

**WEEKLY MARKET  
OUTLOOK**

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# No Repeal for Law of Demand

Risks are shifting toward U.S. inflation remaining elevated longer than previously thought, but that doesn't mean it is permanent. [Fundamentals](#) don't support an extended period of inflation running well above the Federal Reserve's 2% objective. This could provide some additional support to the U.S. leveraged loan market, which has become both an inflation and interest rate hedge. Also, returns in leveraged loans have been exceeding high-yield recently.

There could be some implications for monetary policy as angst among Fed officials about inflation is becoming increasingly visible. The hawkish regional Fed presidents have been the most vocal about inflation concerns, but Fed Governor Christopher Waller said that if inflation doesn't cool by the end of this year, it could bring forward the timing of the first increase in the fed funds rate. Odds are core inflation will moderate, but the headline figure won't, presenting a communication challenge for the central bank.

Also, Fed Governor Randal Quarles said substantial further progress has been made toward the Fed's employment and inflation mandates and he would support a reduction of asset purchases at the November policy meeting. He also warned of upside risks to the inflation outlook.

Comments by a pair of Fed governors haven't gone unnoticed by the bond market. Fed funds futures now are fully pricing in a rate hike at the September 2022 meeting of the Federal Open Market Committee. Though markets have brought forward the timing of the first hike, this can change. The markets also believe the Fed will be more patient than other central banks. Market pricing has central banks in New Zealand, U.K. and Canada raising their target rates several times before the Fed lifts off.

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### A balancing act

The Fed could face a situation where higher consumer prices begin to weigh on consumer spending, reducing GDP growth. The pandemic has not repealed the law of demand, which states that, all else equal, a higher price of a good or service reduces the quantity demanded. This is playing out now and it is most visible in vehicles. The CPIs for new and used vehicles have surged this year as the global semiconductor shortage reduced production, depleted inventories, and caused prices to surge.

Demand for vehicles is elastic, meaning there is a significant change in quantity demanded when prices change. With prices soaring, quantity demanded for vehicles has plunged. Unit vehicle sales peaked this year just north of 18 million annualized units but have since plunged to around 12 million. Vehicles are the prime example now, but demand for other elastic goods could suffer over the next several months as stress in U.S. supply chains remains significant.

The forecast is for the durable goods share of total consumer spending to remain noticeably higher than seen pre-pandemic over the next couple of years, and it won't completely normalize until late 2024 or early 2025. However, this process could accelerate if goods inflation remains strong, lending some downside risk to the near-term forecast for both real consumer spending and GDP growth. This risk is particularly acute if COVID-19 becomes seasonal, hurting services spending during each future wave.

Supply-chain issues, including for autos, will prevent manufacturers from responding to higher prices by increasing production, which would put downward pressure on goods inflation. Supply chains aside, rising energy prices could prevent inflation from moderating as quickly as anticipated. Higher energy prices will boost growth in the headline CPI but also bleed into core inflation via higher transportation costs and higher prices for public transportation and airfares.

Energy prices are determined by global supply and demand, but the U.S. plays a role in both. On the supply side, if U.S. production increases, it could put some downward pressure on energy prices. As with demand, energy production responds to price fluctuations. Precisely estimating producers' supply elasticity is difficult because of the endogeneity problem as prices impact supply, supply feeds back into prices. Therefore, we look at sensitivity of industrial production to changes in producer prices for energy. This isn't a proxy for supply elasticity, since sensitivity can be negative where elasticity can't. Still, this is a good proxy for producers' response to fluctuations in prices.

### Quick Supply Response Not Guaranteed

U.S. energy industrial production sensitivity to changes in energy PPI



Sources: BLS, Federal Reserve, Moody's Analytics

Sensitivity of industrial production to changes in the PPI for energy has declined, raising concern about whether production would ramp up in response to higher prices. Labor supply issues offer possible explanations for the low sensitivity of energy production to prices. Mining payrolls are still 5% below those seen in early 2020 and are even further below their peak in early 2019. Also, energy industrial production has not kept up with employment recently, a sign that productivity is declining. This could be an artifact of weak capital investment, implying that labor coming back isn't as useful as it once was. The recent drop in production is temporary and attributable to Hurricane Ida, which disrupted energy-related production. However, this does not explain the low sensitivity to price fluctuations, suggesting the Fed can't bank on a supply response to help ease the energy inflation that is in the pipeline.

### Let's say it together...

The U.S. hasn't begun descending into a recession. The worry is understandable as the economy slowed abruptly in the third quarter, but a recession isn't on the horizon.

It's not surprising that there are worries about the state of the economy. Our high-frequency GDP model's initial estimate of third-quarter GDP was 7.2%, but as incoming source data have been released, our tracking estimate has plunged to 1.4% at an annualized rate. Also, monthly job growth has fallen well short of expectations in each of the past two months, and consumer sentiment has plummeted.

Though it appears that third-quarter GDP growth will disappoint, there are a few contributing factors. Stress in U.S. supply chains intensified in the third quarter because of the Delta variant of COVID-19. This weighed heavily on motor vehicles and parts, which will likely shave 1 to 1.5 percentage points off third-quarter GDP growth because of the reduction in business investment in fleet vehicles and fewer unit sales sold to consumers.

This drag is only partially offset by a smaller drawdown in auto inventories and narrowing in net exports for autos. Supply chains aside, Delta also weighed on real consumer spending on services. Another temporary, albeit significantly smaller drag than Delta on third-quarter GDP growth was Hurricane Ida. The hurricane likely trimmed a few percentage points off third-quarter GDP growth. Also, the fiscal impulse was less powerful in the third quarter. These factors are a lot for an economy to digest, but many of them will be unwound in the next few quarters.

### Odds are low

The recent drop in consumer confidence also has fanned concerns about a recession. However, a good chunk of the decline in sentiment is attributed to the Delta wave of COVID-19. With the trend in daily confirmed cases declining, sentiment should begin to improve.

Our U.S. probability of recession puts the odds of a recession in the next 12 months at 2%. The pandemic taught us that exogenous shocks can suddenly push an economy into recession, so there is always this risk. However, neither the financial nor economic data used in our probability of recession model are flashing any warning signs. The model does include consumer confidence, and it is the primary reason the odds of recession have inched higher recently.

As a reminder, our approach uses the National Bureau of Economic Research's definition of a recession rather than what many are taught in principles of macroeconomics: that a recession is two consecutive quarters of declining GDP.

Because recessions are discrete events, in the probit model a recession is denoted using 0 or 1. If the economy is in recession, a 1 is assigned to each month of the downturn. If the economy isn't in recession, the dependent variable equals 0. Then, the probability of a recession in 12 months is determined using information in the current period.

The time will come when we are on recession watch, but that's not now—nor is it likely to be anytime soon.

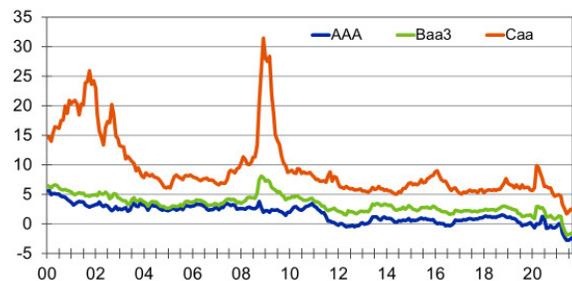
### Run M&A, run

The corporate bond market isn't showing any signs of concern about a near-term recession. Market expectations for the path of the Fed funds rate continue to ratchet higher, causing the yield curve to flatten, but this isn't problematic yet. Investment grade corporate bond issuance normally slows when the yield curve flattens but this should prove temporary. Expectations for the fed funds rate likely won't adjust significantly higher from here, barring any communication misstep by the Fed or concrete signs that inflation expectations are becoming dislodged or that higher inflation is more than a transitory phenomenon. Also, the

flattening in the yield curve likely will delay, corporate bond issuance. Refinancing activity should remain solid next year as real rates up and down most of the credit latter are currently near or below 0%. Even if real rates turn positive, they will remain lower than over the past few years.

### Life Below Zero, for Many

Real 7-year median corporate bond yields, %

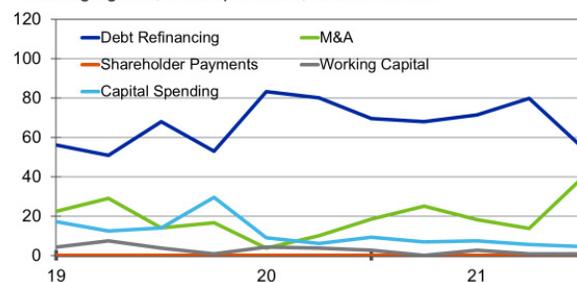


Source: Moody's Analytics

Separately, U.S. merger-and-acquisition activity has been very strong this year, and rising interest rates are unlikely to significantly cool M&A activity this quarter or next year. Technology has led the way this year in M&A as the pandemic has changed the way people are working. If a hybrid model of remote and in-person work continues to become implemented more in white-collar industries, the calculus of how businesses operate, and the technology needed will change. This should continue to support M&A activity in technology for a few years. Behind technology, financials have had the most M&A activity year to date.

### M&A on Fire...

U.S. high grade, use of proceeds, % of mentions

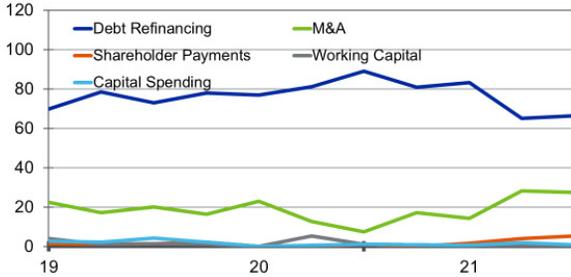


Sources: Dealogic, Moody's Analytics

Another factor that could support M&A activity over the next few years is corporations' increasing focus on improving environmental, social and governance standards. Companies will continue to reinvest and reallocate capital into activities that are more compliant with ESG. M&A aside, ESG corporate bond issuance has been very strong this year and shows no sign of slowing down.

### ...And HY Not Missing Out

U.S. high yield, use of proceeds, % of mentions



Sources: Dealogic, Moody's Analytics

In the third quarter, 27% of newly issued U.S. high-yield corporate bonds mentioned M&A as a use of the proceeds. This was up from 21% in each of the prior two quarters. This is well above that seen pre-pandemic, when M&A was cited 17% of the time.

For investment-grade, M&A was cited as a use of proceeds 39% of the time in the third quarter, up from 15% in the second quarter. We have also begun tracking use of proceeds for investment and high-yield bonds issued in Europe, and in the third quarter M&A was the second-most cited use of funds, excluding references to general purposes.

# Still Tethered to the Pandemic

BY MARK ZANDI

The Delta wave of the pandemic, which began in late June, has done meaningful damage to the economic recovery. Real GDP growth in the third quarter is set to come in at only 2% annualized, and that's in significant part due to less of an inventory drawdown. At the start of the quarter, before Delta was evident, we expected real GDP growth of near 6%. Monthly job gains that were close to 1 million at the start of the quarter slowed to [fewer than 200,000 by September](#). Scrambled global supply chains were jumbled even more, exacerbating widespread shortages and inflation. And the Alice-in-Wonderland job market characterized by record open job positions but high unemployment, with millions more out of the workforce not looking for work and not counted as unemployed, got even more out of whack.

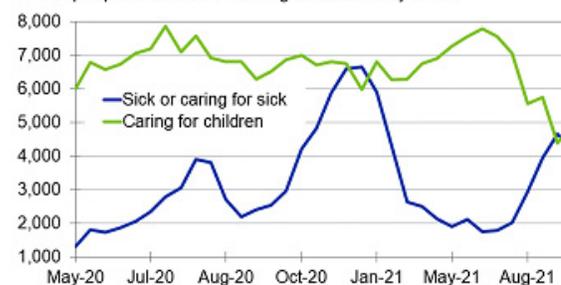
With the Delta wave definitively winding down—[daily infections](#) are averaging about half the 175,000 peak in mid-September—the economy is quickly taking on a brighter hue. Our [Back-to-Normal Index](#), which is a compilation of government data and real-time third-party statistics indexed to 100 just prior to the start of the pandemic, ended last week at 94.5%. That is, the economy is operating at 94.5% of its pre-pandemic normal. This is a new high for the BNI and is up strongly from the nearly 90% that prevailed a month ago at the height of the Delta wave. Mobility at workplaces has definitively picked up as more people go back to offices, restaurants bookings have firmed, and more people are going through Transportation Security Administration checkpoints and to movie theaters. The biggest gains in the BNI are in states that have the farthest to go to get back to normal, including California, Illinois and New York.

Despite the economic detour caused by the Delta wave, we continue to expect the economy to return to full employment by spring 2023. Real GDP growth will rebound strongly to a greater than 6% in the fourth quarter and more than 4% next year. Monthly job gains will average close to 500,000 over this period, and two or three months of job gains close to 1 million are more than likely in the not-too-distant future. Critical to this optimism is the assumption that the pandemic will continue to wind down. Not that there won't be future waves of infections, as that seems likely, but each new wave will be less disruptive to the healthcare system and economy than the previous one as more of the population is vaccinated or has gotten sick and developed some immunity.

The economy's prospects thus remain tethered to the pandemic, and as the pandemic winds down and the economic recovery revs back up, the job market will steadily get back into sync. Businesses have been frustrated that they've not been able to fill the extraordinary [10.4 million open positions](#), down from an all-time high of close to 11 million, but that's simply because of the pandemic. According to the [Census Bureau's Pulse Survey](#), a large survey conducted every several weeks since the pandemic hit, there were more than 4 million people in late September who weren't working because they were sick with the virus or were taking care of someone who was. Just prior to the Delta wave, this number was less than 2 million. This explains why labor force participation hasn't budged in recent months even while millions of parents previously stuck at home taking care of their children got back to work this fall as schools reopened with in-person learning. But with infections now fading, there will be fewer sick workers, participation will resume its recovery, more open positions will be filled, and employment will increase.

## Why Aren't People Working?

Ths of people that aren't working because they are...



Sources: Census Bureau Pulse Survey, Moody's Analytics

As Delta fades, an additional 3 million-plus people who tell the Census Bureau they aren't working because of concerns they might contract the virus or spread it will also get back to work. Then there is the more than 4 million who've been laid off or furloughed because of the pandemic, and another approximately 4 million who say they are out of work because their previous employer closed temporarily or have gone out of business because of the pandemic. And there are surely many still stuck at home taking care of children because the pandemic has disrupted the availability of day care and eldercare. This adds up to big numbers, and even if it overstates the number of people that will get back to work as the pandemic winds down, if only one-third do, the job market will be in full swing.

**Table 1: Number of People Not Working for Given Reason**

Survey date:	Pre-Delta wave survey 6/19-6/20/2021	Most recent survey 1/15-9/27/2021	Difference
<b>Total not working excluding those who did not report reason</b>	99,365,364	96,725,330	-2,640,034
<b>Reason for not working:</b>			
I was caring for children not in school or daycare	7,784,636	4,980,736	-2,803,900
I was laid off or furloughed due to coronavirus pandemic	6,842,068	4,221,804	-2,420,264
My employer closed temporarily due to the coronavirus pandemic	2,818,076	2,165,463	-652,613
My employer went out of business due to the coronavirus pandemic	1,955,536	1,736,362	-219,174
I was caring for an elderly person	2,057,361	1,920,727	-136,634
Other reason	18,103,747	17,971,543	-132,204
I did not have transportation to work	1,167,026	1,061,389	-105,637
I was concerned about getting or spreading the coronavirus	3,052,942	3,153,946	101,004
I was sick (not coronavirus related) or disabled	6,538,780	6,674,007	135,227
I did not want to be employed at this time	5,117,120	5,453,327	336,207
I am retired	42,379,700	43,186,726	807,026
I was caring for someone or sick myself with coronavirus symptoms	1,748,291	4,198,700	2,450,409

Sources: Bureau of Census Household Pulse Survey, Moody's Analytics

Massive government support during the pandemic has likely slowed the return to work, but this won't be the case much longer. This support, totaling more than \$5 trillion and equal to almost 25% of GDP, includes three rounds of stimulus checks, expanded unemployment insurance, food and rental assistance, and forbearance on mortgage and student loan payments. This support has been vital to help low- and middle-income households navigate the financial blow caused by the pandemic, but some of these funds have not been spent. As of September, households with incomes in the 20%-60% range of the income distribution have an estimated nearly \$500 billion in excess savings—savings greater than would have been expected if there had been no pandemic and if saving rates had remained the same as they were pre-pandemic. This excess savings amounts to about \$10,000 per person in this income group. However, this cash cushion is burning off quickly. Based on the [Bureau of Labor Statistics' Consumer Expenditure Survey](#), expenses for this income group are close to \$4,000 per month. Those not working have likely pared back their spending, but even so, this suggests the excess savings will be gone by the end of the year. The financial pressure to return to work is thus quickly intensifying.

**Table 2: Excess Saving by Income Group**

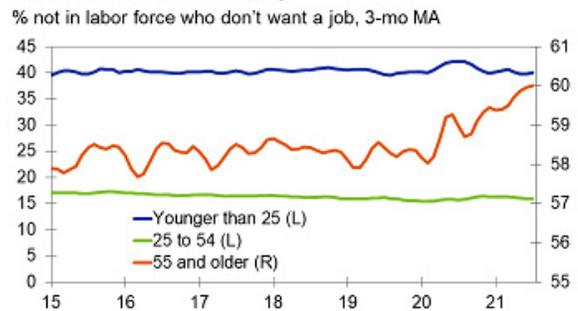
\$ mil	0%-20%	20%-40%	40%-60%	60%-80%	80%-90%	90%-100%	Income group total
2020Q1	2,503	4,609	8,273	1,626	11,588	72,141	100,739
2020Q2	26,815	54,114	74,388	59,257	91,428	584,887	890,890
2020Q3	17,000	32,090	44,468	26,091	41,586	241,992	403,228
2020Q4	18,828	30,862	42,355	37,989	37,088	117,138	284,261
2021Q1	36,615	61,953	80,930	75,861	83,171	354,281	692,812
2021Q2	19,859	21,448	27,858	18,935	22,186	95,412	161,996
Cumulative total	117,620	205,075	278,073	219,658	287,049	1,425,851	2,533,326
Share of cumulative total, %	4.6	8.1	11.0	8.7	11.3	56.3	100.0
Disposable income	16,771	41,085	68,140	108,838	194,291	241,675	74,949
Cumulative total % of income	26.7	19.0	15.5	7.7	11.3	45.0	25.8

Sources: Federal Reserve Board, BEA, Census Bureau, Moody's Analytics

While the job market will rebound strongly in coming months, the pandemic will leave it somewhat diminished. The large baby boomer generation, which is now in its late 50s, 60s and mid-70s, was already leaving the workforce when the pandemic hit, but the pandemic has accelerated its retirement. According to the [BLS's Current Population Survey](#), the percent of the population over 55 years old that isn't in the labor force and doesn't want a job, which was stable at 58% prior to the pandemic, has steadily risen

during the pandemic to its current 60%. The pandemic has not had an impact on the desire of other age groups to leave the workforce. Of course, retirement was on the minds for those baby boomers still in the job market, but the pandemic made it a reality. The record stock prices and housing values, and bank accounts swollen by the saving they did while self-quarantining during the height of the pandemic, has further empowered the boomers' exit. With boomers leaving the workforce more quickly, the overall [labor force participation rate](#) will not return to its pre-pandemic rate of more than 63%, even when the economy is back to full employment. We expect it to top out closer to 62.5%, about a percentage point higher than it is today.

### Boomers Retire Early



Sources: BLS, Moody's Analytics

Foreign immigration, which is essential to working-age population, and thus labor force growth, has been hammered by the pandemic and will be slow to revive. Immigration was already significantly curtailed by former President Donald Trump's restrictive immigration policies, but legally moving across borders has become highly problematic during the pandemic as governments work to stem the virus. Immigration, legal and illegal, was routinely close to 1 million per year in the quarter-century prior to the Trump administration. Last year, we estimate it was about one-fourth of that. The nation's working-age population grew by less than half a percentage point, the slowest pace since the Korean War, when it fell because of all of the troops overseas. Immigration and working-age population growth should pick up given the Biden administration's more relaxed immigration policies and a post-pandemic normalization of cross-border movement, but this won't happen quickly.

Arguably the most compelling reason to be optimistic about the economy's prospects is the extraordinary number of unfilled job positions. As long as the pandemic sticks to script and continues to wind down, workers sickened or scared off by the pandemic or who have lost their jobs because of the pandemic will take those positions. This may not happen as fast as anxious employers would like, but they should feel much better in the next few months. Having said

this, the number-one problem businesses will face for the foreseeable future is finding workers. The pandemic has hastened demographic trends (boomer retirements) and exacerbated others (less foreign immigration) that make this an even more difficult problem. Businesses will need to pay their workers more, improve productivity so they can continue to deliver their products and services using fewer

workers, and better accommodate workers' needs. This includes offering hybrid and remote work, more flexible hours, and greater respect for the balance between work and home life. If there is one good thing that results from the pandemic, this could be it.

# The Week Ahead in the Global Economy

## U.S.

It is another busy week for U.S. economic data as we get our first look at third-quarter GDP and it likely won't be pretty. Our latest update of our high-frequency GDP model, incorporating this week's industrial production and housing starts data, lowered our estimate of third-quarter GDP growth from 2% to 1.4% at an annualized rate. Our estimate is below the CNBC/Moody's Rapid Update consensus of 2.3% at an annualized rate. Housing starts and completions leave real residential investment in the third quarter on track to decline around 4% at an annualized rate.

The drop in motor vehicle and parts production suggests that autos will likely shave 1 to 1.5 percentage points off third-quarter GDP growth because of the reduction in business investment in fleet vehicles and fewer unit sales sold to consumers. Real consumer spending will post a mediocre gain as the Delta variant of COVID-19 weighed on services spending. Inventories will do all the heavy lifting. Excluding inventories, GDP likely declined in the third quarter. Our tracking estimate can change as durable goods orders and advance trade and inventories will be released ahead of the government's advance estimate of third-quarter GDP.

Other key data next week include new-home sales and the Conference Board's consumer confidence index. The plunge in consumer confidence has been attributed to the Delta variant, and confidence should improve in October. Monthly nominal consumer spending and PCE deflators will be incorporated in the advance estimate of third-quarter GDP, therefore the new information will be the monthly composition.

## Europe

The European Central Bank's monetary policy meeting will be in the spotlight next week. We aren't expecting any policy changes, though we do anticipate continuous journalist questions attempting to get at how the ECB views the current bout of inflation. As the bank's president has made clear, the ECB's consensus is still that price increases are transitory enough to not require policy action at this point.

The other big release will be the euro zone's preliminary estimate for third-quarter GDP. We forecasted a 1.8% q/q increase, adding to the 2.2% growth in the second quarter. We won't have details yet, but we presume that consumption and investments were still an important source of growth as the recovery kept strong this summer.

On a similar note, we expect upbeat unemployment figures out of France, Spain and Germany. We expect the number of job seekers in France eased to 3.27 million in September, that in Spain the unemployment rate fell to 14.7% in the third quarter, and that in Germany the unemployment rate was unchanged at 5.5% in September. The ongoing recovery in the services economy likely supported employment growth, while the countries' short-time work schemes helped keep workers employed despite supply pressures on manufacturing.

With the worsening of the pandemic and supply issues affecting domestic firms Russia was facing a difficult September. We expect that industrial production and retail sales slowed during the month. However, the unemployment rate likely was stable, since we expect the country's natural gas sector started to work overtime.

## Asia-Pacific

South Korea's Q3 GDP will be the highlight on the economic calendar. South Korea's economy is estimated to have grown 0.7% in quarterly terms in the September quarter, following a 0.8% expansion in the prior quarter. Although the reinstated social distancing restrictions in response to the resurgence of COVID-19 cases have weighed on consumption, a resilient net trade position thanks to consistently strong exports is expected to have offset this weakness and lifted quarterly growth.

Australia's inflation is likely to have eased over the September quarter on cooling domestic demand, settling at 2.4% in yearly terms, down from 3.8% in the prior quarter. The Bank of Japan is expected to keep its monetary settings unchanged in its October meeting, while Japan's unemployment rate is likely to have remained unchanged at 2.8% in September.

# Geopolitical Calendar

Date	Country	Event	Economic Importance	Financial Market Risk
Oct	ASEAN	ASEAN summit	Low	Low
31-Oct	Japan	General elections	Low	Low
Oct/Nov	UN	UN Climate Change Conference COP26	Medium	Low
Nov	Asia-Pacific	Asia-Pacific Economic Cooperation forum	Medium	Low
Nov	China	Sixth plenary session of the Central Committee	Medium	Low
Nov	G-20	G-20 Summit	Medium	Low
7-Nov	Nicaragua	Presidential, congressional elections	Low	Low
14-Nov	Argentina	Legislative elections	Medium	Low
21-Nov	Chile	Presidential elections	Medium	Low
28-Nov	Honduras	Presidential, congressional and municipal elections	Low	Low
19-Dec	Hong Kong	Legislative Council elections	Low	Medium
9-Mar-22	South Korea	Presidential election	Medium	Medium
27-Mar-22	Hong Kong	Chief Executive election	Low	Low
10-Apr-22	France	General elections	Medium	Medium
9-May-22	Philippines	Presidential election	Low	Low
29-May-22	Colombia	Presidential elections	Medium	Low
2-Oct-22	Brazil	Presidential and congressional elections	High	Medium
Oct/Nov-22	China	National Party Congress	High	Medium

# Will Consumers Do Their Part in the Fourth Quarter?

BY RYAN SWEET

## CREDIT SPREADS

Moody's long-term average corporate bond spread is 97 basis points, 3 bp tighter than this time last week. This is below its high over the past 12 months of 118 bps and just above its lowest over the past year of 95 bps. This spread may be no wider than 115 bps by year-end 2021, but the potential for a partial government shutdown and debt-limit crisis could cause some volatility in financial markets at the end of the year. The long-term average industrial corporate bond spread also narrowed by 3 bp over the past week to 87 bps. This is slightly above the low of 86 over the past 12 months and well below the high of 108 bps.

The long-term investment grade corporate bond spread was 128 basis points, compared with 128 bps last week. It remains well below its recent high of 169 bps. Investment-grade industrial corporate bond spreads narrowed from 134 bps to 132 bps.

The recent ICE BofA U.S. high-yield option adjusted bond spread of 309 basis points is 16 bps tighter than at this point last week. Rising global energy prices and low volatility in the stock market helped narrow the high-yield option adjusted spread. The Bloomberg Barclays high-yield option adjusted spread also tightened by 16 bps to 285 bps, keeping it within the range seen since the beginning of the second quarter and among the tightest since 2007. The high-yield option adjusted bond spread approximates what is suggested by the accompanying long-term Baa industrial company bond yield spread and is not significantly off that implied by a VIX of 15.49.

## Defaults

Not only is issuance strong, but defaults remain very low. The latest Moody's monthly default report showed the trailing 12-month global speculative-grade default rate at 3% at the end of August. That is its lowest level since the end of February 2020, when it stood at 3.3% just before the start of the COVID-19 pandemic. August was the eighth consecutive month to register a decline in the default rate since it hit a cyclical peak of 6.8% in December 2020.

According to our Credit Transition Model, the global default rate will fall from the current rate of 3% to 1.6%

by the end of December. After that, it will stabilize in the 1.5% to 1.7% range in the first half of 2022 before edging up to 1.9% by the end of August 2022. These forecasts incorporate our assumptions that the U.S. high-yield spread will gradually widen from about 300 basis points currently to 505 basis points over the course of the next 12 months. This will be offset by an improvement in the unemployment rate.

## U.S. Corporate Bond Issuance

First-quarter 2020's worldwide offerings of corporate bonds revealed annual advances of 14% for IG and 19% for high-yield, wherein US\$-denominated offerings increased 45% for IG and grew 12% for high yield.

Second-quarter 2020's worldwide offerings of corporate bonds revealed annual surges of 69% for IG and 32% for high-yield, wherein US\$-denominated offerings increased 142% for IG and grew 45% for high yield.

Third-quarter 2020's worldwide offerings of corporate bonds revealed an annual decline of 6% for IG and an annual advance of 44% for high-yield, wherein US\$-denominated offerings increased 12% for IG and soared upward 56% for high yield.

Fourth-quarter 2020's worldwide offerings of corporate bonds revealed an annual decline of 3% for IG and an annual advance of 8% for high-yield, wherein US\$-denominated offerings increased 16% for IG and 11% for high yield.

First-quarter 2021's worldwide offerings of corporate bonds revealed an annual decline of 4% for IG and an annual advance of 57% for high-yield, wherein US\$-denominated offerings sank 9% for IG and advanced 64% for high yield.

Issuance weakened in the second quarter of 2021 as worldwide offerings of corporate bonds revealed a year-over-year decline of 35% for investment grade. High-yield issuance fared noticeably better in the second quarter.

U.S. dollar denominated investment-grade issuance moderated this week, totaling \$18.8 billion in the week ended Wednesday and bringing the year-to-date total to \$1.368 trillion. High-yield corporate bond issuance slowed for the period to \$7.25 billion, bringing the year-to-date total to \$549.6 billion.

#### U.S. ECONOMIC OUTLOOK

Fiscal policy assumptions are key to the outlook for the U.S. economy over the next few years, and there were only tweaks to these assumptions in the October baseline. We still assume \$2.5 trillion in government spending on infrastructure and President Biden's Build Back Better agenda. We did alter our assumption about the amount of taxes raised over the next decade through greater tax compliance, reducing it from \$600 billion in the September baseline to \$120 billion in the October baseline. Therefore, the legislation will add more to the deficit than in the September baseline.

Lawmakers raised the federal debt limit by \$480 billion. According to the Treasury, this sum would sustain all borrowing until December 3, the same date by which lawmakers will have to extend government funding and avert a shutdown. This sets up significant policy risk toward the end of 2021, when the U.S. economy may be more vulnerable to brinkmanship on Capitol Hill than it is today. The December deadlines will coincide with the holiday spending season and potentially another wintertime surge in infections as cold weather pushes more Americans indoors. The baseline forecast assumes that lawmakers will either approve a full-year appropriations bill by December 3 or pass another short-term extension of government funding into late December or early 2022. The big question is how Democrats will address the next deadline to increase the debt limit.

#### COVID-19 assumptions

We adjusted our epidemiological assumptions to anticipate that total confirmed COVID-19 cases in the U.S. will be 47.49 million, compared with the 47.9 million in the September baseline. The seven-day moving average of daily confirmed cases has dropped recently, suggesting that we are likely on the other side of this wave of COVID-19.

The date for abatement of the pandemic changed slightly as it is now November 28, four days later than in the September baseline. Herd resiliency, which is a 65%-or-greater share of the adult population being fully vaccinated or previously infected, was achieved on

August 30. The forecast assumes that COVID-19 will be endemic and seasonal.

#### Delta eases its grip; supply chains tighten theirs

The Delta variant of COVID-19 weighed more on the economy in the third quarter than previously anticipated. However, the good news is that over recent weeks, a number of high-frequency data we track have improved, suggesting Delta's grip on the economy is loosening. Google mobility at workplaces has increased and is the highest since the pandemic began. Seated diners through OpenTable are also rising, as are box-office receipts. Weekly mortgage purchase applications have resumed rising and oil demand has edged higher.

We cut our forecast for third-quarter GDP growth from 5% at an annualized rate in the September baseline to 3.4% in the October vintage. Risk bias, or the difference between our high-frequency GDP model's estimate of third-quarter GDP growth and our official forecast, is -0.5 percentage point. Therefore, the risks are that third-quarter GDP growth comes in weaker than we expect. We also reduced our forecast for GDP growth in the fourth quarter as it is now expected to increase 6.2% at an annualized rate, compared with 7.5% in the September baseline.

For all of 2021, we now look for GDP to rise 5.8%, a touch lighter than the 6% in the October baseline and in line with the Bloomberg consensus of 5.9%. We look for GDP to rise 4.3% in 2022, identical to the September baseline and slightly stronger than the Bloomberg consensus of 4.1%. GDP growth will continue to moderate in 2023, rising 2.4%, which is still a touch stronger than the economy's potential growth rate.

Global supply-chain issues continue to plague the U.S. economy and have contributed to the acceleration in inflation. One doesn't have to look far to see clear evidence that supply-chain issues are having economic costs. Vehicle inventories are near record lows, driving prices higher. Consumers have responded with unit vehicle sales plunging recently. After running just shy of 19 million annualized units in April, sales dropped to around 12 million in September. Anecdotes in the ISM manufacturing survey remain littered with comments about supply-chain issues.

Easing of the supply-chain bottlenecks is key to our near-term forecast for U.S. manufacturing production, inventory replenishing, and easing in inflationary pressures. To better track the amount of stress on U.S.

supply chains, we identified a number of high-frequency metrics and combined them to create a U.S. Supply-Chain Stress Index. The SCSI is indexed such that 100 is the average pre-pandemic stress in U.S. supply chains. Therefore, anything north of 100 indicates greater pressure on supply chains and vice-versa. The SCSI suggests there has been little improvement recently. All three components are well above 100 but, not surprisingly, transportation is where the most stress lies followed by production and then inventories. We haven't changed our assumptions about when supply-chain issues begin to improve, currently mid-2022, but risks are that it takes longer.

### Business investment and housing

There was a small downward revision to the forecast for real business equipment investment this year, but it is still booming. We now look for real business equipment spending to increase 14.5% this year, compared with 15.3% in the September baseline. Growth in equipment spending was revised higher next year to 9.6%, 0.2 percentage point stronger than the September baseline.

Risks are roughly balanced to the forecast, as fundamentals, including supportive financial market conditions and better after-tax corporate profits as a share of nominal GDP, should continue to support investment through the rest of this year and into next. Another favorable development for business investment is that the rate of new-business formations remains strong. The biggest downside risk is a sudden tightening in financial market conditions or a sudden and significant bout of economic policy uncertainty in the fourth quarter because of the threat of a partial government shutdown and decision about the debt ceiling.

The real nonresidential structures forecast was revised higher this year. It is forecast to drop 6.2%, less than the 6.7% decline in the September baseline. We expect double-digit growth in real nonresidential structures investment in each of the next two years.

Because of incoming data, we raised our forecast for the commercial price index. We expect it to rise 8.3% this year, compared with 6.2% in the September baseline. We also now look for it to rise 1.9% next year, slightly better than the 1.1% in the prior baseline. We expect a rebasing of asset values across the board if interest rates begin to rise in the near term—retail and office will be hit hard because of longer-term evolutionary dynamics at work for these two property types.

The housing data are going to be volatile because of rebuilding after Hurricane Ida. This is normal after major hurricanes, but there is more uncertainty about the timing because of high construction costs and shortages of materials and labor. The downward revision to the housing starts forecast in the baseline is mostly attributable to incoming data, which we now expect to increase 14.2% this year, compared with 16.3% in the September baseline. Starts are expected to increase by 9.4% next year and 6.6% in 2023.

The gap between housing demand and supply led us to boost our forecast for house price growth this year and next. We have been steadily revising our forecast higher for house prices over the past several months. The forecast is for the FHFA All-Transactions Home Price Index to increase 10.5% this year and 5.8% next year. The August baseline had house prices rising 7.7% this year and 5.8% in 2022.

### Bumpy road to year's end

To achieve our forecast for fourth-quarter GDP growth, consumers will need to do their part. The trajectory for real consumer spending was on an unfavorable trajectory heading into the quarter as unit vehicle sales declined in September. The trajectory for consumer spending is important in normal times, but these are not normal times. It will take a strong start to the fourth quarter for real consumer spending to come anywhere close to our forecast for around a 6% annualized gain. The mini reopening of the economy following this wave of COVID-19 would help, particularly for spending on consumer services. However, goods spending may be a problem since COVID-19 could alter the timing of holiday shopping.

There is a high probability that the holiday shopping season this year begins sooner than normal or already is underway. Many media reports and retailers have warned consumers to start their holiday shopping early, because supply-chain issues have limited inventory for the season. This is clear in the inventory-to-sales ratio, which is among the lowest in recent memory. Last year, warnings by retailers brought forward some holiday shopping from November into October and from December into November. Also, there were concerns about the timeliness of deliveries from retailers, and these haven't been resolved as job openings in transportation remain extremely elevated.

Earlier-than-normal holiday shopping will wreak havoc with the seasonal adjustment process. After seasonal adjustment, October and November retail sales could be

strong, but December would be a big dud. Again, getting back to the trajectory for real consumer spending, a really bad December would lend downside risk to our forecast for consumer spending and GDP growth in the first quarter of 2022. That's because there won't be any idiosyncratic events to help rescue spending early in the quarter, leaving a sizable mountain to climb. Though this year could end on a high note, next year could get off to a slower-than-expected start. But, blame the holidays.

### Another disappointing employment report

Nonfarm employment rose by 194,000 between August and September, but the net revision to the prior two months was sizable, totaling 169,000. Revisions over the past several months have been considerable and there isn't a reason that this won't occur again when September employment is revised. Some of the weakness is misleading. For one, seasonal adjustment issues likely depressed the total gain in nonfarm employment by 150,000 to 200,000 in September. This is clear in the drop in government employment as the seasonal adjustment factor depressed the measure of non-teacher educational workers.

The September baseline incorporates the August employment report. We anticipate some payback in subsequent months and average monthly job growth this year is forecast to average 536,000, compared with 543,000 in the September baseline forecast. Risks are weighted to the upside. Job growth in the fourth quarter could be stronger than expected, since the Delta variant won't be as large of a drag.

One area where we find clear evidence that COVID-19 weighed on the job market in September is in the number of people not at work because of their own illness. The September payroll reference period coincided with the recent peak in COVID-19 cases. Lately, there has been a strong correlation between the number of people not at work because of their own illness and the average confirmed daily COVID-19 cases during the payroll reference period.

On a seven-day moving average, COVID-19 cases totaled 57,715 on October 10. For the October payroll reference week, new data on COVID-19 suggests there should be a significant improvement relative to the September payroll reference period. Based on the relationship with COVID-19 cases, the number of people not at work because of their own illness could drop closer to 1.3 million in October after being near 1.6 million in September.

The unemployment rate is forecast to average 4.6% in the fourth quarter of this year, compared with 4.5% in the prior baseline. The unemployment rate was revised lower next year and is now expected to average 3.5% in the fourth quarter of 2022. Risks to the forecast for the labor market are weighted to the downside, as the Delta variant delayed the return to the labor force for many because of childcare and health concerns. Lack of labor supply is the biggest problem; businesses had 10.4 million open positions at the end of August. Still, we expect the economy to hit full employment by the end of 2022 or early 2023.

### Inflation and the Fed

New historical data and the Delta variant led us to revise our forecast higher for the core PCE deflator, now expected to rise 4% on a year-ago basis in the fourth quarter of this year, compared with 3.9% in the September baseline. Though we have been revising our forecast for core inflation higher recently, it is still driven by transitory factors. We look for inflation to moderate next year, with the core PCE deflator up 2.3% on a year-ago basis in the fourth quarter of 2022, only 0.1 percentage point higher than in the prior baseline. The headline PCE deflator could rise more than anticipated through the remainder of this year because of the jump in oil, natural gas and retail gasoline prices. The upward revision to the forecast for natural gas prices in the October baseline incorporates what has happened in markets recently.

We are sticking with our assumption about when the Fed begins tapering its \$120 billion in monthly asset purchases. We expect the Fed to start tapering in December by cutting its monthly asset purchases by \$15 billion to \$105 billion. The Fed will reduce these purchases by \$15 billion per month, completing the tapering process by mid-2022. After that, the Fed will reinvest the proceeds from maturing assets to ensure its balance sheet doesn't contract.

We still assume the first rate hike will occur in early 2023. The fed funds rate reaches its equilibrium rate in the second half of 2025, a touch above 2.5%. Markets have adjusted their expectations for tightening but still anticipate a more gradual pace than our baseline.

Tapering won't impact inflation. Though tapering won't be disinflationary, it could help keep market-based measures of inflation expectations anchored, since tapering is the preamble to the Fed beginning to tighten monetary policy either by allowing its balance sheet to

decline and/or by increasing the target range for the fed funds rate.

The October baseline also incorporates the recent runup in the 10-year Treasury yield, which is around 1.6%. A good chunk of the increase in the 10-year is attributable to the term premium, or the extra compensation investors need to hold long-term Treasuries rather than shorter-maturity ones. One reason for the rise in the term premium is the more aggressive, eight-month tapering timeline laid out by the Fed recently. Also, tapering could start sooner, with the first reduction occurring in November. The new tapering timeline also means the Fed will buy \$600 billion less in Treasuries and mortgage-backed securities. This puts some upward pressure on the 10-year term premium.

Our past work has shown that not only does realized inflation raise the term premium, but so do energy prices. Global energy prices continue to climb; this is helping to raise the 10-year term premium. Better headlines on the Delta variant could also push the term premium higher, and there are signs that the worst of this coronavirus wave is behind us. The 10-year Treasury yield is expected to end this year at 1.8% and end 2022 at just south of 2.4%.

The forecast is that the Dow Jones Industrial Average has peaked and will gradually decline during the next year. Risks are heavily weighted to the upside, but peak growth, inflation uncertainty around fiscal policy, and the Fed tapering could weigh on equity markets.

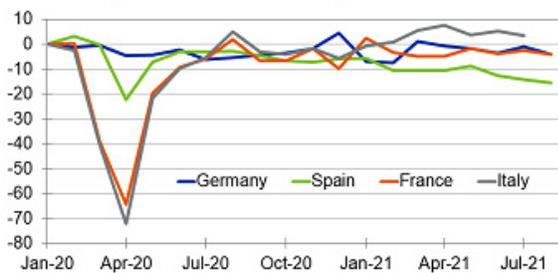
# Germany Construction Weakens

BY EVAN KARSON

[Germany](#)'s construction sector weakened slightly in August. Building permits declined 2% m/m, and the country's construction output index tumbled 3.1% m/m. The decline in construction output proved broad-based across buildings (-3% m/m) and civil engineering works (-4% m/m). Building activity pulled back faster in August than in the [euro area](#), which suffered a milder 1.3% m/m contraction. Still, construction output in Germany and the euro area stand at similar stages compared with pre-pandemic levels.

## German Construction Stagnant

Construction production index, % change from Jan 2020



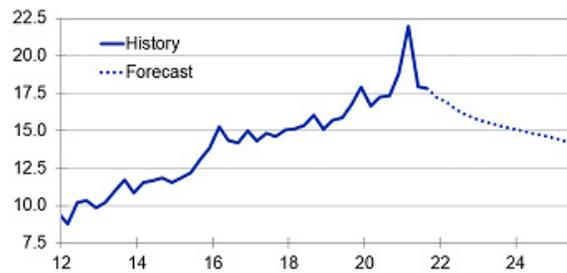
Sources: Eurostat, Moody's Analytics

Construction activity in Germany will ease further over the next 12 months for a variety of reasons. First, temporary value-added tax cuts in 2020 pulled forward a sizable fraction of the building activity planned for the first half of 2021. Germany's construction production index rose by a robust 5.3% q/q in the fourth quarter of 2020, the second-largest quarter-to-quarter gain over the last decade.

Second, supply-side constraints will hold back construction as builders struggle to find the workers and materials needed to complete additional projects. According to the ifo Institute, 33.5% of building construction companies reported problems finding skilled workers in September, the highest fraction in more than four years. Labor shortages have been exposed by the pandemic but owe to long-standing structural issues such as Germany's aging workforce and the low social desirability of skilled trades. A recovery in migration inflows will boost hiring in low-skill positions over the next few quarters, but builders will continue struggling to fill high-skill jobs.

## Permits to Come Off Recent Highs

Estimated value of residential building permits, € bil, SA



Sources: Bundesbank, Moody's Analytics

As in manufacturing, supply-chain bottlenecks have hampered growth in construction. Metals, wood, glass and cement have been in short supply and seen significant price increases. In the third quarter of 2021, Germany's construction price index registered its sharpest year-over-year increase on record, rising 12.6%. Third-quarter data have not yet been published for the euro area, but construction prices in Germany outpaced the bloc average in the second quarter of 2021, besting gains in Italy and Spain but not Portugal.

Though supply bottlenecks remain severe, surveys from the ifo Institute show that material shortages eased modestly in August and September. The share of building construction companies facing shortages dropped to 36.3% in September, down from 50% a few months earlier. While this recent improvement marks a welcome development, the share of supply-constrained builders remains far steeper than historical norms. From 1991 to 2020, the percentage of builders reporting material shortages never exceeded 10%.

Constraints on housing supply will keep Germany's house price index rising in 2022. Price growth will be especially robust in the faster-growing urban areas and southern states (Baden-Württemberg and Bavaria).

Germany's next governing coalition will also face severe roadblocks to solving the nation's affordable housing shortage, since supply and labor shortages will blunt the effectiveness of any new financial incentives for builders or public works programs.

# China Q3 Growth Nearly Stalls

BY CHRISTINA ZHU and SHAHANA MUKHERJEE

China's Q3 GDP surprised on the downside. Growth nearly stalled in the September quarter as output grew by a disappointing 0.2% over the prior quarter, after rising 1.2% in the June quarter. This translated into a disappointing 4.9% year-over-year reading. The expansion of domestic consumption and production tumbled as the country grappled with extreme weather, a widespread Delta-led virus outbreak, and a worsening power supply crunch. Robust external demand propped up the country's manufacturers, but persistent supply challenges weighed on downstream producers. The central bank eased monetary policy by lowering reserve requirements and providing a direct liquidity injection, but credit expansion remained sluggish due to weak credit demand and rising concerns about default risks.

Domestic consumption took the hardest hit in July and August from virus flare-ups in half of the country's provincial regions and extreme weather in central and coastal areas. This put a lid on the services recovery, as disrupted summer travel held back restaurant trade and tourism-related spending. Once the outbreaks were brought under control, lingering fears continued to weigh on tourism. Trips and spending during the mid-autumn festival and the National Day holiday were down from last year and far below pre-pandemic levels. Diminishing pent-up demand for durable goods such as automobiles and softening online sales are more concerning, as they suggest the consumption slowdown could last longer. The rapidly cooling property market will also weigh on sales of construction materials, furniture and home appliances in coming months.

Production was holding up well in the first half of the quarter but stumbled when power shortages bit. The government's climate push, paired with skyrocketing coal prices, prompted local governments to implement power cuts and electricity rationing. This severely disrupted

domestic production and will likely continue to do so when residential energy demand surges in winter. Even if the government can incentivise more power generation by lifting the electricity price cap, higher energy costs and elevated raw material prices will still hurt production and manufacturing investment.

The macroeconomic impact of China's property market debt crisis has started to emerge. Property sales have cooled rapidly in the past month, pressuring already cash-strapped developers. This has led to reduced real estate investment and dampened fixed asset investment. The downside risks to property investment and developers' financial stress will build until regulators signal direct policy support to shore up property demand.

China's exports remained healthy in the September quarter, benefiting from persistent demand on a range of consumer goods and tech equipment. Increasing domestic demand for energy products and raw materials pushed up imports, with surging global commodity prices further inflating import values.

The outlook for the Chinese economy is looking more concerning compared with just a month ago, with the power supply crunch and property market debt crisis the major risks. Production and fixed-asset investment growth has softened (growing by weaker yearly rates of 3.1% and 7.3% in September, respectively) and could continue to moderate, while consumption could improve on the back of a services recovery. Fiscal spending and infrastructure investment are expected to pick up, partially offsetting weak real estate and manufacturing investment. Monetary policy will remain conducive to safeguarding financial stability and supporting growth amidst the property market fallout and supply challenges.

# IBM Headlines Latest Downgrades

BY MICHAEL FERLEZ

U.S. rating change activity was mixed for the week ending October 19. Although downgrades only accounted for roughly a third of rating changes in the period, they accounted for over 97% of the affected reported debt. Last week's rating activity was headlined by International Business Machines Corp., which saw its senior unsecured rating cut to A3 from A2. Concurrently, Moody's Investors Service downgraded IBM's commercial paper rating to Prime-2. In Moody's Investors Service's rating action, Senior Credit Officer Carl Salas was quoted saying, "Competition among deep-pocketed cloud providers is intense, and IBM will need to maintain its leadership with Red Hat as a neutral provider of hybrid cloud offerings." The downgrade affected \$55 billion in outstanding senior unsecured debt.

The trend in U.S. rating changes did soften in September, but overall, it remains positive with upgrades still comfortably outnumbering downgrades.

## Europe

Western European rating change activity was light in the latest period, registering one upgrade and one downgrade. The most notable change was to Bellis Finco PLC. On October 18, Moody's Investors Service downgraded the U.K.-based food and grocery firm's corporate family rating to Ba3 from Ba2. Additionally, Moody's issued several other rating action including a downgrade to Bellis' probability of default rating to Ba3-PD.

Fortunately, last week's mixed performance is a relative outlier, with upgrades accounting for 87% of Western European rating change activity in September.

## RATINGS ROUND-UP

FIGURE 1  
Rating Changes - US Corporate & Financial Institutions: Favorable as a % of Total Actions

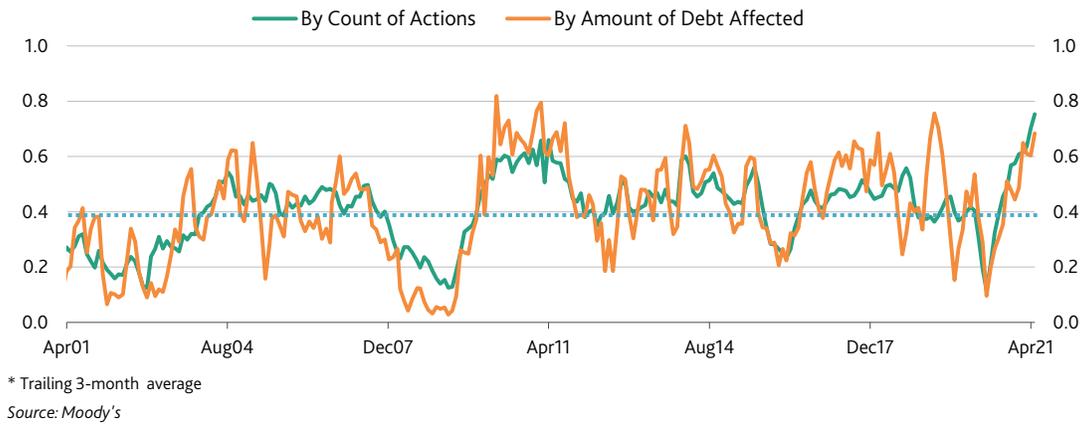


FIGURE 2  
Rating Key

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

FIGURE 3  
Rating Changes: Corporate & Financial Institutions - US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/S G
10/13/2021	AMNEAL PHARMACEUTICALS HOLDING COMPANY, LLC-AMNEAL PHARMACEUTICALS, LLC	Industrial	SrSec/BCF/LTCFR/PDR		U	B3	B2	SG
10/13/2021	SHAPE TECHNOLOGIES GROUP, INC.	Industrial	SrSec/BCF/LTCFR/PDR		U	Caa2	Caa1	SG
10/13/2021	TECOSTAR HOLDINGS, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG
10/13/2021	NEWPORT GROUP HOLDINGS II, INC.	Industrial	LTCFR/PDR		U	B3	B2	SG
10/14/2021	INTERNATIONAL BUSINESS MACHINES CORPORATION	Industrial	SrUnsec/LTIR/CP	54635.0	D	A2	A3	IG
10/14/2021	KOSMOS ENERGY LTD.	Industrial	SrUnsec	1100.0	U	Caa1	B3	SG
10/14/2021	LAMB WESTON HOLDINGS, INC.	Industrial	SrUnsec/LTCFR/PDR	2166.0	D	Ba2	Ba3	SG
10/15/2021	NATIONAL GRID PLC-NIAGARA MOHAWK POWER CORPORATION	Utility	SrUnsec/LTIR/PS	3653.2	D	A3	Baa1	IG
10/18/2021	WIRECO WORLDGROUP INC.	Industrial	LTCFR/PDR		U	B3	B2	SG
10/18/2021	RIVERBED PARENT, INC.-RIVERBED TECHNOLOGY, INC.	Industrial	SrUnsec/SrSec/BCF/LTCFR/PDR	1050.0	D	Ca3	C1	SG
10/18/2021	HOYA MIDCO, LLC	Industrial	SrSec/BCF/LTCFR/PDR		U	B3	B1	SG
10/18/2021	TRITON UK MIDCO LIMITED	Industrial	SrSec/BCF/LTCFR/PDR		U	B3	B2	SG
10/19/2021	OPTION CARE HEALTH, INC	Industrial	LTCFR/PDR		U	B2	B1	SG
10/19/2021	DAVE & BUSTER'S, INC.	Industrial	SrSec/LTCFR/PDR	1100.0	U	Caa1	B1	SG
10/19/2021	JILL HOLDINGS LLC-JILL ACQUISITION LLC	Industrial	SrSec/BCF/LTCFR/PDR		U	Caa1	B3	SG
10/19/2021	MIDWEST VETERINARY COMPANY, LLC-MIDWEST VETERINARY PARTNERS, LLC	Industrial	SrSec/BCF		D	B2	B3	SG

Source: Moody's

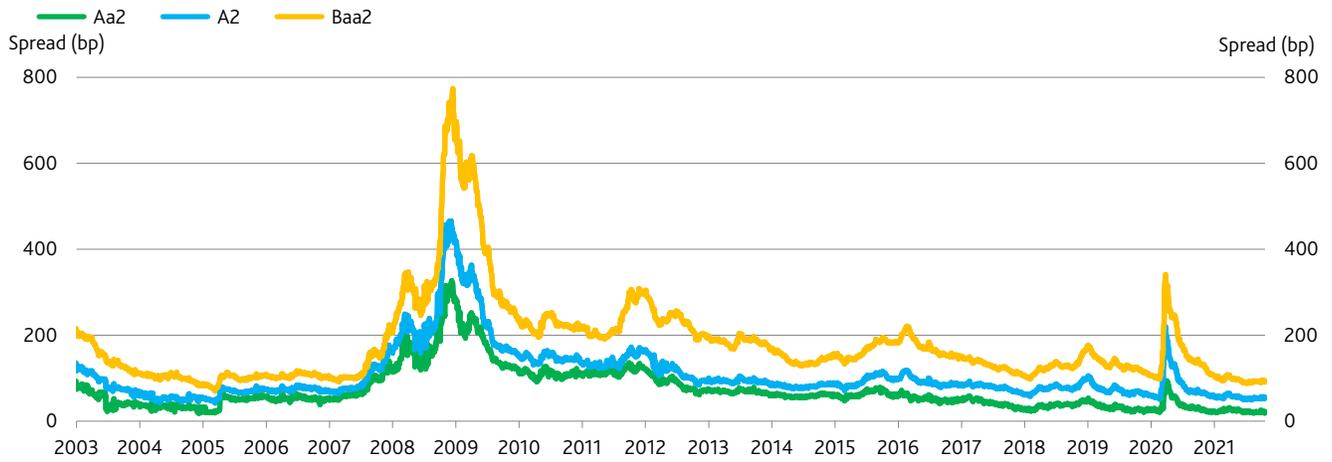
FIGURE 4  
Rating Changes: Corporate & Financial Institutions - Europe

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG	Country
10/15/2021	TUI AG	Industrial	LTCFR/PDR		U	Caa1	B3	SG	GERMANY
10/18/2021	BELLIS FINCO PLC	Industrial	SrSec/SrUnsec/SrSec/BCF/LTCFR/PDR	3786.3	D	Ba2	Ba3	SG	UNITED KINGDOM

Source: Moody's

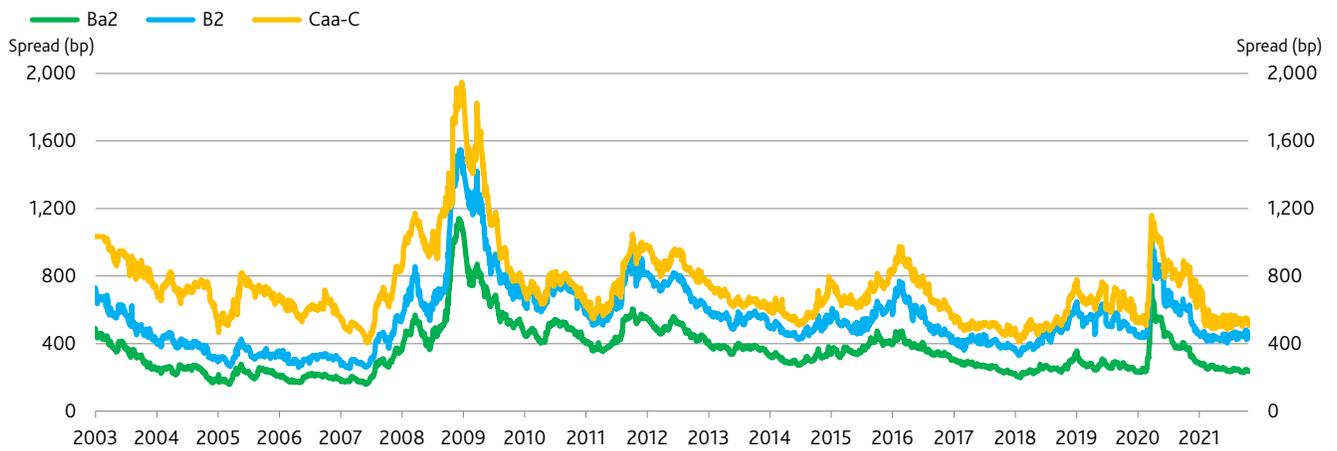
## MARKET DATA

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

## CDS MOVERS

Figure 3. CDS Movers - US (October 13, 2021 – October 20, 2021)

CDS Implied Rating Rises	CDS Implied Ratings		
	Oct. 20	Oct. 13	Senior Ratings
Bank of America Corporation	A3	Baa1	A2
Oracle Corporation	A1	A2	Baa2
HCA Inc.	Baa3	Ba1	Baa3
General Motors Company	Baa3	Ba1	Baa3
General Electric Company	Baa2	Baa3	Baa1
Burlington Northern Santa Fe, LLC	Aa3	A1	A3
Cox Communications, Inc.	A3	Baa1	Baa2
Williams Companies, Inc. (The)	Baa2	Baa3	Baa2
Tyson Foods, Inc.	Baa1	Baa2	Baa2
Kinder Morgan, Inc.	Baa1	Baa2	Baa2

CDS Implied Rating Declines	CDS Implied Ratings		
	Oct. 20	Oct. 13	Senior Ratings
FedEx Corporation	Baa1	A2	Baa2
Kimberly-Clark Corporation	A1	Aa2	A2
Camden Property Trust	Baa2	A3	A3
Exxon Mobil Corporation	Aa3	Aa2	Aa2
PepsiCo, Inc.	A2	A1	A1
Caterpillar Financial Services Corporation	A2	A1	A2
Pfizer Inc.	Aa2	Aa1	A2
Procter & Gamble Company (The)	Aa2	Aa1	Aa3
Union Pacific Corporation	Aa2	Aa1	Baa1
Raytheon Technologies Corporation	A1	Aa3	Baa1

CDS Spread Increases	Senior Ratings	CDS Spreads		
		Oct. 20	Oct. 13	Spread Diff
Calpine Corporation	B2	377	355	23
TEGNA Inc.	Ba3	402	382	19
CSC Holdings, LLC	B3	372	357	15
K. Hovnanian Enterprises, Inc.	Caa3	824	813	10
SITE Centers Corp.	Baa3	109	99	9
Camden Property Trust	A3	55	48	8
FedEx Corporation	Baa2	48	41	7
Agilent Technologies, Inc.	Baa2	57	50	7
Walgreen Co.	Baa2	53	46	7
Amkor Technology, Inc.	B1	150	145	5

CDS Spread Decreases	Senior Ratings	CDS Spreads		
		Oct. 20	Oct. 13	Spread Diff
Talen Energy Supply, LLC	Caa1	2,299	2,764	-464
Nabors Industries, Inc.	Caa2	499	570	-72
Rite Aid Corporation	Caa2	898	963	-65
Macy's Retail Holdings, LLC	Ba3	279	318	-39
American Airlines Group Inc.	Caa1	692	730	-39
Nordstrom, Inc.	Ba1	259	288	-29
United Airlines Holdings, Inc.	Ba3	422	450	-29
Beazer Homes USA, Inc.	B3	363	388	-25
Service Properties Trust	Ba2	202	223	-21
Delta Air Lines, Inc.	Baa3	227	246	-19

Source: Moody's, CMA

## CDS Movers

Figure 4. CDS Movers - Europe (October 13, 2021 – October 20, 2021)

CDS Implied Rating Rises	CDS Implied Ratings		
	Oct. 20	Oct. 13	Senior Ratings
Issuer			
Santander Financial Services plc	Aa3	A2	A1
BNP Paribas	Aa3	A1	Aa3
Banco Santander S.A. (Spain)	Aa3	A1	A2
Intesa Sanpaolo S.p.A.	Baa1	Baa2	Baa1
Barclays PLC	Baa1	Baa2	Baa2
Banco Bilbao Vizcaya Argentaria, S.A.	A1	A2	A3
HSBC Holdings plc	Baa1	Baa2	A3
Santander UK plc	Aa3	A1	A1
Electricite de France	A3	Baa1	A3
NatWest Group plc	A3	Baa1	Baa1

CDS Implied Rating Declines	CDS Implied Ratings		
	Oct. 20	Oct. 13	Senior Ratings
Issuer			
Svenska Handelsbanken AB	Aa2	Aa1	Aa2
Bayerische Landesbank	Aa3	Aa2	Aa3
Raiffeisen Bank International AG	A1	Aa3	A2
BASF (SE)	Aa2	Aa1	A3
Casino Guichard-Perrachon SA	Caa3	Caa2	Caa1
Danone	Aa2	Aa1	Baa1
United Utilities PLC	Aa3	Aa2	Baa1
National Grid plc	A1	Aa3	Baa2
Schneider Electric SE	A1	Aa3	A3
Jaguar Land Rover Automotive Plc	B3	B2	B1

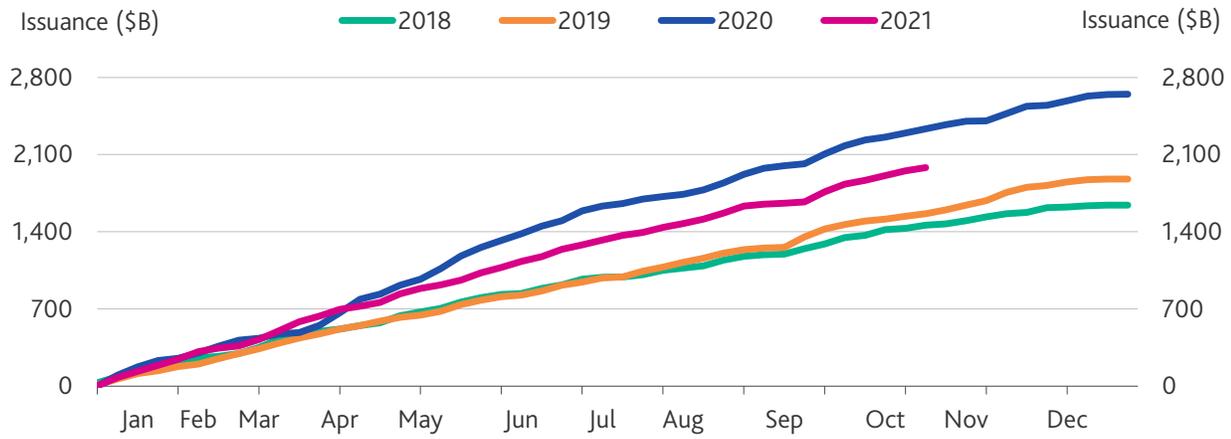
CDS Spread Increases	CDS Spreads			
	Senior Ratings	Oct. 20	Oct. 13	Spread Diff
Issuer				
Boparan Finance plc	Caa1	1,176	1,136	40
Banca Monte dei Paschi di Siena S.p.A.	Caa1	179	146	33
Casino Guichard-Perrachon SA	Caa1	627	605	22
Rexel SA	Ba3	135	129	7
Pearson plc	Baa3	64	58	6
Jaguar Land Rover Automotive Plc	B1	363	361	2
Carlsberg Breweries A/S	Baa2	28	26	2
Avon Products, Inc.	Ba3	228	225	2
Ireland, Government of	A2	15	15	1
Nordea Bank Abp	Aa3	25	25	1

CDS Spread Decreases	CDS Spreads			
	Senior Ratings	Oct. 20	Oct. 13	Spread Diff
Issuer				
Vedanta Resources Limited	B3	681	801	-120
Piraeus Financial Holdings S.A.	Caa2	534	577	-42
CMA CGM S.A.	B2	310	336	-26
Stena AB	Caa1	429	454	-25
Ineos Group Holdings S.A.	B2	252	277	-24
Novo Banco, S.A.	Caa2	191	206	-16
Premier Foods Finance plc	B3	191	207	-16
thyssenkrupp AG	B1	225	236	-11
Permanent tsb p.l.c.	Baa2	213	224	-11
ArcelorMittal	Baa3	137	147	-10

Source: Moody's, CMA

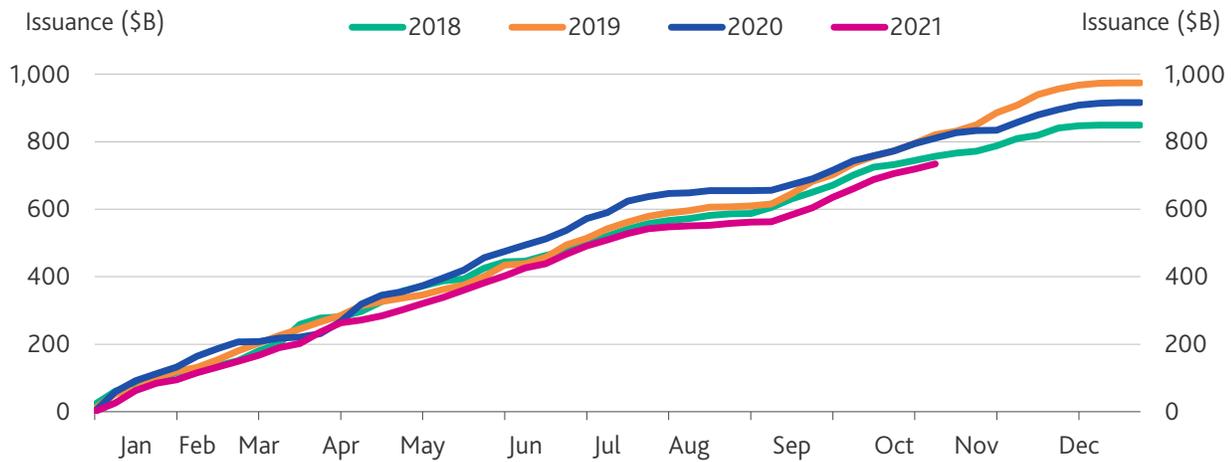
ISSUANCE

**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

## ISSUANCE

**Figure 7. Issuance: Corporate & Financial Institutions**

<b>USD Denominated</b>			
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	18.812	7.245	27.825
Year-to-Date	1,368.008	549.577	1,980.888

<b>Euro Denominated</b>			
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	11.213	2.483	15.056
Year-to-Date	580.232	133.614	734.019

\* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

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