

**WEEKLY MARKET
OUTLOOK**

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Jobs and Talk of the Taper

Some Federal Reserve officials expect the economy to reach full employment by the end of next year, which would set the stage for the first increase in the target range for the fed funds rate soon thereafter. Our baseline forecast has the first rate hike occurring in the first quarter of 2023, consistent with market expectation. This turns attention to how aggressive the tightening cycle will be.

Financial markets expect this tightening cycle to be gradual, pricing in about 125 basis points of tightening by the end of 2028. It is difficult to see how the central bank could normalize rates in 2023 and subsequent years as slowly as the markets are pricing in with the economy expected to be at full employment and inflation firmly above its 2% through-the-business cycle target.

If this were so, inflation expectations would almost surely move higher, and that's not something the Fed could shrug off. Of course, there is a lot of script to be written between now and then. We, like policymakers, expect the federal funds rate to eventually settle near 2.5%, but it will take until mid-decade to get there. On the other hand, financial markets believe the fed funds rate would be only 1.5% by the end of the decade.

For another way to assess the amount of tightening this cycle, we turn to the inertial Taylor rule, one endorsed by Fed Vice Chairman Richard Clarida. This modification of the Taylor rule has a coefficient of zero on the unemployment gap, a 1.5 coefficient on the inflation gap, or the difference between core PCE inflation and the Fed's 2% longer-run objective. Clarida also used a neutral real policy rate equal to his long-run expectation. We use this Taylor rule and a real neutral real policy rate of 0.5%.

Table of Contents

Top of Mind 4

Week Ahead in Global Economy... 8

Geopolitical Risks..... 9

The Long View

 U.S. 10

 Europe 13

 Asia-Pacific 14

Ratings Roundup 15

Market Data 18

CDS Movers..... 19

Issuance 21

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We include our baseline forecasts for the core PCE deflator, and this has a significantly more aggressive tightening cycle than markets are betting on, with the target fed funds rate at 2.25% by the end of 2025, around 75 to 100 basis points more than what markets expect.

Again, a lot can happen, including the potential for a new Fed chair, but it appears that markets will need to adjust their expectations about the tightening cycle.

Tapering talk

Our assumption is that the Fed doesn't begin tapering its \$120 billion in monthly asset purchases until January, but a couple more solid monthly employment reports would increase the odds of a taper this year.

This puts additional focus on the July employment report, coming Friday. The high-frequency employment data that we closely monitor were, on net, on the softer side through the July payroll reference period, making our forecast seem at odds with the data. For example, the Homebase employees working index rose 0.6% between the June and July payroll reference periods, compared with the 3.6% gain in June. Google mobility was also mixed during the July reference period. We are discounting these data some, but they do imply that we get a softer gain in not seasonally adjusted nonfarm payrolls in July, and that is our forecast. The seasonal adjustment factors are extremely favorable, and we will return to that soon.

The four-week moving average in initial claims for unemployment insurance benefits fell only 10,000 between the June and July payroll reference periods. One model that relies only on claims would have nonfarm employment up by 375,000 in July. However, claims are plagued by seasonal adjustment issues related to the annual auto retooling. Also, the early end of expanded unemployment insurance benefits in a number of states and the timing of the July 4 holiday could also be distorting claims data. Therefore, they aren't reliable, and we always drop new filings from our models to forecast monthly changes in nonfarm employment in July. The ADP National Employment Report uses claims as one of its inputs.

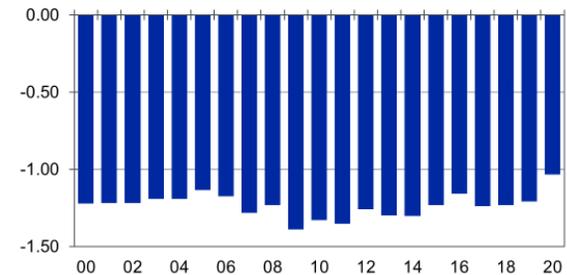
According to the ADP NER, private sector payrolls rose 330,000 on net in July, a marked slowdown from the 728,000-job pace in the second quarter. This lends considerable downside risk to our forecast, but it is possible that the Bureau of Labor Statistics estimate can still come in strong. The average absolute difference between the ADP NER and BLS first estimates of private employment is 279,000, and over the past 12 months it is 744,000.

We are more optimistic about job growth in July and expect it to come in above the consensus for an 870,000 net gain. The main reason that our employment forecast is well

above the consensus is that the seasonal adjustment factors are favorable. This will be clear in state and local government education employment. Summer school enrollment was up significantly this year, according to anecdotes.

School's Not Out Yet for This Year

U.S. state/local government education, change, mil, NSA



Sources: BLS, Moody's Analytics

Therefore, more teachers and support staff will have remained on payrolls this July. Normally, state and local government education employment falls by 1 million. This is unlikely to be duplicated, and a smaller than normal decline will cause the seasonal adjustment factors to inflate the adjusted data.

A tweak to the forecast is coming

The August U.S. baseline forecast will likely include a change to our forecast for the 10-year U.S. Treasury yield in the second half of this year and first half of next. The bulk of the downward revision to the forecast for long-term rates is attributable to the drop that occurred in the second quarter.

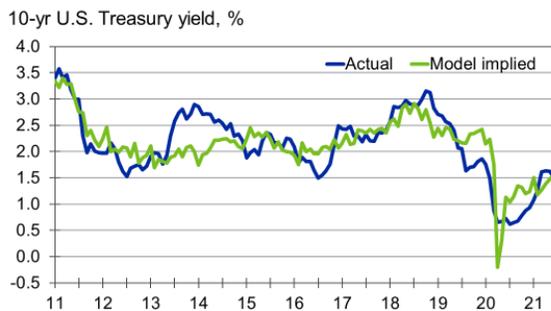
The new forecast will likely have the 10-year Treasury yield ending this year closer to 1.8% than to the 2% in the July baseline. Risks to the forecast remain balanced, since a couple more strong employment reports could have the economy meet the Fed's criteria of "substantial progress," allowing to begin tapering this year. Also, there is some seasonality in the 10-year Treasury yield, and it points toward higher rates in the fourth quarter of this year. The Delta variant of COVID-19 could put some downward pressure on long-term rates, particularly if there is concrete evidence that its beginning to weigh on the U.S. economy.

All told, the 10-year Treasury yield is currently too low relative to economic fundamentals. To assess this, we use an ordinary least squares regression to estimate an "economic fair value" of the 10-year Treasury yield. The five variables used in the regression are our estimate of monthly real U.S. GDP, the CPI, the current effective fed funds rate, the Fed's

balance sheet as a share of nominal GDP, and a Fed bias measure that was constructed using fed funds futures.

All five variables were statistically significant with the correct sign and explained 63% of the fluctuation in the 10-year Treasury yield. The regression used monthly data. The model's implied "economic fair value" of the 10-year Treasury yield in June—the latest available data for some of the explanatory variables—is 1.63%.

10-Year Yield Deviates



Sources: Treasury, Moody's Analytics

Work-From-Anywhere...but Not Everywhere

BY ADAM KAMINS

[Last week](#), we examined commuter flows with an eye to identifying some of the areas that are most vulnerable as remote work becomes more prevalent. While a few potential winners of the work-from-anywhere trend—namely suburban metro divisions—were discussed, that only scratches the surface of where benefits are most likely to accrue.

Specifically, if a hybrid model of remote and in-person work becomes commonplace in many white-collar industries, the calculus of where people choose to live will change. Once-foreboding long commutes will grow more palatable, potentially sending people to desirable lower-density areas that allow for more space and a favorable quality of life.

Using data from the Census Bureau on commuting, density and socioeconomic characteristics, it becomes possible to perform a more granular examination of where increased remote work could have outsize positive—and potentially negative—effects.

Not quite untethered

As work-from-anywhere becomes more prevalent in the years ahead, the story for workers who are fully remote is a complicated one. Absent any constraints, those workers will gravitate to areas with lower costs, affordable housing, and an acceptable quality of life. This was asserted early on in the pandemic, when we compared [density and educational attainment](#) to identify well-positioned metro areas, and more recently in a study of [potential inter-metro migration](#).

In both papers, a key conclusion revolved around already-thriving areas that found themselves in an even better position going forward. The Mountain West, the Southeast, and Texas all fare very well, while the Northeast and Great Lakes are the most poorly situated regions, exacerbating long-standing out-migration from those areas.

These types of analyses are valuable in providing national context, but looking at metro-to-metro moves misses some of the potential impacts associated with two more likely narratives associated with post-pandemic migration patterns. The first involves workers who choose to remain in the same general area for personal reasons, a sentiment that was captured using “distance frictions”

in [previous work](#). The second entails hybrid workers, who are not quite free to move anywhere they wish, but for whom commuting only a couple of times a week makes proximity to their place of work less of a limiting factor.

Looking at county-level commuting metrics, one can begin to identify smaller geographies where opportunities exist beyond some of the nation’s fastest-growing regions. Such information, while hardly the be-all and end-all in terms of investment opportunities, can help unearth places that are either located in slower-growing regions, not as well known as some counterparts, or both. Each county is analyzed largely in the context of its combined statistical area in order to provide a more comprehensive view of the surrounding economy to ensure a broad definition of what it means to move locally. Such an approach should be viewed as a complement to, but not a substitute for, broader conclusions like the ones reached in earlier studies.

Commuting patterns

We obtained data on commuting patterns from the [2019 American Community Survey](#). It contains the share of commuters by average travel time category, as well as aggregate minutes, which could be adjusted to calculate an approximate overall average. These metrics exist for just over 800 counties, representing less than 30% of the national total. But they capture more than 80% of Americans given that the excluded counties tend to be smaller and more rural.

Perhaps the most straightforward datapoints concern the share of workers who embark on an especially long commute to get to their place of employment. Not surprisingly, this list is dominated by two economies, New York City and Washington DC, which account for the top five counties on the list. This reflects the general density and congestion associated with each area.

Their dominance is even more pronounced when considering average commute time, in which the top six and 16 of the top 17 counties are all from one of those two areas. In other words, the nation’s largest economy and its capital are by far the worst when it comes to time lost to commuting, making the stakes of increased remote work especially high.

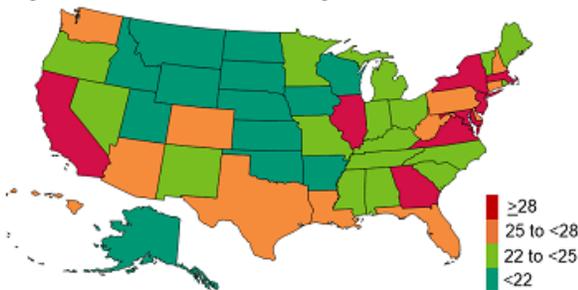
Many of the counties that are home to especially long commute times are more exurban in nature, requiring a

lengthy journey to the economic epicenter of the region. Yet the list also includes urban areas that are geographically proximate to jobs but face other obstacles such as traffic or a reliance on public transit. For example, all of New York City's boroughs other than Manhattan feature some of the nation's longest commute times.

The least time-consuming commutes, on the other hand, are disproportionately concentrated in small counties outside metro areas or in more spread-out regions such as the Midwest and South. At a state level, very long commutes are especially uncommon in the Mountain West, where open spaces outside a few large metro areas reduce congestion and can leave workplaces nearly as decentralized as homes.

Plains and Rockies Workers Have It Best

Avg commute in minutes, 2014-18 avg

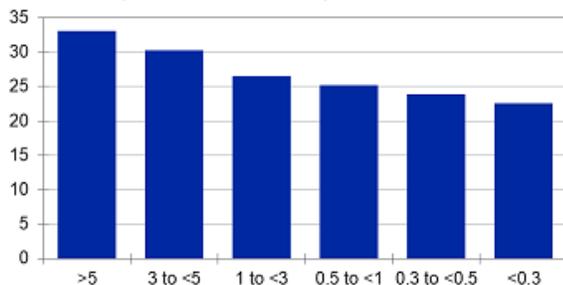


Sources: Census Bureau, Moody's Analytics

More broadly, a comparison of average commute times and metro area size recently published by the Census Bureau tells the same story. It shows a clear relationship between the population of an area and its average commute time, highlighting why the ramifications of work-from-anywhere are more significant in major economies than they are in smaller areas, where a switch to remote work would likely have less bearing on location decisions.

Commutes Are Most Painful in Large Metros

Mean one-way commute in minutes by metro area size in mil, 2019



Sources: Census Bureau, Moody's Analytics

Armed with data on commute times, an important next step involves differentiating between which long

commutes are associated with farther-flung counties and which involve residents taking a long time to traverse congested cities. The easiest way to do this is to examine population density by county.

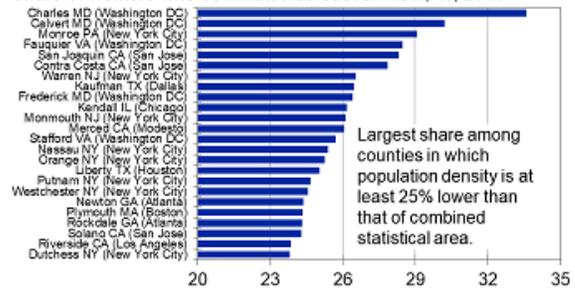
Of course, density in a New York City suburb may be double or triple that of an urban county elsewhere, so a relative metric is critical. To get this, all counties in a combined statistical area were combined and a simple average of density was computed. Dividing each county's density by that average is enough to determine how each county compares with its neighbors, allowing long suburban and exurban commutes to be separated from long trips within a city.

Taking the share of hour-plus commutes among counties for which density is at least 25% lower than the CSA average, Washington DC and New York City still dominate, but some other entrants emerge as well. Charles and Calvert counties in Maryland top the list for percentage of commuters who travel over an hour, while Monroe County in northeastern Pennsylvania also features more than three in 10 commuters traveling at least 60 minutes to work, with many heading east to New York or New Jersey.

Elsewhere, the Bay Area is well-represented at the top of the list, reflecting the long commute that many tech workers endure, in many cases due to unaffordable housing in areas that are closer to their place of work. Numerous New York City suburbs and exurbs are represented as well, with northern New Jersey and slightly upstate counties home to some of the most arduous commutes.

Exurbs of Large Cities Stand to Benefit...

Share of workers who commuted at least an hour, %, 2019



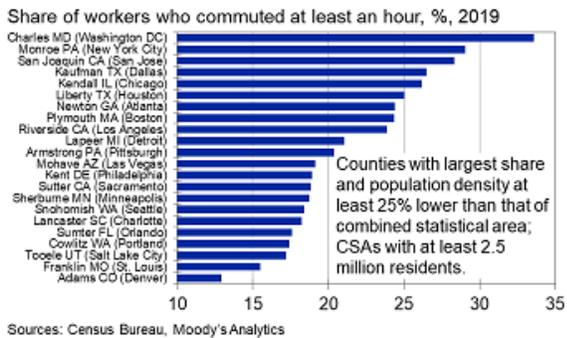
Sources: Census Bureau, Moody's Analytics

Because the same economies tend to dominate, it is valuable to start with a combined statistical area and identify the county in each with the highest share of commuters who travel an hour or more. Doing this for CSAs with at least 2.5 million residents makes it clear that there are counties all over the country that could

grow more appealing in a world with increased remote work arrangements.

For example, Kaufman and Liberty counties, which are near land-rich Dallas and Houston, respectively, see at least a quarter of workers travel an hour or more for work. Even in the Rockies, where commute times are generally much lower, at least one in eight commuters in Tooele County UT and Adams County CO—outside Salt Lake City and Denver—travel an hour or more.

...But Opportunities Are Widespread



It is worth noting that county definitions can alter the results somewhat. For example, massive Los Angeles County includes both a downtown business district and large residential neighborhoods, meaning that the impact of extreme traffic in Southern California may be understated in this analysis. Similarly, Maricopa County in Arizona includes Phoenix and all of its suburbs, making a county-level analysis all but impossible. Still, the share of very long commutes in that county is relatively low, especially compared with the Los Angeles area, likely resulting in a much less pronounced impact of remote work.

Quality of life

Identifying suburban and exurban areas for which hybrid and remote work could make a long commute less problematic is a critical first step. But any analysis also needs to consider the desirability of an area. This is especially true because work-from-anywhere will be a lasting trend, primarily in white-collar industries. The workers who have the flexibility to do their jobs from home will likely be selective in choosing where to spend the majority of their time.

To account for this, four measures were used to capture important considerations for movers who have the flexibility to relocate, both in terms of their work and financial situation. The first is housing affordability, based on the Moody's Analytics single-family affordability index, which broadly compares incomes with prices. The

more affordable a county is, the more attractive it will be to workers across the income spectrum. Median household income was also considered to capture the fact that wealthier suburbs and exurbs are more likely to draw in residents, helped by existing high-end housing, favorable amenities, and potential fiscal advantages.

Attracting new residents from closer-in suburbs or cities is also easier with a well-educated population. The college graduates working more flexible office jobs are more likely to gravitate to areas with similarly educated residents—in fact, this is increasingly evident in broader life choices, [even in choosing a spouse](#).

Finally, the county-level poverty rate was considered. This can be associated with higher crime and at least the perception of reduced safety and desirability. Of course, poverty should be viewed as a problem to be addressed and not an issue for movers to avoid, but in this case it is a universally available measure that can help indicate where people may choose to live.

Constructing an index

As was the case when creating a COVID-19 exposure index last spring, there is no historical precedent for the aftereffects of a pandemic in the digital age. But it is still possible to standardize various metrics and derive a useful, if imprecise, measure of how well-positioned various counties are when it comes to a shift toward a hybrid approach to work.

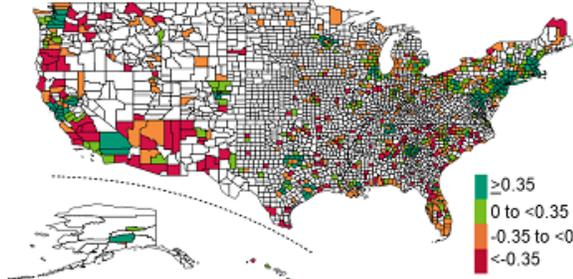
To do this, z-scores were calculated, measuring each county's distance from the mean. The first, and arguably most important, inputs are related to commuting, with a 20% weight assigned to both the share of commuters who travel at least an hour and approximate average commute time. The second broad category is density, with 10% weights assigned to the z-score for overall density and the measure that divides by the average for the CSA. Finally, each of the desirability metrics—affordability, education level, median household income, and poverty—were assigned a 10% weight as well.

Combining these measures yields a similar list to the commute time-based ones shown earlier, but with an even heavier Washington DC and New York City tilt. In fact, those areas account for the top 13 scores before Contra Costa County CA in the Bay Area breaks the streak. This makes sense not just in the context of their commute times and low relative density, but because of the affluence and livability of many suburbs around those cities. Further, the commuting costs in those cities and in the Bay Area are [so prohibitive](#) that it makes more

financial sense for many residents to work from home more often.

Suburbs of Big Cities Are Well-Positioned

Remote work opportunity z-score, county avg=0



Sources: Census Bureau, Moody's Analytics

The bottom of the list includes a combination of small counties with some of the nation's lowest commute times and densely populated urban areas such as Manhattan, which is hurt most by work-from-anywhere. Other large urban counties that could lose residents to their surrounding suburbs include the Bronx, Philadelphia and Milwaukee.

Context and caveats

While this list highlights areas that stand to benefit from increased intra-economy movement, it is critical to remember that they are by no means the only, or even ideal, targets for real estate investors and site selectors. Indeed, the pull of fast-growing regions will likely supplant any advantage conferred upon these suburban counties as the migration of Americans south and west continues apace. In other words, while suburban counties in Idaho, Montana and Utah do not benefit nearly as much from workers who no longer have to stomach a long commute, broader trends still put those states in a very favorable position.

While comparing the impact of inter- versus intra-CSA moves is difficult based on this and other metrics, data from Equifax showing migration patterns from one county to another provide a way to track this in real time.

Moody's Analytics has begun to compile these figures monthly, and one eventual follow-up to this work will involve comparing the shift from cities to suburbs against movement out of expensive gateway metro areas into those that are a tier or two lower. Such comparisons will also allow for refinement of the opportunity score for each county to better reflect the fact that many city dwellers may vote with their moving trucks in the months and years ahead.

It is also important to remember that the impact of hybrid work arrangements should not be overstated. The importance of work in determining where someone lives has been diminishing, and mover rates have dropped steadily in recent years. So just because someone has newfound flexibility does not mean that they will suddenly move an hour or two away.

This is especially true given that many households must make location decisions jointly. In nearly half of married couples, both partners work full time, meaning that increased flexibility for only one spouse may not matter all that much. Given that about half of adults are married, this may leave a quarter of workers unlikely to move based solely on more workplace flexibility. In some cases, both partners will have the ability to work remotely, making a move more feasible, but among married couples there are other considerations like schools and part-time jobs that could reduce mobility. Further, among unmarried workers, some may live with a partner or roommate whose lack of mobility may prevent the household from relocating.

In other words, any expectations for well-positioned suburban and exurban growth should be tempered. Ultimately, this means that the potential demographic and housing market boost for many farther-flung counties due to increased remote work should be viewed as an economic and demographic opportunity but not a game changer.

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The Week Ahead in the Global Economy

U.S.

Inflation will be the focus next week. The U.S. consumer price index for July will be released. The CPI rose 0.9% in June, but it likely moderated in July, since we don't expect used car prices to have risen as quickly as they have recently. Elsewhere on the inflation front, we will get data on producer and import prices. After the release of the CPI and PPI, we will have a good idea of what the core PCE deflator, the Fed's preferred measure of inflation, did in June.

The reopening of the economy and vehicle prices have accounted for the bulk of the gain in the core PCE deflator recently. For example, the core PCE deflator rose 0.4% in June, but the reopening and vehicle prices were responsible for 0.3 of a percentage point of the gain. Initial claims for the week ended August 7 will also be released, but it will probably be a week or two more before we get a cleaner message from new filings, because seasonal adjustment issues and states' early halt to extended unemployment insurance benefits have likely distorted the recent data.

Europe

The U.K. GDP release will be in the spotlight next week. We expect a 0.8% m/m increase in June which would lead to a 4% q/q rise over the quarter. We suspect that consumer spending gave a major boost to second-quarter GDP as lockdown measures were eased throughout the quarter. Weak spots may be seen in fixed investments given the downbeat construction figures in recent months. Exports may have also been held back due to trade frictions and supply issues in production lines.

We expect the euro zone's industrial production to pick up by 0.7% m/m in June following a 1% contraction in

May. The sector will still be held back by supply side constraints on productive capacity. However, demand side conditions are very strong, which points to higher output in sectors less reliant on semiconductors.

Finally, next week will also bring a series of national CPI releases. Inflationary pressures will heat up in July thanks to cost pressures and recovering demand. Also, base effects will remain an important factor behind inflation rates. For example, Germany's inflation will speed up fast thanks to the restoration this year of the 3 ppt VAT cut that was imposed from July to December last year. In France, meanwhile, inflation will slow down in July due to a momentary spike in inflation in July 2020.

Asia-Pacific

Malaysia's June-quarter GDP will be the highlight on the economic calendar. Malaysia's economy is expected to have contracted by 0.2% in quarterly terms in the June quarter, following a 2.7% expansion in the prior quarter. Although recovering external demand and higher commodity prices have supported export-oriented manufacturers, movement control orders have dragged on consumption over this period. Dampened domestic demand and a moderate trade surplus (relative to the March quarter) are expected to have led to a mild quarterly contraction over this period.

China's annual inflation is likely to have settled at 1% in July from 1.1% in June, on the back of stabilizing food prices. In comparison, China's producer prices are likely to have remained relatively unchanged at 8.8% in yearly terms in July. South Korea's unemployment rate is expected to have ticked up to 3.8% in July from 3.7% in June, as extended distancing restrictions weighed on the consumption of services and hurt employment prospects, particularly in customer-facing industries.

Geopolitical Calendar

Date	Country	Event	Economic Importance	Financial Market Risk
23-Jul to 8-Aug	Japan	Summer Olympics, Tokyo	Medium	Low
5-Sep	Hong Kong	Legislative Council elections	Low	Medium
15-Sep to 15-Oct	Italy	Local elections	Low	Low
26-Sep	Germany	Federal elections	Medium	Medium
2-Oct	Brazil	Presidential and congressional elections	High	Medium
22-Oct	Japan	General elections	Medium	Medium
Oct/Nov	ASEAN	ASEAN summit	Low	Low
Nov	Asia-Pacific	Asia-Pacific Economic Cooperation forum	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	Low	Low
28-Nov	Honduras	Presidential, congressional and municipal elections	Low	Low
10-Apr 22	France	General elections	Medium	Medium
29-May	Colombia	Presidential elections	High	Low

Change Likely in Our 10-Year Yield Forecast

BY RYAN SWEET

CREDIT SPREADS

Moody's long-term average corporate bond spread is 98 basis points, up 1 bp from this time last week. This is below its high over the past 12 months of 138 bps and not far above its lowest over the past year of 95 bps. This spread may be no wider than 111 bps by year-end 2021. The long-term average industrial corporate bond spread widened by 1 bp over the past week to 90 bps. This is only modestly above its low over the past 12 months of 86 bps and well below its high of 131 bps.

The long-term investment grade corporate bond spread was 131 basis points, unchanged over the past week. It remains well below its recent high of 194 bps. Its tightest over the past year was 129 bps. Investment-grade industrial corporate bond spreads remained at 135 bps.

The recent ICE BofA U.S. high-yield option adjusted bond spread of 342 basis points widened by roughly 20 bps. The high-yield option adjusted bond spread approximates what is suggested by the accompanying long-term Baa industrial company bond yield spread but wider than that implied by a VIX of 17.5. The VIX has been bouncing around over the past few weeks.

DEFAULTS

The global speculative-grade corporate default rate fell to 4.9% for the trailing 12 months ended in May, returning to where it stood a year earlier and down from 5.6% at the end of April. Among high-yield bond issuers, the U.S. default rate was 2.8% at the end of May when measured on a dollar-volume basis, down from 4.5% at the end of April. The decline reflects the exit of a few large defaults in 2020 from the trailing 12-month window.

According to the Moody's Credit Transition Model, the trailing 12-month global speculative-grade default rate will fall to 1.8% by the end of the year under the MIS baseline scenario and remain little change through May 2022. To derive default-rate forecasts, Moody's CTM uses inputs, including ratings and rating transitions, as well as assumed future paths of high-yield bond spreads and changes in unemployment rates.

In the Moody's Investors Service baseline scenario, the speculative-grade default rate will drop to 1.7% at the end of this year before creeping higher in April and May of next year, touching 1.9%. For Europe, the speculative-grade default rate will steadily decline over the next several months and end 2021 at 1.9%.

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 was \$26.4 billion this week, bringing the year-to-date total to \$1.038 trillion. High-yield corporate bond issuance has slowed recently, but that's typical this time of year. High-yield issuance rose \$13.5 billion, bringing its year-to-date total to \$431.6 billion.

U.S. ECONOMIC OUTLOOK

There was a small downward revision to our GDP forecast for this year, the first in a while. We now look for real

GDP to rise 6.7% this year, compared with the 6.9% in the June baseline. We had been consistently revising our forecast higher for GDP this year because of changes to our fiscal policy assumptions, but downward revision in the July baseline is small. Our forecast for GDP growth this year is a hair above the Bloomberg consensus for a 6.6% gain.

We made no adjustments to our forecast for GDP growth in 2022 and 2023. It remains at 5% and 2.3%, respectively. Supply issues could become a big problem, particularly for autos. Auto industrial production is trailing sales, lending downside risk to the forecast for GDP growth this year and early next.

The July forecast has real GDP surpassing its pre-COVID-19 level in the second quarter, the same as in the prior few forecasts. Year-over-year growth peaks in the second quarter for the cycle, now expected to be 12.9%, compared with the 13.2% in the June baseline.

The reason for the downward revision to GDP is a change to our fiscal policy assumptions. Recent political developments have forced us to tweak our federal fiscal assumptions in the July vintage of the baseline forecast. In late June, President Biden struck an infrastructure deal with a bipartisan group of senators to provide \$579 billion in new spending over 8 years above the expected baseline funding that Congress regularly renews. The July forecast therefore assumes that lawmakers pass this bipartisan infrastructure bill through regular order and a partisan Build Back Better package through budget reconciliation. The latter would only receive Democratic votes and would cover many other areas of Biden's fiscal agenda that were excluded from the bipartisan deal.

The baseline forecast assumes that this partisan reconciliation bill would include the following other infrastructure investments over the next decade: \$300 billion in affordable housing, schools and federal buildings; \$300 billion in manufacturing supply chains; and \$200 billion in R&D. All told, infrastructure spending under the bipartisan bill and the partisan reconciliation measure would total \$1.4 trillion in the July forecast, down slightly from \$1.5 trillion in the June vintage. We also reduced our assumption of new social benefits spending from \$1 trillion in June to \$700 billion in July. If lawmakers pursue these two-track strategy to enacting Biden's Build Back Better proposals, core infrastructure spending, which is arguably the least contentious area of Biden's agenda, would be absent from the partisan reconciliation bill, and its absence could further complicate internal agreement within the Democratic Caucus about which social programs to spend on.

We also made a few tweaks to our Build Back Better assumptions on the tax side. Biden is only assumed to get half of the international tax changes he proposed, given the long and complicated road ahead for a global minimum tax. The tax rate on long-term capital gains for top earners would rise to 28% as Democratic Senator Joe Manchin has suggested, not the 39.6% proposed by the president. Our assumptions surrounding tax credits are unchanged from the prior month, and we still envision \$1.1 trillion in expanded tax credits over the next decade.

In sum, the July forecast assumes \$3.2 trillion in gross fiscal support via direct spending and tax credits. All but \$1 trillion of this amount would be paid for by higher taxes on corporations and well-to-do households over the next decade. However, within 15 years, the assumed Build Back Better agenda would be fully paid for. How gracefully congressional leaders can implement this two-track strategy to enacting the president's fiscal agenda is still uncertain. If the bipartisan infrastructure deal were to falter, the forecast assumes it would instead get included in a partisan reconciliation bill. What matters for the real economy is not necessarily passage, but rather implementation, of the Build Back Better proposals. Whether Congress passes one or two bills to do so, implementation is assumed to occur in early 2022.

There weren't any changes to our assumptions about monetary policy. We still expect the Fed to announce its tapering plans in September and the \$15 billion reduction to occur at each Federal Open Market Committee meeting in 2022. The Fed has signaled that it wants tapering to be on autopilot. Once its monthly asset purchases have been reduced from \$120 billion to zero, the Fed will reinvest proceeds from maturing assets to ensure its balance sheet doesn't contract, which would be contractionary monetary policy. We still look for the first rate hike in the first quarter of 2023.

Market expectations are for an earlier liftoff than either we or the Federal Open Market Committee anticipate. Markets also have a more gradual tightening cycle than in our baseline. Our more aggressive normalization in rates can't be explained by differences in projections for GDP growth, unemployment or inflation—our forecasts are almost spot-on with the FOMC's newly minted ones. It is difficult to see how policymakers could normalize rates in 2023 as slowly as the FOMC currently projects with the economy expected to be at full employment and inflation firmly above its 2% through-the-business-cycle target. If this were so, inflation expectations would almost surely move higher, and that's not something the Fed could shrug off.

There were no significant changes to the forecast for the 10-year U.S. Treasury yield, but the July baseline was posted before the sudden drop in the 10-year Treasury yield that has occurred this week. Technical factors appear to be pushing rates lower and this should be temporary as current 10-year Treasury yield of 1.3% is well below its economic fair value. We use an ordinary least squares regression to estimate an “economic fair value” of the 10-year Treasury yield. A significant deviation from this estimate would imply that there are other forces that are driving long-term interest rates.

The five variables used in the regression are our estimate of monthly real U.S. GDP, the CPI, the current effective

fed funds rate, the Fed's balance sheet as a share of nominal GDP, and a Fed bias measure that was constructed using fed funds futures.

All five variables were statistically significant with the correct sign and explained 63% of the fluctuation in the 10-year Treasury yield. The regression used monthly data. The model's implied “economic fair value” of the 10-year Treasury yield is between 1.6% and 1.65%. We still have the 10-year Treasury yield rising through the rest of the year, ending it near 1.9% but risks are weighted to the downside.

Still Ground to Make Up

BY ROSS CIOFFI

The euro zone's GDP grew more than expected in the second quarter. Output grew 2% q/q in the three months to June, following an upwardly revised 0.3% contraction in the first quarter. Base effects from last year's plunge meant that the year-on-year growth rate soared to 13.7%, but the euro zone's economy still has a long road to recovery. When compared with GDP in the fourth quarter of 2019, output was still nearly 3% lower.

There was divergence among countries. France and Germany's growth was on the slow side, growing 0.9% q/q and 1.5% q/q, respectively, but Spain and Italy beat expectations. Part of this is due to differences in lockdown stringency during the quarter; the other factor was the impact of supply bottlenecks hitting Germany and France relatively harder than other euro zone economies. However, despite the consequently weaker growth in Germany, Friday's preliminary estimates strike an upbeat tone for the outlook in the third quarter overall.

We do not have the detailed breakdown for the second quarter yet, but we expect consumption drove the rebound. Not only did government consumption pick up to fight the effects of this spring's outbreak in infections, but private consumption likely grew during the quarter as services reopened. In France and Germany, lockdowns were rolled over until late May, which weighed on consumption early in the quarter. Retail sales rebounded only in May after the first tangible loosening of lockdown measures. In Italy and Spain, social distancing remained in effect, but shops and businesses were under less stringent rules. Retail sales of goods rebounded in the first quarter in these countries and were pretty stable in the second; spending on services likely picked up later in the second quarter, especially as the first flows of tourists made their way back.

There may be some variation among investments as well. Germany and France were likely more affected by global supply-chain disruptions due to the importance of semiconductor-dependent industries in their manufacturing sectors. Output of transport equipment dropped throughout the quarter, which can be seen from the production viewpoint through lower value added in industry and from the expenditure viewpoint through lower investments and weaker exports. Indeed, Germany and France's trade balances deteriorated considerably in April and May vis-à-vis the first quarter, although in each case, it wasn't just weaker

exports but stronger imports that hit the balances. Despite supply disruptions holding back production and trade, according to survey data, the demand environment in Europe and major trade partners such as the U.S. is strong. However, there is some downside risk from Asia given the resurgence of the COVID-19 pandemic there.

The strong performance in Italy and Spain means that their recoveries are catching up. Compared with the level in the last quarter of 2019, output in France, Italy and Germany is 3.3% to 3.9% lower; Spain is still the furthest behind, down 6.8%. Tourism plays an important role in each country's economy, but it is much more central to Spain's. The hit to GDP in 2020 was therefore particularly severe and difficult to recover from given the outsize effects of the pandemic on this sector. There is still a question mark over this summer given the tightening of restrictions on travel to Spain following the outbreak of the Delta variant.

Unemployment brightens the mood further

The euro zone's unemployment rate dropped to 7.7% in June, down from an upwardly revised 8% in May. The decrease means the unemployment rate is almost where it was before the start of the pandemic, an impressive feat. The decline comes as people have been free to search for jobs thanks to the improved pandemic situation. The unemployment rate declined despite a large increase in the labor force, which grew by 800 000 people, meaning the labor market around the currency area managed to absorb a large number of new or returning workers. Together with the decline in the number of unemployed people, the economy has created 2 million new positions, the second-best number since the start of the pandemic.

The improvement was spread out around the euro zone, with large declines in some northern and southern countries. In the north, the Netherlands' unemployment rate declined by 0.5 percentage point to levels observed before the pandemic, while France and Belgium also recorded large declines in joblessness. Meanwhile, all tourist-oriented southern countries recorded drops, led by Greece with a 0.6-percentage point decline and Italy with a 0.5-percentage point decline and smaller declines in Spain and Portugal. This suggests that the retreating pandemic allowed the tourism season to proceed according to plan, something also visible in the GDP numbers released Friday.

RBA Still Plans to Taper Bond Purchases Soon

BY KATRINA ELL AND SHAHANA MUKHERJEE

The Reserve Bank of Australia kept its monetary settings unchanged in August, as expected. The most important aspect of the August announcement was that the RBA maintained its plan to taper bond purchases in early September to A\$4 billion (from A\$5 billion) and then reduce it further in mid-November. Markets widely expected the central bank to step back from this loose commitment, given that economic recovery has paused with Greater Sydney being in an extended lockdown. As a result, it wasn't surprising that the Australian dollar gained about 0.3% against the greenback following the statement being released.

Importantly, the RBA indicated in the final and forward-looking paragraph of the statement that its plan to taper bond purchases in the second half of 2021 is flexible. The near-term path of the Australian economy is highly uncertain and is dependent on how long it takes to contain the current infection outbreak in Greater Sydney, whether other states go into extended lockdowns, and how the vaccination program progresses. Greater Sydney is slated to be in lockdown until at least 28 August, translating to a nine-week pause on most forms of economic activity. Brisbane is currently in a relatively short lockdown that is due to end on 8 August, while Victoria recently emerged from another short lockdown.

Australia's relatively delayed vaccination schedule will be one of the key drivers of near-term economic recovery. The federal government has flagged a significant and permanent easing of restrictions once 70% of the

population is fully vaccinated, while the premier of New South Wales will likely ease the harsh lockdown impacting Greater Sydney when 50% of the population is fully vaccinated. There is significant progress to be made given that only around 20% of the population is fully vaccinated.

Although the situation is highly uncertain, the Moody's Analytics baseline forecasts GDP to contract by at least 0.2% in quarterly terms in the September quarter, bringing full-year GDP growth to 4.4% in 2021. We have incorporated a slightly stronger bounce-back in the December quarter, under the assumption that the Greater Sydney lockdown will be over by then. Fiscal policy is helping to cushion the hit to domestic demand from stay-at-home orders for more than 20% of Australia's population, but it cannot entirely offset the hit from a prolonged period of constrained economic activity. Interest rate hikes are unlikely to materialise until mid-2023.

With cash rate increases a long way off, the property market is a concern for the central bank. This is particularly the case given elevated investor participation coupled with high loan approvals. The RBA reiterated that it is closely watching lending standards. We reiterate that macroprudential policies are likely to be introduced in coming months to cool property price growth, particularly if the lockdowns are effective and allow the economic recovery to resume late in the September quarter.

A Further Improvement to U.S. Corporate Credit Quality

BY STEVEN SHIELDS

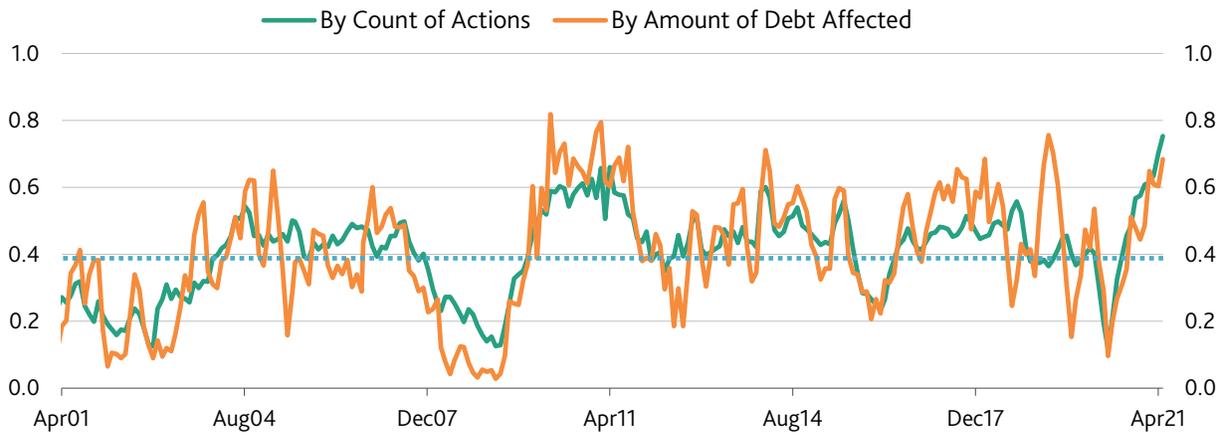
U.S. corporate credit quality improved this past week with upgrades accounting for 17 of 19 changes. Northrop Grumman Corp.'s senior unsecured rating was raised to Baa1 from Baa2 with the change impacting \$11.7 billion in outstanding debt. The improved rating reflects the reduction of the structural subordination in the capital structure following the company's decision to issue six new notes that will replace the existing six notes outstanding at its subsidiaries Northrop Grumman Systems Corp. and Northrop Grumman Space & Mission Systems Corp. Moody's Investors Service also raised ratings of Allison Transmission Inc., including its corporate family rating, to Ba1 from Ba2. The upgrade reflects Moody's expectation that Allison will maintain its strong competitive position in the global market for automatic transmissions used in medium and heavy trucks and commercial vehicles. The largest downgrade in the period was issued to United States Cellular Corp.

Moody's lowered the rating of the company's senior unsecured notes to Ba2 from Ba1 to reflect the increase in the amount of debt structurally senior to US Cellular's senior unsecured notes following the company's plan to redeem all of US Cellular's \$342 million in outstanding senior unsecured notes due in 2060.

European rating activity was very limited in the period with Moody's issuing just two rating changes. EnQuest plc's corporate family rating was raised to B3 from Caa1. The upgrade reflects the company's improved liquidity following the refinancing of the bank debt with a new Reserve Based Lending Senior Secured Facility as well as an improved outlook for free cash flow generation. Meanwhile, Moody's Investors Service aligned several ratings and assessments of Liberbank with those of Unicaja Banco to reflect the merger by absorption of Liberbank into Unicaja.

RATINGS ROUND-UP

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



* Trailing 3-month average

Source: Moody's

FIGURE 2
Rating Key

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

FIGURE 3

Rating Changes: Corporate & Financial Institutions - US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG
7/28/2021	UNIVERSAL HEALTH SERVICES, INC.	Industrial	SrSec/BCF	1,200.00	U	Ba1	Baa3	SG
7/28/2021	ALLISON TRANSMISSION, INC.	Industrial	LTCFR/PDR/SrSec/BCF/SrUnsec	2,300.00	U	Ba2	Ba1	SG
7/29/2021	ANTHEM, INC.-MMM HEALTHCARE, LLC	Financial	LFSR		U	Ba1	A2	SG
7/29/2021	JETBLUE AIRWAYS CORP.	Industrial	SrSec/BCF		U	Ba2	Baa3	SG
7/29/2021	CADENCE DESIGN SYSTEMS, INC.	Industrial	LTIR/SrUnsec	350.00	U	Baa2	A3	IG
7/29/2021	SUPERIOR INDUSTRIES INTERNATIONAL, INC.	Industrial	SrSec/BCF		U	B1	Ba3	SG
7/29/2021	BCP RAPTOR, LLC	Industrial	LTCFR/PDR/SrSec/BCF		U	B3	B2	SG
7/29/2021	MAGNOLIA OIL & GAS CORP.-MAGNOLIA OIL & GAS OPERATING LLC	Industrial	SrUnsec	400.00	U	B3	B2	SG
7/29/2021	BCP RAPTOR II, LLC	Industrial	SrSec/BCF/LTCFR/PDR		U	Ba3	Ba2	SG
7/29/2021	CORE & MAIN HOLDINGS, LP-CORE & MAIN LP	Industrial	LTCFR/PDR		U	B2	Ba3	SG
7/30/2021	INFRASTRUCTURE & ENERGY ALTERNATIVES, INC.-IEA ENERGY SERVICES LLC	Industrial	LTCFR/PDR		U	B3	B2	SG
7/30/2021	CRACKLE INTERMEDIATE CORP.-WIREPATH LLC	Industrial	LTCFR/PDR/SrSec/BCF		U	B3	B2	SG
8/2/2021	NORTHROP GRUMMAN CORPORATION	Industrial	SrUnsec	11,650.00	U	Baa2	Baa1	IG
8/2/2021	TELEPHONE AND DATA SYSTEMS, INC.-UNITED STATES CELLULAR CORPORATION	Industrial	SrUnsec	5,922.00	D	Ba1	Ba2	SG
8/2/2021	AES CORPORATION (THE)-AES EL SALVADOR TRUST II BIS	Utility	SrUnsec/LTCFR	310.00	D	B2	B3	SG
8/2/2021	DIEBOLD NIXDORF, INC.	Industrial	SrSec/LTCFR/PDR/BCF/SrUnsec	1,515.03	U	B3	B2	SG
8/2/2021	DAYCO, LLC-DAYCO PRODUCTS, LLC	Industrial	SrSec/BCF/LTCFR/PDR		U	Caa1	B3	SG
8/3/2021	CENTURY COMMUNITIES, INC.	Industrial	LTCFR/PDR/SrUnsec	900.00	U	B1	Ba3	SG
8/3/2021	STERLING INTERMEDIATE CORP.-STERLING MIDCO HOLDINGS, INC.	Industrial	LTCFR/PDR/SrSec/BCF		U	B3	B2	SG

Source: Moody's

FIGURE 4

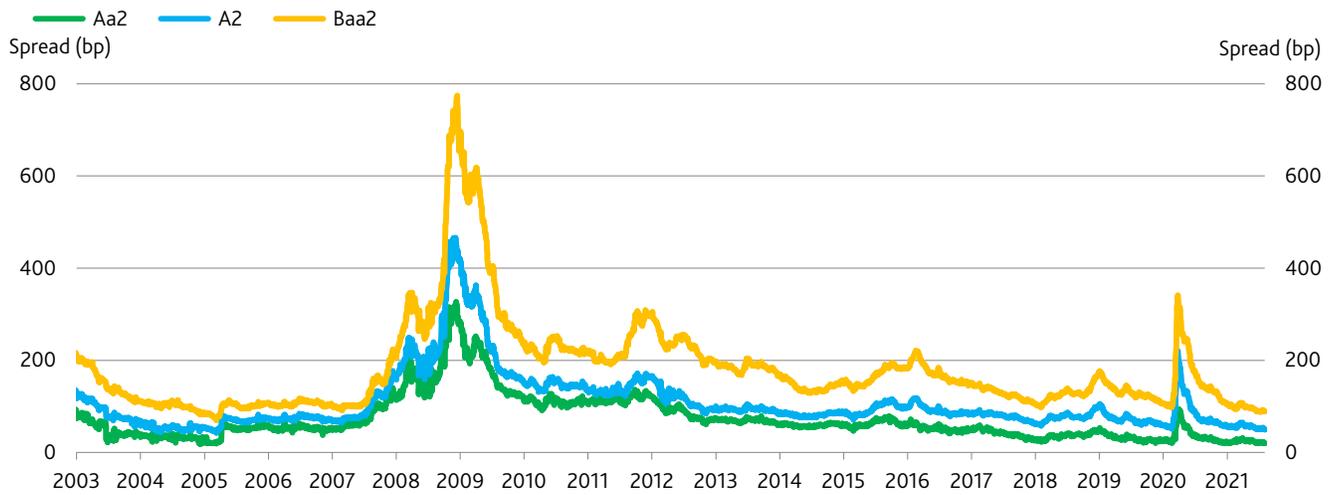
Rating Changes: Corporate & Financial Institutions - Europe

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	New IG/SG	Country
7/30/2021	LIBERBANK	Financial	LTD/STD		U	Ba2	Baa3	SG	SPAIN
7/30/2021	ENQUEST PLC	Industrial	LTCFR/PDR/SrUnsec	677.48	U	Caa1	B3	SG	UNITED KINGDOM

Source: Moody's

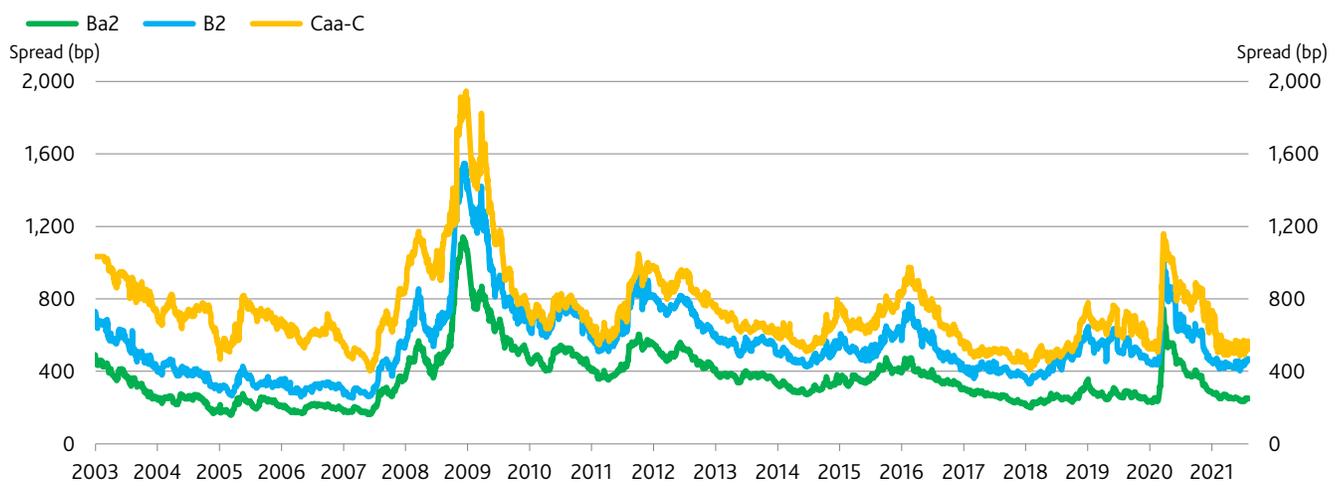
MARKET DATA

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 (July 28, 2021 – August 4, 2021)

CDS Implied Rating Rises	CDS Implied Ratings		
	Aug. 4	Jul. 28	Senior Ratings
Issuer			
DTE Energy Company	A3	Baa2	Baa2
TECO Energy, Inc.	A2	Baa1	Baa1
Citigroup Inc.	Baa1	Baa2	A3
Citibank, N.A.	Baa2	Baa3	Aa3
Cox Communications, Inc.	Baa1	Baa2	Baa2
Crown Castle International Corp.	Baa1	Baa2	Baa3
Abbott Laboratories	A3	Baa1	A2
Constellation Brands, Inc.	Baa2	Baa3	Baa3
CenterPoint Energy, Inc.	A3	Baa1	Baa2
Expedia Group, Inc.	Baa3	Ba1	Baa3

CDS Implied Rating Declines	CDS Implied Ratings		
	Aug. 4	Jul. 28	Senior Ratings
Issuer			
Archer-Daniels-Midland Company	A1	Aa2	A2
Illinois Tool Works Inc.	A1	Aa2	A2
E.I. du Pont de Nemours and Company	A1	Aa2	A3
JPMorgan Chase Bank, N.A.	A3	A2	Aa2
Caterpillar Financial Services Corporation	A2	A1	A2
Amgen Inc.	A1	Aa3	Baa1
Bank of New York Mellon Corporation (The)	A3	A2	A1
Chevron Corporation	A1	Aa3	Aa2
Lowe's Companies, Inc.	Aa3	Aa2	Baa1
Carnival Corporation	Caa3	Caa2	B2

CDS Spread Increases	CDS Spreads			
	Senior Ratings	Aug. 4	Jul. 28	Spread Diff
Issuer				
Staples, Inc.	Caa1	1,031	925	106
American Airlines Group Inc.	Caa1	777	679	98
Nabors Industries, Inc.	Caa2	1,006	932	73
Carnival Corporation	B2	498	436	61
Royal Caribbean Cruises Ltd.	B2	438	389	49
United Airlines Holdings, Inc.	Ba3	451	409	42
Embarq Corporation	Ba2	324	291	33
Lumen Technologies, Inc.	B2	309	277	32
Rite Aid Corporation	Caa3	904	872	32
Apache Corporation	Ba1	236	210	26

CDS Spread Decreases	CDS Spreads			
	Senior Ratings	Aug. 4	Jul. 28	Spread Diff
Issuer				
Talen Energy Supply, LLC	B3	2,235	2,722	-487
The Terminix Company, LLC	B1	195	228	-32
Plains All American Pipeline L.P.	Ba1	186	213	-27
United States Steel Corporation	B3	301	325	-24
Avis Budget Car Rental, LLC	B3	270	287	-17
Encompass Health Corp.	B1	169	186	-17
International Game Technology	B3	233	249	-16
K. Hovnanian Enterprises, Inc.	Caa3	706	720	-13
DTE Energy Company	Baa2	42	52	-10
TECO Energy, Inc.	Baa1	40	50	-10

Source: Moody's, CMA

CDS Movers

Figure 4. CDS Movers - Europe (July 28, 2021 – August 4, 2021)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer		Aug. 4	Jul. 28	Senior Ratings
Erste Group Bank AG		Aa3	A3	A2
Credit Suisse AG		A3	Baa2	A1
HSBC Bank plc		Aa2	A1	A1
Deutsche Bank AG		A3	Baa1	A3
Intesa Sanpaolo S.p.A.		Baa1	Baa2	Baa1
ING Groep N.V.		A1	A2	Baa1
Credit Agricole Corporate and Investment Bank		Aa1	Aa2	Aa3
Standard Chartered PLC		Baa1	Baa2	A3
RCI Banque		Ba2	Ba3	Baa2
Stellantis N.V.		Baa3	Ba1	Baa3

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer		Aug. 4	Jul. 28	Senior Ratings
Proximus SA de droit public		A3	Aa2	A1
CaixaBank, S.A.		Baa1	A3	Baa1
Banque Federative du Credit Mutuel		A1	Aa3	Aa3
Landesbank Hessen-Thueringen GZ		A2	A1	Aa3
KBC Bank N.V.		Aa3	Aa2	A1
National Grid Electricity Transmission plc		A1	Aa3	Baa1
Severn Trent Plc		Baa2	Baa1	Baa2
adidas AG		A1	Aa3	A2
Italy, Government of		Baa3	Baa3	Baa3
France, Government of		Aaa	Aaa	Aa2

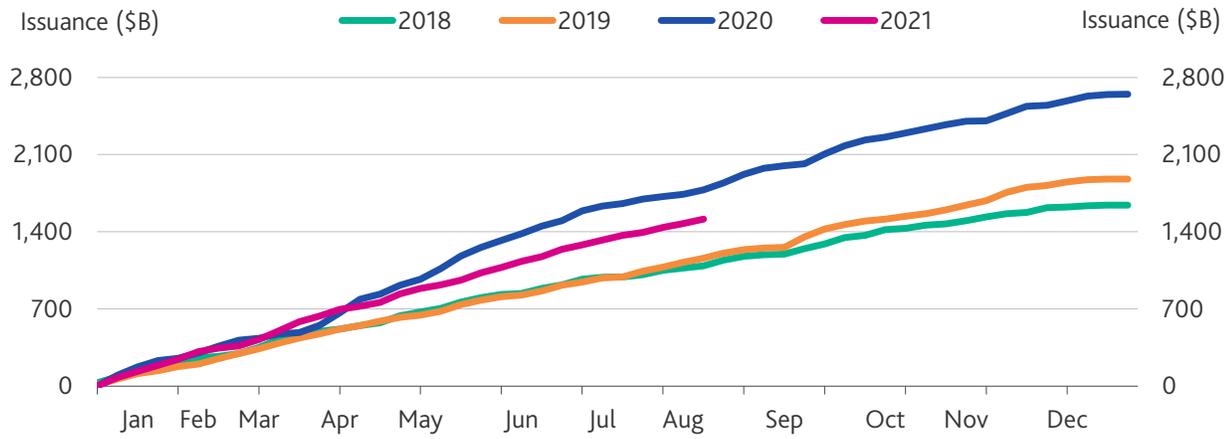
CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Aug. 4	Jul. 28	Spread Diff
Boparan Finance plc	Caa1	947	925	23
National Bank of Greece S.A.	Caa1	203	189	14
Severn Trent Plc	Baa2	58	47	11
Proximus SA de droit public	A1	43	33	10
Novafives S.A.S.	Caa2	833	823	10
Iceland, Government of	A2	59	53	6
Banco Comercial Portugues, S.A.	Ba1	178	174	4
Vue International Bidco plc	Ca	623	620	3
Iceland Bondco plc	Caa2	429	427	2
Spain, Government of	Baa1	30	29	1

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Aug. 4	Jul. 28	Spread Diff
Vedanta Resources Limited	Caa1	930	1,024	-95
thyssenkrupp AG	B1	240	257	-17
RCI Banque	Baa2	175	191	-16
Renault S.A.	Ba2	174	189	-15
Premier Foods Finance plc	B3	178	192	-14
Banca Monte dei Paschi di Siena S.p.A.	Caa1	169	180	-11
Deutsche Lufthansa Aktiengesellschaft	Ba2	244	254	-10
Stellantis N.V.	Baa3	91	100	-9
Credit Suisse AG	A1	45	54	-9
CMA CGM S.A.	B3	318	327	-9

Source: Moody's, CMA

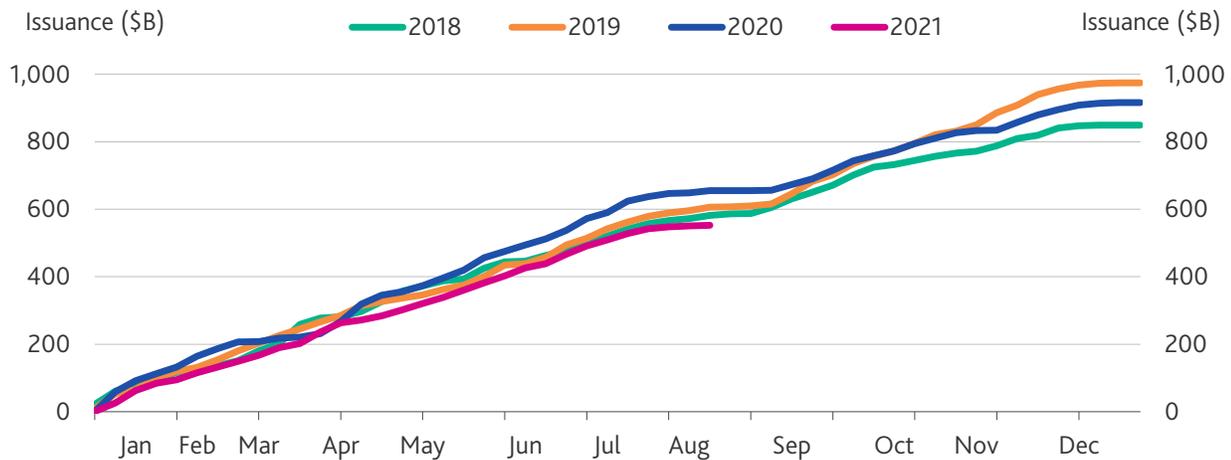
ISSUANCE

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

	USD Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	26.350	13.469	40.258
Year-to-Date	1,037.916	431.633	1,514.366

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	1.551	0.000	1.580
Year-to-Date	429.121	106.946	552.379

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

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