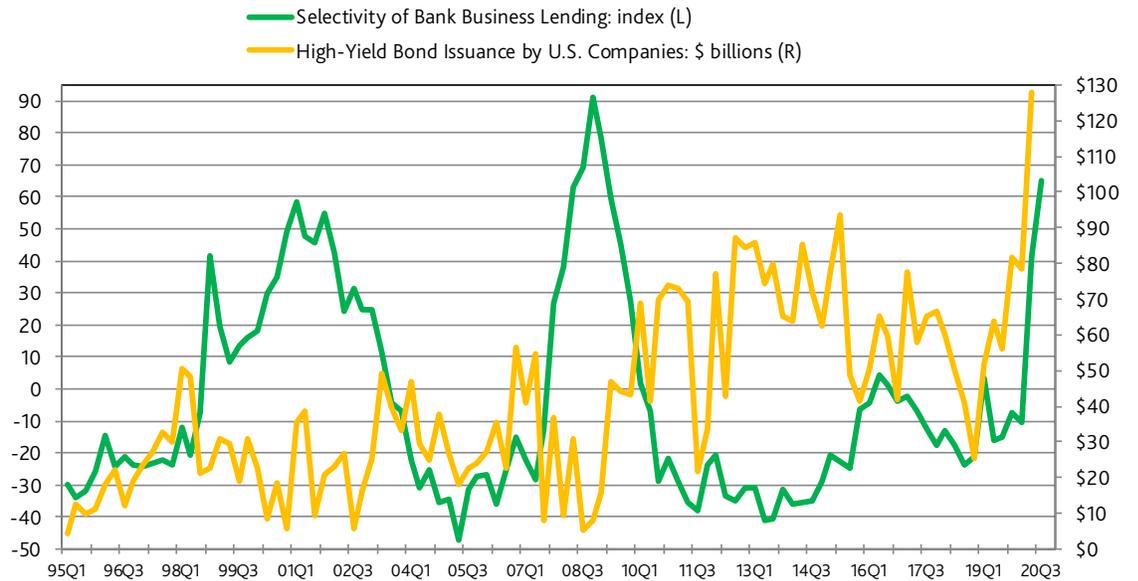
Ordinarily, when business-loan selectivity index first climbs to historically high readings, high-yield bond issuance by U.S. companies plunges. For example, when the proxy for limited accessibility to business loans averaged a stifling 80.1 points during 2008's second half, high-yield bond offerings from U.S. companies plunged 70.4% year-over-year.

However, despite what might be inferred from third-quarter 2020's top decile reading of 65.0 points for the business-loan selectivity index, high-yield bond issuance from U.S. companies skyrocketed 161% year-over-year during July-August 2020. In other words, banks heightened selectivity regarding business loans overstated any reduction in systemic liquidity according to the ongoing surge by high-yield bond issuance.

Credit Markets Review and Outlook

Figure 6: Just as Banks Become Very Selective Regarding Business Lending, High-Yield Bond Issuance Soars to Record Pace

sources: Dealogic, Federal Reserve, Moody's Capital Markets



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

THE U.S.

By Mark Zandi of Moody's Analytics

The Economy Is Operating 20% Below Pre-Pandemic Level

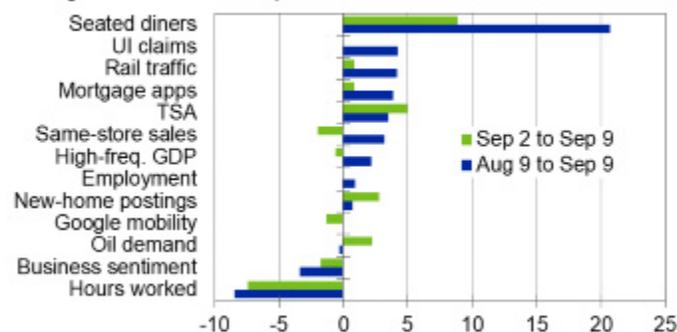
The economy continues to move largely sideways, as it more or less has done since mid-June. Retailing and housing have fully recovered from the pandemic's initial blow, but consumer spending on a range of services and international trade remain depressed. Hiring is strong as businesses continue to reopen and adjust to ongoing pandemic restrictions, but layoffs remain extraordinarily high. [Initial claims](#) for unemployment insurance, including for regular state UI and pandemic UI for gig workers, have edged steadily higher over the past month. The net of these crosscurrents is an economy that can't get back on track and likely won't until the pandemic is over.

The economy's difficulties are evident in the [Back-to-Normal](#) Index that we constructed with CNN Business. The index is a compilation of nearly 40 economic statistics from government and private sources based on daily, weekly, monthly and quarterly data. The index has a daily periodicity and is updated each week. The index hit bottom in mid-April at just under 60%, meaning the overall economy was operating at 60% of its pre-pandemic level. It rose sharply through mid-June to 75% as the nationwide business shutdowns wound down. But since then the index has only been able to push higher to its current 80%. The economy is thus currently operating 20% below where it was prior to when the pandemic struck in March.

The index received a boost in recent weeks from more people going to restaurants as measured by OpenTable's online reservations, stronger railroad traffic, more applications for mortgage loans, and more travelers moving through Transportation Security Administration checkpoints. Weighing on the index are weak business sentiment as measured by our weekly business sentiment survey and fewer hours worked at smaller businesses as measured by Homebase. Our current-quarter real GDP tracking estimate, which is also included in the index, pegs the third-quarter GDP gain at a robust approximately 25% annualized. But this mostly reflects the surge in activity in May and early June. Our tracking estimate for the quarter hasn't changed much in recent weeks, since the totality of the government statistics that go into the estimate suggests the economy has gone flat.

Crosscurrents in the Back-to-Normal Index

Change, wk and mo to Sep 9



Sources: CNN, Moody's Analytics

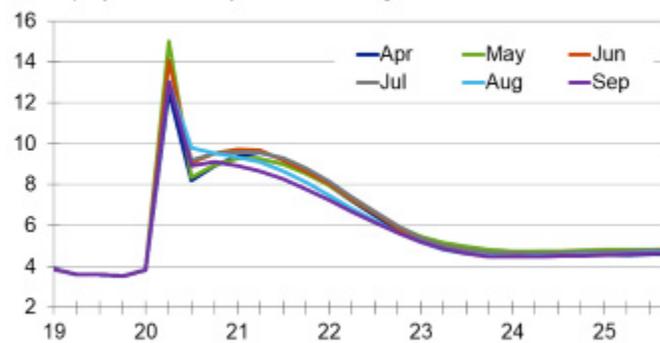
The Week Ahead

Across states, the index suggests economic activity is slowly but steadily picking up in the Northeast, particularly New England, where the economy is closest to fully recovering from the pandemic. The western U.S. is holding its own, although this is before any economic fallout from the raging wildfires in much of the region. The South and particularly the Midwest are having the most difficulty as of late. The Midwest had been performing well earlier in the summer, but the recent pickup in infections there is doing damage to the economic recovery.

Our baseline (most likely) outlook for the economy has not changed appreciably since April, when we caught up to the severe reality of the economic blow delivered by the pandemic. We still expect the economy at the end of this year to be down about 10 million jobs from its pre-pandemic peak, and unemployment will be near 9%. The economy doesn't return to full employment, consistent with about a 4.5% unemployment rate, until the second half of 2023. It takes even longer for labor force participation to fully normalize.

Unemployment Outlook Hasn't Changed Much

Unemployment rate by forecast vintage, %

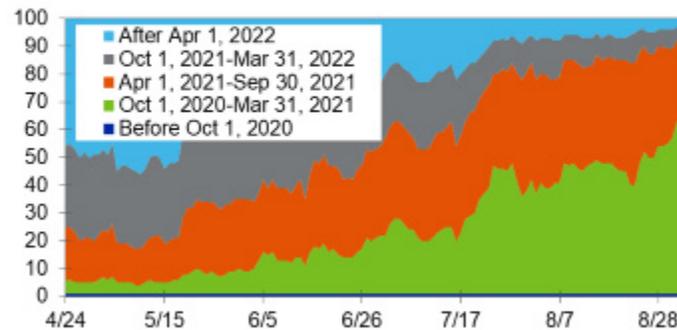


Sources: BLS, Moody's Analytics

This baseline outlook hinges on three critical assumptions. First is that the worst of the pandemic is behind us. That is, daily confirmed infections remain near their current 40,000 per day until the pandemic is over. This compares with a low of closer to 20,000 per day in May and a peak of more than 60,000 per day in July. This is an intrepid assumption given the coming colder weather that will push people indoors, where it is easier to contract the virus. There is a clear link between the number of infections and the economy's performance. We estimate that every sustained 10,000 increase in the daily infection rate results in a half-percentage point increase in the unemployment rate. Also important in our baseline is that we assume an effective vaccine is widely adopted (25 million inoculations) by early 2021, consistent with the consensus as measured by the Good Judgment project. This seems a reasonable baseline assumption, although things could easily turn out better—or worse.

Predicting the Vaccine

Probability, %, time frame for 25 mil inoculations in the U.S. (8/20)



Sources: Good Judgment Project, Moody's Analytics

A second critical assumption underpinning our baseline outlook is that Congress and the Trump administration will come to terms on another fiscal rescue package in the next few weeks. Senate Republicans have attempted to coalesce around a \$500 billion package that would provide a \$300 weekly supplement to regular state unemployment insurance benefits, additional funds for the small-business Paycheck Protection Program, and [COVID-19](#) liability protections for companies, schools and healthcare providers. House Democrats are still pushing for a more robust package of \$2.2 trillion that includes funds for hard-pressed state and local governments. Meanwhile, Treasury Secretary Steven Mnuchin has suggested the White House could accept a relief bill that is up to \$1.5 trillion. We have been assuming a \$1.5 trillion deal.

However, recent events in Washington suggest that the odds of getting anything done are fading. Without additional federal fiscal support, prospects are for the economy to backslide in coming months. State and local governments have likely been holding off on significant cuts to payrolls and programs in hope that lawmakers would come through. But, as it sinks in that no additional funds are coming, state and local officials will have no choice but to begin cutting. The unemployed, who have been grappling with reduced UI payments since early August, will suffer more cuts soon; the funds President Trump allocated by executive order through FEMA's Lost Wages Assistance program are already running out. FEMA has said that LWA funds will be paid out for only six weeks. If a state applied for the LWA program when it first became operational in early August, the last LWA payments would have already gone out. Indeed, Texas and Tennessee, among the first states to start paying out the LWA supplement to jobless workers, were given notice by FEMA last week that they would no longer receive LWA funds.

The third key assumption is that the presidential election happens without significant incident and with an orderly transition of government if Trump loses. There is a scenario in which we don't know the winner of the election on election night because a significant number of voters will be casting ballots by mail. These mail-in votes may not be counted until well after Election Day and could even swing the election, as Democrats appear to be more likely than Republicans to use mail-in ballots. It is conceivable that Trump will be leading in the in-person votes in swing states but that former Vice President Joe Biden ultimately wins the day when all the votes are counted. Given Trump's railing against the election process and mail-in voting in particular, if the voting is close, things could get messy with significant strife. None of this will be good for the collective psyche already battered by the pandemic.

The winner of the election will also have significant bearing on the outlook. The governing and

The Week Ahead

policy differences between Trump and Biden are as wide as between any two major presidential candidates in modern history. Trump has a chaotic governing approach characterized by numerous rotating advisers and an overt effort to weaken institutions from NATO to the Federal Reserve Board. Biden will have a stable governing approach with a more stable and diverse set of advisers, and he will work to rebuild institutions. The differences in governing will be quickly evident in how the federal government approaches the response to the pandemic if Biden wins. Trump has stood back and let states and localities take the lead on the COVID-19 response, whereas Biden will reassert federal control over the response, relying on healthcare professionals and scientists.

As to economic policy, there is a huge gulf between the two candidates on immigration, climate change, healthcare and tax policy. Trump has been largely opaque on his policy plans if he wins a second term, but he is clearest when it comes to cutting taxes. He has talked about cutting payroll taxes, capital gains taxes, and making permanent the business and personal income tax cuts that were part of his 2017 tax legislation and are set to expire in coming years. Biden would do the opposite, raising corporate income taxes, increasing payroll taxes on those with earnings over \$400,000 a year, taxing capital gains and dividend income for those with incomes over \$1 million, and allowing the 2017 tax cuts to expire. Biden has laid out a significant agenda of government spending on education, infrastructure (including clean energy), social policies such as paid family leave and elder care, and healthcare via an expansion of the Affordable Care Act, including the public option. Trump has been largely mum on any spending initiatives save for infrastructure, although he hasn't articulated what he has in mind on that. There are smaller policy differences between the two candidates on trade—although Biden is not likely to pursue Trump's tariff wars—as well as on defense, antitrust and budget deficits.

Our baseline economic outlook assumes that Biden will win the presidential election, the House will remain Democratic, and the Senate will stay Republican. The split government will limit what a President Biden could ultimately accomplish legislatively, but there would undoubtedly be big changes to current policies. I will be writing more about this in the coming weeks.

Next Week

Homebuilder confidence reached an all-time high in September and new-home sales for August, due next Thursday, should reflect that sentiment. Housing data in the coming week will also include August existing-home sales along with FHFA purchase-only house prices for July. On the labor market front, we will be watching initial jobless claims, which have declined over recent weeks but remain extremely high. We will also get a look at household and nonfinancial corporate business wealth for the second quarter.

EUROPE

By Barbara Araujo Teixeira of Moody's Analytics

Confidence Falters

With almost no top-tier releases on the weekly calendar, we nonetheless will get some high-frequency numbers for September, notably the flash composite PMIs for the euro zone, Germany, France and the U.K. We expect them to show that confidence faltered across most countries at the end of the third quarter, owing fully to the resurfacing of COVID-19 cases and deaths in Europe. Granted, the restrictions put in place as a response to this second wave pale in comparison to what was enacted during March and April, but they will nonetheless have some economic impact. The travel industry is the one that is the most at risk. While most countries have not enforced new shop or business closures, there has been a resurgence in travel restrictions within EU countries following rather relaxed summer months. Many blamed the increase in cases on summer holidaymakers. The arts and entertainment industry is also expected to suffer, since many countries have banned events for large crowds, while people are also voluntarily avoiding fairs, expositions and markets.

The bad news is that we expect restrictions to increase in coming weeks, as new cases and deaths rise across most European economies. Spain and France are now registering over 10,000 new daily cases, making the second wave worse than the first. Smaller countries such as Czechia are also struggling, with new daily cases in the country rising as much as five times faster than during the peak of the pandemic in March and April. We don't think that general lockdowns will be ordered by the European governments, but localized lockdowns are being put in place and will be the story for the rest of the year. Especially worrying is that the spread of the virus could gain strong momentum during the fall and the usual flu season.

We thus think that the September PMIs (and the other national leading indicators scheduled for release) will reflect deterioration in private sector confidence, especially in the services sector, the one the most exposed to any upcoming restrictions. But manufacturing investment intentions should also take a severe hit. The story for the U.K. is a bit more specific. There, we expect the surge in no-deal Brexit fears during the first half of September has the potential to weigh heavily in manufacturing, construction and services confidence. A no-deal Brexit by the end of the year is not our base case at this point. Our view is that the U.K. and the EU will manage only a very thin trade deal allowing goods trade to continue without major disruptions after the end of the transition period. However, we have increased the probability of our no-deal scenario.

Elsewhere, the coming week will bring final GDP numbers for some European countries. We aren't penciling in major revisions to the numbers, and we expect the final releases to confirm that activity fell at its sharpest rate on record across most of the currency area during the second quarter, fully owing to the COVID-19 crisis. The Spanish GDP numbers are in the pipeline, and we expect them to confirm that output fell by an eye-watering 18.5% q/q in the second quarter, building on a 5.2% decline in the first. As of now, Spain is one of the most at-risk countries in Europe. Not only does its economy depends heavily on tourism—which was seriously affected by the travel restrictions—but the country is also having a hard time controlling the spread of the virus. Spain is the ninth country in the world in terms of total infections, and the first in Europe in terms of infections per million inhabitants (excluding small countries such as San Marino, Vatican City and Andorra).

Lastly, we expect money data for the euro zone to confirm that M3 money growth continued to rise strongly in August, owing mainly to a continued rise in business loans. But, unless the European Central Bank further loosens monetary policy in coming months, the pace of increase in money growth should start declining soon. Unfortunately, the ECB failed to deliver last week during its September monetary policy meeting, with markets finding Christine Lagarde's comments and the bank's economic assessment rather to the hawkish-side, and that despite the euro's recent appreciation.

	Key indicators	Units	Moody's Analytics	Last
Wed @ 11:00 a.m.	France: Job Seekers for August	mil, SA	3.72	3.79

ASIA-PACIFIC

By Shahana Mukherjee of Moody's Analytics

Amid fiscal stimulus, New Zealand likely to keep cash rate on hold

We expect the Reserve Bank of New Zealand to keep the official cash rate unchanged at 0.25% at its September meeting. The New Zealand economy slipped into recession in the June quarter as domestic output contracted by a significant 12.2% on a quarterly basis. The effects of the COVID-19 domestic and international restrictions eroded household spending, investment and exports.

An effective containment of the domestic outbreak means that a notable rebound should take place in the following months. With substantial fiscal stimulus worth NZ\$62 billion already mobilized to revive domestic demand, we expect continued focus on fiscal measures to drive subsequent policy efforts, especially with little additional room left for further monetary easing. Although in recent months the possibility of interest rates moving into negative territory has emerged, we do not expect such a step to be taken by the RBNZ in the near term.

Singapore's industrial production is likely to have improved in monthly terms in August, even though it is likely to have declined on a yearly basis by 4%, following a steeper 8.4% decline in July. Following the resurgence of cases in July, Singapore has had considerable success in limiting the extent of localised spread. Further, overseas demand appears to be improving for Singapore, as nonoil exports rose by a stronger 7.7% in August after rising 5.9% in July. These factors are expected to have strengthened the monthly pickup in industrial activity in August.

South Korea's consumer sentiment index is likely to have eased to 86 in September from 88.2 in August. Consumer sentiment has consistently increased since May and peaked in August, coming closest to pre-COVID-19 levels, on the back of strong fiscal stimulus and gradual easing in domestic restrictions. However, the resurgence of cases in recent weeks, which led to the tightening of restrictions in Seoul and surrounding areas from mid-August, and a rising global infections curve are likely to have weighed on household sentiment regarding current and prospective economic conditions.

	Key indicators	Units	Moody's Analytics	Confidence	Risk	Last
Wed @ 12:00 p.m.	New Zealand Monetary Policy for September	%	0.25	4	←	0.25
Thur @ 3:00 p.m.	Singapore Industrial Production for August	% change yr ago	-4.0	3	↓	-8.4
Fri @ 7:00 a.m.	South Korea Consumer Sentiment for September	Index	86.0	3	↓	88.2

The Long View

On balance, 2020's bond issuance boom enhances financial flexibility by lengthening maturities and lowering interest expense.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group
September 17, 2020

CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 135 basis points exceeded its 116 basis-point median of the 30 years ended 2019. This spread may be no wider than 135 bp by year-end 2020.

The recent high-yield bond spread of 534 bp is thinner than what is suggested by the accompanying long-term Baa industrial company bond yield spread of 209 bp and the recent VIX of 27.3 points. The latter has been historically associated with a 725-bp midpoint for the high-yield bond spread.

DEFAULTS

August 2020's U.S. high-yield default rate of 8.7% was up from August 2019's 3.1% and may approximate 11.3%, on average, by 2021's first quarter.

US CORPORATE BOND ISSUANCE

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.

First-quarter 2020's worldwide offerings of corporate bonds revealed annual advances of 17.7% for IG and 26.5% for high-yield, wherein US\$-denominated offerings increased 43.7% for IG and grew 21.4% for high yield.

Second-quarter 2020's worldwide offerings of corporate bonds revealed annual surges of 69% for IG and 31% for high-yield, wherein US\$-denominated offerings increased 142% for IG and grew 45% for high yield.

For 2019, worldwide corporate bond offerings grew by 5.4% annually (to \$2.447 trillion) for IG and advanced by 49.2% for high yield (to \$561 billion). The projected annual percent increases for 2020's worldwide corporate bond offerings are a 14.1% advance for IG and 14.5% for high yield.

US ECONOMIC OUTLOOK

Unacceptably high unemployment and other low rates of resource utilization will rein in Treasury bond yields. As long as the global economy operates below trend, 1.00% will serve as the upper bound for the 10-year Treasury yield. Until COVID-19 risks fade, substantially wider credit spreads are possible.

The Long View

EUROPE

By Barbara Araujo Teixeira and Ross Cioffi of Moody's Analytics
September 17, 2020

UNITED KINGDOM

The pound plunged following the release of the Bank of England's September monetary policy decision Thursday, and that's despite the fact that the minutes of the Monetary Policy Committee meeting were less dovish than expected—which would have usually warranted an appreciation of the currency. Behind the fall was that the BoE announced it was briefed on the introduction of negative rates, which comes in line with our view that some stimulus is likely in the pipeline for November as no-deal Brexit and COVID-19 risks have soared lately.

We nonetheless think such an announcement was rushed and could have been avoided. This is true especially because if the BoE fails to lower rates in November (or announce any other easing in monetary policy), this will result in a tightening of monetary conditions, as the consensus is now broadly for a move. And such a tightening would come at the worst possible moment, as we expect no-deal Brexit risks will mount sharply during the fourth quarter and peak at the end of November/start of December.

We think that negative rates wouldn't be the most effective policy tool for the U.K. economy right now. Other alternatives—notably some lowering of the interest rates on funds provided through the TFSME programme—look much more effective in lowering the cost and increasing the availability of credit for the real economy, while further QE is also a viable possibility. But we don't think the BoE made these references to negative rates on a whim and without careful consideration, meaning that the chances of the bank introducing this new tool are now high.

Elsewhere in the minutes, we were disappointed that there weren't more references to Brexit risks. We had expected the BoE would have put more effort into developing Brexit scenarios now that chances of a no-deal Brexit are high. It is important to keep in mind that the bank's outlook is still based on a deal being reached by the end of the year and implemented by 1 January. This means that risks to the forecasts are tilted severely to the downside.

Our Brexit baseline is also for a deal to be reached by the end of the year, but only a bare-bones one. It will allow for goods trade to continue seamlessly, but the thornier issues and any deal for the service sector will be left to be negotiated and agreed upon only during 2021 and 2022. Despite the short-term disruptions to services trade, we expect this agreement will at least lift confidence and boost the U.K. economy in 2021. For monetary policy, such an outcome means that less stimulus would be needed compared with a no-deal Brexit.

EURO ZONE

The euro zone's not seasonally adjusted trade surplus in goods widened to €27.9 billion in July from €20.2 billion as the COVID-19 pandemic continued to stunt global trade. Exports of goods to the rest of the world were 10.4% lower than they were in July 2019, while imports fell by 14.3% y/y.

Exports to most of the currency bloc's major trade partners remained heavily depressed in yearly terms, although they are recovering by the month. In seasonally adjusted terms, exports to the rest of the world rose by 6.5% m/m while imports increased by 4.2%. Compared with the previous month, bilateral seasonally adjusted trade balances improved with China, the U.S. and Japan, while the trade surplus with the U.K. fell slightly.

In July, expanding trade was in line with the fact that lockdown measures around much of the world had been eased or lifted by the end of the month. Supply disruptions persist, but now the major obstacle to trade—likely to last through the end of the year—will be weak demand.

The euro zone's recovery is due to slow by the end of August as COVID-19 infections picked up through the month. And now in September, the Continent is facing a second wave. Infections are still high around the world with the situation in the U.S. only now returning to as it was before the pandemic worsened. External demand will struggle as a result of the deteriorating situation, even if the second wave in Europe doesn't result in full-scale lockdowns.

Job and income insecurity will keep a lid on household consumption, while firms will continue to put off investment. Solid demand won't likely return until there is a vaccine, which we expect to come in the first half of next year. The hit to trade has been especially hard for those countries most dependent on foreign trade such as Germany.

The Long View

ASIA PACIFIC

By Shahana Mukherjee of Moody's Analytics
September 17, 2020

JAPAN

The COVID-19 shock to global activity continues to severely impact Japan's external position. Not surprisingly, Japan's August performance reflected months of extended weakness, as exports contracted by a sharp 14.8% in yearly terms following a steeper 19.2% decline in July. A broad-based decline in shipments of key products including transport equipment, general-purpose machinery, and manufactured goods characterized the latest contraction, with weak global demand resulting in sustained declines of 15% to 21% to Western Europe and the U.S., respectively, over this period.

This marks the sixth straight month of double-digit declines (and the 21st month of declines) and is a direct outcome of Japan's heavy reliance on durables such as automobiles and general-purpose machinery. Demand for these durables remains substantially weak as economies strive to revive consumption in the wake of significantly weakened labour market conditions and conservative household spending.

A distinctive feature of Japan's export performance is that the magnitude of decline remained relatively large in August compared with its regional counterparts. While this may indicate a conditional revival in overseas conditions, a closer look reveals that the stickier trajectory of Japan's overseas sales arises from two unique factors.

Diversified destinations

First, unlike a number of exporters in the region, Japan's export destinations are more diversified, and shipments to China—its biggest trading partner—while important, account for a relatively lower share of 24% of total exports. In other words, China's ongoing recovery has a lesser bearing on Japan's net trade position. Aggravating this strain is the sustained weakness in U.S.-bound shipments resulting from sharp declines in power-generating, construction machinery and transport equipment exports.

Second, the recent improvement in exports for some economies, including China and Singapore, reflects the effects of a substantial increase in medical product exports or nonmonetary gold shipments, or both, rather than improving demand in key categories such as manufactured goods. Global demand fundamentals remain weak and Japan's overseas sales more closely reflect this weakness in the absence of significant countercyclical components in its export basket.

Despite the disappointing overall trend, August's performance had some bright spots. First, despite the 14.8% decline, the pace of decline has eased since May, and in seasonally adjusted terms, exports rose by 5.9% on a monthly basis in August, which suggests that a weak but gradual recovery is underway for Japan. Second, shipments to China rose for the second consecutive month, led by a 23.2% jump in manufactured goods and a 19% increase in transport equipment, which partially offset the net decline.

Downside risks remain

Yet, the downside risks facing Japan's exporters remain in place. Chief among these is the global COVID-19 infections curve, which continues to rise. The prominent first waves in large economies such as the U.S., India, and large parts of Africa and Latin America remain a major concern, which, combined with a resurgence in parts of Asia, will slow the rebound in global demand expected over the September quarter. Moreover, Japan's own battle with its domestic health crisis is far from over and its limited effectiveness in containing the outbreak will keep the threat of large-scale, renewed restrictions and thus, potential supply-side setbacks, pertinent, at least in the near term.

Rising geopolitical tensions between the U.S. and China and elevated regional tensions also pose potentially significant downside risks in the medium term, which could derail a trade-led recovery in the post-restrictions phase. For Japan, Shinzo Abe's unexpected resignation as prime minister has also given way to a regime change, which may have a bearing on Japan's international policy priorities and thus regional trade dynamics in the medium term. But for now, new Prime Minister Yoshihide Suga, a proponent of Abenomics, is expected to maintain the status quo and prioritize a fiscal spending-led revival out of this deep recession.

Ratings Round-Up

Ratings Round-Up

U.S. Upgrades Outnumber Downgrades

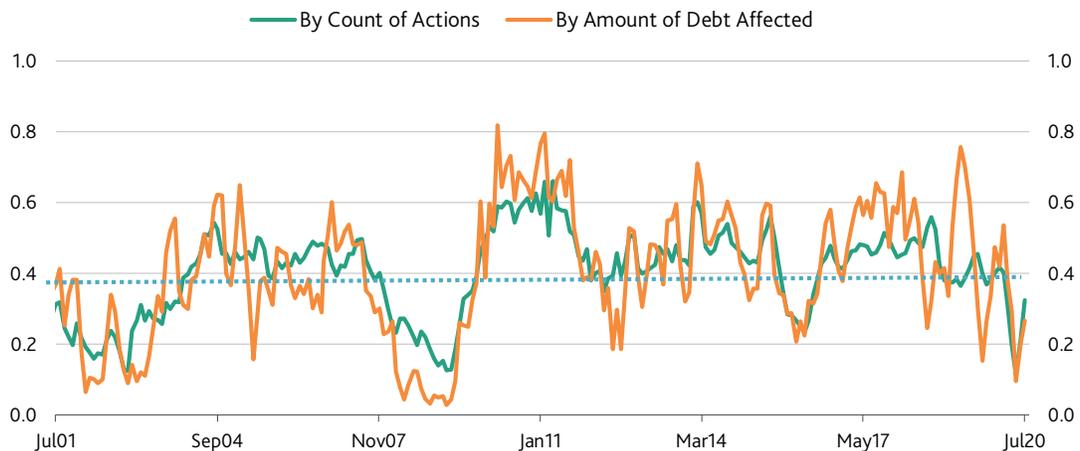
By Michael Ferlez

The positive trend in U.S. corporate credit quality continued with upgrades outnumbering downgrades for the second straight period. For the period ending September 15, upgrades accounted for 73% of total rating changes and 60% of affected debt. Upgrades were concentrated in the auto supplier and semiconductor industries, which together accounted for half the period's upgrades. The most notable upgrade was made to NVIDIA Corp., which saw its senior unsecured rating upgraded to A2 from A3 and its short-term rating for commercial paper upgraded to Prime-1 from Prime-2. The upgrade reflects Moody's Investors Service's expectation that NVIDIA's strong operational performance will continue, and that the firm would be able to further diversify its revenue base while also maintaining conservative financial policies and practices. The upgrade affected \$7 billion in debt. Meanwhile, Harley-Davidson Inc. was the largest downgrade in the reference period. The motorcycle manufacturer saw its long-term ratings downgrade to Baa3 from Baa2, affecting \$5.8 billion in debt. Moody's Investors Service downgrade of Harley-Davidson Inc. reflects the long-term decline in the firm's core market for heavy-weight motorcycles.

European rating change activity was limited to just one rating change last week. Europcar Mobility Group S.A. saw many of its rating downgraded last week, including its corporate family rating to Caa2 from Caa1 and its senior unsecured notes due in 2024 and 2026 to Ca from Caa3. The Moody's Investors Service downgrade of Europcar Mobility Group S.A. follows the firm's announcement that it plans on initiating discussion with its lenders to restructure its corporate debt.

FIGURE 1

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



* Trailing 3-month average

Source: Moody's

Ratings Round-Up

FIGURE 2

Rating Key

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

FIGURE 3

Rating Changes: Corporate & Financial Institutions – US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	Old STD Rating	New STD Rating	IG/SG
9/9/20	CHIP HOLDINGS, LLC -SHEARER'S FOODS, LLC	Industrial	LTCFR/PDR		U	B3	B2			SG
9/10/20	HARLEY-DAVIDSON, INC.	Industrial	SrUnsec/MTN/CP	5,779	D	Baa2	Baa3	P-2	P-3	IG
9/10/20	OMNITRACS, LLC	Industrial	LTCFR/PDR		D	B2	B3			SG
9/10/20	HOLLEY PURCHASER, INC.	Industrial	SrSec/BCF /LTCFR/PDR		U	B3	B2			SG
9/11/20	ADVANCED MICRO DEVICES, INC.	Industrial	SrUnsec	350	U	Ba3	Baa3			SG
9/11/20	HOLOGIC, INC.	Industrial	SrUnsec/SrSec /BCF/LTCFR/PDR	1,350	U	Ba3	Ba2			SG
9/11/20	ROUGH COUNTRY, LLC	Industrial	SrSec/BCF /LTCFR/PDR		U	B3	B2			SG
9/14/20	NVIDIA CORPORATION	Industrial	SrUnsec/CP	7,000	U	A3	A2	P-2	P-1	IG
9/14/20	SITEONE LANDSCAPE SUPPLY HOLDING, LLC	Industrial	SrSec/BCF /LTCFR/PDR		U	B2	B1			SG
9/14/20	FC COMPASSUS, LLC	Industrial	SrSec/BCF		U	B3	B2			SG
9/15/20	CHIP HOLDINGS, LLC -SHEARER'S FOODS, LLC	Industrial	SrSec/BCF		D	B1	B2			SG

Source: Moody's

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
9/10/20	EUROPCAR MOBILITY GROUP S.A.	Industrial	SrSec/SrUnsec /LTCFR/PDR	1,834	D	B3	Caa1	SG	FRANCE

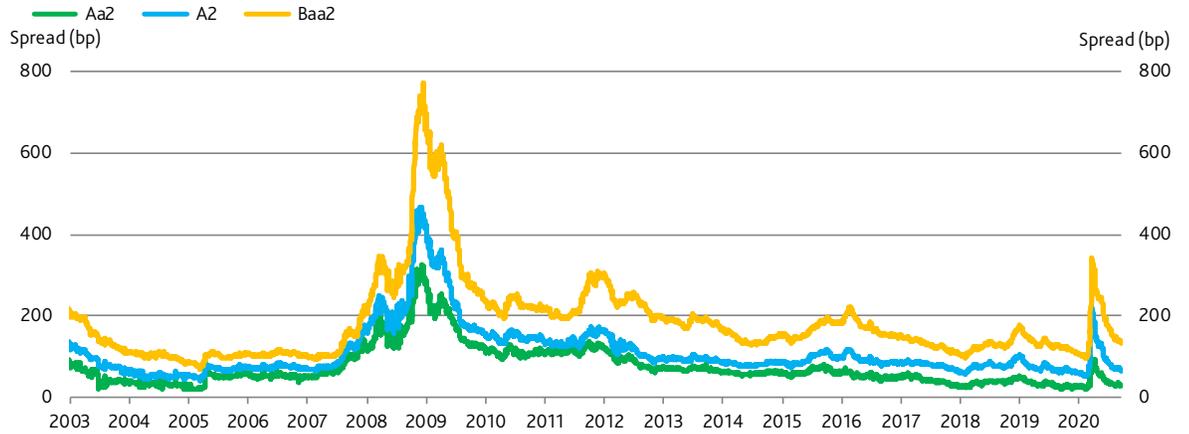
Source: Moody's

Market Data

Market Data

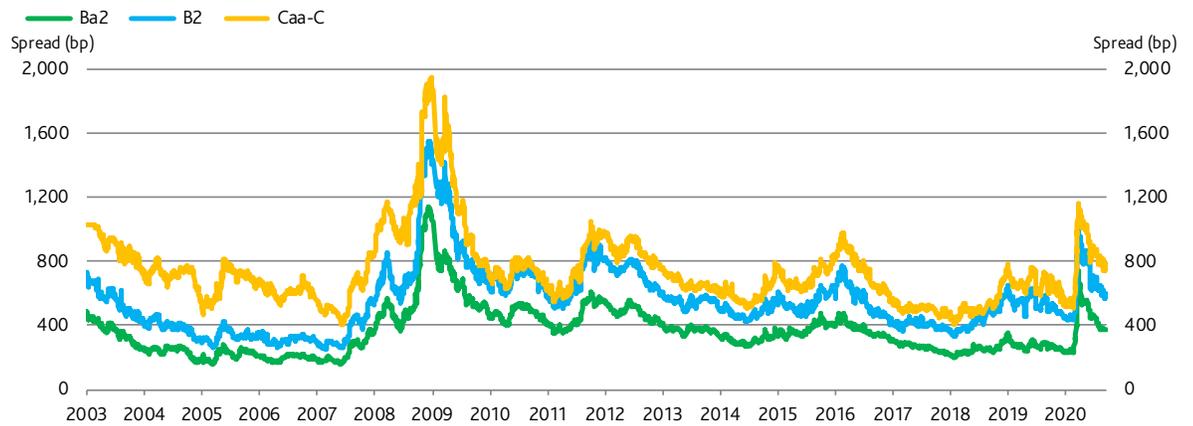
Spreads

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 (September 9, 2020 – September 16, 2020)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer	Sep. 16	Sep. 9	Senior Ratings	
FedEx Corporation	Aa3	Baa2	Baa2	
Danaher Corporation	Aa1	A3	Baa1	
Oracle Corporation	Aa1	A2	A3	
BorgWarner Inc.	A1	Baa2	Baa1	
Navistar International Corp.	Ba3	B2	B3	
Comcast Corporation	Aaa	Aa1	A3	
Verizon Communications Inc.	A2	A3	Baa1	
Exxon Mobil Corporation	Aa2	Aa3	Aa1	
General Electric Company	Ba1	Ba2	Baa1	
Dow Chemical Company (The)	Baa2	Baa3	Baa2	

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer	Sep. 16	Sep. 9	Senior Ratings	
Chevron Corporation	A2	A1	Aa2	
Tenet Healthcare Corporation	B3	B2	Caa1	
Valero Energy Corporation	Baa3	Baa2	Baa2	
Apache Corporation	B2	B1	Ba1	
Cox Enterprises, Inc.	Aa2	Aa1	Baa2	
ConocoPhillips	A1	Aa3	A3	
Macy's Retail Holdings, Inc.	Ca	Caa3	B1	
Murphy Oil Corporation	B3	B2	Ba3	
Martin Marietta Materials, Inc.	A3	A2	Baa3	
Scripps (E.W.) Company (The)	B2	B1	Caa1	

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Sep. 16	Sep. 9	Spread Diff
Nabors Industries, Inc.	B3	4,592	4,420	172
Murphy Oil Corporation	Ba3	414	344	70
Scripps (E.W.) Company (The)	Caa1	315	259	56
Nissan Motor Acceptance Corporation	Baa3	441	388	53
Occidental Petroleum Corporation	Ba2	618	569	49
Rite Aid Corporation	Caa3	757	718	39
American Axle & Manufacturing, Inc.	B2	422	402	21
Apache Corporation	Ba1	293	273	20
SLM Corporation	Ba1	406	390	15
Howmet Aerospace Inc.	Ba3	199	188	11

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Sep. 16	Sep. 9	Spread Diff
K. Hovnanian Enterprises, Inc.	Caa3	1,349	1,794	-444
American Airlines Group Inc.	Caa1	2,511	2,748	-237
R.R. Donnelley & Sons Company	B3	757	966	-209
Carnival Corporation	B2	646	795	-149
Staples, Inc.	B3	1,175	1,315	-140
Royal Caribbean Cruises Ltd.	B2	907	981	-74
Navistar International Corp.	B3	227	291	-64
Kohl's Corporation	Baa2	245	301	-56
United States Steel Corporation	Caa2	1,261	1,302	-40
Nordstrom, Inc.	Baa3	474	511	-38

Source: Moody's, CMA

Market Data

Figure 4. CDS Movers - Europe (September 9, 2020 – September 16, 2020)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer	Sep. 16	Sep. 9	Senior Ratings	
TUI AG	Caa1	Caa3	Caa1	
BNP Paribas	Aa2	Aa3	Aa3	
Banco Bilbao Vizcaya Argentaria, S.A.	A1	A2	A3	
Credit Agricole Corporate and Investment Bank	Aa1	Aa2	Aa3	
Fiat Chrysler Automobiles N.V.	Ba1	Ba2	Ba2	
Casino Guichard-Perrachon SA	Caa3	Ca	Caa1	
Compagnie de Saint-Gobain SA	Aa3	A1	Baa2	
3i Group plc	Baa3	Ba1	Baa1	
Novafives S.A.S.	Caa3	Ca	Caa2	
Schaeffler Finance B.V.	Baa2	Baa3	Ba2	

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer	Sep. 16	Sep. 9	Senior Ratings	
Vedanta Resources Limited	C	Caa3	B3	
Barclays PLC	Baa3	Baa2	Baa2	
NatWest Markets Plc	Baa3	Baa2	Baa2	
CaixaBank, S.A.	Baa3	Baa2	Baa1	
NatWest Group plc	Baa3	Baa2	Baa2	
ING Groep N.V.	A2	A1	Baa1	
Banque Federative du Credit Mutuel	A3	A2	Aa3	
Vodafone Group Plc	Baa2	Baa1	Baa2	
Alpha Bank AE	Caa1	B3	Caa1	
ENEL S.p.A.	Baa1	A3	Baa2	

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Sep. 16	Sep. 9	Spread Diff
Vedanta Resources Limited	B3	1,149	960	188
Altice Finco S.A.	Caa1	359	303	56
Rolls-Royce plc	Ba2	468	418	50
Jaguar Land Rover Automotive Plc	B1	736	717	19
Virgin Media Finance PLC	B2	231	215	16
Boparan Finance plc	Caa1	605	589	16
Ziggo Bond Company B.V.	B3	203	191	12
Ziggo Secured Finance B.V.	Caa1	202	190	12
Marks & Spencer p.l.c.	Ba1	258	247	11
Atlantia S.p.A.	Ba3	175	166	10

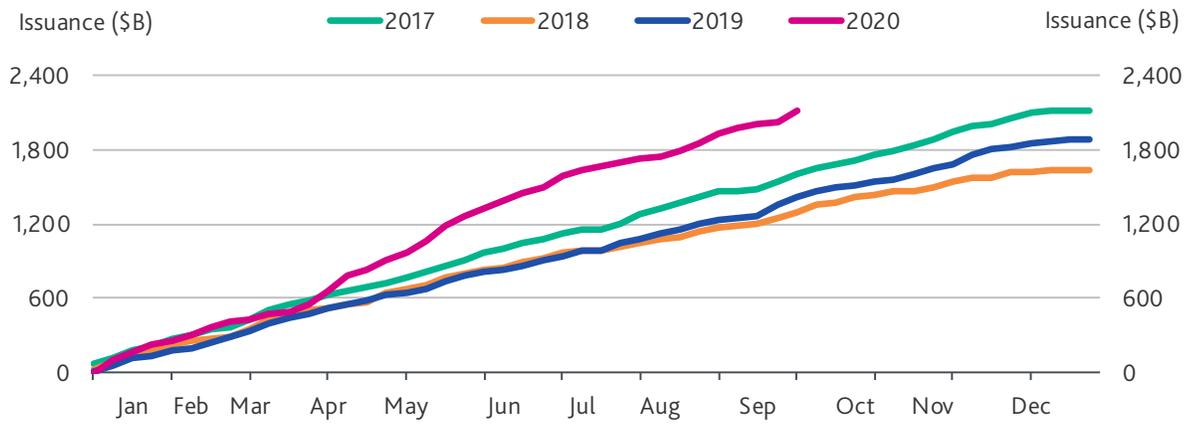
CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Sep. 16	Sep. 9	Spread Diff
TUI AG	Caa1	553	885	-333
Novafives S.A.S.	Caa2	909	1,031	-122
Selecta Group B.V.	Caa3	2,496	2,603	-107
Casino Guichard-Perrachon SA	Caa1	930	1,009	-80
Piraeus Bank S.A.	Caa2	792	841	-49
CMA CGM S.A.	Caa1	518	553	-36
Fiat Chrysler Automobiles N.V.	Ba2	148	179	-31
Iceland Bondco plc	Caa2	603	632	-29
thyssenkrupp AG	B1	305	318	-13
Peugeot S.A.	Baa3	128	138	-10

Source: Moody's, CMA

Market Data

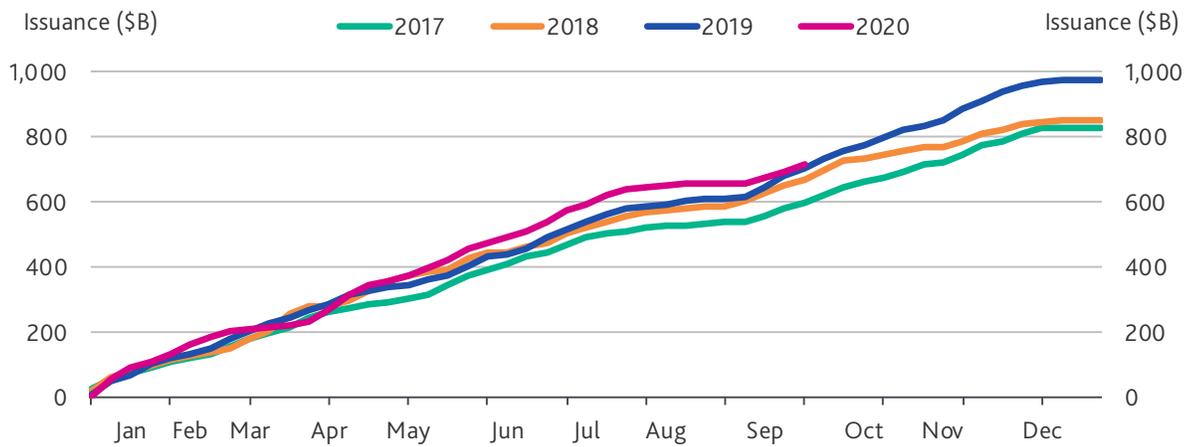
Issuance

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	73.258	16.600	91.263
Year-to-Date	1,638.952	399.459	2,106.711

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	18.436	5.788	25.520
Year-to-Date	604.263	85.469	715.347

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

Moody's Capital Markets Research recent publications

[Record August for Bond Issuance May Aid Credit Quality \(Capital Market Research\)](#)

[Fed Policy Shift Bodes Well for Corporate Credit \(Capital Markets Research\)](#)

[Markets Avoid Great Recession's Calamities \(Capital Markets Research\)](#)

[Liquidity Surge Hints of More Upside Surprises \(Capital Markets Research\)](#)

[Unprecedented Stimulus Lessens the Blow from Real GDP's Record Dive \(Capital Markets Research\)](#)

[Ultra-Low Bond Yields Buoy Corporate Borrowing \(Capital Markets Research\)](#)

[Record-High Savings Rate and Ample Liquidity May Fund an Upside Surprise \(Capital Markets Research\)](#)

[Unprecedented Demographic Change Will Shape Credit Markets Through 2030 \(Capital Markets Research\)](#)

[Net High-Yield Downgrades Drop from Dreadful Readings of March and April \(Capital Markets Research\)](#)

[Long Stay by Low Rates Fuels Corporate Debt and Equity Rallies \(Capital Markets Research\)](#)

[Why Industrial \(Warehouse\) Will \(Likely\) Fare Better \(Capital Markets Research\)](#)

[CECL Adoption and Q1 Results Amid COVID-19 \(Capital Markets Research\)](#)

[Continued Signs of Weakness in US Non-Agency RMBS \(Capital Markets Research\)](#)

[COVID-19 and Distress in CMBS Markets \(Capital Markets Research\)](#)

[Record-Fast Money Growth Eases Market Anxiety \(Capital Markets Research\)](#)

[Default Outlook: Markets Appear Less Worried than Credit Analysts \(Capital Markets Research\)](#)

[High Technology Is North America's Biggest Corporate Borrower \(Capital Markets Research\)](#)

[Troubling Default Outlook Warns Against Complacency \(Capital Markets Research\)](#)

[Fed Intervention Sparks Back-to-Back Record Highs for IG Issuance \(Capital Markets Research\)](#)

[April's Financial Markets Transcend Miserable Economic Data \(Capital Markets Research\)](#)

[Speculation Powers Recent Rallies by Corporate Bonds \(Capital Markets Research\)](#)

[Fed Extends Support to Some High-Yield Issuers \(Capital Markets Research\)](#)

[Ample Liquidity Shores Up Investment-Grade Credits \(Capital Markets Research\)](#)

[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 \(Capital Markets Research\)](#)

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

Report Number: 1246017

Contact Us

Americas: 1.212.553.4399

Editor
Reid Kanaley
help@economy.com

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.