

WEEKLY MARKET OUTLOOK

MARCH 16, 2023

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Shaken, Not Rattled

The failures of Silicon Valley Bank, Signature Bank and Silvergate Bank, with assets collectively of close to \$325 billion, have roiled the financial system. Particularly disconcerting is the speed at which the institutions failed. Once depositors lost faith in the viability of these institutions and began withdrawing funds, the banks quickly unraveled. Bank runs are rare, but they happen at a dizzying pace when they do occur.

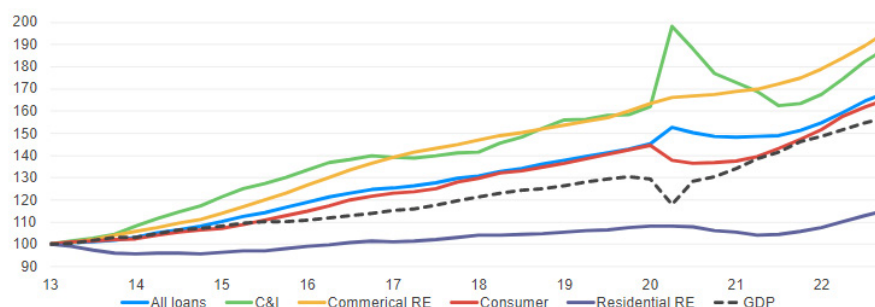
These failures were especially surprising on the heels of a lengthy period of calm in the banking system. There were no bank failures last year or the year before. The system has been enjoying solid loan growth, extraordinarily few credit problems, and healthy profitability. These are not the conditions that historically have been the fodder for problems in the system.

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Commercial Bank Lending Is Sturdy

Loans outstanding at commercial banks, 2011Q1=100



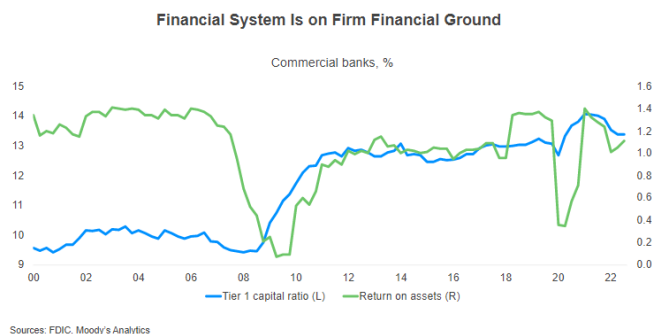
Sources: Federal Reserve, Moody's Analytics

Moody's Analytics and Moody's Investors Service maintain separate and independent economic forecasts. This publication uses the forecasts of Moody's Analytics. Moody's Analytics markets and distributes all Moody's Capital Markets Research materials. Moody's Analytics does not provide investment advisory services or products. For further detail, please see the last page.

Indeed, it is unlikely that the recent bank failures are signaling more bank runs and failures are in train. The failed institutions were unusual in that they catered to the technology sector in the case of Silicon Valley Bank and the crypto markets in the cases of Signature and Silvergate. Of course, tech has been hit hard over the past year, beginning with the slide in the stock prices of most tech companies, and the crypto market has suffered something of a crash. There may be other banks with outsize exposure to tech and crypto, but if so, they are small.

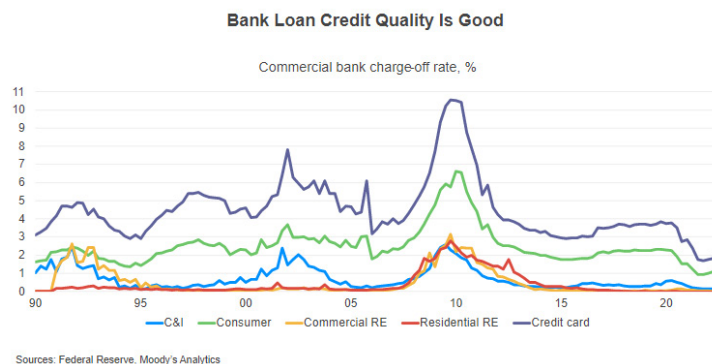
Also unusual is that almost all of the depositors at Silicon Valley Bank had very large deposits that as such were not fully insured by the FDIC. Since the financial crisis, the deposit insurance limit has been \$250,000. Many of the tech companies with these big deposits were quick to move their deposits out of the bank, sensitive to their risk. Compare this to the typical bank for whom well over half of deposits are below the FDIC limit and are generally very sticky. That is, depositors are slow to move their accounts, even for a better deal somewhere else.

Further containing any fallout from the bank failures on the rest of the banking system is that system's fundamental strength. In the wake of the financial crisis and reforms to the system, including the comprehensive Dodd-Frank legislation, the banking system has significantly increased its capitalization. The Tier 1 capital-to-asset ratio for the system has risen from less than 10% prior to the crisis to well over 13% today. The biggest banks must also engage in stress tests each year. These tests simulate the impact of severe economic downturns on their balance sheets and income statements. They are also often required to determine the impact on their financials of big swings in interest rates, although that was not part of this year's tests.



The banking system's strong financial performance is also not consistent with any significant problems. Loan growth has remained sturdy and consistent with the economy's growth, suggesting that underwriting has been generally prudent, and that leverage is manageable. Indeed, credit quality has been stellar with only a few pockets of developing concern. Delinquency and charge-off rates are rising, but this is simply a normalization after big declines during the pandemic due to the massive government support. Net

interest margins—the difference between banks' lending rates and their cost of funds—are narrowing with the inverted yield curve (short-term rates are higher than long-term rates), but they are still ample. Taken altogether, banks remain profitable. The return on assets remains close to 1%, which is about as high as the ROA generally gets.



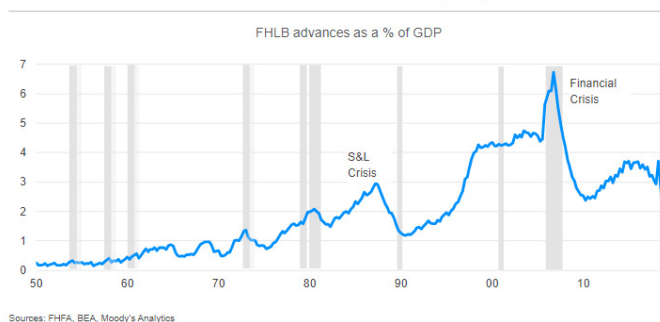
The liquidity of the system is also much improved, because banks now must hold a sufficient amount of their assets in cash or assets that can be quickly converted into cash to meet net cash outflows in a stressed environment. This liquidity coverage ratio requirement pertains to banks with more than \$50 billion in assets, but only banks with more than \$250 billion in assets must meet the most stringent version of the LCR. Of course, despite the system's enhanced liquidity, the failed banks seem to have had insufficient liquidity to meet their deposit withdrawals. Regulators will need to consider the LCR requirement in the context of recent events.

This highlights what appears to be the most significant vulnerability of the banking system, namely a classic asset-liability mismatch. Because of the surge in interest rates and the drawdown of bank deposits over the past year, many banks are struggling with how to meet depositors' demands. Smaller banks and credit unions are having the most difficulty and are responding by restraining their lending, selling Treasury and mortgage securities, and borrowing from the Federal Home Loan Banks—FHLB advances are quickly increasing. But having said this, these banks have mostly smaller depositors who are much less footloose and whose deposits are covered by FDIC insurance. They are steadily, but slowly drawing down their deposits, allowing for an orderly adjustment by the banks.

Policymakers' aggressive response to the bank failures will also forestall them becoming a systemic threat. The Federal Reserve, Treasury and FDIC have determined the failures are a systemic risk and have thus invoked authority provided by the post-financial-crisis reforms to provide FDIC insurance to all depositors in the failed banks. This should allay depositors' fears about getting their money and end any bank runs. The Fed also stood up a new credit facility, the Bank Term Funding Program, a one-year facility that allows depositories to pledge

qualified assets at par in exchange for advances at reasonably attractive rates. Treasury will use up to \$25 billion from the Exchange Stabilization Fund to fund the creation the facility, which should meaningfully lessen liquidity needs of banks, at least in the near term.

Financial Institutions Need Liquidity



Despite optimism that fallout on the financial system will be contained, they likely will impact monetary policy. The Fed

will be under pressure to pause its rate hikes, and it is likely they will not raise rates at their March meeting. We had previously expected a quarter-point rate hike. So-called financial conditions are one of the factors used in Fed monetary policy decisions, and the current turmoil in the system will likely lead to a tightening in underwriting standards and less credit availability. The Fed will pause its rate hikes to gauge just how much conditions have tightened, and what the impact is on the economy and ultimately inflation. We now expect two more quarter-percentage-point rate hikes, 25 basis points each time, at the May and June meetings of the Federal Open Market Committee.

While highly uncertain given how quickly events are unfolding, the impact of the bank failures on the economic outlook should be on the margin. The economy will struggle this year and next and will remain vulnerable to events like those of the past several days, but this banking crisis is unlikely to push the economy into recession.

Latest CPI Complicated Fed Balancing Act

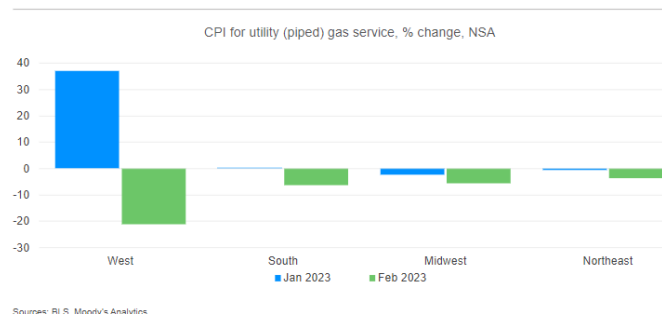
BY BERNARD YAROS

The February inflation reading was a tale of two CPIs, with the headline CPI decelerating in line with expectations but the core CPI rising more than the consensus had anticipated. Consistent with our and consensus expectations, growth in the headline CPI decelerated from 0.5% in January to 0.4% in February, providing a modicum of relief for consumers.

The CPI for food downshifted in February consistent with recent weakness in wholesale food prices. Nevertheless, we note that inflation in food away from home has proven stickier than in food at home, and this is likely a reflection of still-strong wage growth in food services and drinking places.

Energy went from a driver to a slight drag on headline CPI in February, since the CPI for gasoline did not rise by as much as it did in January. More important, the CPI for energy services fell 1.7%, reversing a good chunk of its 2.1% gain in January. February's drop in the CPI for energy services was attributable to an 8% decline in the CPI for utility gas service. In January, natural gas bills were down or only slightly up in all U.S. census regions except the West, where they surged 37.1% on a not seasonally adjusted basis. In the first month of 2023, Southern California Gas Co. and San Diego Gas & Electric implemented new natural gas and electric rates that were up by more than double from a year earlier. However, this sharp increase in the CPI for utility gas service was never going to repeat itself, with wholesale natural gas prices down on a year-to-date basis. Indeed, February's CPI for utility gas service plunged 21.1% in the West and was appreciably lower in the other three census regions.

Natural Gas Bills Create Whiplash for Customers in the West

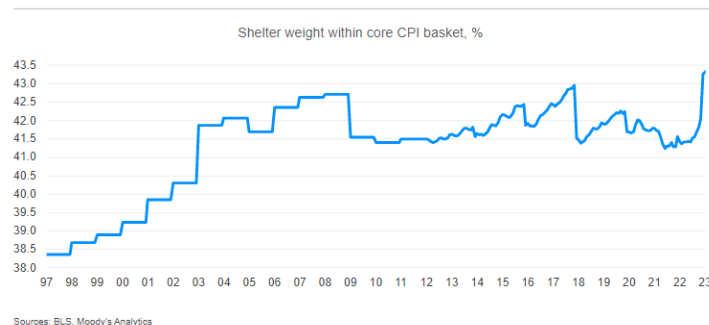


Despite the modest improvement in the headline CPI, growth in the core CPI, which includes the prices of goods and services most sensitive to changes in financial conditions, accelerated from 0.4% to 0.5% in February.

While this was in line with our forecast, it was a touch higher than consensus expectations.

The CPI for shelter, which accelerated in February, is keeping core CPI inflation elevated for the time being, particularly under the recently updated expenditure weights used to calculate the CPI. At 43.3%, shelter's weight within the core CPI basket is the largest it has ever been in more than two decades. This will be a double-edged sword for core CPI inflation this year. Tenant rent and owners' equivalent rent, which make up the lion's share of the CPI for shelter, will continue to rise at stubbornly strong pace in the first half of 2023, and their larger weight in the core CPI will disproportionately tug the core CPI higher. Yet, with market rents having already decelerated sharply in 2022, shelter inflation is almost guaranteed to ease later this year, which will be a major source of core disinflation once it does occur.

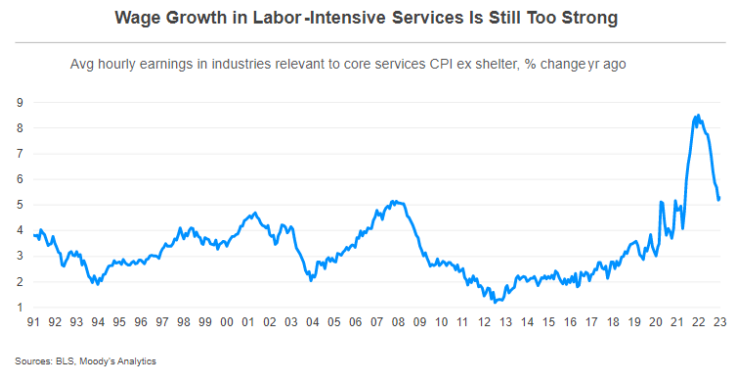
Shelter's Higher Weight Will Be a Double -Edged Sword in 2023



Core goods prices were unchanged in February after rising 0.1% in the prior month, but there was a major surprise within this category of the core CPI. Used-vehicle prices fell 2.8% in February on the heels of declines of about 2% in the preceding four months. We did not expect the monthly declines in used-vehicle prices to have intensified last month, because wholesale used-car prices, which typically lead retail prices by a few months, have steadily risen since November and rose 4.3% in February, the largest increase for the month of February since 2009, according to Manheim Consulting. Therefore, the CPI for used vehicles is unlikely to continue posting meaningful declines on a sequential basis for much longer. On the other hand, we consider the slowing trend in the CPI for new vehicles as durable. For the second month in a row, new-vehicle prices rose 0.2% following eight straight months of gains of more than 0.5%. New-vehicle prices may soon fall as production picks up with normalizing supply chains.

Ultimately, the Fed is keyed into the labor market as the main channel by which to tame inflation, particularly in labor-intensive services. As a result, we are also paying close attention to the CPI for core services excluding shelter, which—unlike the CPI for rent of shelter—is not guaranteed to come down on its own. We estimate the CPI for core services excluding shelter has decelerated from 6.7% in September to 6.1% in February on a year-ago basis. This is still too strong a pace for the Fed to stomach.

Moreover, wage growth in industries relevant to the CPI for core services excluding shelter is running at an estimated 5.3% year-over-year pace, faster than at any other point prior to the pandemic.



The Week Ahead in the Global Economy

U.S.

The U.S. economic calendar takes a breather with the March meeting of the Federal Open Market Committee certain to get most of the attention. While the recent overperformance of inflation and the labor market had the FOMC poised to re-accelerate rate hikes, the recent spate of bank failures led by Silicon Valley Bank has roiled financial markets. Because of this, we now expect the FOMC to pause rate hikes briefly this month before continuing with 25-basis point hikes in May and June.

Both existing- and new-home sales data for February will reflect ongoing weakness in the housing market. We will also continue to pay close attention to initial jobless claims as the timeliest indicator of labor market changes. Claims edged off their recent lows this week, and while they remain historically low, layoffs can happen quite quickly. An uptick in announced layoffs in January and February presents some risk that claims could pick up in a more meaningful way.

Other key data to be released next week include the current account balance and advance durable goods.

Europe

U.K. releases will be of top interest. Of note are the February inflation release on Wednesday and the Bank of England monetary policy decision on the following day. We expect the U.K.'s inflation rate will have inched lower in February to 10% year over year from 10.1% in January. Lower energy prices will be the main reason behind the better reading with upside risk in the food segment.

Although the BoE would likely prefer stronger declines in inflation, in light of recent financial market turmoil we expect the monetary policy committee will opt for a cautious approach and hold off on hiking the policy rate. All else equal, we think that the monetary policy committee will resume rate hikes at subsequent meetings—by 25 basis points in May and again in June.

Retail sales from February will also be published. We expect a 0.5% monthly increase, the same as in January. The stellar services PMI release leads us to believe that retailers benefited from resilient consumer demand in February. Continuing downside forces of high inflation and grim sentiment will keep gains muted.

Spain will publish a final estimate of fourth-quarter GDP. We are not expecting a revision from the previously reported 0.2% quarter-over-quarter growth, the result of a strong gain in net trade that owes thanks to a steep decline in imports and a further quick increase in government

spending. While Spain may have escaped technical recession this winter, this is not an auspicious basis for growth.

Asia Pacific

In Japan, inflation is expected to remain hot(ish). Government subsidies for energy have scrambled the inflation picture, but delayed pass-through from high producer prices and a renewed slide in the yen suggest inflation will keep pressure on prices. We expect that Japan's core CPI likely rose 3.2% y/y in February, compared with 4.2% in January, while the headline CPI likely rose 3.3% y/y, compared with 4.3% y/y in January.

In the Philippines, interest rates are expected to climb another 25 basis points. The country is battling some of the stickiest inflation in the Asia-Pacific region; headline inflation nudged down only to 8.6% y/y in February from 8.7% y/y in January. At its February meeting, Bangko Sentral ng Pilipinas raised its overnight reverse repo rate 50 basis points to 6%, bringing cumulative hikes to 400 basis points since May 2022. Demand- and supply-side factors are driving inflation. On the demand side, the return of tourists has pushed up prices for accommodation, restaurant meals and transport. High gas prices are a key supply-side factor. With inflation still too high, BSP will want to prevent what it calls the 'emergence of additional second-order effects'. However, the small easing in inflation in February, which contrasted with BSP's expectation for an increase, could give the central bank confidence to step it back.

Latin America

We expect a mix of data from the last quarter of 2022 and January 2023 that will confirm moderating economic activity amid tighter monetary policy, a less vibrant global economy, and higher political uncertainty in the region. Argentina and Uruguay will post fourth-quarter GDP results. Both economies likely ended the full year in positive territory but lost steam compared with previous quarters.

On a seasonally adjusted basis, the Argentine economy likely contracted 1.8% quarter on quarter, the first quarterly decline since the second quarter of 2021. Uruguay's economy likely will post a 3.0% year-over-year expansion in the fourth quarter, a slower pace compared with the growth seen in the first half of the year. Argentina will also report its employment situation and retail sales index. Mexico will release retail and wholesale sales, and its economic activity index should confirm moderation in the first month of the year. Finally, the Brazilian Central Bank will extend the monetary pause for a fifth consecutive time.

Geopolitical Calendar

Date	Country	Event	Economic Importance	Financial Market Risk
17-Mar	United Kingdom	Bank of England monetary policy announcement	Medium	Low
23-24-Mar	European Union	European Council summit	Low	Low
2-Apr	Finland	General election	Medium	Low
4-Apr	Australia	Reserve Bank of Australia monetary policy announcement	Medium	Low
28-Apr	Japan	Bank of Japan monetary policy announcement	Medium	Low
28-Apr	EU	Eurogroup	Low	Low
April	Solomon Islands	General election	Low	Low
May	New Zealand	2023 budget	Low	Low
May	Thailand	General election	Low	Low
4-May	Euro zone	European Central Bank monetary policy announcement	Medium	Medium
5-May	United Kingdom	Bank of England monetary policy announcement	Medium	Medium
14-May	Turkey	Presidential and parliamentary elections	Low	Low
15-May	EU	Eurogroup	Low	Low
19-21-May	G-7	Summit-Japan	Low	Low
30-Apr	Paraguay	General election	Low	Low
15-Jun	Euro zone	European Central Bank monetary policy announcement	Medium	Medium
15-Jun	EU	Eurogroup	Low	Low
16-Jun	United Kingdom	Bank of England monetary policy announcement	Medium	Medium
25-Jun	Guatemala	General election	Low	Low
29-30-Jun	European Union	European Council summit	Low	Low
By Jul	Greece	General election	Medium	Low
23-Jul	Cambodia	General election	Low	Low
27-Jul	Euro zone	European Central Bank monetary policy announcement	Medium	Medium
4-Aug	United Kingdom	Bank of England monetary policy announcement	Medium	Medium
18-Aug	United States	U.S. Treasury X-date	High	High
1-Sep	France	Senatorial elections	Low	Low
9-10 Sep	G-20	India hosts G-20 summit	Low	Low
14-Sep	Euro zone	European Central Bank monetary policy announcement	Medium	Medium
Sep	U.N.	General Assembly, New York	Low	Low
22-Sep	United Kingdom	Bank of England monetary policy announcement	Medium	Medium
By 12-Oct	Spain	General elections	Medium	Medium
14-Oct	New Zealand	General election	Low	Low
26-Oct	Euro zone	European Central Bank monetary policy announcement	Medium	Medium
26-27-Oct	EU	European Council summit	Low	Low
29-Oct	Argentina	General election	Medium	Medium
29-Oct	Colombia	Regional elections	Low	Low
Oct/Nov	ASEAN	Indonesia to host ASEAN summit	Low	Low
Nov	Indonesia	Association of Southeast Asian Nations	Low	Low
Nov	APEC	Economic leaders' meeting, to be held in San Francisco, U.S.	Low	Low
3-Nov	United Kingdom	Bank of England monetary policy announcement	Medium	Medium
6-17 Nov	U.N.	COP 28, to be held in Dubai, UAE	Low	Low
14-Dec	Euro zone	European Central Bank monetary policy announcement	Medium	Medium
14-15-Dec	EU	European Council summit	Low	Low
15-Dec	United Kingdom	Bank of England monetary policy announcement	Medium	Medium

Modest Changes in Our Forecast After Bank Failures

BY STEVEN SHIELDS

CREDIT SPREADS

Credit spreads widened in the latest period as financial markets digested news surrounding the failures of Silicon Valley Bank, Signature Bank and Silvergate Bank. All three were small to mid-sized banks with specialized lending practices, but investors remain concerned the failures could signal broader systemic risk in the banking system.

The market has reacted with increased anxiety, resulting in a widening of credit spreads as investors seek higher yields for the perceived risk. The Moody's Investors Service long-term average corporate bond spread rose to 158 basis points, reflecting an increase of 26 bps since March 8. Despite the jump, the spread is only modestly above its average over January and February. The long-term average industrial corporate bond spread was less impacted, rising 4 bps in the period to 127. It averaged 120 bps in February.

The ICE BofA U.S. high-yield option adjusted bond spread rose consistently this past week and is currently tracking at its highest level since September. The high-yield option adjusted bond spreads approximate what is suggested by the accompanying long-term Baa industrial company bond yield spread, but less than implied by a VIX of 24.

While highly uncertain given how quickly events are unfolding, the impact of the bank failures on the economic outlook should be on the margin. The economy will struggle this year and next and will remain vulnerable to events like those of the past several days, but this banking crisis is unlikely to push the economy into recession.

DEFAULTS

Five Moody's Investors Service-rated corporate debt issuers defaulted in January, down from eight in December. The global speculative-grade corporate default rate came in at 2.8% for the trailing 12 months ended in January, unchanged from the December 2022 level.

The January defaulters include two retail companies: U.S.-based Party City Holdings Inc. and Brazil-based Americanas SA. Party City is one of a number of retailers that have experienced financial difficulties recently. In the fourth quarter of 2022, four rated retailers defaulted, including Rite Aid Corp. and Bed Bath & Beyond Inc. Party City filed for Chapter 11 bankruptcy protection after contending with high supply-chain costs, helium shortages and softening customer demand, all of which have led to an unsustainable weakening of leverage, coverage and liquidity metrics. Party City has signed a transaction support agreement with more

than 70% of its first-lien noteholders. The company expects to convert a material portion of its senior secured first-lien and senior unsecured notes to equity.

Americanas SA did not make the January interest payment on its senior unsecured notes that will mature in 2033. Soon after, a Brazilian court approved the company's judicial recovery request, the closest equivalent to the Chapter 11 process in the US. The default came shortly after the company disclosed accounting inconsistencies that involved the recognition of roughly BRL20 billion in previously undisclosed suppliers' financing lines to Americanas as debt. This recognition will increase the company's leverage and reduce its interest coverage compared with its latest financial statements in September 2022.

Outside of the retail sector, U.S.-based Serta Simmons Bedding LLC (durable consumer goods) filed for bankruptcy protection in January while Cooper-Standard Automotive Inc. (automotive), also based in the U.S., and Vue International Bidco plc (hotel, gaming, & leisure) of the U.K. completed distressed exchanges, a type of default under Moody's Investors Service's definition.

The global speculative-grade corporate default rate to rise in 2023 as slowing economic growth, higher input costs and rising interest rates reduce consumer and business demand, pressure corporate earnings and hamper free cash flow, according to Moody's Investors Service. The ratings agency expects the default rate to rise to 4.4% at the end of 2023 and to 4.6% by the end of January 2024. These forecasts, if realized, would surpass the long-term average of 4.1% but remain well below prior recessionary levels, including the pandemic peak of 7%. The agency's latest forecasts are lower than its projections last month, primarily because of a drop in high-yield spread assumption as recent levels have been lower than Moody's Investors Service had previously expected. The agency now assumes the U.S. high-yield spread will widen to only 510 basis points in the coming 12 months, down from its forecast of 596 basis points last month.

In the leveraged loan market, three Moody's Investors Service-rated corporate issuers defaulted on loans in January: Party City Holdings Inc., Serta Simmons Bedding LLC and Vue International Bidco plc.

The global default rate was 4.3% at the end of 2022, more than double the 1.8% rate a year earlier and above the long-term average of 4.1%. Moody's Investors Service expects the

rate to climb to 4.4% in 2023. The pace upward will be slower in 2023 because the wave of Russian defaults in 2022 will not show up again and we expect fewer new defaults among China property developers. The default rate will likely edge lower by the end of 2024.

U.S. CORPORATE BOND ISSUANCE

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 second quarter, corporate bond issuance weakened. Worldwide offerings of investment grade corporate bonds totaled \$548 billion, down 21% on a year-ago basis. US\$ denominated high-yield corporate bond issuance was \$38 billion in the second quarter, down from \$63 billion in the first three months of the year.

Third-quarter issuance declined further as higher interest rates weighed on lending activity. Worldwide offerings of investment grade corporate bonds totaled \$505 billion, down 30% year over year. US\$ denominated high-yield corporate bond issuance clocked in at \$21 billion in the third quarter. High-yield issuance declined approximately 84% on a year-ago basis.

Corporate debt issuance remained suppressed in the fourth quarter of 2022. US\$-denominated high-yield issuance ended the year at \$2.47 billion, reflecting a drastic 77% decline from 2021. Meanwhile, investment-grade bond issuance totaled \$1.29 trillion in 2022, corresponding to a 20.8% decline from 2021. Over the past twelve months total US\$-denominated issuance has tracked at a near-decade low.

US\$-denominated corporate bond issuance outperformed expectations through the first two months of the year, driven by robust investment-grade debt issuance. In the latest period, high-grade issuance amounted to \$40.1 billion, lifting its year-to-date total to a respectable \$386.4 billion. High-yield issuance slowed to \$2.02 billion after registering \$8.6 billion in issuance over the preceding period. At \$49.44 billion through the second week of March, high-yield debt issuance continues to track at its lowest level since 2016. The strength in investment-grade issuance is preventing larger year-to-date declines with cumulative issuance down 4.2% compared with last year. Total corporate debt issuance is 8.9% and 24.4% lower over the same period in 2020 and 2021, respectively.

U.S. ECONOMIC OUTLOOK

Moody's Analytics made modest adjustments to the U.S. baseline forecast in March based on new data and the recent collapse of Silicon Valley Bank, Signature Bank, and Silvergate Bank. These failures raise fears of contagion to other regional banks. Fundamentally, the outlook remains essentially the same, and the pace of annual GDP growth is only modestly changed.

However, there was a material change to monetary policy assumptions this month. Strong job, spending and inflation figures have caused us to assume a higher terminal fed funds rate than last month, though the recent financial system turmoil altered the timing of the increases. New data, especially for spending and income, were strong, lifting first-quarter growth at the expense of coming quarters. In contrast, recent data suggested modestly lower oil prices than expected and caused only minor shifts in the outlook for the labor market. Fiscal policy assumptions remained unchanged, while the outlook for the 10-year Treasury is a bit lower because of recent events.

Monetary policy

Our baseline forecast for the federal funds rate has changed materially from the previous outlook. After stronger-than-expected January jobs and inflation figures, followed by hawkish rhetoric from the Fed, we anticipate that policymakers will ultimately hike interest rates higher than in the previous baseline. But our expectations about the timing have changed. The failures of Silicon Valley Bank, Signature Bank, and Silvergate Bank have roiled the financial system, and the Fed will be under pressure to pause its rate hikes. Financial conditions are one of the factors used in Fed monetary policy decisions, and the turmoil will likely lead to a tightening in underwriting standards and less credit availability. Therefore, we assume that the Fed will pause its rate hikes in March to gauge just how much conditions have tightened, as well as the impacts on the economy and inflation. We then expect two more 25-basis point rate hikes at the May and June meetings of the Federal Open Market Committee, putting the terminal range for the fed

funds rate at 5% to 5.25% in the summer. The previous outlook predicted a single 0.25-point rate hike in March and a terminal range for the fed funds rate of 4.75% to 5%. We anticipate that the Fed will keep rates at the terminal level before beginning to cut at the first FOMC meeting in 2024. Monetary policy will remain restrictive through the end of 2025. The fed funds rate will return to its neutral rate in early 2026.

Meanwhile, inflation continues to decelerate, although the progress is slower than last fall when pandemic-supply conditions and energy market frictions were fading. Consumer prices rose 0.37% in February, nearly matching the monthly average over the last six months. However, the increase was smaller than the almost 0.6% in January. The change in core inflation slightly accelerated to 0.44% in February, highlighting price pressures for shelter and nonshelter services. Overall, at 6%, year-over-year consumer price inflation remains well above the Fed's 2% target. Various Fed governors reiterated that further interest rate hikes will be appropriate. However, they did not commit to how high the policy rate will ultimately have to go. Policymakers instead have signaled that they will stop when incoming data firmly suggest that broad-based inflation has turned. Their main bellwether remains labor market tightness. The Fed considers wage growth of 3.5% consistent with its 2% inflation target. Year-over-year growth in the employment cost index for wages and salaries was 5% in the last quarter of 2022, down from its peak of 5.7% earlier last year but still too high for policymakers to consider their job done.

The baseline outlook reflects our expectation that inflationary pressures from supply-side frictions, energy markets, shelter, and U.S. labor market conditions will continue to soften throughout the year. The path toward a soft landing for the Fed remains narrow: Policymakers cannot ease up too early and have repeatedly pointed to tight financial market conditions as the central monetary policy mechanism to dampen demand. However, as U.S. demand shows signs of sustained cooling, keeping interest rates too high for too long risks choking off the expansion and increasing unemployment. It also risks unearthing further imbalances in the financial sector.

Inflation remains the key to the baseline outlook. The March vintage has the CPI rising 4.1% in 2023 and 2.4% in 2024, a small uptick compared with 3.9% and 2.4%, respectively, in the prior baseline. The reason is that inflation in early 2023 has decelerated a bit more than expected.

Financial conditions remain unsettled as the recent market upheaval has undone some of the easing observed since inflation started to decelerate last fall. The 10-year Treasury yield briefly breached 4% in early March before falling back

to 3.5%, as some investors scrambled for the exits after SVB's failure. The baseline outlook has the 10-year Treasury yield averaging 3.7% during the first three months of this year, unchanged from the previous baseline, and peaking in the first quarter of 2025 at 4.1%. Compared with the prior baseline, this marks a slight decline of less than 10 basis points for each upcoming quarter, reflecting higher investor risk aversion. We project that the 10-year Treasury yield will start to decline into 2025.

Foreign exchange markets have also started to relax since the Fed has slowed the pace of hiking. On a real broad trade-weighted basis, the U.S. dollar is still up more than 10% from its pre-pandemic level, but in February has depreciated by more than 5% from its October peak.

Energy

Moody's Analytics has lowered its oil price forecast. Brent crude oil is expected to average \$88.53 a barrel in 2023, down from \$90.59 a month ago. At prices north of \$80, crude oil is overvalued relative to conditions on the ground. Moody's Analytics' current and future assessment of the supply/demand balance suggests that Brent prices should be around \$75 and end the year around \$80.

A good bit of the tightening that we expect in the oil market, owing primarily to China's reopening, is already being priced in. It would take the full combination of a massive surge in Chinese demand—beyond the International Energy Agency's optimistic expectations—total EU compliance with the Russian energy ban, and a lack of Russian ability to reroute exports for oil to sustain \$100 a barrel for an extended period this year. Given the balance of risks, we have lowered the oil price forecast, particularly in the second quarter.

However, as we get into 2024, the buffer of oversupply will be gone, the prospects for new U.S. oil are bleak, and we expect the dollar to weaken considerably. This, combined with recent comments from U.S. drillers about a lack of productive shale oil inventory, has caused us to raise our oil price forecast for 2024. We expect Brent to then average \$78.92 a barrel, up from \$76.67.

Moody's Analytics also continues to reduce our forecast for Henry Hub natural gas prices. We expect gas prices to average \$5.18 per million BTUs for 2023, down from \$5.51 a month ago. Two of the three trains at the Freeport liquefied natural gas terminal have reopened, but that has had a modest impact on prices. Mild weather conditions continue to dominate the dynamics in the gas market, responsible for the oversupply. Absent a reversal in weather conditions or a near-term recovery in prices, we will likely continue to mark down our natural gas price forecast.

Changes to the pattern of GDP growth

The expansion in economic activity progressed in the second half of 2022 after pausing in the first half as measured by real GDP. The contribution from trade declined but inventory accumulation increased, and several other components contributed. Output rose 2.7%, following a 3.2% gain in the third quarter, according to the second report from the Bureau of Economic Analysis. The year as a whole was weak, and the economy is sure to have a difficult 2023, as it struggles under the weight of the interest rate increases orchestrated by the Federal Reserve to quell painfully high inflation and fallout from recent problems among banks.

While the economy will struggle during the coming year in response to the Fed's actions intended to rein in the high inflation, the baseline outlook holds that the Fed will be able to accomplish this without precipitating a recession. That is, it will be able to raise rates high enough to sufficiently quell the wage and price pressures, but not so high and fast that it fully knocks the wind out of the economy. This is a scenario Moody's Analytics might call a "slowcession"—growth that comes to a near-standstill but never slips into reverse.

Revisions to the baseline forecast for real GDP are modest. The forecast for real GDP now shows only a slight dip in the first quarter of 2023, but a larger deceleration in growth in the second quarter before economic growth gradually accelerates. The strong January data contributed to this altered pattern, along with near-term concerns about the fallout from financial system issues. Annual growth rates in 2022 and 2023 are 2.1% and 1.9%, respectively, the latter a marked improvement from last month's forecast that comes at the expense of 2024. Growth in 2024 was revised lower to 1.9% and growth in 2025 was unchanged, at 2.7%. It will now take until 2025 before the economy returns to near-potential growth.

Labor market

The February employment report underscored the labor market's resilience but also showed signs of softening. Net payroll gains came in above expectations again but slowed from January's outsized gain. The unemployment rate rose to 3.6% as the labor force posted its third straight month of impressive gains. The new data were incorporated in the March baseline forecast, which has not materially changed from February.

The strong momentum of the job market means that the marked weakening in the labor market is not expected to materialize until the second quarter of 2023 and beyond. Monthly job gains will average less than 75,000 in the second quarter, followed by gains of only about 25,000 per month during the final two quarters of 2023. Growth will

pick up only modestly in 2024 as the risk of a recession remains high. High-profile layoffs by tech companies and banks have started to have an impact, and as a result, financial services and information payrolls will be among the biggest losers over the next year. Despite the housing market being pummeled by high interest rates, construction payrolls will remain mostly flat in 2023 as builders work through a significant pipeline of projects.

The unemployment rate forecast has shifted slightly given the increase in February, with the rate now expected to hold stable at around 3.5% for most of this year before increasing at year's end. The unemployment rate will soften further next year and peak at 4%. Over the next year, the increase in the unemployment rate will be right on the border of the 50-basis point increase that historically has been a reliable indicator that the economy is in a recession.

Fiscal policy

The Treasury budget deficit will amount to 4.9% and 5.3% of GDP in fiscal 2023 and 2024, respectively, down from 5.5% in fiscal 2022. The deficit-to-GDP ratio for the current fiscal year is 0.6 percentage point higher than in the February forecast following the budget shortfall that the Treasury recorded in February, which was the largest ever for the month of February outside of the COVID-19 pandemic. Also, personal tax payments have come in lighter than expected in early 2023. Close observers of the federal budget should not be sidetracked by the improvement in deficits since fiscal 2020, as this reflects the winding down of emergency pandemic relief. The federal budget is still on an unsustainable track, and budget shortfalls will reach 6.7% by fiscal 2033. Likewise, public debt outstanding will rise from an expected 97.1% in fiscal 2022 to 115.5% in fiscal 2033.

The U.S. Treasury is quickly approaching the X-date—the day it will not have enough cash to pay all of the federal government's bills on time. Moody's Analytics assumes lawmakers will suspend or increase the Treasury debt limit before this happens, allowing the Treasury to issue more debt and pay the government's bills. The debt limit was hit on January 19, and the Treasury is using "extraordinary measures" to come up with the additional cash needed to pay its bills while staying under the statutory limit. Based on our updated assessment of the government's outlays and receipts in the coming weeks, those measures seem likely to be exhausted by mid-August. To be more precise, the X-date appears to be August 18, which is not much different from our assumption in the February vintage. Investors in short-term Treasury securities are coalescing around a similar X-date, demanding higher yields on securities that mature in late August, given worries that a debt limit breach may occur.

Business investment and housing

The Bureau of Economic Analysis' second estimate of fourth-quarter real fixed business investment showed growth of 3.3% annualized, a measurable upward revision from 0.7% in the advance estimate. The bulk of the adjustment came from structures, which rose 8.5% annualized compared with 0.4% in the earlier publication. Drilling down further, the source appears to be that the large office segment recorded its first gain in real terms in more than three years. However, one quarter does not make a trend.

Otherwise, the revised data on equipment spending mainly confirmed the weakness in IT, which led the overall decline. Pandemic-related spending by companies on computers and peripherals is past the peak as the proportion of the labor force working remotely stabilizes. However, the significant gains in transportation equipment spending were unchanged as supply-chain issues continue to resolve, and the upward revision in fourth-quarter growth in core industrial equipment spending to 6.1% annualized was noteworthy. Still, high-frequency data are pessimistic, with inflation-adjusted new orders for nondefense, nonaircraft capital goods steadily declining by 2.8% cumulatively over the course of 2022.

The bottom line is that the improved fourth-quarter structures spending data will help to lift the outlook for 2023 growth in business investment modestly. The new projection is that real business fixed investment will grow

3.9% on an annual average basis, up from 3.4% forecast in February. The outlook for equipment spending is largely unchanged, up 2% versus February's 1.8%. However, the unexpectedly high January CPI data mean that the Fed will tighten more than previously expected, adding downside risk to the outlook. The failure of SVB, the bank for high-tech startups, will also weaken business sentiment.

By contrast, Moody's Analytics downgraded its short-term outlook for housing permits and starts due to expectations for higher mortgage rates to persist throughout 2023. Underlying demand due to demographics continues to support increased construction activity in the long run as vacancy rates remain near their all-time lows and as the nation continues to run a significant housing deficit. Builders are expected to slow applications for new permits in 2023 as they focus on completing the large number of units under construction.

Commercial real estate price growth was revised downward given the upward revisions to interest rates, which will increase the financial burden on property owners and potential buyers. Prices for office properties are expected to decline more than other property types as more businesses adopt remote or hybrid work policies, thereby decreasing their need for office space. Apartment building prices are expected to soften because of higher interest rates as well as slowing rent growth. Property prices, rents and cap rates will come under further pressure as many multifamily buildings under construction are completed this year and add to the available supply.

ECB Raises Rates 50 basis points

BY ROSS CIOFFI

The European Central Bank's monetary policy statement announced a 50-basis point rate hike across its policy rates. The main refinancing operations target is now at 3.5%, up from 3%. The initial press release leaves little clue as to future decisions. It begins with a warning that "inflation is projected to remain too high for too long", which rings quite hawkish. But importantly, there was no mention of future hikes. This is the right move in light of the recent financial market turbulence. The ECB gave itself an off-ramp in case downside risks crystallise and the financial system begins to freeze. As of our March baseline, we think Europe will avoid such a situation. We believe the ECB will continue hiking at its next meeting. However, it will slow its pace to 25 basis points as uncertainty and market volatility persist.

Euro zone industry growing, for now

Euro zone industrial production partially recovered by 0.7% month over month in January, following a downwardly revised 1.3% decline in December. This resulted in a 0.9% rise in year-ago terms. While a strong increase in intermediate goods production saved the day, output fell for consumer, energy, and capital goods. The major gains came from the electronics and electrical components sectors. These rebounded from the previous month when there was a sudden drop in output likely caused by a supply hiccup.

These sectors have been growing in importance over the past year, as national governments attempt to build up home-grown industries amidst rising demand for inputs like microchips. However, the automotive industry suffered. Output here declined by a sharp 5.9% month over month after months of solid growth. We think that production lines will rev up again as input inventories replenish. Thanks to better global conditions for supply chains, this should be a small lull compared to what happened in the industry in 2021 and early 2022.

Despite January's rebound, we still see the euro zone's manufacturing sector in troubled waters. Inflation for consumers and producers, and still-low morale across the economy is cutting away at demand for goods. Manufacturing PMI even ticked lower by 0.3 point in February, further into contractionary territory, to a score of 48.5. We expect output to continue trending lower during the first quarter.

Inflation revised higher in France

France's year-on-year inflation rate was revised slightly higher in February to 6.3% from 6.2%, marking an acceleration from January's 6% and matching the previous peak of 6.2% during November and October. Energy inflation rose again, but the truly disconcerting detail was that core inflation rose by 0.5 percentage point to 6.1% year over year. This alone is not likely to push the euro zone aggregate rate higher. As it stands, we are expecting this to come in on Friday the same as the preliminary estimate, 8.5% year over year, down from 8.6% in January. Higher inflation in France will further weigh on consumers. Meanwhile, higher inflation across the euro zone will motivate rate hikes by the European Central Bank. Neither is promising for the economic outlook.

Italian inflation revised lower

Italian consumer price inflation cooled to 9.1% year over year in February from 10% in January. This marks a downward revision from the preliminary estimate of 9.2%. The details haven't changed much, as lower energy inflation was still the reason inflation fell as much as it did from the previous month. Unfortunately, food and services inflation accelerated, pushing up core inflation to 6.3% year over year from 6%. This stickiness in inflationary pressures ensures that the headline index will remain above the European Central Bank's 2% inflation target in 2023. Inflation will likely continue to eat away at real earnings of Italian households and weigh on consumption and GDP growth.

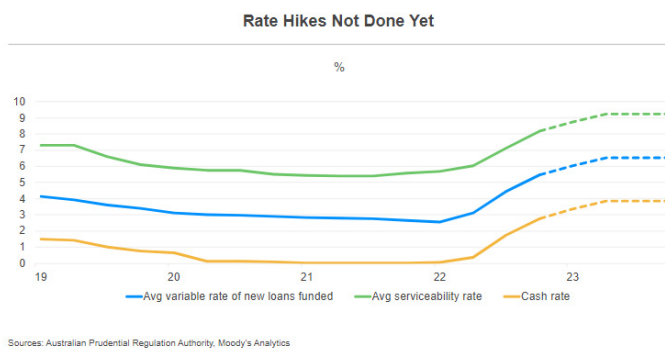
Aussie Monetary Policy Hurts Some Households More Than Others

BY HARRY MURPHY CRUISE

As global inflation soared through 2022, interest rates followed suit. Since Australia's tightening cycle began in May, the country's central bank has injected 350 basis points of cumulative interest rate hikes into the economy—pushing mortgage rates ever north.

Those higher rates have caught many off guard. Under a mandated 3% serviceability test, households buying property at the start of the tightening cycle needed to show an ability to make repayments if the cash rate reached 3.1%—an inconceivable level at the time. But with Russia's war in Ukraine, China's lockdowns through 2022, and local natural disasters, inflation leapt. The Reserve Bank of Australia had no alternative than to push rates higher.

And there's more to come. We expect interest rates to peak at 3.85% in April, lifting the average rate on new variable home loans to 6.5%. It was just 2.5% at the start of 2022.



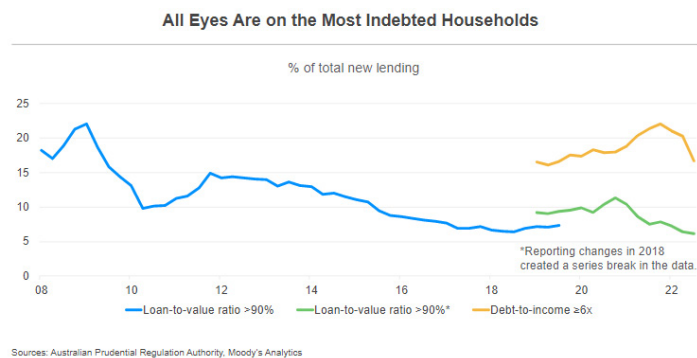
Homeowners on variable loans have felt the blows of each of these rate hikes. There's an extra 880,000 or so homeowners on fixed terms that will similarly feel the pain as their loans roll onto new terms this year.

Borrowers won't feel the pain equally

Higher interest rates particularly hurt those with loans that make up a larger proportion of their incomes. One measure of that leverage is the debt-to-income ratio. At the onset of the pandemic, interest rates dropped like a stone to support the economy, lowering one of the key barriers to entry for potential homebuyers and allowing a new cohort of lower-income buyers to enter the market.

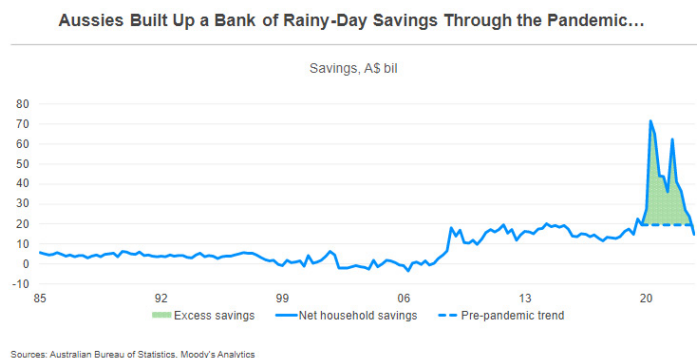
In response, the proportion of new loans with a debt-to-income ratio above six—generally considered a measure of

high risk—rocketed. As real incomes have since been eaten away by higher prices and rising mortgage repayments, these households are vulnerable.



Excess savings accumulated through the pandemic provided some pain relief. Aussie households amassed close to A\$260 billion (US\$173 billion) in savings above and beyond what they would have had without a pandemic. This reflects a few drivers. First, incomes for many families rose through the pandemic as generous government support payments boosted cash flows.

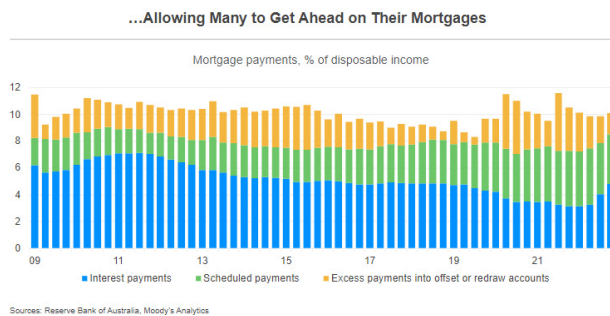
Second, expenses collapsed; cheap-as-chips borrowing costs lowered mortgage repayments, and lockdowns and border controls curtailed spending opportunities. The savings rate, the ratio of net savings to net disposable income, reached a peak of 23.6% in June 2020. Put another way, for every A\$100 of disposable income earned, households saved almost A\$24—up from just A\$6.80 before the pandemic.



As savings soared, some homeowners got ahead on their mortgages. Since March 2020, payments into offset or

redraw accounts have totalled more than A\$120 billion, equivalent to almost 3% of total disposable income earned over that period. In the three years before the pandemic, households deposited less than A\$50 billion into excess or redraw accounts.

These savings and pre-payments are a helpful buffer to mortgage holders as they watch borrowing costs rise. Interest payments on mortgages last quarter were almost 5% of disposable income, up from a low of 2.1% in December 2021. In August, the RBA estimated that a little more than 35% of borrowers were at least two years ahead on their repayments. A further 25% borrowers were seen to be between three months and two years ahead.



But not all households saved equally through the pandemic. Low-income households traditionally experience negative savings. That is, expenses outweigh their disposable incomes. For Australia's lowest-income households, this didn't change, even though generous government supports flowed to many. In contrast, high-income households tend to save a much larger proportion of their disposable incomes, with consumption generally making up a smaller share of their substantially bigger incomes.

With different savings rates has come widely different buffers accumulated through the pandemic. Our estimates suggest that households with incomes in the top 20% account for nearly 40% of the excess savings accumulated through the pandemic. Meanwhile, those on the lowest 20% of incomes account for less than 10% of excess savings.

That means lower-income households have a substantially smaller bank of savings to draw on as mortgage repayments rise and higher prices chip away at real incomes.

Back in August, the RBA estimated that of owner-occupier households on variable rates from the lowest income quartile, around 4% had a prepayment buffer of less than a month and a debt-to-income ratio above six. Meanwhile, almost one in seven low-income households had a buffer of less than three months and a debt-to-income ratio above four. For high-income households, it's less than 2%.

All in all, most Aussie homeowners are in a solid—albeit uncomfortable—position to keep pace with repayments as borrowing costs rise. But lower-income households have far less wriggle room; they couldn't build a savings buffer as grand as that of high-income households, and inflation is disproportionately eating away at what savings they might have.

That's what sits behind the expression that monetary policy is a blunt tool—it impacts all homeowners. However, the pain it inflicts lower-income households is much more acute.

IMF, Argentina Reach Agreement

By JUAN PABLO FUENTES

The Argentine government and the International Monetary Fund have reached a staff-level agreement on the fourth review under Argentina's 30-month Extended Fund Facility arrangement. The agreement must now be approved by the IMF Executive Board in upcoming weeks—normally a formality. Upon completion of the fourth review process, Argentina will get access to a new disbursement of about US\$5.4 billion.

The IMF commended the government for making the necessary policy adjustments in the second half of 2022 to meet all the targets included in the agreement. According to the IMF statement, "all quantitative performance criteria through end-December 2022 were met with some margin. The 2022 primary fiscal deficit reached 2.3 percent of GDP (compared to a target of 2.5 percent), notably because of continued strong expenditure control, and actions to improve the targeting of subsidies and social assistance. At the same time, net international reserves (NIR) rose by US\$5.4 billion (above the target of US\$5.0 billion), on account of improvements in the trade balance and sizeable official support."

Higher commodity prices and stronger-than-anticipated domestic demand growth enabled the government to achieve those targets with relative ease in 2022. However, more difficult external and domestic economic conditions will make meeting 2023 targets harder. The country's ongoing drought will hinder agricultural output this year,

leading to weaker exports and GDP growth. Given the unexpected nature of this negative shock, the government has asked the IMF to lower the reserve accumulation target for this year. The IMF Executive Board is expected to approve this request, while leaving the primary fiscal deficit goal unchanged at 1.9% of GDP for this year. Meanwhile, the IMF highlighted the need to make progress in eliminating energy subsidies in upcoming months to offset the negative fiscal impact of a recently approved pension moratorium. The IMF also hinted at possibly increasing the policy interest rate further amid the recent spike in inflation and accelerating the pace of currency depreciation to stimulate exports.

The completion of the fourth review is a positive step and brings near-term financial certainty for the government. Yet 2023 is shaping up to be a trying year for the economy. Moody's Analytics expects the IMF and the government to continue negotiations throughout the year, but achieving this year's targets will be a challenge. The economy is likely in the midst of a mild downturn; GDP contracted in the final quarter of 2022 and further decline is expected in the first half of the year. Furthermore, policy adjustments will be hard to execute during October's presidential election campaign. The winner must quickly engage with the IMF on continuing the credit agreement and revising targets. Negotiations could become more complicated if the opposition wins the election, a plausible outcome at this point. In the end, the new government will have no option but to accept the terms of the current agreement.

Downgrades Dominate in U.S., Europe Breaks Even

BY OLGA BYCHKOVA

U.S.

U.S. credit downgrades outnumbered upgrades in the latest weekly period. The changes issued by Moody's Investors Service spanned a diverse set of speculative- and investment-grade bonds and industrial and financial companies. Downgrades comprised nine of the 16 rating changes but only 27% of affected debt.

The largest downgrade, accounting for 17% of debt affected in the period, was issued to SVB Financial Group and its bank subsidiary, Silicon Valley Bank. Moody's Investors Service lowered Silicon Valley Bank's long-term local currency bank deposit and issuer ratings to A1 from Aa3 and Baa1 from A3, respectively, its standalone baseline credit assessment and adjusted BCA to a3 from a2, the bank's long-term and short-term local and foreign currency counterparty risk ratings to A3/Prime-2 from A2/Prime-1, the long-term counterparty risk assessment to A2(cr) from A1(cr), and affirmed the banks' short-term local currency Prime-1 bank deposit rating and short-term P-1(cr) counterparty risk assessment. Concurrently, Moody's cut SVB Financial Group's local currency senior unsecured and long-term issuer ratings to Baa1 from A3, SVB's local currency senior unsecured shelf and local currency subordinated shelf ratings to (P)Baa1 from (P)A3, and the local currency preferred stock non-cumulative and local currency preferred shelf non-cumulative ratings to Baa3 (hyb) from Baa2 (hyb) and (P)Baa3 from (P)Baa2, respectively. Following the downgrades, the rating outlooks on SVB and Silicon Valley Bank were changed to negative from stable.

According to the rating agency, the changes reflect the deterioration in the bank's funding, liquidity and profitability, which prompted SVB to announce actions to restructure its balance sheet. Rising interest rates and increased macroeconomic uncertainty coupled with declining venture capital investment activity and high cash burn among SVB's clients created challenging conditions for the firm. This led to a significant increase in wholesale funding in the second half of 2022. Additionally in 2022, SVB recognized losses on its valuations of non-marketable and other equity securities compared to high gains in 2021. The negative outlook reflects the uncertain macroenvironment and specifically, the potential negative implications for SVB if the declining venture capital

investment activity and high cash burn does not subside, the rating agency added.

Upgrades were headlined by Occidental Petroleum Corporation, which saw its senior unsecured ratings raised to Baa3 from Ba1, the senior unsecured shelf rating lifted to (P)Baa3 from (P)Ba1, and the commercial paper program rating upgraded to Prime-3 from Not Prime, impacting \$19.5 billion in outstanding debt, 47% of debt affected in the period. According to Moody's Investors Service vice president James Wilkins, "The upgrades reflect Occidental Petroleum's much improved credit metrics, management's financial policies supportive of the investment grade rating and the financial flexibility afforded it by its attractive asset portfolio and cash flow generation potential. We believe the company's governance risk, which was a material consideration in the ratings upgrade, has improved with Occidental Petroleum's successful execution on its debt reduction objectives and balance of the interests of creditors and shareholders going forward." The positive outlook reflects Moody's expectation that the company will continue to generate positive free cash flow supported by the attractive oil and gas commodity price environment as it maintains or modestly grows its production volumes.

In February, 57% of ratings actions issued by Moody's Investors Service were credit downgrades, which comprised 46% of the total affected debt. Similarly, through the first two months of the year U.S. rating changes were predominantly negative with downgrades exceeding upgrades 83:51.

EUROPE

European rating change activity saw as many credit upgrades as downgrades, issued to the diverse set of investment- and speculative-grade bonds and industrial and financial firms. Upgrades comprised 93% of affected debt in the period.

The largest upgrade last week was made to Barclays PLC, which saw its senior unsecured and subordinate debt ratings raised to Baa1 from Baa2 and its notional baseline credit assessment increased to baa1 from baa2. The outlook is stable. According to Moody's Investors Service, the main driver for ratings upgrade is the rating agency's expectation that the Barclays' earnings will be higher, more diversified and more sustainable than before, while asset risk will

remain broadly stable, and capital and liquidity will remain strong. The change impacted almost 86% of debt affected in the period. Barclays' revenue from its retail and commercial banking activities will continue to benefit from a higher interest rate environment in the U.K., the U.S. and EU. Macroeconomic growth, albeit modest, will also support revenue growth in particular in the credit card, payments and transaction businesses. Revenue from capital markets and investment banking will instead reduce from the exceptional levels of the last couple of years, potentially offsetting some of the growth in the retail and commercial business; the drop in capital markets and investment banking revenue will be mitigated by Barclays' investments in the last few years, and in part by the group's repositioning into more stable income streams, the rating agency added.

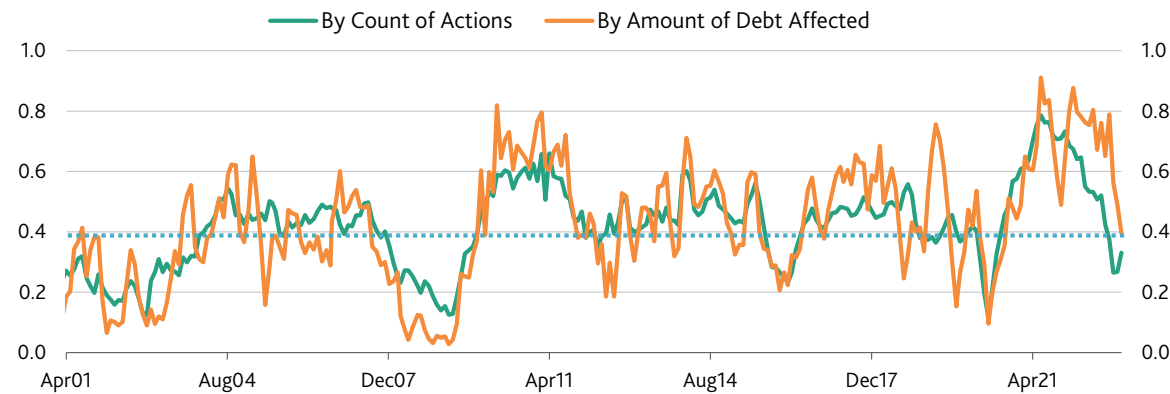
The largest downgrade, accounting for only 4% of affected debt in the period, was issued to a Luxembourg-based manufacturer of metal containers for the beverage industry, Ardagh Metal Packaging S.A., which saw its corporate family and probability of default ratings lowered to B2 from B1 and B2-PD from B1-PD, respectively. Moody's Investors Service also downgraded to Ba3 from Ba2 the rating on the \$1,700

million equivalent backed senior secured notes due 2027 and 2028 and to Caa1 from B3 the rating on the \$1,600 million equivalent backed senior unsecured notes due 2029, all notes co-issued by Ardagh Metal Packaging Finance plc and Ardagh Metal Packaging Finance USA LLC, wholly owned subsidiaries of Ardagh Metal Packaging S.A. According to Donatella Maso, Moody's Investors Service vice president, senior credit officer, and lead analyst for AMP, "The downgrades were motivated by the company's weaker than anticipated operating performance in 2022 owing to inflationary strains and subdued demand for beverage cans, which is expected to persist in the first half of 2023." The stable outlook reflects Moody's expectation that demand for beverage cans will improve from the second half of 2023, allowing for a gradual recovery in earnings, the rating agency added.

Like the U.S., in February, 66% of ratings actions issued by Moody's Investors Service in Western Europe were credit downgrades; however, they comprised only 16% of total affected debt. From January to February this year Western Europe rating changes were mostly negative with downgrades exceeding upgrades 35:16.

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
3/8/2023	SBA COMMUNICATIONS CORPORATION	Industrial	SrUnsec/SrSec/BCF/LTCFR	3000	U	B1	Ba3	SG
3/8/2023	SVB FINANCIAL GROUP	Financial	SrUnsec/LTIR/STD/LTD/Sub/PS	7000	D	A3	Baa1	IG
3/8/2023	OFFICE PROPERTIES INCOME TRUST	Industrial	SrUnsec/LTCFR	2200	D	Ba1	Ba2	SG
3/8/2023	PRIMARY CARE (ITC) INTERMEDIATE HOLDINGS, LLC AND-CANO HEALTH, LLC	Industrial	SrUnsec/SrSec/BCF/LTCFR/PDR	300	D	Caa3	Ca	SG
3/9/2023	INW MANUFACTURING, LLC	Industrial	SrSec/BCF/LTCFR/PDR		D	Caa2	Caa3	SG
3/9/2023	SYLVAMO CORPORATION	Industrial	SrSec/BCF		D	Ba1	Ba2	SG
3/10/2023	OCCIDENTAL PETROLEUM CORPORATION	Industrial	SrUnsec/MTN/CP	19522.15	U	Ba1	Baa3	SG
3/10/2023	WESTERN MIDSTREAM OPERATING, LP	Industrial	SrUnsec	6255.511	U	Ba1	Baa3	SG
3/10/2023	ADTALEM GLOBAL EDUCATION INC.	Industrial	SrSec/BCF/LTCFR/PDR	800	U	B1	Ba3	SG
3/10/2023	NEXT LEVEL HOLDING COMPANY, LLC-YS GARMENTS, LLC	Industrial	SrSec/BCF/LTCFR/PDR		U	Caa1	B3	SG
3/10/2023	LOYALTY VENTURES INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	Caa2	C	SG
3/13/2023	WW INTERNATIONAL, INC.	Industrial	SrSec/BCF/LTCFR/PDR	500	D	B1	B3	SG
3/13/2023	KCC CORPORATION-MOMENTIVE PERFORMANCE MATERIALS INC.	Industrial	LTCFR/PDR		U	B2	B1	SG
3/13/2023	SIGNATURE BANK	Financial	LTIR/Sub	1275	D	Baa2	C	IG
3/14/2023	TEREX CORPORATION	Industrial	SrUnsec/SrSec/BCF/LTCFR/PDR	600	U	B2	B1	SG
3/14/2023	WELLPATH HOLDINGS, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG

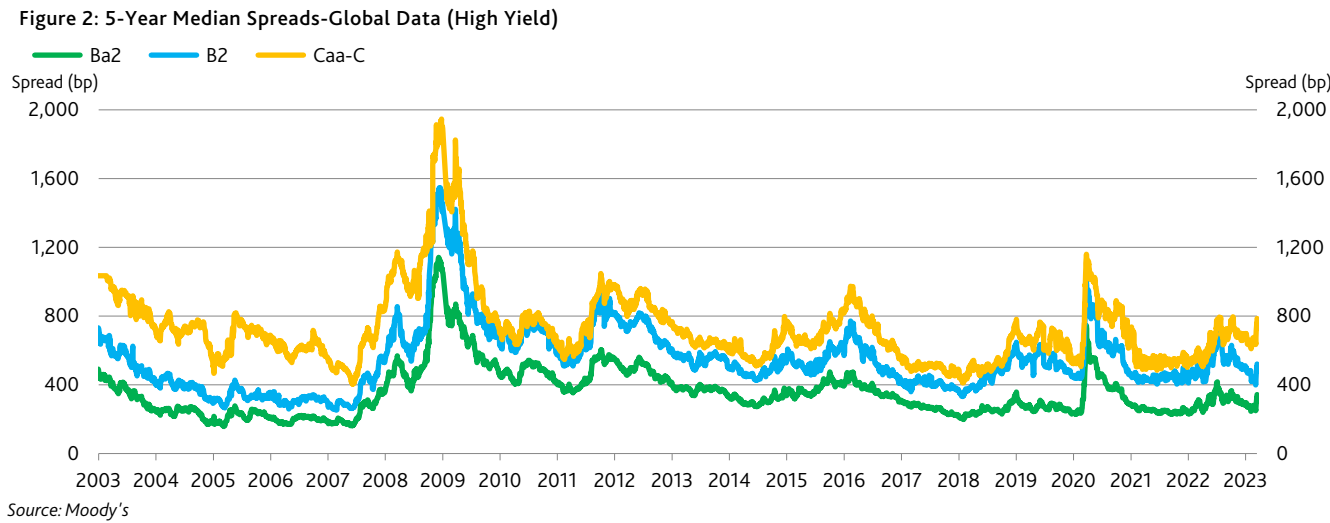
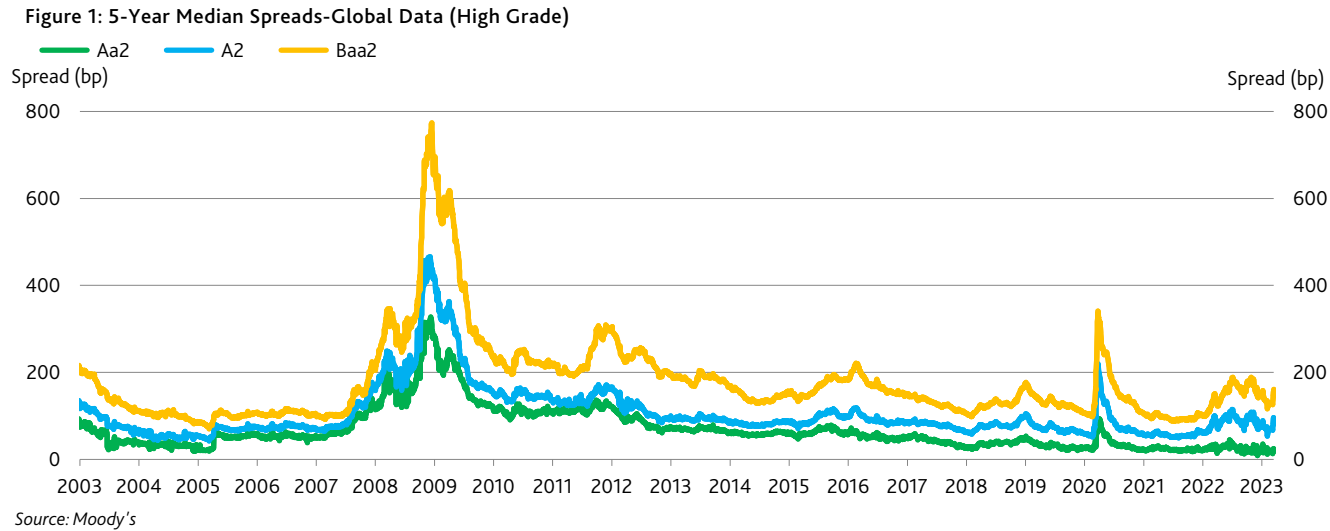
Source: Moody's

FIGURE 4
Rating Changes: Corporate & Financial Institutions - Europe

Date	Company	Sector	Rating	Amount (\$ Million)	Up/Down	Old LTD Rating	New LTD Rating	IG/SG	Country
3/9/2023	ENQUEST PLC	Industrial	SrUnsec/LTCFR/PDR	305	D	B3	Caa1	SG	UNITED KINGDOM
3/10/2023	VEDANTA RESOURCES LIMITED	Industrial	SrUnsec/LTCFR	2500	D	Caa1	Caa2	SG	UNITED KINGDOM
3/10/2023	BARCLAYS PLC	Financial	SrUnsec/LTIR/Sub/JrSub/MTN	95396.3	U	Baa2	Baa1	IG	UNITED KINGDOM
3/10/2023	CONSTELLUM SE	Industrial	SrUnsec/LTCFR/PDR	1873.13	U	B2	B1	SG	FRANCE
3/10/2023	CONSOLIDATED ENERGY LIMITED-CONSOLIDATED ENERGY FINANCE, S.A.	Industrial	SrUnsec/SrSec/BCF/LTCFR/PDR	1192.19	U	B3	B2	SG	LUXEMBOURG
3/10/2023	TECHNICOLOR CREATIVE STUDIOS SA	Industrial	PDR/LGD		D	Caa3	Ca	SG	FRANCE
3/13/2023	INTERNATIONAL GAME TECHNOLOGY PLC	Industrial	SrSec/LTCFR/PDR/SGL	4820.32	U	Ba2	Ba1	SG	UNITED KINGDOM
3/13/2023	TAKECARE BIDCO	Industrial	SrSec/BCF/LTCFR/PDR		U	B3	B2	SG	FRANCE
3/14/2023	NN GROUP N.V.	Financial	LTIR/Sub/MTN		U	Baa1	A3	IG	NETHERLANDS
3/14/2023	FINASTRA LIMITED-FINASTRA EUROPE SA	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG	LUXEMBOURG
3/14/2023	ARD SECURITIES FINANCE SARL-ARDAGH METAL PACKAGING FINANCE PLC	Industrial	SrSec/SrUnsec/LTCFR/PDR/LGD	4946.25	D	Ba2	Ba3	SG	IRELAND
3/14/2023	SANI/KOS GROUP S.C.A.	Industrial	SrSec/PDR	320.626	D	B3	Caa1	SG	LUXEMBOURG

Source: Moody's

MARKET DATA



CDS Movers

Figure 3. CDS Movers - US (March 8, 2023 – March 15, 2023)

CDS Implied Rating Rises		CDS Implied Ratings	
Issuer	Mar. 15	Mar. 8	Senior Ratings
NVIDIA Corporation	A2	Baa2	A2
3M Company	A2	Baa1	A1
Fidelity National Information Services, Inc.	A3	Baa2	Baa2
Waste Management, Inc.	Aa3	A2	Baa1
Stryker Corporation	A2	Baa1	Baa1
Archer-Daniels-Midland Company	A3	Baa2	A2
Prologis, L.P.	A2	Baa1	A3
Hertz Corporation (The)	B1	B3	Caa1
Brandywine Operating Partnership, L.P.	Ba2	B1	Baa3
Sally Holdings LLC	B1	B3	Ba2

CDS Implied Rating Declines		CDS Implied Ratings	
Issuer	Mar. 15	Mar. 8	Senior Ratings
U.S. Bancorp	Baa2	Aa2	A2
Credit Suisse (USA), Inc.	Ca	B2	A3
KeyCorp	Ba2	Baa2	Baa1
CIT Group Inc.	Ba1	Baa1	Baa2
JPMorgan Chase & Co.	Baa2	A3	A1
Citigroup Inc.	Baa3	Baa1	A3
JPMorgan Chase Bank, N.A.	Baa1	A2	Aa2
Wells Fargo & Company	Baa2	A3	A1
Ally Financial Inc.	B1	Ba2	Baa3
Bank of New York Mellon Corporation (The)	Baa2	A3	A1

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Mar. 15	Mar. 8	Spread Diff
Rite Aid Corporation	Ca	5,837	4,899	938
Credit Suisse (USA), Inc.	A3	1,319	416	903
Lumen Technologies, Inc.	Caa1	2,238	1,617	621
iHeartCommunications, Inc.	Caa1	1,130	772	358
Dish DBS Corporation	B3	1,887	1,543	344
Embarq Corporation	Caa2	2,333	2,008	325
Carnival Corporation	B3	1,200	896	304
Qwest Corporation	B1	911	661	250
CSC Holdings, LLC	B1	1,780	1,532	248
American Airlines Group Inc.	Caa1	937	724	213

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Mar. 15	Mar. 8	Spread Diff
Continental Resources, Inc.	Baa3	132	172	-39
Hertz Corporation (The)	Caa1	422	455	-34
Elme Communities	Baa2	220	250	-31
NVIDIA Corporation	A2	62	82	-20
Regency Centers, L.P.	Baa1	135	153	-18
SITE Centers Corp.	Baa3	175	189	-14
Carrier Global Corporation	Baa3	112	125	-13
NVR Inc.	Baa1	90	103	-13
Emerson Electric Company	A2	82	94	-12
Fidelity National Information Services, Inc.	Baa2	74	85	-11

Source: Moody's, CMA

CDS Movers

Figure 4. CDS Movers - Europe (March 8, 2023 – March 15, 2023)

CDS Implied Rating Rises		CDS Implied Ratings	
Issuer	Mar. 15	Mar. 8	Senior Ratings
Norsk Hydro ASA	Aa2	A3	Baa3
Landesbank Hessen-Thüringen Girozentrale	A1	Baa1	Aa3
Banco Comercial Portugues, S.A.	Ba2	B1	Baa3
ASML Holding N.V.	Aa3	A2	A2
DZ BANK AG	Aa2	Aa3	Aa2
Svenska Handelsbanken AB	Aa3	A1	Aa2
DNB Bank ASA	Aa3	A1	Aa2
Dexia Credit Local	A2	A3	Baa3
Nationwide Building Society	A3	Baa1	A1
SEB AB	Aa3	A1	Aa3

CDS Implied Rating Declines		CDS Implied Ratings	
Issuer	Mar. 15	Mar. 8	Senior Ratings
Credit Suisse AG	Caa2	Ba3	A3
Credit Suisse Group AG	Caa3	B2	Baa2
BNP Paribas	A3	Aa3	Aa3
HSBC Holdings plc	Baa2	A3	A3
Banco Bilbao Vizcaya Argentaria, S.A.	A3	A1	A3
Credit Agricole Corporate and Investment Bank	A2	Aa3	Aa3
NATIXIS S.A.	Baa1	A2	A1
Commerzbank AG	Baa1	A2	A2
BNP Paribas Fortis SA/NV	A2	Aa3	A2
UBS Group AG	Baa3	Baa1	A3

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Mar. 15	Mar. 8	Spread Diff
Casino Guichard-Perrachon SA	Caa1	5,053	2,958	2,095
Credit Suisse Group AG	Baa2	1,156	361	796
Credit Suisse AG	A3	899	282	618
Carnival plc	B3	1,138	850	288
CECONOMY AG	B2	1,192	912	280
Boparan Finance plc	Caa3	1,532	1,282	249
United Group B.V.	Caa1	1,067	861	206
Iceland Bondco plc	Caa2	1,160	1,004	156
Novafives S.A.S.	Caa2	1,195	1,038	156
Jaguar Land Rover Automotive Plc	B1	821	668	153

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Mar. 15	Mar. 8	Spread Diff
Norsk Hydro ASA	Baa3	40	66	-27
Investec plc	Baa1	175	192	-18
Landesbank Hessen-Thüringen Girozentrale	Aa3	61	72	-11
Hera S.p.A.	Baa2	65	68	-3
Yara International ASA	Baa2	150	153	-3
Nordea Bank Abp	Aa3	42	43	-1
Caixa Geral de Depositos, S.A.	Baa2	127	127	-1
ISS Global A/S	Baa3	79	80	-1
Wm Morrison Supermarkets Limited	B2	167	169	-1
Brisa Concessao Rodoviaria S.A.	Baa1	74	75	-1

Source: Moody's, CMA

CDS Movers

Figure 5. CDS Movers - APAC (March 8, 2023 – March 15, 2023)

CDS Implied Rating Rises		CDS Implied Ratings	
Issuer	Mar. 15	Mar. 8	Senior Ratings
Korea Expressway Corporation	A2	Baa1	Aa2
Mitsubishi UFJ Financial Group, Inc.	A1	A2	A1
Sumitomo Mitsui Banking Corporation	A1	A2	A1
Mizuho Financial Group, Inc.	Baa1	Baa2	A1
Development Bank of Japan Inc.	A1	A2	A1
Suncorp-Metway Limited	A2	A3	A1
NBN Co Limited	A3	Baa1	A1
Shinhan Bank	Aa2	Aa3	Aa3
Nomura Holdings, Inc.	A3	Baa1	Baa1
MUFG Bank, Ltd.	A1	A2	A1

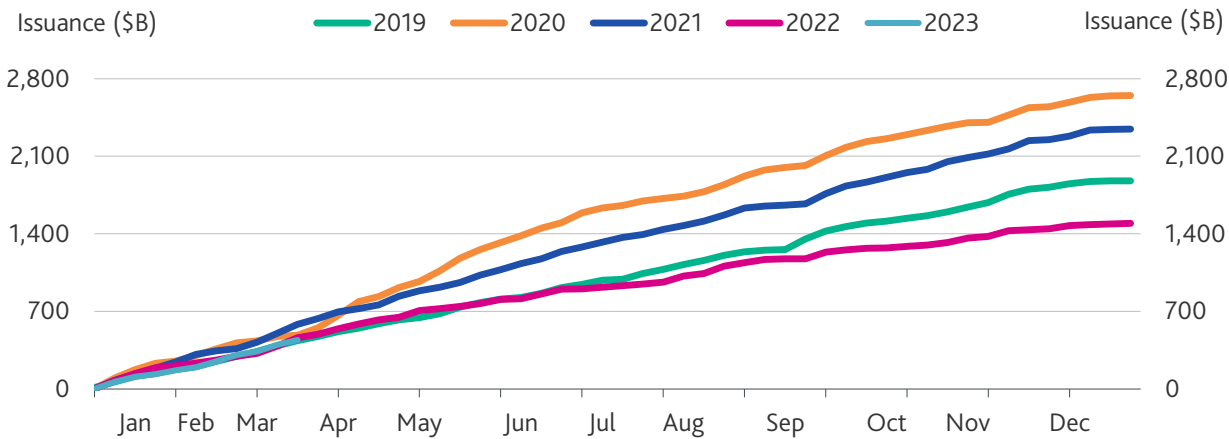
CDS Implied Rating Declines		CDS Implied Ratings	
Issuer	Mar. 15	Mar. 8	Senior Ratings
Industrial & Commercial Bank of China Ltd	Baa2	Baa1	A1
Bank of China Limited	Baa2	Baa1	A1
Export-Import Bank of India	Baa2	Baa1	Baa3
Telekom Malaysia Berhad	A3	A2	A3
Japan, Government of	Aaa	Aaa	A1
China, Government of	A3	A3	A1
Australia, Government of	Aaa	Aaa	Aaa
Korea, Government of	Aa2	Aa2	Aa2
Commonwealth Bank of Australia	A1	A1	Aa3
India, Government of	Baa2	Baa2	Baa3

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Mar. 15	Mar. 8	Spread Diff
Pakistan, Government of	Caa3	4,547	3,861	686
Adani Green Energy Limited	B2	1,002	922	79
SoftBank Group Corp.	Ba3	353	280	73
GMR Hyderabad International Airport Limited	Ba3	292	235	57
SK Innovation Co. Ltd.	Baa3	234	199	34
JSC Halyk Savings Bank of Kazakhstan	Ba2	459	433	26
Vietnam, Government of	Ba2	139	115	25
Development Bank of Kazakhstan	Baa2	212	187	25
Bank of East Asia, Limited	A3	113	91	21
Indian Railway Finance Corporation Limited	Baa3	126	105	21

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Mar. 15	Mar. 8	Spread Diff
Lenovo Group Limited	Baa2	145	159	-14
Korea Expressway Corporation	Aa2	66	70	-4
Aurizon Network Pty Ltd	Baa1	91	93	-3
Toyota Industries Corporation	A2	111	113	-2
NBN Co Limited	A1	76	76	-1
MTR Corporation Limited	Aa3	30	31	-1
Mitsui Fudosan Co., Ltd.	A3	23	24	-1
Electric Power Development Co., Ltd.	A2	37	38	-1
Stockland Trust Management Limited	A3	72	73	-1
Rizal Commercial Banking Corporation	Baa3	126	128	-1

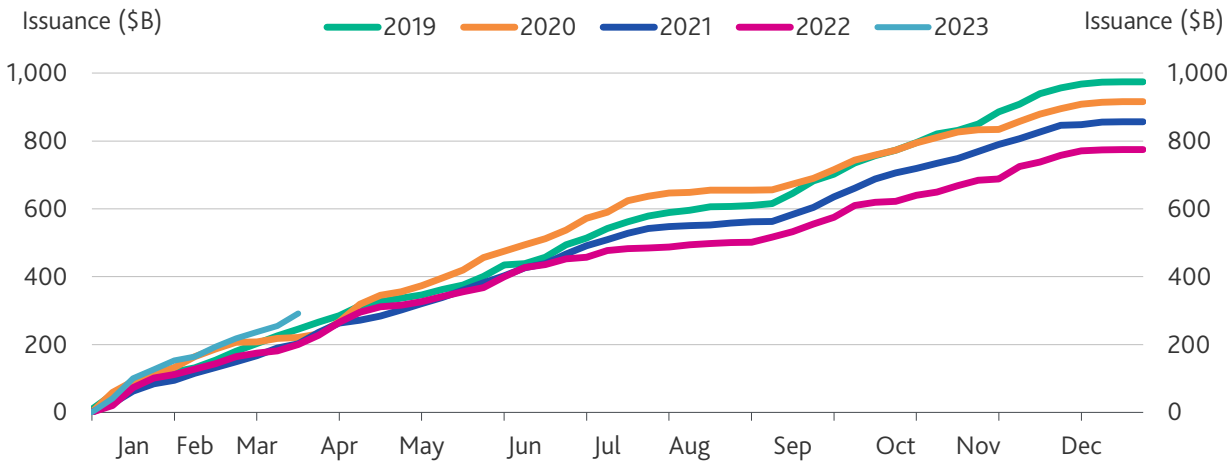
Source: Moody's, CMA

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	Amount	Amount
	\$B	\$B	\$B
Weekly	40.144	2.015	42.939
Year-to-Date	386.441	49.440	441.787

Euro Denominated			
	Investment-Grade	High-Yield	Total*
	Amount	Amount	Amount
	\$B	\$B	\$B
Weekly	33.696	0.638	36.741
Year-to-Date	257.212	20.983	290.963

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

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