

**WEEKLY MARKET
OUTLOOK**

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Fed's Powell Doesn't Need to Channel His Inner Volcker

As many of us learned in Principles of Macroeconomics, the Federal Reserve had to aggressively tighten monetary policy to tame inflation in the late 1970s and early 1980s. Some have drawn parallels between today's high inflation and that of 1970s and 1980s. This is not an apples-to-apples comparison, but one solution that helped former Fed Chair Paul Volcker all those years ago could aid current Fed Chair Jerome Powell now.

When Volcker became chair of the Federal Reserve Board in August 1979, the annual average inflation rate in the United States was 9%. Inflation had risen by 3 percentage points over the prior 18 months and would peak around 11% in early 1980. Volcker raised the effective fed funds rate from 11% to 20% in early 1980. This has been widely credited for breaking inflation's back. But it was only part of the reason, since Volcker had a lot of help from business investment.

Higher oil prices were part of the U.S. inflation problem in the late 1970s and early 1980s, but they were also part of the cure. U.S. nominal business investment in mining exploration, shafts and wells jumped in response to higher global energy prices. When Volcker took over as Fed chair, nominal business investment in mining exploration, shafts and wells accounted for 0.78% of nominal GDP, but that would steadily increase until it peaked at 1.8% of nominal GDP in the fourth quarter of 1981. The number of active rotary rig counts in the U.S. more than doubled from 1979 to 1981.

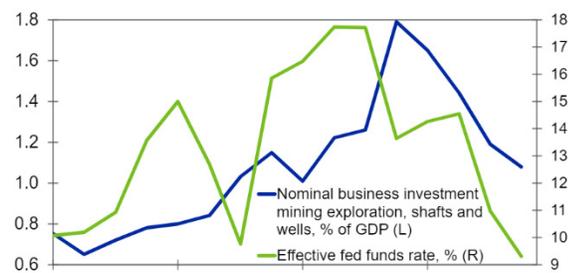
We used a Granger causality test to check if there is a causation relationship between the CPI for energy and U.S. business investment in mining exploration, shafts and wells. The results show that the CPI for energy does Granger-cause changes in investment mining exploration, shafts and wells. We tested this with several lags. The causal relationship runs in both directions, which isn't surprising.

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Volcker Had Help



Sources: BEA, Federal Reserve, Moody's Analytics

The additional investment helped cool inflation in the U.S., but Volcker's approach to monetary policy also helped. The Fed then didn't understand the importance of inflation expectations, which became dislodged. Aggressive interest rate hikes re-anchored expectations. However, business investment in mining exploration, shafts and wells would have been able to accomplish the job.

It could take longer for business investment in mining exploration, shafts and wells to help Powell because of supply-chain and labor-supply issues. Active rotary rig counts are steadily rising but are still well below their pre-pandemic level and significantly lower than would be expected with West Texas Intermediate crude oil prices north of \$100 per barrel. This could cause the Fed to raise interest rates more than we have indicated in our baseline forecast and more than markets are pricing in.

We created a scenario where the Fed does whatever it takes to bring year-over-year growth in the core personal consumption expenditure deflator back down to the central bank's 2% target by the end of 2023. The core PCE deflator is the Fed's preferred measure of inflation. If we adjust our baseline outlook for core PCE inflation by the average forecast error for the series in 2021, then the core PCE deflator will decelerate from a peak of 5.4% in the first quarter of 2022 to 3.5% by this time next year. The rationale for adding the forecast error to the baseline to create an alternative baseline forecast is that the forecast was consistently low for inflation, and risks are heavily weighted toward that occurring again.

The Fed is assumed to increase the target range for the fed funds rate by 50 basis points at each Federal Open Market Committee meeting starting in May and wrapping up by the end of the first quarter of 2023. In such a way, the terminal rate—the peak in the fed funds rate during this tightening cycle—would be 4%, significantly higher than the 2.75% terminal rate penciled into the current baseline. The Fed

keeps the fed funds rate at 4% through 2023 before cutting rates. By the end of 2024, the fed funds rate returns to its long-run equilibrium rate, which we estimate to be 2.5%. The result is a recession, but the Fed tames inflation. For the Fed to engineer a soft landing—taming inflation without causing a recession—it will need some help from business investment.

There are other things that could help tame energy inflation, including the restoration of Middle East oil production, the shift in consumer preferences toward more fuel-efficient vehicles, and the shift away from oil in electricity production.

Fed will need help elsewhere

The tightening in U.S. financial market conditions recently will help the Fed cool the economy, but a more significant tightening is likely needed. Financial market conditions are the primary channel that money flows through to economic activity. Financial markets are already pricing in an aggressive Fed that will front-load interest rates, returning the fed funds rate to its neutral rate by the end of this year. A number of indexes that we track have shown that financial conditions have tightened, but the Fed is going to need more if growth is to slow enough to tame inflation and prevent the unemployment rate from falling too low.

The unemployment rate is close to its pre-pandemic rate and signs point to it falling even further over the next few months. This complicates the Fed's job. There has never been an increase in the unemployment rate of more than 30 basis points, on a three-month moving average basis, that wasn't associated with a recession. Once the labor market overshoots full employment, it is extremely difficult for the Fed to pull off a soft landing, since the overshoot would then require the unemployment rate to rise. In that situation, returning the unemployment rate to its full-employment level without a recession would be challenging.

The Fed's latest Summary of Economic Projections has the unemployment rate averaging 3.5% in the fourth quarter of this year and next, even as it expects above-potential GDP growth. The Fed could be anticipating further increases in the labor force participation rate, which would keep the unemployment rate relatively flat. However, the unemployment rate has been dropping noticeably faster than the Fed anticipated since the end of the recession.

The Fed's SEP has real GDP growth of 2.2% next year and 2% in 2024. This is above its estimate of potential GDP growth of 1.8%. To cool inflation, the Fed will likely need GDP growth closer to 1%, if not lower, in each of the next two years. Therefore, the Fed will want financial market conditions to tighten further to help take some of the steam out of the economy. Reducing GDP growth in each of the

next two years via tighter financial market conditions is possible. Our past work has shown that a 10% decline in the S&P 500 plus a 100-basis point increase in the 10-year Treasury yield reduces GDP growth over the course of a year by roughly 1 percentage point.

Options for the Fed include raising the target range for the fed funds rate more quickly—there have been rumblings of a 75-basis point rate hike. The Fed could also signal that the terminal rate this cycle is higher than previously thought. But what the Fed will likely lean on first is its balance sheet, which it could use to tighten financial market conditions.

Q1 GDP: Not Great, Not a Recession

BY MATT COLYAR

The preliminary estimate of first-quarter U.S. [GDP](#) from the Bureau of Economic Analysis disappointed. Expectations for a sharp deceleration in growth from the previous quarter were unanimous, though the 1.4% annualized contraction in output was much weaker than expected.

Does this mean the U.S. is in an economic recession?

From the period of 1960 through the global financial crisis and ensuing recession, a quarterly contraction in GDP in the U.S. was always associated with a recession—either immediately preceding it or, of course, occurring in the midst of one. However, after the Great Recession, during the decades-long expansion from 2010 to 2020, there were three instances of quarterly contractions in real GDP: twice in 2011 and again in early 2014, that did not portend or represent an economic recession.

The explanation is largely a function of changes in global trade over time. From 1960 to 1999, imported goods and services in the U.S. were equivalent to about 7% of real GDP on average. From 2000 to 2019, the scale more than doubled to 17%. The scale of exports grew as well, from 6% of real GDP to 12%. Exports less imports, or net exports, is a component in GDP calculations. The growing scale of trade in the U.S. has meant GDP estimates are increasingly sensitive to temporary fluctuations in trade flows. As with Thursday's estimate, a widened trade deficit can offset modest economic growth elsewhere and drag the headline GDP figure into negative territory. Net exports were a 3.2-percentage point drag on GDP growth in the first quarter.

According to the [National Bureau of Economic Research](#), recessions require a significant decline in economic activity and the reductions must be broad-based over a period of several months. Weaker export growth or an acceleration in domestic demand for imports, both of which widen the trade deficit, would not constitute a broad-based downturn in economic activity.

The other culprit in the BEA's preliminary estimate of first-quarter GDP is private inventories, which contributed a

negative 0.8-percentage point. We expected the inventory build to be a drag from the fourth quarter to the first. The rationale is an arithmetic one. As a component of GDP, inventories are calculated as a change in growth, not the change in stock. In other words, for inventories to have been a neutral contributor to first-quarter GDP, businesses would have needed to add to their stockpiles at the same scale they did in the fourth quarter. Inventories constituted a massive 5.3-percentage points to the fourth quarter's 6.9% annualized GDP gain. Businesses worked tirelessly to replenish scant inventories in the first quarter, but besting the previous quarter's build was always unlikely.

The three quarterly contractions in GDP occurring between the global financial crisis and COVID-19 pandemic occurred because of some combination of a widened trade deficit and the quarterly oscillations of the inventory build.

Consumption, the largest component of GDP, did not contract in those instances or in the first quarter of 2022. Consumption, particularly on services, accelerated in the quarter. Stripping out net exports, real GDP grew at an annualized rate of 2.3%. Remove inventories as well, and real GDP accelerated from 2% annualized growth in the fourth quarter to 3% annualized in the first three months of 2022. Additionally, real final sales to domestic private purchasers, which is less volatile than GDP and offers a clearer glimpse into consumption behavior, accelerated at an annualized rate of 3.7% from the last quarter of 2021.

The strength of household balance sheets in the U.S. will keep the first quarter's disappointing GDP print from becoming a more broad-based downturn. However, downside risks are easy to find, and our baseline outlook has been incrementally downgraded of late. Inflation, and the lengths the Federal Reserve will need to go to quash it, has supplanted the health crisis as the primary downside risk. Our latest baseline calls for GDP to expand 3% in 2022, a deceleration from 2021's 5.7% growth.

The Week Ahead in the Global Economy

U.S.

The U.S. economic calendar is packed next week. The May meeting of the Federal Open Market Committee will garner a ton of attention and is likely to mark peak hawkishness for the Fed. We expect the central bank to announce a 50-basis point increase in the target range for the fed funds rate and a reduction in the balance sheet. This is an aggressive move by the Fed that won't be duplicated at future meetings. On the data front, we will get April nonfarm employment, ISM surveys, and productivity and costs.

Europe

The Bank of England's monetary policy announcement will stand out next week, though the 25-basis point rate hike we've written into our baseline is widely expected. The BoE will likely increase its bank rate to 1% from 0.75%, making for a fourth consecutive hike. With inflation likely spiking in April, we see the BoE looking to get a hand over inflation expectations.

Meanwhile, we expect industrial production to weaken in the major euro zone economies, with output in the sector slumping 0.6% m/m in Germany, 0.5% in France and 0.5% in Spain. Supply disruptions and rising energy costs will be the factor that mutes output in exposed sectors. Car manufacturers in particular will likely suffer another month of falling output.

The labor market in the euro zone likely tightened further in March with the unemployment rate declining to 6.7% from 6.8%. March may be the last month of gains before the labor market falls into a holding pattern with firms becoming more cautious amid an increasingly uncertain outlook regarding their own costs and client demand. That

said, upsides will come from an expected strong tourism season this summer. Consumer-facing services will rebound after the past years of pandemic lockdowns and restrictions.

However, euro zone retail sales will slump 0.3% m/m in March. Here we see both the effect of consumers rechanneling their demand toward services and away from goods, and the effect of higher prices. Rapidly accelerating inflation is chipping away at purchasing power and will eat into real consumption.

Asia-Pacific

China's manufacturing PMI for April will be the highlight on the economic calendar. We expect the index to have moderated to 49.2 in April from 49.5 previously. China's factory activity contracted in March, marking the first retreat since October, as lockdowns were imposed across important industrial cities to contain the Omicron-led resurgence of COVID-19. For the most part, authorities have stuck to their strict 'zero-COVID' containment approach; major production centres such as Shanghai have been under strict movement restrictions through most of April. The manufacturing PMI will show the strain from extended curbs and resulting supply disruptions; it is increasingly likely that supply snags will persist in the near term and weigh on domestic and regional output through the June quarter.

South Korea's inflation is expected to have gained pace in April, settling at 4.3% year-on-year after a 4.1% rise in March. This reflects the increasing impact of higher energy and commodity prices on the cost of living. New Zealand's unemployment rate is likely to have held steady at 3.2% in the March quarter; continued tightness in the labour market has been aggravated by an absence of international labour immigration due to prolonged border closures.

Geopolitical Calendar

Date	Country	Event	Economic Importance	Financial Market Risk
8-May	Hong Kong	Chief executive election	Low	Low
9-May	Philippines	Presidential election	Low	Low
12-13-May	U.S.	U.S.-ASEAN summit	Medium	Low
22-26-May	Switzerland	World Economic Forum annual meeting	Medium	Low
29-May	Colombia	Presidential election	Medium	Low
29-30-Jun	NATO	NATO Summit, hosted by Madrid	Medium	Medium
Jun/Jul	PNG	National general election	Low	Low
2-Oct	Brazil	Presidential and congressional elections	High	Medium
Oct	Indonesia	G20	Medium	Low
Oct/Nov	China	National Party Congress	High	Medium
7-Nov	U.N.	U.N. Climate Change Conference 2022 (COP 27)	Medium	Low

Window Narrows for Democrats on a Reconciliation Bill

BY RYAN SWEET

CREDIT SPREADS

Moody's long-term average corporate bond spread is 151 basis points, 7 bps wider than at this time last week and narrower than the 175 bps average in March. The long-term average industrial corporate bond spread widened 6 bps to 138. It averaged 161 bps in March.

The recent ICE BofA U.S. high-yield option adjusted bond spread is off its recent peak of 420 bps but it tightened around 33 bps over the past week to 389. The Bloomberg Barclays high-yield option adjusted spread has bounced around recently and is currently 375 bps compared with the 345 bps this time last week. The high-yield option adjusted bond spreads approximate what is suggested by the accompanying long-term Baa industrial company bond yield spread and narrower than that implied by a VIX of 28.

Volatility in high-yield corporate bond spreads also isn't significantly higher than just prior to the pandemic, when the ebbs and flows in the economy were noticeably less than now. We reached this conclusion after calculating a 25- and 50-day rolling standard deviation in the high-yield corporate bond spread.

Defaults

The trailing 12-month global speculative-grade default rate was 2.0% at the end of March, unchanged from the prior month. This default rate calculation does not include those defaulting and non-defaulting Russian issuers whose ratings were withdrawn by Moody's in March. The March default rate would have been 3.1% if we had included those issuers. However, including these issuers in the default rate calculations would be misleading because Moody's no longer can obtain adequate information to ascertain their default status.

Two factors will be critical in driving near-term default trends: spillover severity of the Russia-Ukraine military conflict and the aggressiveness of monetary tightening in major economies. If the military conflict extends and international sanctions escalate, the higher the chances of a global recession and the greater the credit risks it introduces. Under our baseline scenario, however, we are not forecasting a global recession. One reason is that although the invasion of Ukraine is unambiguously negative for consumer confidence and economic activity, the crisis hit when the global economy was at cruising altitude. This is consistent with what high-yield spreads are indicating; they

have widened in Europe and the U.S., but they remain near or below their historical averages for now.

Against this backdrop, Moody's Credit Transition Model predicts that the global speculative-grade corporate default rate will edge lower to 1.9% for April, May and June before rising to 2.9% in March 2023. That rate, if realized, would still be below the long-term average of 4.1%. Our baseline forecasts assume that the U.S. high-yield spread will widen to 497 bps over the next four quarters from about 350 bps now. This will be partially offset by a slight improvement in the U.S. unemployment rate, which we expect to edge lower to 3.5% by the end of March 2023 from the current rate of 3.6%.

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.

Issuance softened in the third quarter of 2021 as worldwide offerings of corporate bonds revealed a year-over-year decline of 5% for investment grade. U.S. denominated corporate bond issuance also fell, dropping 16% on a year-ago basis. High-yield issuance fared noticeably better in the third quarter.

Fourth-quarter 2021's worldwide offerings of corporate bonds fell 9.4% for investment grade. High-yield US\$ denominated high-yield corporate bond issuance fell from \$133 billion in the third quarter to \$92 billion in the final three months of 2021. December was a disappointment for high-yield corporate bond issuance, since it was 33% below its prior five-year average for the month.

In the first quarter of 2022, worldwide offerings of investment grade corporate bonds totaled \$901 billion, up 12% on a year-ago basis.

In the week ended April 22, US\$-denominated high-yield issuance totaled \$6.55 billion, noticeably more than in the prior week. This brings the year-to-date total to \$73.1 billion. Investment-grade bond issuance rose \$51.9 billion in the week ended April 22, bringing its year-to-date total to \$614.7 billion. Total US\$-denominated issuance is currently tracking that seen in 2018 and 2019.

U.S. ECONOMIC OUTLOOK

Adjustments to our forecast in April were more significant than in prior months. The larger downward revision to the baseline forecast for U.S. GDP growth this year is mostly attributed to the larger adverse impact of the military conflict between Russia and Ukraine on the European economy, global energy prices, and U.S. financial market conditions.

One link between the Russian invasion and the global economy is through financial market conditions. To gauge the effect of geopolitical risk on U.S. financial markets, we leaned on a vector autoregression model that allowed us to estimate the response of equity prices, oil prices, the VIX, and high-yield corporate bond spreads. We also included some measures of economic activity. A sudden increase in geopolitical risk had a greater impact on financial markets than the economy. However, the tighter financial market conditions, with a lag, weigh on the economy.

Some other variables included in our VAR were the Federal Reserve's geopolitical risk index and economic policy uncertainty. There are two periods where both geopolitical risk and U.S. policy uncertainty increased, including the Gulf

War and 9/11. The VAR used monthly data since January 1995 and included a few lags.

Our VAR results revealed that financial market conditions have tightened in line with that implied by the rise in geopolitical risk. However, the increase in volatility and widening high-yield corporate bond spreads are sticky and will have a larger drag on growth than previously thought. Also, oil prices have been a little higher than we anticipated in the prior baseline.

Window is closing

There is still a window of opportunity for Democrats to pass a reconciliation bill, but it is closing. The new baseline forecast assumes Democrats pass a \$560 billion package that is solely focused on clean-energy tax credits and climate resilience investments. Previously, we assumed Democrats would also modestly expand the Child Tax Credit by making it fully refundable on a permanent basis, but this assumption was removed in April, reducing the size of spending under reconciliation by about \$50 billion over 10 years. There were no changes to our assumptions on the pay-for side. The package is still assumed to feature more than \$700 billion in higher taxes on well-to-do households and prescription drug savings. As a result, the reconciliation bill would lead to a net reduction of more than \$150 billion in cumulative deficits over the next decade.

For now, we are setting Memorial Day as a deadline for Democrats to arrive at some agreement over a reconciliation framework. Otherwise, we will remove this reconciliation package from the June baseline. By that time, it will be very tough for Democrats to negotiate a reconciliation package from scratch with the midterms rapidly approaching. Therefore, April and May will be crucial months in determining whether Democrats can rally around a reconciliation bill. Though the confirmation of Judge Ketanji Brown Jackson for the Supreme Court is over, there will be other priorities such as a \$10 billion COVID-19 funding bill and legislation to boost U.S. economic competitiveness with China that could distract from negotiations on a reconciliation bill. Further, getting all Democrats to agree on a reconciliation bill, no matter how slimmed down it is, could prove tricky. To get Senator Joe Manchin on board, any Democratic reconciliation bill would likely need to include investments in fossil fuel infrastructure, something that would be anathema to progressives.

COVID-19 assumptions

Changes to our epidemiological assumptions were minor in April. Total confirmed COVID-19 cases in the U.S. will be 81.35 million, compared with the 81 million in the March baseline. The number of assumed cases is still well above that assumed before the Omicron variant. The seven-day

moving average of daily confirmed cases has stabilized around 30,000 for the past several weeks.

We have replaced the concept of herd immunity with "effective immunity," which is a rolling number of infections plus vaccinations to account for the fact that immunity is not permanent. The forecast still assumes that COVID-19 will be endemic and seasonal. However, each passing wave is assumed to have a diminishing economic effect.

Energy price assumptions

Our assumption is that the oil supply disruption from Russia's military conflict with Ukraine will be between 2 million and 3 million barrels per day. The anticipated loss in Russian supply will be largely offset by increasing OPEC and non-OPEC output, demand destruction due to higher prices, and the flexibilization of sanctions on Iran and Venezuela. Our baseline forecast assumes that the global oil market remains mostly balanced throughout the year, allowing oil prices to gradually drop. The price of West Texas Intermediate crude oil averages \$85 per barrel in the year's final quarter, down from \$105 in the second quarter. Prices continue to fall in 2023 as Russia's oil supply starts to recover. Assumptions around oil prices are becoming crucial to the evolution of the baseline forecast.

Nudging GDP lower

The April baseline factors in increasing costs of higher global energy prices and tighter financial market conditions. We now expect real GDP to rise 3.2% this year, compared with the 3.5% in the March baseline. Over the past three months we have shaved 0.5 of a percentage point off our forecast for GDP growth for this year. We cut the forecast for GDP growth in 2023 from 3.1% to 2.7%. The economy is still expected to grow above its potential, which is likely between 2% and 2.5%.

The forecast for first-quarter GDP growth was nudged higher from 0.7% to 0.9% at an annualized rate, not a significant deviation from our high-frequency GDP model's estimate. For the second consecutive month, the bulk of the downward revision for this year was in the second quarter, as real GDP is now expected to increase 3.4% at an annualized rate, compared with the 4.8% annualized gain in the March baseline. Growth in the third quarter was also cut from 2.5% to 1.6% at an annualized rate. The forecast for GDP growth in the final three months of this year was revised lower by 0.5 of a percentage point to 2.3% at an annualized rate.

A good chunk of the downward revision to GDP growth this year is because of softer real consumer spending than in the March baseline. Our rule of thumb is that every \$10 increase in the price of oil increases U.S. retail gasoline prices by 30 cents a gallon. Every penny increase in retail gasoline prices

reduces consumer spending by about \$1.5 billion over the course of a year.

Our baseline forecast for real GDP growth this year is close to the Bloomberg consensus of 3.3%. The forecast for next year is 0.5 percentage point stronger than the Bloomberg consensus of 2.2%.

Business investment and housing

Heightened geopolitical uncertainty and tighter financial market conditions are weighing on real business investment in equipment. We have real business equipment spending rising 6% this year, compared with 7.3% in the March baseline. The forecast is for real business equipment spending to increase 4.6% in 2023, a percentage point weaker than in the March baseline. Other parts of business investment will do better, including nonresidential structures, now forecast to rise 14.7% this year (14.4% in the March baseline) and 11.6% in 2023 (10.9% in the March baseline). A good chunk of this is attributable to mining exploration, shafts and wells. The Bureau of Economic Analysis uses the American Petroleum Institute's weighted average of footage drilled along with rotary rig counts from Baker Hughes in its current-quarter estimate of private fixed investment in mining exploration, shafts and wells. This segment now accounts for more than 10% of nominal private fixed investment in nonresidential structures. Therefore, a rise in energy prices would lead to an increase in the number of active rotary rigs. Rig counts have risen but are still lower than pre-pandemic and less than implied by global oil prices.

Revisions to housing starts were small. Housing starts are expected to be 1.818 million, compared with 1.811 million in the March baseline. There were no revisions to housing starts next year. There are likely only so many homes that can be built each year because of labor-supply constraints and a lack of buildable lots. Some of the labor-supply issues will ease as the pandemic winds down, but the reduction in immigration is particularly problematic for homebuilders' ability to find workers. We cut the forecasts for new- and existing-home sales this year because of higher mortgage rates.

We nudged up the forecast for the FHFA All-Transactions House Price Index this year, with it rising 12%, compared with 11.5% in the March baseline. House price growth moderates noticeably in 2023, as prices are forecast to be little changed. This is attributable to rebalancing of supply and demand, which increases the risk of an outright decline in house prices.

Labor market

We have job growth averaging 376,000 per month this year, compared with the March baseline forecast of 367,000. Job

growth has averaged around 600,000 per month over the past six months. If sustained, it would take nine months to close the employment gap, or the difference between the actual level of employment and where it would have been if the recession hadn't occurred and prerecession job growth was maintained. Job growth was broad-based in March, as the only major industries notching a decline in employment were transportation/warehousing and utilities. However, labor supply is key to our near-term forecast for monthly job growth.

There was a modest change to the forecast for the unemployment rate this year; it is expected to average 3.2% in the final three months of 2022 and 3.5% in the fourth quarter of next year. We assume a full-employment economy is one with a 3.5% unemployment rate, around a 62.5% labor force participation rate, and a prime-age employment-to-population ratio a little north of 80%. All of these conditions will be met by late this summer.

Fast and furious

Because of the rise in global energy prices, there was a noticeably upward revision to year-over-year growth in the headline CPI. The forecast is for year-over-year growth to be around a full percentage point higher over the next few quarters than in the March baseline. There was also an upward revision to the forecast for growth in the PCE deflator, the Fed's preferred measure of inflation.

With the new inflation forecast and the Fed's hawkish rhetoric, we noticeably altered our forecast for the fed funds rate. The effective fed funds rate is now forecast to average 2.1% in the fourth quarter of this year, compared with 0.9%

in the March baseline. We have a 50-basis point rate hike penciled into the forecast for May, as the Fed has clearly signaled that this is likely to occur. Fed Chair Jerome Powell described the labor market as unhealthily tight. Add inflation that hasn't peaked yet, and that is going to lead to an aggressive tightening cycle. The terminal fed funds rate, or where rates peak this cycle, is now 2.75%, 30 basis points higher than in the March baseline. Also, the terminal rate has been hit nearly a year earlier than in the March baseline. The Fed is expected to start cutting rates in late 2024, as it will need to return the fed funds rate to its long-run equilibrium rate, which we estimate to be 2.5%, close to the central bank's estimate of 2.4%.

On the balance sheet, the minutes from the March Federal Open Market Committee meeting provided some color around the central bank's plan to reduce the size of its balance sheet. The minutes noted that the balance sheet reduction could start as early as May with a cap on Treasuries of \$60 billion and \$35 billion for mortgage-backed securities. This is almost double the peak rate of \$50 billion a month the last time the Fed reduced its balance sheet, from 2017 to 2019.

A more aggressive Fed and higher inflation led to an upward revision to our forecast for the 10-year Treasury yield, now expected to end this year around 3%, 60 basis points higher than in the March baseline. It is forecast to average 3.3% in the final three months of next year, compared with 3.1% in the March baseline. The 10-year yield converges with the March baseline in 2024. Changes to the forecast for the Dow Jones Industrial Average were modest. We incorporate the first-quarter actual data into the April baseline.

Spain Hangs Hope on a Vibrant Summer

BY LUIS SILVA YANEZ

Spain regained its footing in the second half of 2021 but still ended the year as a laggard in the region's recovery race. The Spanish economy will decelerate in the first half of 2022 before prospects slowly improve later in the year as the summer season brings brighter months. However, uncertainty regarding the military conflict between Ukraine and Russia will keep downside risks—such as elevated energy and food inflation and a potential monetary policy error from the European Central Bank—in suspense throughout 2022. The labor market will continue to recover as workers prioritize stability over purchasing power. Overall, the country will not reach its pre-pandemic level before mid-2023.

Full recovery will take time

Headwinds from supply-chain disruptions will continue to hold up the recovery. These disturbances will pose a major challenge for the manufacturing sector as input costs remain abnormally high. The military conflict between Ukraine and Russia and a severe drought at the start of the year will most likely weigh on industrial and food production as well as economic growth in the near term. Later this year, summer months—the hottest season in Spain's tourism industry—will bring a large number of inbound tourists. Despite elevated prices and a high income elasticity of tourism services, reductions in discretionary spending will not affect summer plans. Households will spend some excess savings to afford their long-postponed summer vacations.

On the other hand, loss of purchasing power will dampen consumption patterns domestically throughout the year despite government actions to prevent it. That behavior should release pressure on core inflation. Thus, even when headline inflation might experience a sticky disinflationary path in the second half of the year, core inflation should lose steam a bit faster. Though CPI growth will stand above target in 2022, the temporary but stubbornly persistent high inflation rate will end 2022 around 4% before returning to values south of 2% in 2023. We expect an inflation rate, on average, around 7% in 2022 and 1.8% in 2023. Core inflation will peak in summer months around 4% before ending the year closer to 3%.

Public and private investment will pick up in the second half of the year—the former as it discards the bureaucratic hurdles in the execution of the NextGenerationEU funds, and the latter as business confidence improves once supply-

side disruptions ease. However, an escalation of the military conflict, including harsher sanctions, or long-lasting scarring from the pandemic in production processes could sour firms' expectations and suddenly stop the accumulation of capital in the near term.

The government's part in implementing the NGEU funds efficiently is key for Spain. Reliance on an energy mix where gas and oil contribute the most will sustain inflationary pressures. Even when Spain does not depend on Russian resources, it is still affected by price volatility. Currently, alternative sources of power production such as wind farms and solar panels still cannot take a leading role, casting doubt on the smooth transition into a greener economy without affecting the welfare of economic agents.

Further, a severe drought in the beginning of 2022 threatens to damage part of the agricultural production in several Spanish regions. Experts warn that the phenomenon, a consequence of La Niña, could extend until 2025. More-volatile food prices will remain a burden on the cost of the typical Spanish household bundle in the near term. Meanwhile, the climate phenomenon has worsened the hydrological situation in Spain; the current level of water reserves for both human consumption and agricultural production is well below average. It currently stands at 46% of total capacity as of the end of March, while the 10-year average is 60%.

Incomplete tasks in the labor market

The unemployment rate fell below its pre-pandemic level in the last quarter of 2021. However, the recovery in the labor force has been uneven across age cohorts and regions. The heterogeneity will slowly dissipate in 2022, contingent upon no further disruptions on the supply side of the economy. A sustainable recovery in the labor market will take some time but the latest reforms hint at a larger share of firms agreeing to permanent contracts with their workers. Without complementary modifications, an unintended consequence of that improvement will be additional frictions that will keep structural unemployment high.

Negotiations in the first quarter of 2022 gave us a hint that wages have not been catching up so far. Despite an important recovery, there is not enough bargaining power from workers yet. The unemployment rate in Spain almost doubles the one in the euro zone. As a result, employees are prioritizing job stability over purchasing power given the

current uncertain environment. Further, as price levels remain elevated (even if the inflation rate is zero), real wages will drop throughout this year. That might cause a substantial renegotiation in 2023 as workers try to restore their purchasing power. In any case, a onetime jump in nominal wages probably will not unleash second-round effects in Spain.

Despite some improvement in recent months when the youth unemployment rate went down 10 percentage points, an elevated youth jobless rate, currently at around 30%, poses a significant risk as an aging and shrinking workforce will weaken the overall pace of employment growth and put greater strain on public finances. Youth cohorts are facing more constraints when reallocating across industries because of limited skill sets and higher labor market rigidity in certain sectors. The sustainability of social welfare programs will require advances in labor productivity for those young workers to expand the pool of financial resources.

The complicated fiscal situation

The cost of fiscal relief packages has translated into higher levels of government indebtedness. Spain exhibited one of the steepest increases in the debt-to-GDP ratio in 2020. The debt ratio is unlikely to return to double-digit territory during this decade. Further, the recent expansion of public sector payrolls could heighten the fiscal burden in the near term, and fears about debt sustainability might resurface. A

higher nominal GDP translated into some passive deleveraging, but a more active deleveraging from the government will be necessary once the ECB withdraws its support and borrowing costs rise.

Regional government balances remain in the red. They will narrow in the coming years, but because of an uneven recovery, some regions will continue to depend on funds from the central government for now. There has been a regional consensus to delay austerity measures. Without an adjustment of the composition of public expenditures at the regional and national levels, once the European fiscal rules are back in place, their implementation will add pressures on fiscal obligations.

The near term threatens to bring some clouds to sunny days in Spain. Summer months will be key to boosting economic prospects. Yet economic activity is unlikely to pick up in a sustainable fashion if uncertainty from the military conflict as well as the pandemic persists in upcoming quarters and the transition to a peaceful post-pandemic world is delayed. Currently, we expect the Spanish economy to expand 4.5% in 2022 and around 3% in 2023. However, new shocks to supply chains and energy prices will work to curb production for firms and spending from households, hurting output and growth prospects.

Japan Stays the Course on Monetary Policy

BY STEFAN ANGRICK and SHAHANA MUKHERJEE

The Bank of Japan left major monetary policy levers unchanged at Thursday's policy meeting, in line with our expectations. It kept its short-term policy rate at -0.1% and the 10-year bond yield target at "around 0%". It also kept the broad parameters of its asset purchase and lending operations while reaffirming its commitment to defending the bond yield target.

The central bank chose to keep major policy levers unchanged given the still-fragile state of the domestic economy and the absence of notable demand-driven price pressures. Inflation has been drifting up on higher energy costs, while the yen has weakened since the escalation of the Russia-Ukraine military conflict. The Japanese currency lost value immediately after the central bank's statement. After trading around ¥128.5 to the dollar prior to the release, it was closer to ¥130 to the dollar afterwards.

Against the backdrop of higher inflation and disruptions stemming from the Russia-Ukraine military conflict, the central bank's quarterly Outlook Report, released alongside the policy statement, presented lower forecasts for GDP growth in fiscal 2021 and 2022. For fiscal 2023, on the other hand, the BoJ's Policy Board now expects higher growth. It also sees core consumer price inflation (CPI ex fresh food) punching higher in fiscal 2022 before settling at 1.1% over the following two years. A novelty in the latest report is the addition of projections for consumer price inflation excluding fresh food and energy, which the BoJ put at 0.9% for fiscal 2022 and 1.2% and 1.5% for 2023 and 2024, respectively. This suggests that board members expect some delayed pass-through of rising producer prices to consumer prices.

The central bank's policy statement also reaffirmed its commitment to the "around 0%" target for 10-year government bond yields. Markets have repeatedly tested the upper end of the BoJ's yield corridor (0.25%) in recent

months as global bond yields rose on expectations of faster tightening in the U.S. and Europe. The Japanese yen weakened concurrently while inflation ticked up on spiking commodity prices following the escalation of the Russia-Ukraine military conflict. The BoJ's policy statement clarified that the central bank stands ready to buy as many bonds as it takes to defend the target.

Expect more of the same

We expect the BoJ to hold major policy levers unchanged. The central bank would not contemplate a policy change without evidence of stronger, demand-driven price increases. The yen has weakened, but this doesn't change the fundamental trajectory of domestic inflation, which has picked up primarily due to rising energy costs. Currency movements are not part of the BoJ's mandate, so yen volatility in and of itself can't serve as a rationale for policy action.

April's consumer headline inflation rate will punch higher as temporary factors weighing on annual readings fade. But with the GDP deflator still firmly in the red, fundamental price momentum still fairly subdued, and disappointing wage growth, the case for tighter policy looks weak. Lingered COVID-19 concerns will keep domestic demand wobbly while Russia-Ukraine and COVID-19 lockdowns in China raise the spectre of renewed supply snags, keeping risks to the outlook skewed firmly to the downside. As such, the BoJ reaffirmed its support for the economy and financial markets and its readiness to provide additional easing if needed. At the same time, it will continue to nudge towards a moderately tighter policy stance as it dials back pandemic-related support, even as it keeps major policy levers unchanged.

Upgrades Continue to Dominate U.S. Activity

BY STEVEN SHIELDS

U.S.

U.S. rating change activity was credit positive for the week ending April 26, with upgrades accounting for 71% of total activity and 79% of the reported affected debt. So far through April, upgrades have accounted for roughly 62% of rating changes in the month, on par with March's averages but less than the 75% ratio posted in February. Last week's rating changes were spread across a diverse set of industries, though energy-related firms accounted for the bulk of upgrades.

In terms of affected debt, the largest upgrade was made to EnLink Midstream LLC's, which saw both its Corporate Family Rating and senior unsecured notes upgraded to Ba1. In Moody's Investors Service rating action, Amol Joshi, Moody's Vice President and Senior Credit Officer, was cited saying, "EnLink's upgrade reflects its improving leverage and track record of robust operating cash flow, as well as reduced volumetric risk due to stabilized E&P capital

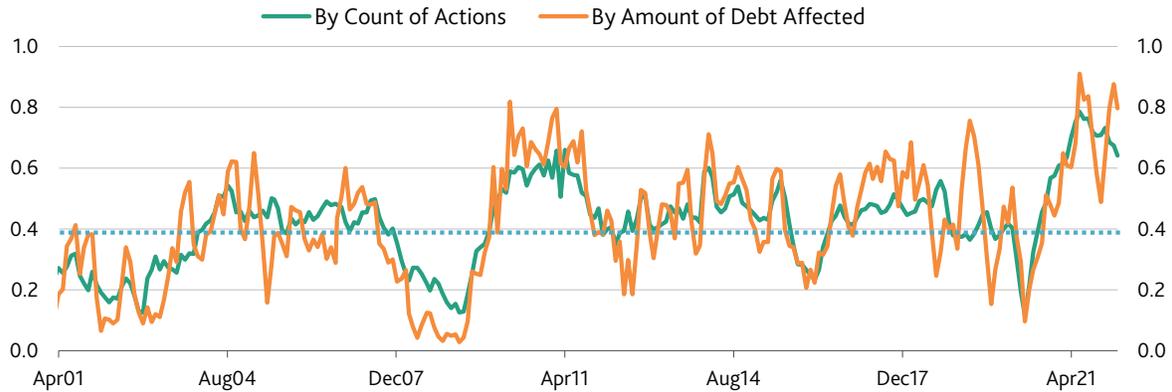
spending amid higher commodity prices." In total, the upgrade impacted \$4.5 billion in senior unsecured debt.

Europe

Western European rating change activity was limited but also impressive. For the week ended April 26 there were four rating changes, all upgrades. The largest upgrade in terms of affected debt was made to Paprec Holding's. On April 21, Moody's Investors Service upgraded both Paprec's Corporate Family Rating and the firm's backed senior secured notes ratings to B1. Moody's also upgraded the firm's Probability of Default rating to B1-PD. In the rating action, Moody's Investors Service cited its expectation for Paprec's financial performance to continue in a positive trend over the next 12-18 months. Additionally, Moody's Investors Services cited Paprec's strengthening balance sheet and the firm's enhanced business risk profile. In total, the upgrade impacted \$1.2 billion of senior secured debt.

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
4/20/2022	HECLA MINING COMPANY	Industrial	SrUnsec/LTCFR/PDR	475.00	U	B3	B2	SG
4/20/2022	WEI SALES LLC	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG
4/20/2022	MITNICK CORPORATE PURCHASER, INC.	Industrial	SrSec/BCF		U	B2	Ba3	SG
4/21/2022	CAPRI HOLDINGS LIMITED-MICHAEL KORS (USA), INC.	Industrial	SrUnsec	900.00	U	Ba2	Ba1	SG
4/21/2022	DUNN PAPER HOLDINGS, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	Caa3	Ca	SG
4/21/2022	MOSS CREEK RESOURCES HOLDINGS, INC.	Industrial	SrUnsec/LTCFR/PDR	1200.00	U	Caa1	B3	SG
4/21/2022	GIP III STETSON I, L.P.	Industrial	SrSec/BCF/LTCFR/PDR		U	B3	B2	SG
4/21/2022	ENLINK MIDSTREAM, LLC	Industrial	SrUnsec/LTCFR/PDR	4500.00	U	Ba2	Ba1	SG
4/22/2022	CENTENNIAL RESOURCE DEVELOPMENT, INC.-CENTENNIAL RESOURCE PRODUCTION, LLC	Industrial	SrUnsec/LTCFR/PDR	900.00	U	B3	B2	SG
4/25/2022	CALLON PETROLEUM COMPANY	Industrial	SrUnsec/LTCFR/PDR	1900.00	U	Caa2	Caa1	SG
4/25/2022	CARVANA CO.	Industrial	LTCFR/PDR		D	B3	Caa1	SG
4/26/2022	GLOBAL INFRASTRUCTURE MANAGEMENT, LLC-GIP II BLUE HOLDING, L.P.	Industrial	SrSec/BCF/LTCFR/PDR		U	B1	Ba3	SG
4/26/2022	UNITED PF HOLDINGS, LLC	Industrial	SrSec/BCF/LTCFR/PDR		U	B3	B2	SG
4/26/2022	ZAYO GROUP HOLDINGS, INC.	Industrial	SrSec/BCF	2580.00	D	B1	B2	SG

Source: Moody's

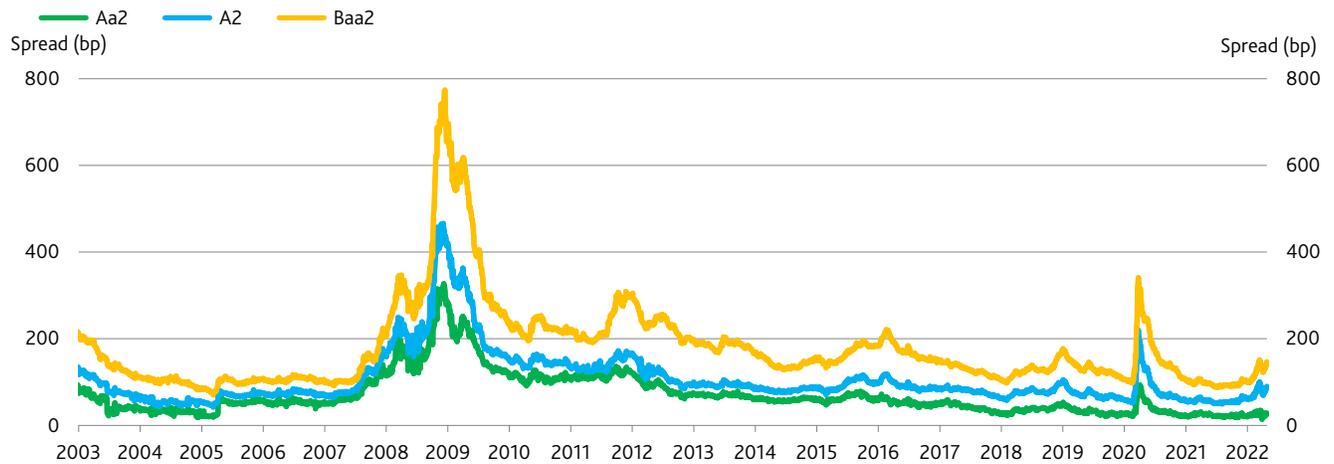
FIGURE 4
Rating Changes: Corporate & Financial Institutions - Europe

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG	Country
4/20/2022	HELLENIC BANK PUBLIC COMPANY LTD	Financial	LTD/MTN		U	B1	Ba3	SG	CYPRUS
4/21/2022	PAPREC HOLDING	Industrial	SrSec/LTCFR/PDR	1193.76	U	B2	B1	SG	FRANCE
4/22/2022	TAP S.G.P.S.-TRANSPORTES AEREOS PORTUGUESES, S.A.	Industrial	SrUnsec/LTCFR/PDR	436.74	U	Caa2	B3	SG	PORTUGAL
4/26/2022	RHEINMETALL AG	Industrial	LTIR/CP		U	Baa3	Baa2	IG	GERMANY

Source: Moody's

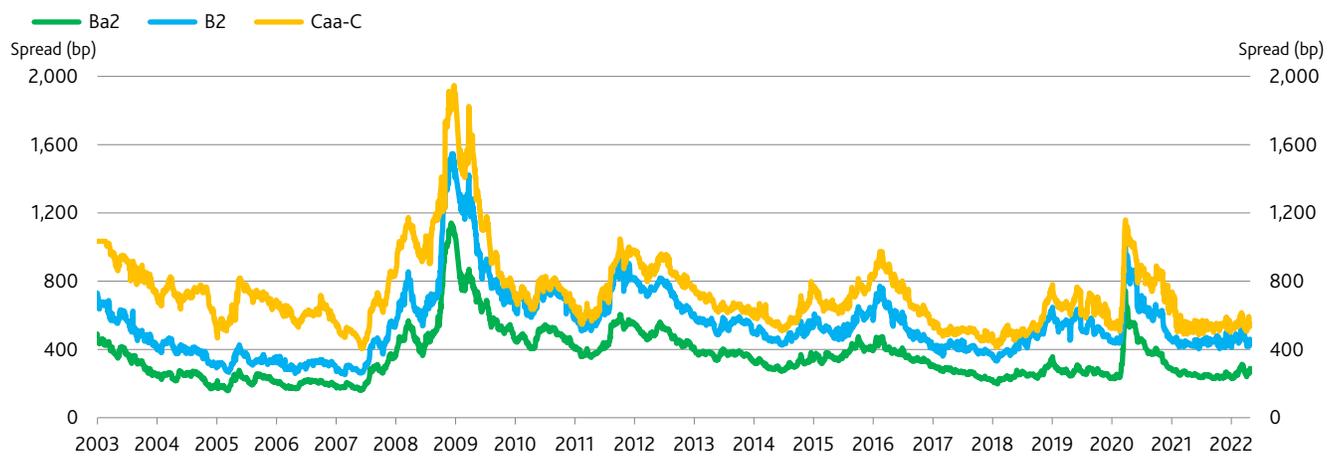
MARKET DATA

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 (April 20, 2022 – April 27, 2022)

CDS Implied Rating Rises	CDS Implied Ratings		
	Apr. 27	Apr. 20	Senior Ratings
Issuer			
John Deere Capital Corporation	A1	A3	A2
WEC Energy Group, Inc.	A2	Baa1	Baa1
Toyota Motor Credit Corporation	Aa2	Aa3	A1
Microsoft Corporation	Aa1	Aa2	Aaa
Amazon.com, Inc.	Aa2	Aa3	A1
Exxon Mobil Corporation	Aa1	Aa2	Aa2
Caterpillar Financial Services Corporation	Aa3	A1	A2
Coca-Cola Company (The)	Aaa	Aa1	A1
PepsiCo, Inc.	Aa1	Aa2	A1
3M Company	Aa2	Aa3	A1

CDS Implied Rating Declines	CDS Implied Ratings		
	Apr. 27	Apr. 20	Senior Ratings
Issuer			
CenterPoint Energy, Inc.	Baa2	A3	Baa2
PepsiCo, Inc.	A2	A1	A1
Philip Morris International Inc.	A2	A1	A2
General Electric Company	Baa3	Baa2	Baa1
Eli Lilly and Company	Aa2	Aa1	A2
FirstEnergy Corp.	Baa3	Baa2	Ba1
Emerson Electric Company	Baa1	A3	A2
Danaher Corporation	A3	A2	Baa1
Archer-Daniels-Midland Company	A2	A1	A2
United Rentals (North America), Inc.	Ba2	Ba1	Ba2

CDS Spread Increases	Senior Ratings	CDS Spreads		
		Apr. 27	Apr. 20	Spread Diff
Issuer				
Talen Energy Supply, LLC	C	6,367	5,340	1,027
Mattel, Inc.	Ba2	291	121	170
Rite Aid Corporation	Caa2	2,021	1,852	168
K. Hovnanian Enterprises, Inc.	Caa3	1,152	1,001	151
Pitney Bowes Inc.	B3	856	768	88
Gap, Inc. (The)	Ba3	430	366	64
Xerox Corporation	Ba2	434	374	60
TEGNA Inc.	Ba3	606	546	59
Carnival Corporation	B2	517	459	58
Liberty Interactive LLC	B2	798	745	53

CDS Spread Decreases	Senior Ratings	CDS Spreads		
		Apr. 27	Apr. 20	Spread Diff
Issuer				
United Airlines, Inc.	Ba3	595	630	-35
United Airlines Holdings, Inc.	Ba3	594	629	-35
American Airlines Group Inc.	Caa1	918	945	-27
WEC Energy Group, Inc.	Baa1	58	66	-8
Owens Corning	Baa2	79	87	-8
John Deere Capital Corporation	A2	52	58	-7
Sherwin-Williams Company (The)	Baa2	94	101	-7
Welltower OP Inc.	Baa1	72	77	-6
TECO Energy, Inc.	Baa1	57	63	-6
SITE Centers Corp.	Baa3	140	145	-5

Source: Moody's, CMA

CDS Movers

Figure 4. CDS Movers - Europe (April 20, 2022 – April 27, 2022)

CDS Implied Rating Rises	CDS Implied Ratings		
	Apr. 27	Apr. 20	Senior Ratings
Issuer			
Autoroutes du Sud de la France (ASF)	A1	A3	A3
Swisscom AG	A1	A3	A2
France, Government of	Aaa	Aa1	Aa2
ABN AMRO Bank N.V.	A1	A2	A1
Nationwide Building Society	A2	A3	A1
SEB AB	Aa3	A1	Aa3
Banco Comercial Portugues, S.A.	Ba2	Ba3	Ba1
Banca Monte dei Paschi di Siena S.p.A.	B1	B2	Caa1
KBC Bank N.V.	Aa3	A1	A1
FCE Bank plc	Ba1	Ba2	Baa3

CDS Implied Rating Declines	CDS Implied Ratings		
	Apr. 27	Apr. 20	Senior Ratings
Issuer			
Coca-Cola HBC Finance B.V.	Baa1	Aa3	Baa1
HSBC Holdings plc	Baa2	Baa1	A3
UniCredit Bank AG	Baa1	A3	A2
NatWest Markets Plc	Baa1	A3	A2
NatWest Group plc	Baa1	A3	Baa1
Swedbank AB	A1	Aa3	Aa3
Standard Chartered PLC	Baa2	Baa1	A3
Standard Chartered Bank	A1	Aa3	A1
Siemens Aktiengesellschaft	Aa3	Aa2	A1
AstraZeneca PLC	Aa3	Aa2	A3

CDS Spread Increases	CDS Spreads			
	Senior Ratings	Apr. 27	Apr. 20	Spread Diff
Issuer				
Boparan Finance plc	Caa1	1,930	1,688	242
Novafives S.A.S.	Caa2	1,026	921	105
Vue International Bidco plc	Ca	1,196	1,099	97
Piraeus Financial Holdings S.A.	Caa1	749	680	69
Jaguar Land Rover Automotive Plc	B1	622	566	56
UPC Holding B.V.	B3	304	260	44
Iceland Bondco plc	Caa2	707	667	40
Coca-Cola HBC Finance B.V.	Baa1	76	37	39
Fortum Oyj	Baa2	199	163	36
CMA CGM S.A.	B2	448	416	32

CDS Spread Decreases	CDS Spreads			
	Senior Ratings	Apr. 27	Apr. 20	Spread Diff
Issuer				
Avon Products, Inc.	Ba3	385	406	-21
Autoroutes du Sud de la France (ASF)	A3	52	60	-8
Allied Irish Banks, p.l.c.	A2	85	93	-8
Atlantia S.p.A.	Ba2	187	194	-6
National Grid Gas plc	Baa1	56	62	-6
Swisscom AG	A2	52	57	-5
Banca Monte dei Paschi di Siena S.p.A.	Caa1	400	403	-3
National Grid Electricity Transmission plc	Baa1	48	51	-3
France, Government of	Aa2	22	24	-2
Casino Guichard-Perrachon SA	Caa1	1,164	1,166	-2

Source: Moody's, CMA

CDS Movers

Figure 5. CDS Movers - APAC (April 20, 2022 – April 27, 2022)

CDS Implied Rating Rises	CDS Implied Ratings		Senior Ratings
	Apr. 27	Apr. 20	
Issuer			
Commonwealth Bank of Australia	Aa3	A1	Aa3
MUFG Bank, Ltd.	Aa2	Aa3	A1
Macquarie Bank Limited	A1	A2	A2
Kansai Electric Power Company, Incorporated	Aa3	A1	A3
Export-Import Bank of India	Baa2	Baa3	Baa3
Chubu Electric Power Company, Incorporated	Aa1	Aa2	A3
SP PowerAssets Limited	Aa2	Aa3	Aa1
Asahi Group Holdings, Ltd.	Aaa	Aa1	Baa1
Panasonic Corporation	Aa1	Aa2	Baa1
Flex Ltd.	Baa2	Baa3	Baa3

CDS Implied Rating Declines	CDS Implied Ratings		Senior Ratings
	Apr. 27	Apr. 20	
Issuer			
Philippines, Government of	Baa3	Baa2	Baa2
Malayan Banking Berhad	Baa3	Baa2	A3
Toyota Motor Corporation	Aa1	Aaa	A1
Korea Expressway Corporation	A1	Aa3	Aa2
Kia Corporation	Baa1	A3	Baa1
Hyundai Capital Services, Inc.	A2	A1	Baa1
Chugoku Electric Power Company, Inc. (The)	Aa1	Aaa	Baa2
Tenaga Nasional Berhad	Baa2	Baa1	A3
Telekom Malaysia Berhad	Baa2	Baa1	A3
Japan, Government of	Aaa	Aaa	A1

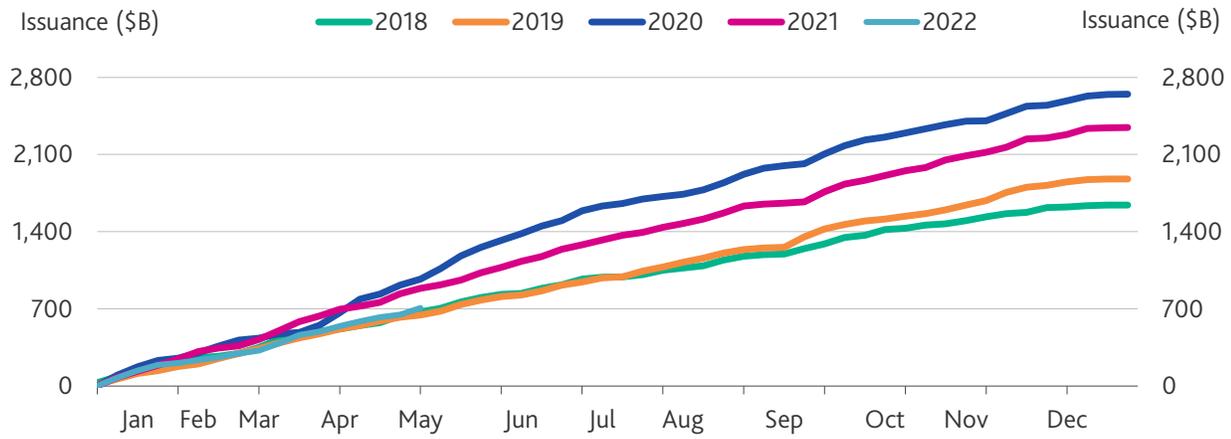
CDS Spread Increases	Senior Ratings	CDS Spreads		
		Apr. 27	Apr. 20	Spread Diff
Issuer				
SoftBank Group Corp.	Ba3	392	330	62
Development Bank of Kazakhstan	Baa2	224	204	21
Kazakhstan, Government of	Baa2	178	162	16
Indonesia, Government of	Baa2	111	99	13
Philippines, Government of	Baa2	107	94	13
Malayan Banking Berhad	A3	105	93	12
Malaysia, Government of	A3	88	78	10
Tenaga Nasional Berhad	A3	85	74	10
China, Government of	A1	76	67	9
China Development Bank	A1	86	77	9

CDS Spread Decreases	Senior Ratings	CDS Spreads		
		Apr. 27	Apr. 20	Spread Diff
Issuer				
Pakistan, Government of	B3	808	896	-88
Halyk Savings Bank of Kazakhstan	Ba2	374	430	-56
Flex Ltd.	Baa3	97	105	-8
SK Innovation Co. Ltd.	Baa3	123	130	-6
SK Hynix Inc.	Baa2	84	87	-3
Tata Motors Limited	B1	294	296	-2
Kansai Electric Power Company, Incorporated	A3	43	43	-1
ORIX Corporation	A3	41	43	-1
Singapore Telecommunications Limited	A1	49	50	-1
Holcim Finance (Australia) Pty Ltd	Baa2	125	125	-1

Source: Moody's, CMA

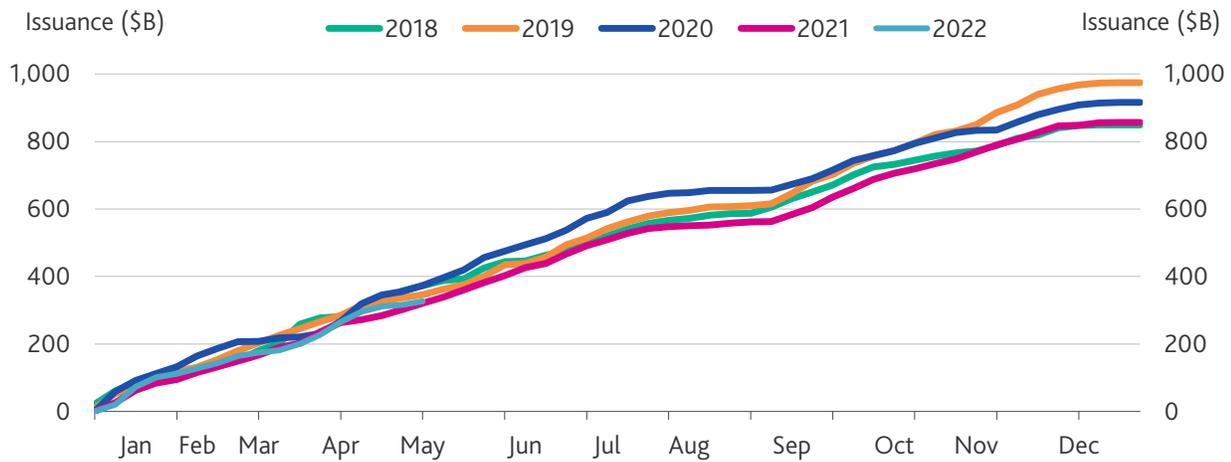
ISSUANCE

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



Source: Moody's / Dealogic

Figure 7. Market Cumulative Issuance - Corporate & Financial Institutions: Euro Denominated



Source: Moody's / Dealogic

ISSUANCE

Figure 8. Issuance: Corporate & Financial Institutions

	USD Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	52.914	6.550	59.980
Year-to-Date	614.662	73.076	706.687

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	10.529	0.000	10.529
Year-to-Date	298.818	20.956	326.208

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

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