Moody's ANALYTICS

WEEKLY MARKET OUTLOOK

MAY 23, 2024

Lead Author

Dante DeAntonio
Director

Asia-Pacific

Katrina Ell
Dave Chia
Harry Murphy Cruise

Europe

Ross Cioffi
Brittany Merollo
Olga Bychkova

U.S.

Matt Colyar
Chris Lafakis
Kyle Hillman

Latin America

Jesse Rogers

Inside Economics Podcast:

Join the Conversation

Apple Podcasts
Spotify

Fed Minutes Reveal Some Unease

Minutes from the Federal Open Market Committee's May meeting show policymakers were unnerved by the lack of progress against inflation in the first quarter. A number of participants were unsure how restrictive Fed policy actually is and how long it will need to stay there.

Financial markets' initial reaction to the release of May's minutes on Wednesday was moderately negative, likely owed to this sentiment being reinforced.

The factors causing progress to stall in the first quarter are not representative of current cost pressures. For that reason, Moody's Analytics expects that the rate-setting committee will have in hand the data needed to start lowering rates later this year. April's CPI, released after May's meeting, was a step in the right direction.

Table of Contents

Top of Mind 3

Week Ahead in Global Economy 5

Geopolitical Risks 6

The Long View

- U.S. 7
- Europe 12
- Asia-Pacific 14
- Latin America 15

Ratings Roundup 16

Market Data 19

CDS Movers 20

Issuance 23

Among the downside risks discussed by policymakers were unrealized losses on assets in the banking sector and geopolitical events that could push up commodity prices. Our latest baseline forecast places the first rate cut at September's FOMC meeting. From there, we expect another quarter-point cut in December. This puts us roughly in line with futures markets. Expectations have swung considerably as inflation's progress sputtered in early 2024.

At May's meeting, the FOMC kept the fed funds rate unchanged at 5.25% to 5.5%, where it has been since July of 2023. The U.S. labor market continues to churn out new jobs and the unemployment rate has held below 4% for more than two years.

The preliminary estimate of first-quarter GDP was weak, but underlying details indicate consumers are still in good shape. Against this backdrop, policymakers can afford to sit on their hands until inflation is unambiguously cooling.

After a September interest rate cut, we expect another quarter-point cut in December. This forecast puts us roughly in line with futures markets. Expectations have swung considerably since inflation's downward trend sputtered in early 2024.

Biden Targets Gas price Relief

President Biden's decision to release gasoline inventory will help to keep summer gas prices in check in the U.S. Northeast but will not have much of an effect in the rest of the country. The U.S. consumes about 9 million barrels of finished motor gasoline per day, 3 million bpd of which is in PADD 1, the Petroleum Administration for Defense District that comprises East Coast states from Florida to Maine.

The White House announced Tuesday a release of 1 million barrels from its reserves in the Northeast. To put this into context, the White House released about 180 million barrels of crude oil in response to the oil price spike caused by the Russian invasion of Ukraine. We estimated that release lowered oil prices by about $5 per barrel at their peak, or 12.5 cents per gallon at the pump across the nation.

We expect summer gasoline prices to be 5 cents per gallon lower than they otherwise would be in PADD 1, and 1 cent per gallon lower in PADD 3. PADD 3, the Gulf Coast district, will modestly benefit because of the infrastructure in place to transport motor gasoline across the country such as the Colonial Pipeline, which runs from New York to Texas and is the largest refined petroleum product pipeline in the U.S.

We do not expect the inventory release to affect gasoline prices much at all in PADD 2 (Midwest), 4 (Rocky Mountain), or 5 (West Coast, Alaska and Hawaii) because of the combination of the limited quantities being released and transportation costs.

There is also a chance that some of the gasoline inventory released is exported. This was somewhat the case when the White House released crude oil inventory from the strategic petroleum reserve, although the latest gasoline inventory release is less at risk to exports because the U.S. is much more connected with gasoline pipelines than crude oil pipelines.

TOP OF MIND

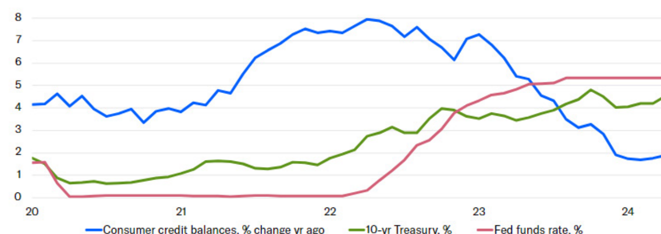
U.S. Credit Outlook: Past the Peak

By KYLE HILLMAN

U.S. credit markets gained in April. Outstanding consumer credit volumes rose 0.2% during the month, an acceleration from their 0.1% increase during March. On a year-ago basis, balance growth across all consumer credit products quickened from 1.8% to 1.9%. In contrast, the number of active consumer credit accounts fell in April and is 1.2% below 2023 levels.

Gains were broad-based across consumer products. When measured relative to April 2023 levels, first mortgage lending grew 2.4%, auto balances increased 2.6%, credit card volumes added 9.8%, home equity borrowing rose 7.5%, and the consumer finance market—the combination of personal revolving and installment loans—moved 0.5% higher. April's data are encouraging from a growth perspective, but they do not reverse the multiyear trend playing out across the consumer credit market, namely a steady deceleration in the face of higher interest rates.

Consumer Debt Growth Fading as Interest Rates Move Higher



Sources: CreditForecast.com, Federal Reserve, Moody's Analytics

Corporate credit markets also moved higher in April. Dollar-denominated debt equaling $847.9 billion has been issued through the first 19 weeks of the year, an approximately 45% gain relative to the same period in 2023. High-grade debt, which accounts for more than three-quarters of issuance this year, is around 30% above year-ago levels, while high-yield issuance is up more than 80%.

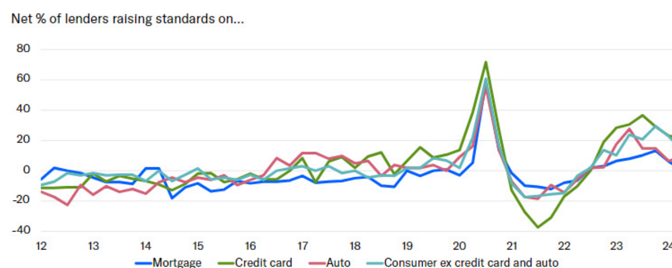
Performance continues to normalize. On the consumer side, the total dollar-delinquency rate across all products fell from 1.97% to 1.82% in April, its second consecutive monthly decline. However, the April dip reflects tax-return season, not a shift in performance; the late-payment rate across all consumer credit products is still 40 basis points above year-ago levels and nearly a percentage point higher than its post-pandemic low. Further, several products, notably auto and bankcard lending, have higher delinquency rates today than in the months leading up to the pandemic.

On the corporate side, seven U.S.-based firms rated by Moody's Ratings defaulted in March, down from 11 in February. Twenty-three rated North American companies have defaulted year to date, a pace slightly behind last year's, when 28 entities failed.

Lending standards

Creditors maintained their cautious stance during the second quarter, per data from the most recent Senior Loan Officer Opinion Survey. A majority of credit card, auto and consumer finance lenders indicated they are raising standards, consistent with the trend since mid-2022.

Creditors Not Willing to Increase the Flow of Funds



Sources: Federal Reserve, Moody's Analytics

Banks, credit unions and other lenders have become less aggressive in recent quarters for several reasons. In 2022, as the Federal Reserve began raising short-term rates, the prevailing market expectation was tighter monetary policy would cause a recession, so lenders narrowed the credit spigot in anticipation of a slowdown. While the contraction never materialized—the U.S. economy grew 1.9% and 2.5% in 2022 and 2023, respectively—volatility across the banking sector in early 2023, particularly for regional banks, led lenders to pare back their exposures.

A similar story is playing out in corporate markets, with most commercial and industrial and commercial real estate lenders raising standards during the first half of 2024. The dynamics are similar to the consumer market—higher interest rates and gloomy economic expectations—but also backed up by performance, as the corporate default rate has steadily trended upward since 2022.

While conditions remain tight on balance, there are indications that creditors have gotten past peak tightening. The share of lenders raising standards has declined in the consumer and corporate markets—and in the case of

residential mortgage lending, the balance between institutions raising and loosening standards is almost balanced. It will still be some time before lenders increase the flow of funds to businesses and households, but the expectation of looser monetary policy and steady economic growth suggests future tightening, barring a recession, is unlikely.

Credit cycle

The credit cycle is past peak and entering a stage of progressively slower growth, if not decline, accompanied by gradually deteriorating performance. This cycle has been unique, at least on the consumer side, in that delinquency and default rates declined as the economy worsened. However, with government support and lender considerations removed—that is, the artificial supports that propped up performance in 2020 and 2021—late-payment rates are rising to a level consistent with the moderating business cycle.

The consumer credit market is returning to pre-pandemic levels of delinquency and default, but balance growth is much slower today than it was in 2019.

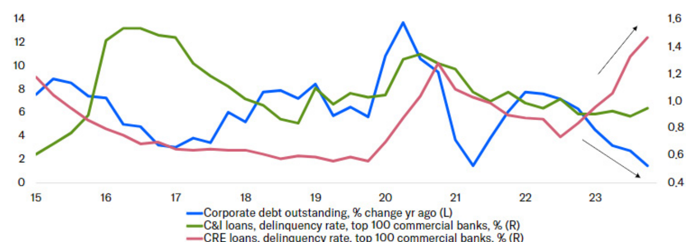
If 2021 and 2022 were characterized by strong balance gains across products, then 2023 was a year of deceleration, with year-over-year outstanding volumes growth fading from more than 7% to less than 2%. The aggregate delinquency rate across all consumer products inched higher at the same time, rising 30 bps last year and an additional 20 bps through April. These dynamics will almost certainly continue into mid-decade.

Real GDP growth will hover near 2.5% this year before slowing to 1.7% in 2025; however, the labor market will significantly loosen in the same period. Job gains will slow from their current pace near 200,000 net new positions per month to about 100,000 by the fourth quarter and close to 50,000 per month by mid-2025. Wage growth will moderate in tandem, reducing household demand for new debt.

At the same time, interest rates are likely to remain elevated for longer than previously anticipated; inflation has proven stubborn, failing to dip below 3% after its rapid descent last year. The Federal Reserve has signaled that it wants more concrete evidence inflation has been conquered before cutting rates. Consumer credit growth will fade against this backdrop.

Similar dynamics are taking hold on the corporate side. Corporate debt growth has slowed since early 2022, falling from 7.8% to 1.5% during the last eight quarters. Delinquency rates are also on the rise, particularly for CRE loans. The CRE delinquency rate across the 100 largest commercial banks reached 1.5% at the end of 2023; while this level of stress is down significantly from the Great Recession, it is the highest reading since 2014.

Corporate Debt Cycle Tapping the Brakes



Sources: Federal Reserve, Moody's Analytics

Fortunately, corporate defaults are likely near their peak. While debt growth will accelerate during the second half of the year, it will remain well below the pace of pre-pandemic gains as long as interest rates remain elevated.

Outlook

The U.S. is set for another year of above-potential growth. Yet the effects of higher interest rates are coming into focus, particularly in the job market, which has cooled in recent quarters. The baseline forecast calls for more of the same this year, with the unemployment rate gradually pushing beyond 4%, leading to softer wage gains, lower levels of household spending, and decelerating corporate earnings growth.

Credit markets will move in tandem. On the consumer side, the deceleration will continue in the near term, as elevated interest rates keep would-be borrowers on the sidelines. Delinquency and default rates will rise through year's end, pushing performance to levels consistent with, or just beyond, those in late 2019. The corporate market will do somewhat better, with accelerating debt growth this year while default rates stay at their current level or even modestly decline.

Risks

Several factors have the potential to derail the forecast. All eyes are on November's presidential election. The race is expected to be close, and any turmoil surrounding its resolution will rattle financial markets. Further, inflation appears to be stuck near 3.5%, a level uncomfortably high for the Federal Reserve. The central bank will not start cutting rates until inflation is clearly on its way to 2.5%, and while high interest rates have yet to spark a contraction, cracks have emerged, suggesting pockets of the market are under pressure.

The Week Ahead in the Global Economy

U.S.

The Census Bureau will release its estimate of U.S. personal income and spending growth in April. Also due is the latest datapoint for the Fed's preferred inflation target, the core PCE deflator. Personal income rose 0.5% in March, continuing a stretch of sturdy growth. Real disposable income, which controls for inflation and matters most for consumer spending, climbed 0.2%. Real wage gains are behind the U.S. consumers' ability to spend the U.S. economic expansion forward. We expect a more modest but still positive gain in April. Real personal spending likely ticked up as well following a 0.5% climb in March.

Annual growth of the PCE and core PCE deflators clocked in at 2.7% and 2.8%, respectively, in March. We expect a 0.2% increase for both in April, which will lower their annual rates to 2.6% and 2.7%, respectively. PCE disinflation has slowed but not to the degree observed in the CPI. Largely this is because the PCE and core PCE deflators assign less weight to shelter than the CPI. Shelter inflation has proven doggedly persistent since late 2023. Our forecast for growth is in line with current consensus expectations. Growth of 0.2% for the core PCE deflator would mark the slowest monthly pace since December and give the Fed confidence that the hot inflation data in the first quarter of 2024 was idiosyncratic and not the start of reaccelerating inflation.

Europe

The big release next week will be the preliminary HICP inflation rate for May. We don't expect great news with price growth likely ticking higher to 2.5% y/y from 2.4% in April. Most of this will be due to unfavourable base effects in the services sector. We won't see a subsector breakdown until the finalised release in June, but we suspect these will be particularly strong in the transport services segment. Core goods inflation will likely decelerate, while there again could be upward pressure from food and energy, also considering particularly strong disinflationary dynamics at this time last year.

Euro zone business and consumer confidence likely ticked modestly higher this month. The Economic Sentiment Indicator likely rose to 96.1 for May from 95.6 in April. We expect to see consumer confidence improve as appetite to make purchases increases. Businesses may be less sanguine, though retailers and service providers may perk up in the lead to what we think will be another strong summer for travel and tourism.

Euro zone unemployment likely remained at its record low 6.5% in April. The main survey data are mixed. The ESI was more downbeat in April, with the readings for employment demand and labour hording easing from the previous month. The PMI was more upbeat. The composite PMI has been reporting net job growth since January, with April's survey posting the strongest increase in almost a year.

Finalised numbers for GDP in France and Italy will be published next Friday. We do not expect to see revisions from the preliminary releases. In France, GDP growth will likely be confirmed at 0.2% q/q in the first quarter of 2024, up from 0.1% in the preceding stanza. Likewise, in Italy, GDP likely grew 0.3% q/q, speeding up from a 0.1% increase previously.

The flash GDP release in France came with preliminary estimates of GDP components. France appears to stand out from what other countries' statistics agencies hinted at in their preliminary releases, which did not include as many details. In Italy, ISTAT only suggested that net trade was a driver of the quarter's increase, but we also expect to see some support from fixed investments in construction.

We also will see retail sales data out of Germany and Spain. In Germany, we foresee sales halting after a 1.8% m/m jump in March. Likewise, we think there will be zero growth in sales in Spain, following the previous month's 0.5% m/m contraction.

Asia-Pacific

Two of the region's best performing economies will post March-quarter GDP data. In India, we expect growth to slow to 6.7% year on year from a blistering 8.4% in the December quarter. Base effects will be largely responsible for the slowdown in annual terms. The economy is humming on multiple cylinders. Household consumption, infrastructure spending and fiscal support will be important growth drivers. We expect India's full-year GDP growth to be 6.1% this year after hitting 7.7% in 2023.

Taiwan's economy will set a similar pace in the March quarter, with growth likely to slow a touch to 6.4% year on year from 6.5% previously. The export-driven economy is benefiting from buoyant demand for advanced chips amid the artificial intelligence tech boom. We forecast full-year growth to be an impressive 3.9% after last year's subdued 1.3% print.

Industrial production in South Korea likely picked up in April on the back of climbing exports in the semiconductor sector. We expect growth of 3.5% year on year. The brightening export picture bodes well for industrial production in the coming months.

Geopolitical Calendar

Date	Country	Event	Economic Importance	Financial Market Risk	Risk Assessment
19-May	Dominican Republic	Presidential and legislative elections	Low	Low	President Luis Abinader is the favorite to be re-elected. In a possible second term, he will seek fiscal reform delayed from the first term.
26-May	Lithuania	Presidential election runoff	Low	Low	The Lithuanian presidential election is headed to a runoff between the outgoing head of state, Gitanas Nausėda, and challenger Ingrida Šimonytė.
29-May	South Africa	General election	Low	Low	Voters in South Africa will gather to elect a new National Assembly and the provincial legislature in nine provinces. The elections could lead to a strong political shift in the country, as polls suggest the ruling African National Congress party is at risk of losing its majority after three decades in power.
19-Apr to 1-Jun	India	Election (Lok Sabha, lower house)	Medium	Low	Prime Minister Narendra Modi is vying for a third term, building India as an economic engine of the world, but the domestic focus is now toward inflation and economic inequality.
1-Jun	Mexico	General election	High	Medium	As elections commence in Mexico, the risk of social and political unrest will rise due to concerns over election subversion and fraud. Financial markets would be shaken while consumption and investment decisions tank, raising the risk of recession.
9-Jun	Belgium	General election	Medium	Low	Belgium will hold federal, regional and European elections. The outcome could further increase the presence of more radical parties in the Belgian parliament and exacerbate the divergence between more right-leaning Flanders and more left-leaning Wallonia.
6-9 Jun	EU	Parliamentary elections	Medium	Medium	The European Parliament has increased in importance since the founding of the EU. The parliament has the power to amend or adopt legislation proposed by the European Commission.
13-15 June	G7	G7 Summit in Italy	Low	Low	The 2024 G7 Summit will focus on support for Ukraine, the Israel-Hamas war, more equal partnership for Africa, migration, the global economy, and energy security.
30-Jun	Dominican Republic	Potential presidential runoff	Low	Low	President Luis Abinader is the favorite to be re-elected. In a possible second term, he will seek fiscal reform delayed from the first term.
July	China	Meeting of Communist Party's central committee	High	Medium	The third plenary session will likely focus on economic policy, including measures to help China develop its technology prowess in areas where it is prioritizing self-sufficiency.
9-11 July	NATO	NATO Summit in Washington DC	Low	Low	At the 75th anniversary of NATO, Ukraine's prospective accession will be discussed, but no invitation expected near term.
28-Jul	Venezuela	Presidential election	Medium	Medium	Opposition candidate Maria Corina Machado has shown a lead in the polls over incumbent President Nicolas Maduro but faces a Supreme Court-imposed ban on her candidacy. Prospects for a free and fair election remain doubtful and may result in the reinstatement of U.S. sanctions on the Venezuelan oil industry.
15-Sep	Romania	Presidential election	Low	Medium	Romania's incumbent president, pro-Western Klaus Iohannis, is not eligible to run again after his two terms. The possibility of a more Russia-leaning president in the NATO-member nation could skew the balance of power in the region.
10-24 Sep	United Nations	UN General Assembly, The UN Summit of the Future	Low	Low	The Russia-Ukraine and Israel-Hamas wars are likely to be at the top of the agenda as global tensions mount.
1-Oct	U.S.	Government shutdown	Low	Low	Fiscal 2024 ends on September 30. If Congress does not pass the 12 full-year appropriations bills or a stopgap measure, the federal government will shut down, partially or completely.
22-24 Oct	BRICS	2024 BRICS Summit in Kazan, Russia	Low	Low	Russia is set to assume the rotating BRICS presidency this year and the nation will reportedly focus on political, security, economic, financial, cultural, and humanitarian connections among BRICS countries.
27-Oct	Uruguay	General elections	Low	Low	Uruguay's president, Luis Lacalle Pou, is ineligible for re-election. Thus, the electoral contest could be between the ruling coalition candidate, Álvaro Delgado, and Laura Ruffo from Partido Nacional.
5-Nov	U.S.	Presidential and congressional elections	Medium	Low	Voters will cast ballots for incumbent President Joe Biden or the GOP front-runner, former President Donald Trump. The balance of power in the House and Senate is also at stake, and the outcomes could shake up fiscal policy.
11-22 Nov	United Nations	COP29	Medium	Low	COP29 will be hosted by Azerbaijan in Baku. UN Climate Change Executive Secretary Simon Stiell said in April there are just two years left to save the world and that it is essential that this year brings a "quantum leap" in terms of climate finance.
24-Nov	Uruguay	Potential presidential runoff	Low	Low	Uruguay's president, Luis Lacalle Pou, is ineligible for re-election. Thus, the electoral contest could be between the ruling coalition candidate, Álvaro Delgado, and Laura Ruffo from Partido Nacional.
1-Jan	U.S.	Debt limit suspension expires	Low	Medium	The debt limit was suspended through the end of 2024 as part of the Fiscal Responsibility Act. When the suspension expires, the federal government will likely use extraordinary measures to meet its obligations and push out the X-date if Congress fails to raise, suspend or eliminate the debt ceiling before the end of the year.

THE LONG VIEW: U.S.

Corporate Credit Spreads Tighten Again

By OLGA BYCHKOVA

CREDIT SPREADS

Corporate credit spreads narrowed slightly during the last weekly period after widening through the first half of May. Tight credit spreads show market participants remain confident in the creditworthiness of borrowers and see the overall economy as favorable. As a result, despite tight monetary conditions and sticky inflation, the economy is at its final descent toward a soft landing, with growth holding up strong. This has been underpinned by persistent strength in consumer spending on the demand side and increased labor force participation, mended supply chains and cheaper energy and commodity prices on the supply side. The Moody's Ratings long-term average corporate bond spread to the 10-year U.S. Treasury decreased nearly 2 basis points to 110.6 bps, remaining above its 12-month low of 108.3 bps. Similarly, Moody's long-term average industrial bond spread declined almost 1 bp to 96.6 bps over the past week. That is above its one-year low of 93.4 bps.

Low-grade credit spreads—the difference between the yield on high-yield or below-investment-grade corporate bonds and the risk-free 10-year Treasury yield—also narrowed through the third week of May. This yield spread represents the compensation investors demand for the risk that businesses they invest in could run into financial trouble and miss making timely principal and interest payments. The U.S. Bloomberg/Barclays high-yield option-adjusted spread contracted modestly to 300 bps from 301 bps the previous week, while the ICE BofA U.S. high-yield option-adjusted bond spread closed Wednesday at 311 bps, down 2 bps from its prior-week value. This compares with an average high-yield spread of 1,000 bps during recent recessions and an average 350 bps outside of recessions. The average spread since the high-yield market was established in the 1990s is about 500 bps.

The VIX index—a real-time indicator of the implied volatility of S&P 500 stocks that measures the market's sentiment about future asset price variance—dropped 0.15 point over the week to 12.3, slipping further below its long-term average of about 20 and median of 18. Since the VIX tends to move inversely to stocks, market participants watch it closely as an indicator of investor sentiment and positioning. In the past, there has been a significant correlation between credit spreads and equity market volatility, as measured by the VIX. This relationship was disrupted in recent years, but the decline in the VIX last year by 42.5% to the average of 17 has brought it back generally in line with high-yield spreads.

GLOBAL DEFAULTS

Moody's Ratings reported that 16 corporate debt issuers defaulted in April, up from an upwardly revised 11 in March. The telecom sector accounted for three defaults last month and led defaults for the second month in a row. The three telecom defaulters were U.S.-based Casa Systems, Inc., Canada-based Xplore Inc., and Chile-based WOM Mobile S.A. and subsidiaries. Both Casa Systems and WOM Mobile filed for Chapter 11. Xplore did not make interest payments on its first- and second-lien bank loans at the end of the grace period.

While telecom had the most defaults in April, healthcare & pharmaceuticals was the biggest contributor by size. The sector had April's two largest defaults: Global Medical Response, Inc. ($4.4 billion) and EyeCare Partners, LLC ($1.8 billion). Both restructured their debt through distressed exchanges.

Distressed exchange has become the predominant type of debt restructuring in recent years and remained elevated this year because it helps preserve shareholders' equity interest and avoid the expensive costs associated with a bankruptcy. Of the 52 defaults in the first four months of 2024, 29 (or 56%) were in the form of distressed exchanges. However, not all distressed exchanges sufficiently improve a company's capital structure and liquidity, and a second default may follow. This year, already 13 (or one-fourth) were re-defaulters that had conducted distressed exchanges in prior years or months.

By region, North America continued to drive this year's defaults, with 36 (33 in the U.S. and three from Canada). The remaining defaults were from Europe (10), Latin America (four), and Asia-Pacific (two). Across industries, telecom stood at the top with eight defaults. Three sectors followed with five defaults each: business services, capital equipment, and healthcare & pharmaceuticals.

The global speculative-grade corporate default rate ticked up to 5.2% for the trailing 12 months ended in April from March's upwardly revised rate of 5.1%. Nonetheless, the global default rate has been relatively stable so far this year.

Recent inflation data raise uncertainty about when policy easing will begin and how it will progress. A higher-for-longer interest rate environment will pose risk to financially weak companies that borrow heavily in the loan market. Those that were acquired by private equity firms through leveraged buyouts will be particularly vulnerable because they tend to be highly leveraged and generally have weak protections in credit agreements.

Moody's Ratings Credit Transition Model continues to predict that the global default rate will gradually decline in the coming 12 months, reaching 3% by the end of April 2025. However, taking recent months' default data into consideration, the credit agency raised its year-end forecast to 3.6%, still below the level of 4.9% at the end of 2023. The default rate forecasts assume that the U.S. high-yield spread will widen to 463 basis points in the coming four quarters, compared with about 320 bps at the end of April. Meanwhile, the U.S. unemployment rate is expected to rise to 4.2% over the next four quarters from the current rate of 3.9%.

CORPORATE BOND ISSUANCE

The first quarter of 2023 saw a decline in global offerings of corporate bonds, with investment-grade offerings falling 7.9% and high-yield offerings dropping 10.1% year over year. U.S. dollar-denominated investment-grade issuance, which accounted for more than half of activity globally, decreased 15% on an annual basis. U.S. high-yield issuance also experienced a sluggish start at just $52 billion, marking its slowest kickoff to the year since 2009, and posting an 18.4% decline compared to the first quarter of 2022.

In the second quarter of 2023, issuance strengthened as worldwide offerings of corporate bonds revealed a year-over-year increase of 20.7% for investment grade. High-yield issuance in the period nearly doubled the amount recorded in 2022. Approximately 60% of U.S. dollar-denominated high-yield proceeds in the period were allocated to debt refinancing.

Third-quarter 2023 corporate bond issuance picked up further, with worldwide offerings of investment-grade corporate bonds rising 7.5% year over year. U.S. dollar-denominated investment-grade corporate bonds totaled $315.6 billion, up 3.5% on a year-ago basis but down 8% from the prior quarter. U.S. dollar-denominated high-yield corporate bond issuance was $54 billion in the third quarter, down from $65.8 billion in the second. However, high-yield issuance was up a whopping 84.7% on a year-ago basis.

Fourth-quarter 2023 corporate debt issuance came in suppressed. Worldwide offerings of investment-grade corporate bonds totaled $326 billion, down 11.8% year over year, while high-yield corporate bond issuance clocked in at $62.1 billion, soaring an astounding 87.4% on a year-ago basis. U.S. dollar-denominated high-yield issuance ended the year at $223.6 billion, reflecting a colossal 47.3% revival from 2022. Meanwhile, U.S. dollar-denominated investment-grade bond issuance totaled $1.32 trillion in 2023, corresponding to a 1.75% decline from 2022. Over the past 12 months, total U.S. dollar-denominated issuance has tracked at a near-decade low, surpassing only 2022 value by a marginal 3.2%.

In the first quarter of 2024, worldwide offerings of investment-grade corporate bonds totaled $834.7 billion, up 15.2% on a year-ago basis. Meanwhile, high-yield issuance surged 63.5% year over year. U.S. dollar-denominated high-yield corporate bond issuance amounted to $100.1 billion, up from $51.7 billion in the last three months of the prior year and increasing an enormous 92.4% compared with the first quarter of 2023. Concurrently, U.S. dollar-denominated high-grade corporate bond issuance came in at $552.4 billion in the first quarter, rebounding 25.9% year over year.

For the most recent week, U.S. dollar-denominated investment-grade debt issuance totaled $15.5 billion, raising the headline figure to $681.2 billion since the start of the year. This reflects a 12.8% increase compared with the same period in 2023. There was $3.55 billion in high-yield debt issued in the same period, bringing the year-to-date reading to $137.5 billion, a tremendous 64.1% resurgence relative to last year's pace. Total U.S. dollar-denominated corporate debt issuance so far tracks 26.6% above where it stood in 2023 and has jumped 9.9% compared with 2022.

U.S. ECONOMIC OUTLOOK

The U.S. economy is performing well despite the slowdown in growth that continued in the first quarter. Consequently, we made only modest adjustments to the U.S. baseline forecast. Real GDP growth will be slightly weaker for the full year because first-quarter growth did not meet expectations, and growth will be a bit more volatile than previously forecast, but the trend is unchanged. The forecast remains that trend growth will decelerate in response to fiscal tightening and high interest rates, gradually returning to trend by 2026. The jobless rate will rise to 4.1% in the first half of 2025, little changed from last month's forecast, despite somewhat faster-than-expected job growth.

In sum, key assumptions changed little in May. Persistent high inflation and recent statements from Federal Reserve officials did cause us to remove one rate cut from 2024, with the first cut now occurring in September. Fiscal policy assumptions were tweaked to account for recent legislation, increasing spending this year slightly. Long-term rates were little changed. A slowdown in growth remains the expectation for next year. Our oil price outlook was raised modestly in the near term in response to market events and

supply concerns. However, we did reduce the near-term forecast for natural gas as supply remains elevated. The outlook for house prices and CRE was essentially unchanged.

Monetary policy

Monetary policy assumptions have changed from the last update. We expect the Federal Reserve will cut the policy rate by 25 basis points twice in 2024, in September and December. This contrasts with three cuts in the previous baseline. Policymakers will then relax monetary policy slowly, lowering rates by 25 basis points per quarter until reaching 3% by 2027 and 2.5% by 2030. The change stems from recent inflation reports indicating insufficient progress toward the Fed's 2% inflation goal. Policymakers also announced a slowing of quantitative tightening, cutting the monthly cap for Treasury roll-offs from $60 billion to $25 billion in June, which was included in the new forecast.

The PCE and core PCE deflators for March came in as expected. The 0.3% monthly growth for both measures bring the headline PCE deflator up from 2.5% to 2.7% on an annual basis and leaves core PCE at 2.8%. Consequently, the graceful disinflation in 2023 did not persist in the first quarter of 2024. Using an annualized three-month moving average, core PCE was running at 4.4% in March. In the second half of 2023, this measure had been running within, or below, the Fed's targeted 2% to 2.5% range.

Although inflation remains above target, the first quarter's elevated readings did not alter the Federal Open Market Committee's belief that inflation is coming back to target. Rather, more inflation reports need to indicate sustained slowing before the Fed will consider cuts. Policymakers otherwise emphasize that GDP growth and labor markets remain robust.

Meanwhile, the April jobs report suggested that labor markets continue to come more into balance. The U.S. added 175,000 jobs in April, fewer than expected, while the jobless rate ticked up to 3.9%. This renders wage growth a secondary concern for the FOMC, which, barring a sudden uptick in unemployment, will continue to focus on inflation instead.

Financial markets, meanwhile, moved sideways over the past few weeks. The realization that cuts are further out than previously expected weighed on stock prices and elevated yields in April, but the jobs report rekindled some optimism. The 10-year Treasury yield, thus, remained flat over the past month at 4.5% and so did the Standard and Poor's 500, which in early May came in just short of last month's all-time high. Concerns, however, linger in the banking sector, with yield curve inversion weighing on profit margins.

Reflecting recent history, the May baseline has year-ago consumer price inflation at 3.2% in the second quarter, up from 3.1% in the previous outlook. We anticipate inflation will return to target by the end of 2024. Meanwhile, we predict that the 10-year Treasury yield will average 4.4% in the second quarter, compared with 4.2% in the last outlook. The yield will approach its equilibrium level of 4% in 2025 and remain near this level until the end of the decade.

The dollar has recently appreciated against the currencies of major trading partners, especially the yen, as interest rates are expected to remain higher for longer. On a real broad trade-weighted basis, the currency continues to show strength, trading 8% above its pre-pandemic level. It has further appreciated by 3.5% since December.

Changes to GDP

U.S. economic growth slowed in the first quarter, dropping slightly below potential after two quarters of above-trend growth. Specifically, real GDP growth declined from an unsustainable 3.4% in the fourth quarter to 1.6% in the first quarter, according to the BEA's preliminary estimate. Consumer spending was the largest contributor as inventories became a drag. Trade was a drag for the first time in two years, government spending shrank as a support, and fixed investment continued to grow at a healthy clip.

Consumer spending remained an important source of growth. It added 1.7 percentage points to growth, less than in the prior quarter but enough to fully account for the overall increase. All the growth in consumer spending came from service spending as goods spending fell modestly. Nonresidential fixed investment continued to contribute modestly while residential investment made its third positive contribution to growth since the start of 2021. Government contributed only 0.2 percentage point with the contribution coming from state and local spending. Trade was a drag for the first time in two years as growth in exports was swamped by faster-growing imports. The change in inventories was also a drag for the second straight quarter.

Inventory accumulation will be neutral in the current quarter, and the contributions from consumer spending and fixed investment will diminish. However, that will be offset by increased contributions from trade and government spending. Growth will be more volatile quarter to quarter this year than previously forecast, although overall growth is little changed. Real GDP is projected to rise 2.5% in 2024 on an annual average basis, a downward revision of 0.1 percentage point. Subsequently, growth in the following two years will be 1.7% in 2025 and 1.9% in 2026, the latter approximately the long-term trend.

Labor market

The labor market remains strong, with payroll employment rising by 175,000 in April. Although this outcome was below expectations for the first time this year, it follows an impressive first quarter. Healthcare continues to be the backbone of job creation, as both leisure/hospitality and the public sector saw gains subside. The impact of revisions to prior months was minimal as payroll growth in February and March was revised lower by a combined 22,000.

The results of the April employment report did little to alter our view of the labor market. After averaging nearly 270,000 jobs added in the first quarter, the second quarter is off to a slower start. However, strength this year has pushed our forecast slightly higher in the second quarter and we expect job gains to approach 190,000, compared with 170,000 in the prior forecast. We still expect job growth to cool to about 100,000 by the end of the year. The unemployment rate forecast was unchanged as we still expect the jobless rate to finish the year at 4%—up from 3.9% in April—before peaking at 4.1% in mid-2025.

Business investment and housing

The BEA's advance release of first-quarter GDP data showed a deceleration in real business investment. Annualized growth was 2.9%, below the year-over-year pace of nearly 4%. The published figure was less than the final Moody's Analytics forecast in March of more than 5%.

Both equipment and structures contributed to the weaker-than-expected performance. Equipment reversed a two-quarter decline, rising about 2% annualized, but the result was well below the 8% gain expected by Moody's Analytics. Likewise, structures spending was flat, below the 4% that had been forecast. Only intellectual property did better than expected, rising more than 5% compared with the approximately 3% than had been projected.

Performance varied substantially across structures segments. The building of manufacturing facilities rose at a double-digit annualized pace, consistent with the forecast. Construction of semiconductor plants has increased as subsidies from the CHIPS Act have accelerated in recent months. The share of nonresidential construction in factories has risen to more than 20%, the highest point in more than 40 years. On the other hand, commercial, which includes both office and retail, fell following its modest three-quarter recovery that had been preceded by a deep three-year decline. The commercial share of total construction has fallen from 35% to 30% during that time.

There was also variation across equipment segments. The large IT segment rose at a double-digit pace for the second quarter in a row, signaling that the downturn from early 2022 to late 2023 is over. Further, core industrial rose to a record level because of a big gain in special industrial machinery, the category that includes equipment to make semiconductors. By comparison, transportation equipment fell significantly in contrast to the solid gain that had been expected. The major reason was that deliveries of aircraft dropped substantially. The largest component, light trucks, remained roughly flat for the third quarter in a row following the jump in early 2023.

Monthly data do not yet signal a rebound in equipment spending. On a three-month moving average basis, new orders for nondefense, non-aircraft capital goods adjusted for inflation have declined for nine months running, and the comparable shipments data have declined for five months. What is even more concerning is that inflation-adjusted unfilled capital goods orders have declined by more than 10% since mid-2021. Fulfillment of those orders has supported capital goods production somewhat until now, so as they dry up, production could fall further.

Real fixed business investment will rise by 3.4% in 2024, less than the 3.9% in the March baseline. Higher interest rates for longer will contribute to slower growth in investment than previously expected. Further, risks have tiled to the downside. The higher-for-longer outlook for costs of credit could cause investment to be weaker than expected. Expiration of TCJA tax cuts and credits could weaken investment significantly in 2025.

The Moody's Analytics baseline forecasts for home sales, homebuilding and house prices did not change materially. The reported inventory of existing homes for sale rose modestly in March consistent with our outlook for a gradual increase in home listings and sales due to life events such as the birth of a child, divorce, or relocation. New single-family home sales rose by more than 8% from March 2023 and are on par with pre-pandemic levels. Single-family construction permits and starts fell recently but are nearly 20% above last year's levels. The recent rise of mortgage rates above 7% will constrain activity in the short term, but homebuilding is expected to pick up later in the year as rates moderate and as the nation's housing deficit remains large. House prices are projected to rise because of the lack of inventory, but the rate of growth is expected to moderate as affordability constraints and a slowing labor market limit the pool of available homebuyers. Consistent with this view, the number of active home listings with a price decline was up 50% from a year earlier recently, according to Realtor.com.

The outlook for CRE prices did not change materially this month as the Federal Reserve's CRE price index was not updated and as the Moody's Analytics CRE price indexes reported only slight changes to their first-quarter 2024 values. The baseline forecast continues to show significant price declines for selected property types as lease and loan extensions end and mortgage default rates rise. Office

properties in major urban centers are expected to bear the brunt of these price declines.

Fiscal policy

Lawmakers have reached agreement to fund the government through the remainder of the fiscal year, avoiding shutdowns or sequestration until at least October. Moreover, the president recently signed a $95 billion supplemental foreign aid package to support Ukraine, Israel and Taiwan. We estimate that around three-fourths of the newly allocated funds will pass directly through the U.S. economy and contribute to growth domestically. Accordingly, while the baseline forecast included about $100 billion in expected emergency supplementals, we added an additional $40 billion in emergency spending in fiscal 2024 to the May baseline because of the heightened risk of natural disasters in local communities that will likely require federal aid.

While the increased spending makes the budget deficit slightly larger over the forecast period, higher projected nominal GDP growth yields a marginally healthier debt-to-GDP ratio. The federal government's budget deficit will narrow somewhat from $1.7 trillion in fiscal 2023 to $1.6 trillion in fiscal 2024-2025. The nation's publicly traded debt-to-GDP ratio, currently just less than 100%, up from 80% prior to the pandemic, will rise steadily.

Early 2025, soon after the national election, is shaping up to be a period of significant change to U.S. fiscal policy. Not only will the debt limit need to be taken up again, but the expiration of some of the tax cuts passed under President Trump and the expiration of Obamacare health insurance subsidies under President Biden will need to be addressed. How these issues are ultimately resolved depends on the outcome of the presidential and congressional elections.

Regardless of the election results, we do not expect lawmakers to materially address the nation's unsustainable long-term fiscal outlook until they are under extraordinary economic and political pressure, which may require meaningfully higher interest rates and some form of fiscal crisis.

Energy

Moody's Analytics did not make significant changes to its oil and gas price forecast. Iran and Israel de-escalated tensions after a bombing at Iran's embassy in Syria killed some high-ranking military personnel. Geopolitical tensions remain high, but we do not expect strong enforcement of any new oil sanctions on Iran. We also expect OPEC to keep output at current levels through the end of the year.

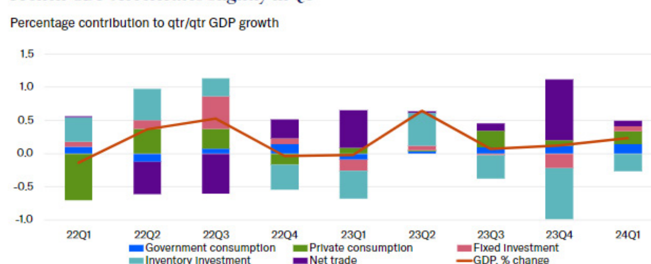
Our natural gas price forecast also remained unchanged. Inventory levels are high as residual production from oil drilling has been strong, firms are having a harder time flaring off excess gas, LNG export capacity remains restrained, and temperatures across the U.S. remain mild.

THE LONG VIEW: EUROPE

France Outlook: Getting Back on Track

By BRITTANY MEROLLO

Initial estimates show that French GDP growth came in at 0.2% in the first quarter, slightly better than expected, following an increase of 0.1% in the fourth quarter of 2023. GDP growth was driven by a recovery in final domestic demand, notably household consumption, while investment was also up for companies. On the other hand, the contribution of foreign trade became nil after having made a strong contribution to growth in 2023, as imports picked up again.



The indicators do not point to a strong acceleration in growth in the second quarter. Business sentiment worsened in April in industry, services and construction. Business leaders are much less confident about future activity. Consumer confidence fell back in April, to 10 points below its historical average. The French seem to be more pessimistic about their future financial situation and are more likely to want to save. These initial figures for the second quarter indicate that economic growth is unlikely to accelerate strongly during the spring and will remain moderate.

More dynamic growth will make itself felt in the second half of the year and will be largely driven by consumers with the third quarter also receiving a boost from the 2024 Paris Summer Olympics. Consumption will add more to growth this year than in 2023. This improvement will stem primarily from wage growth outpacing falling inflation, replacing the strong job growth in 2021 and 2022 as the main driver of purchasing power. Real disposable incomes will begin a solid upward trend after moving in fits and starts for the past two years. In addition, lower interest rates will boost household investment even as a more restrictive fiscal policy comes in to play.

Net exports will contribute to growth but less so than in 2023. This is because last year's growth was unhealthy, driven by declining imports rather than increasing exports. The expected rebound in consumption will drive imports while export growth will be muted until foreign demand picks up later in the year. Net exports will still contribute to growth this year but less so than in 2023.

Inflation's downward trend

After declining rapidly in 2023, headline inflation remains on a downward path, but the pace of the monthly falls is slowing. For instance, France's CPI inflation rate eased to just 2.2% year over year in April from 2.3% in March. This slight cooling in inflation was because of a slowdown in prices for food and a decline in prices for manufactured products. Food inflation is at its lowest in more than two years and has recently been helped by lower fertilizer prices. On the other hand, prices for services rose at the same pace as in the previous month with the strongest pressures coming from tourism and travel-related sectors. Energy prices accelerated because of the base effects from last year's softening.

While the declines will be slower now, headline inflation will still reach target by the summer and briefly dip below target in 2025. This will be reflected in gradually decreasing core inflation and a faster decline in food inflation, which will offset an increase in energy inflation. Energy inflation is set to rise in the coming months because of less favorable base effects and higher oil product prices. Within core components, goods inflation will languish around zero, reflecting the reversal of previous shocks from energy through to transportation and materials to supply bottlenecks. Inflation in services should remain sticky in the coming months. According to the Banque de France, company agreements for 2024 will lead to average pay increases of 3.4%. This is a lower figure than that seen at the start of 2023 but is sufficient to maintain some price momentum in services, where wages account for a large proportion of production costs.

The French labor market remains relatively tight and will only gradually soften in the coming months. Employment rebounded in the fourth quarter after falling for much of 2023, while the number of job seekers fell slightly in the first quarter and remains below its historical average. Still, joblessness is slightly above year-ago levels and hiring is expected to be weak in the first quarter. The unemployment

rate increased slightly in the second half of last year and will continue to slowly move up but remain well below its historical average.

Job gains will be hard to come by in the first half of the year. Many firms will still try to meet lower demand by adjusting hours worked, but layoffs in goods-producing industries will keep top-line employment in check. France's industrial sector remains a weak spot but is better off than Germany given a more protected industrial makeup. Weak global demand means a dearth of new orders, while the construction sector is under increasing pressure from high interest rates.

The second half of the year is brighter as the economic recovery gains speed and helps top-line employment move back in the right direction. Strength in the service industry will remain and there are signs that the bottom in this industrial cycle is around the corner, meaning goods producers should be able to stop shedding workers as quickly later in the year.

House prices approaching bottom

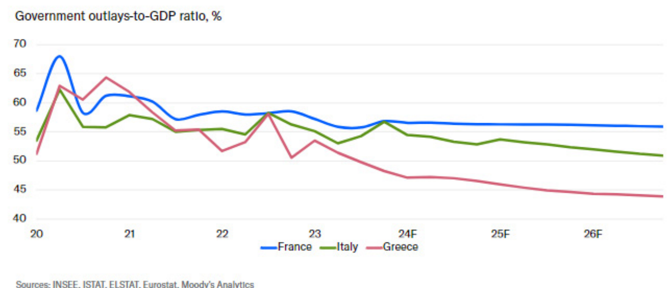
The decline in French house prices accelerated at the end of 2023. Prices fell throughout the year by a cumulative total of nearly 4%, less than in Germany but more than the euro zone average. The increase in mortgage rates has prompted a substantial deterioration in mortgage payment affordability, which has lowered demand. Mortgage lending is contracting but has held up better than most peers. Borrowers in France have had greater protection from higher rates, mostly because their mortgages tend to be fixed for decades at a time.

We expect French house prices will fall a further 2%, reaching a trough in the second quarter. Prices will then rise modestly in the second half of the year and somewhat faster in 2025. Even so, they will not exceed their previous peak until mid-2026. The decline in interest rates and the recovery of real incomes will provide the catalyst for prices to grow again, but mortgage affordability will remain relatively poor and curb demand, preventing a faster recovery.

Prospects for construction remain weak. Housing starts have been depressed for much of the past year and headwinds remain. High construction costs and high interest rates are making some construction investment prohibitive. That said, weak supply will provide some underlying support to prices.

Fiscal woes

Fiscal consolidation will be slow in France. France's budget deficit widened far more than expected in 2023 because of overly optimistic GDP and revenue assumptions. Policymakers have already implemented €10 billion in emergency cuts for the 2024 budget and are poised to slash spending by a further €10 billion. The cuts are too little too late, as France is trailing nearly all other euro zone countries that have brought down spending and deficits more quickly.



The good news for France is that the introduction of new fiscal rules means that there will likely be a period of adjustment. As a result, the EU's Excessive Deficit Procedure, which monitors countries in breach of fiscal rules and has the power to levy fines, is unlikely to meaningfully affect the public finance debate this year. In addition, a more lenient fiscal framework will come into force in 2025, which puts greater emphasis on longer-term sustainability over short-term fiscal adjustment. The French government must demonstrate that the debt ratio will be on a downward trajectory over the medium term.

The French deficit will remain high in 2024 and is unlikely to dip below 3% of GDP before 2027. It will take time for the debt-to-GDP ratio to take a clear downward path as the government has so far only introduced a few structural spending reduction measures. Public spending will remain among the highest in Europe and revenues will be constrained this year, given the gradual economic recovery.

China Unveils Latest Housing Supports

By HARRY MURPHY CRUISE

With China's property plunge gaining pace, officials last Friday announced new supports to help the beleaguered sector. Under the new package, the People's Bank of China will make CNY300 billion ($42 billion) available for state-owned enterprises to buy completed, but still unsold, homes. Officials hope developers can then use those funds to finish paused builds. At the same time, the SOEs make those newly purchased homes available as affordable housing. Effectively, the government has stepped in as a buyer of last resort—adding demand to the sector while also absorbing excess supply.

To spur extra demand, the central bank also cut the down payment threshold by 5 percentage points. The new funding comes on the heels of CNY935 billion ($130 billion) in loans from commercial banks to get stalled construction projects moving. Friday also saw the sale of the first batch of CNY40 billion ($5.5 billion) worth of 30-year special sovereign bonds. The sale of these bonds was announced at the Two Sessions in March and marks only the fourth time the extraordinary off-budget funding has been used.

Will the new funding be enough to return the property market to its glory days? Almost certainly not. The additional CNY300 billion is a drop in the ocean given the scale of unsold stock. Estimates suggest the value of outstanding housing stock has jumped by more than CNY7.5 trillion ($1.1 trillion) since 2018; the new package provides funding for just 4% of that.

But a return to the glory days isn't what officials—or we—want. Instead, the supports aim to slow the sector's falls and bide time until it naturally finds a floor. This is what we have long called for. In our recent scenario paper on the potential implications of even greater property turmoil in China, we noted:

—Rebalance pain

Rebalancing [China's economy] will hurt—especially if it is quick and disorderly. Moody's Analytics modelling shows a rapid deterioration of the property market would hammer China's economy and drag on growth around the world.

Officials should do all they can to avoid this, including offering more support for the beleaguered sector. To be clear, support should not be so great that it reinflates the market—that would simply kick the can down the road and make the economy's withdrawal symptoms worse before an inevitable transition later. Instead, support should be used to shore up confidence and prevent the collapse that precedes the crashes modelled in these two scenarios. This could include extra funds to complete unfinished buildings, incentives that encourage renovations on existing properties, and reforms to address shadow lending vulnerabilities.

—Hesitant households

Last week's announcement goes some way in achieving those goals. But the sector is still vulnerable. That's especially true when considering the state of China's households; the last few years have been tough, and convincing them to get back into the market will be no mean feat. More broadly, the new package will likely be most successful in the country's top tier cities, which are seeing population growth and rising wages. Less-favourable economic conditions and loss of workers to the country's larger cities will mute the benefits in lower tier cities.

Borges at Argentina's Central Bank

By JESSE ROGERS

Jorge Luis Borges was not at last week's meeting of the Central Bank of the Argentine Republic, or BCRA. Argentina's leading man of letters didn't have to be. The bank's decision to cut rates, its fourth in five weeks, bore a distinctly Borgesian twist on reality with the bank's governing council announcing a 10-percentage point cut to the policy rate despite annual inflation of nearly 300%. At the heart of the bank's rate-cutting strategy is an extraordinary gambit that recent declines in inflation on a month-to-month basis can be sustained and even quickened amid President Javier Milei's bold drive to slash public sector spending.

Few central banks have made good-faith efforts to fight inflation by cutting rates. But in Argentina, where lowering inflation is the top priority for the central bank and Milei government, policymakers face an extraordinary dilemma. To reduce inflation in the near term, the bank needs real interest rates to turn positive. But to break the painful cycle of capital flight and dollar shortages, the central bank will need to unwind the country's vast web of currency and capital controls. Doing so will require cleaning up the BCRA's balance sheet. There are few viable options to do so other than reducing the interest paid on the bank's short-term liabilities. This is tightly linked to the bank's policy rate.

Since the dual debt and currency crises of 2001, which crippled the Argentine economy and crashed it out of capital markets, the central bank has funded the government's large fiscal deficits, resulting in excess liquidity that pushed inflation into the high double and triple digits. The flood of liquidity ultimately left banks with more deposits than they could lend out, forcing the central bank to offer short-term peso-denominated notes to local banks to prevent a collapse in the currency. But as confidence in the peso crashed in 2018 and again in 2020 and through the present day, the bank offered higher and higher rates of interest to incentivize local banks to roll over their holdings of the short-term notes, commonly known as "Leliqs."

With the credibility of Milei's reform agenda on the line, policymakers are betting that recent reductions in monthly inflation can push monetary policy into restrictive territory while creating more room for rate reductions. This will not be easy. Since mid-December, the BCRA has lowered the policy rate from 133% to 40%. Even with successive declines in monthly inflation on the books, far more must be done to push real interest rates into positive territory.

Though surely a welcome member, Borges ultimately did not attend last week's central bank policy meeting. Nor could he. The widely celebrated master of modern fiction passed away in 1986. Like his famed short stories, Argentine monetary policy is nothing if not labyrinthine. But our base case for the economy calls for policymakers to gradually find their way out, setting the stage for the economy to return to growth late this year and into 2025. Riding on the bank's monetary program is the stability of the Argentine economy and ultimately its society. The trench is deep, but for the first time in a long time we anticipate better days.

Upgrades Dominate the Latest Period

By OLGA BYCHKOVA

U.S.

U.S. credit upgrades outnumbered downgrades in the latest weekly period. The changes issued by Moody's Ratings spanned a diverse set of speculative- and investment-grade bonds and industrial and financial companies. Upgrades comprised seven of the 13 rating changes and 73% of affected debt.

The largest upgrade, accounting for 36% of debt affected in the period, was issued to Medline Borrower LP, a leading manufacturer and distributor of healthcare supplies to hospitals, post-acute settings, physicians' offices and surgery centers, with its corporate family and probability of default ratings raised to B1 from B2 and B1-PD from B2-PD, respectively. Concurrently, the credit agency lifted the ratings on the existing senior secured bank credit facilities and senior secured notes to Ba3 from B1 and the ratings of the company's senior unsecured bonds to B3 from Caa1. The outlook changed to positive from stable. The ratings upgrade reflects Medline's strong operational performance that has driven sustained earnings growth and a decline in leverage. The upgrade also reflects the rating agency's expectation of continued strong free cash flow generation. The revision in outlook reflects the agency's expectation that Medline will maintain strong earnings growth, solid credit metrics and very good liquidity.

Downgrades were headlined by a real estate investment trust Service Properties Trust, which owns a diverse portfolio of hotels and net lease service retail as well as necessity-based retail properties across the United States and in Puerto Rico and Canada, impacting 24% of debt affected in the period. The REIT saw its guaranteed and non-guaranteed senior unsecured ratings lowered to B2 and B3 from B1 and B2, respectively, and its senior unsecured shelf rating cut to (P)B3 from (P)B2. Moody's Ratings also downgraded the company's senior secured rating to B2 from B1 and the backed senior unsecured shelf rating to (P)B2 from (P)B1. In the same action, the rating agency assigned B2 ratings to SPT's proposed guaranteed senior unsecured notes due 2032 and 2034. The speculative grade liquidity rating remains unchanged at SGL-4. The corporate family rating is affirmed at B2 and the outlook remains negative. According to the credit agency, the downgrade of SPT's senior unsecured ratings reflects the REIT's weak operating performance and deteriorating cash flow trends, which is impacting key credit metrics. SPT has been successful in refinancing looming maturities, however this has been in the form of higher cost debt, some of which includes encumbrance of higher-quality assets. This leaves SPT with weakened flexibility as it continues to address future refinancing needs, the rating agency clarified.

The negative outlook reflects weak operating trends and the risk that the cushion in SPT's debt service coverage covenant in the bond indenture will erode further. Following the downgrade, SPT's guaranteed senior unsecured notes are rated at the same level as the REIT's B2 CFR. This reflects SPT's evolving capital structure, where most of its debt now consists of first mortgage liens or unsecured bonds with subsidiary guarantees, the credit agency added.

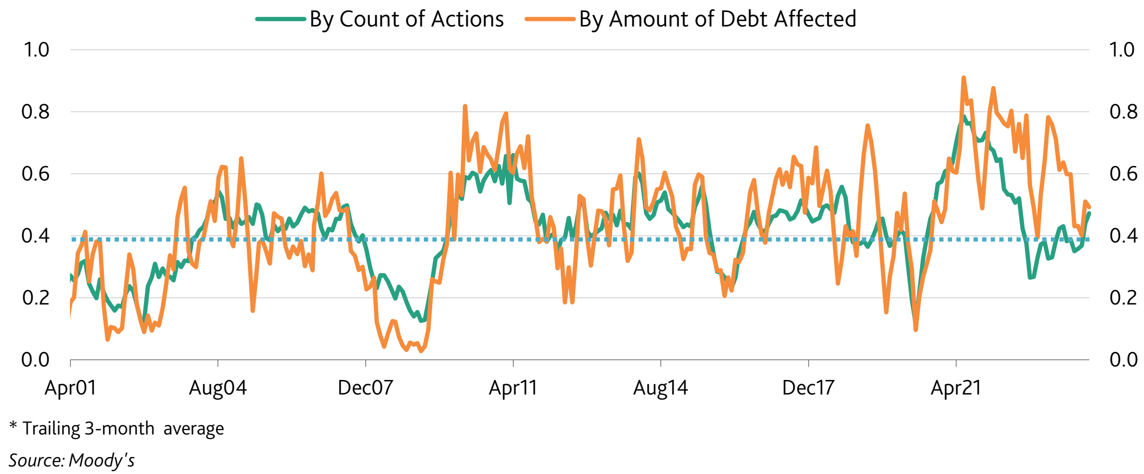
Europe

Across Western Europe, corporate credit rating change activity was similar to the U.S. with upgrades outstripping downgrades 7:4 and comprising 92% of affected debt, issued to the diverse set of speculative- and investment-grade industrial and financial companies.

The largest upgrade last week, accounting for 37% of affected debt, was made to all ratings and assessments of the fifth-largest bank in Italy, Banca Monte dei Paschi di Siena S.p.A., except the other short-term ratings, which were affirmed at Not Prime. Moody's Ratings raised the banks' long-term and the short-term deposit ratings to Baa3 and Prime-3 from Ba1 and Not Prime, respectively, senior unsecured debt ratings to Ba2 from Ba3, senior unsecured medium-term note program rating to (P)Ba2 from (P)Ba3, junior senior unsecured MTN program rating to (P)Ba2 from (P)Ba3, subordinated debt and MTN program ratings to Ba3 from B1 and to (P)Ba3 from (P)B1, respectively, long-term and short-term counterparty risk ratings to Baa2 and Prime-2 from Baa3 and Prime-3, respectively, long-term and short-term counterparty risk assessments of Baa2(cr) and Prime-2(cr) from Baa3(cr) and Prime-3(cr), respectively, and baseline credit assessment and adjusted BCA to ba2 from ba3. The outlook on the bank's long-term deposit and senior unsecured debt ratings changed to stable from positive.

Moody's Ratings considers that over the last few years Banca Monte has buttressed its creditworthiness. The capital increase of €2.5 billion in November 2022, which, among other things, allowed the bank to materially reduce its cost base, and the hikes of interest rates decided by the European Central Bank since July 2022 have shore-up the bank's solvency and rebuild its capacity to generate profits. The BCA upgrade signals the bank's higher capital boosted by 2023 net profits, which included extraordinary items. The stable outlook on the bank's long-term deposit and senior unsecured debt ratings reflects the rating agency's view that the bank's creditworthiness and liability structure will remain stable over the next 12 to 18 months.

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
EET	Enhanced Equipment Trust	PDR	Probability of Default Rating
FSR	Bank Financial Strength Rating	PS	Preferred Stock Rating
IFS	Insurance Financial Strength Rating	SGLR	Speculative-Grade Liquidity Rating
IR	Issuer Rating	SLTD	Short- and Long-Term Deposit Rating
JrSub	Junior Subordinated Rating	SrSec	Senior Secured Rating
LGD	Loss Given Default Rating	SrUnsec	Senior Unsecured Rating
LTCF	Long-Term Corporate Family Rating	SrSub	Senior Subordinated
LTD	Long-Term Deposit Rating	STD	Short-Term Deposit Rating
LTIR	Long-Term Issuer 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
5/15/2024	BRITISH AIRWAYS, PLC-BRITISH AIRWAYS PASS THROUGH TRUST 2018-1AA	Industrial	EET	1970.078	U	Aa3	Aa2	IG
5/15/2024	KB HOME	Industrial	SrUnsec/LTCFR/PDR	1340	U	Ba2	Ba1	SG
5/15/2024	SERVICE PROPERTIES TRUST	Industrial	SrSec/SrUnsec	5325	D	B1	B2	SG
5/15/2024	RYMAN HOSPITALITY PROPERTIES, INC.-RHP HOTEL PROPERTIES, LP	Financial	SrUnsec	2700	U	B1	Ba3	SG
5/15/2024	AFFINITY GAMING OWNER, L.L.C.-AFFINITY INTERACTIVE	Industrial	SrSec/LTCFR/PDR	545	D	B2	B3	SG
5/15/2024	BETANXT, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG
5/15/2024	GLOVES PARENT, INC.-GLOVES BUYER, INC.	Industrial	SrSec/BCF		D	B2	B3	SG
5/16/2024	CROWDSTRIKE HOLDINGS, INC.	Industrial	SrUnsec	750	U	Ba2	Baa3	SG
5/16/2024	MEDLINE BORROWER, LP	Industrial	SrSec/SrUnsec/SrSec/BCF/LTCFR/PDR	8000	U	B1	Ba3	SG
5/17/2024	ASTRA INTERMEDIATE HOLDING CORP.-ASTRA ACQUISITION CORP.	Industrial	SrSec/BCF/PDR		D	Caa3	D	SG
5/20/2024	JELD-WEN, INC.	Industrial	SrUnsec	600	U	B2	B1	SG
5/20/2024	WILLA MIDCO S.A.R.L.-WERNER FINCO LP	Industrial	SrSec/SrUnsec/LTCFR/PDR	915	U	Caa1	B3	SG
5/20/2024	THERAPY BRANDS HOLDINGS LLC	Industrial	SrSec/BCF/LTCFR/PDR		D	B3	Caa1	SG

Source: Moody's

FIGURE 4

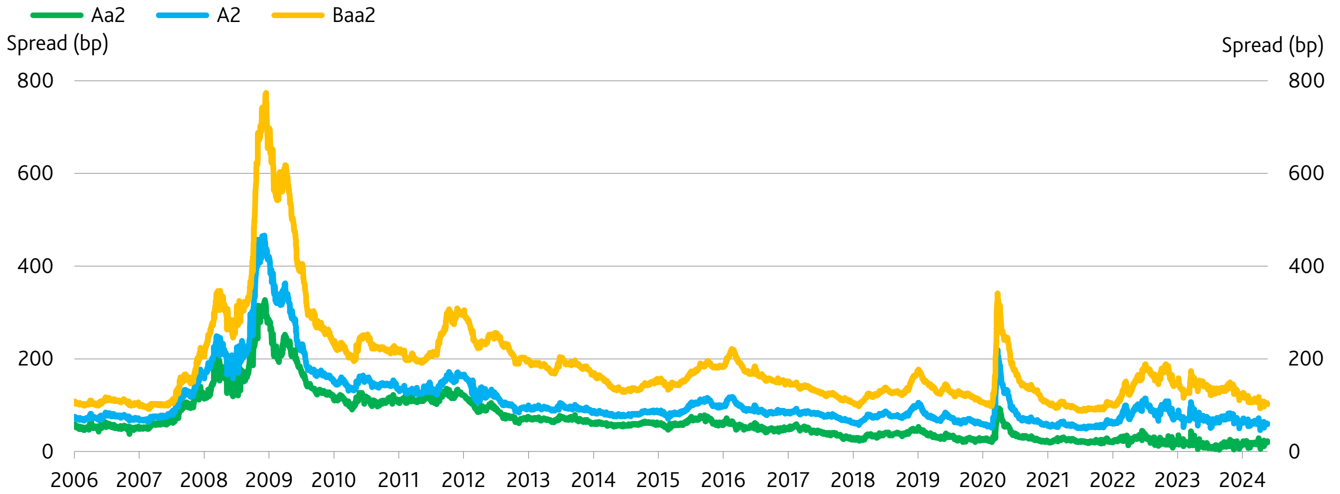
Rating Changes: Corporate & Financial Institutions - Europe

Date	Company	Sector	Rating	Amount ($ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/ SG	Country
5/15/2024	BANCA MONTE DEI PASCHI DI SIENA S.P.A.	Financial	SrUnsec/STD/LTD/Sub/MTN	6253.671	U	Ba3	Ba2	SG	ITALY
5/15/2024	INTERNATIONAL CONSOLIDATED AIRLINES GROUP, S.A.	Industrial	SrUnsec	1848.911	U	Ba2	Baa3	SG	SPAIN
5/15/2024	VIVO ENERGY LIMITED-VIVO ENERGY INVESTMENTS B.V.	Industrial	SrUnsec	350	D	Baa3	Ba1	IG	NETHERLANDS
5/15/2024	MANGROVE LUXCO III S.A R.L.	Industrial	SrSec/LTCFR/PDR	387.4377	U	Caa2	Caa1	SG	LUXEMBOURG
5/15/2024	CONCERIA PASUBIO S.P.A.	Industrial	SrSec/LTCFR/PDR	369.7823	D	B1	B2	SG	ITALY
5/16/2024	NATWEST GROUP PLC-NATWEST MARKETS N.V.	Financial	Sub	184.8911	D	Baa1	Baa2	IG	NETHERLANDS
5/17/2024	ONTEX GROUP NV	Industrial	SrUnsec/LTCFR/PDR	630.805	U	B3	B2	SG	BELGIUM
5/17/2024	ALCON INC.	Industrial	SrUnsec/LTIR	4593.797	U	Baa2	Baa1	IG	SWITZERLAND
5/17/2024	AXACTOR ASA	Financial	SrUnsec/LTCFR	541.5798	D	B3	Caa1	SG	NORWAY
5/20/2024	INFORMA PLC	Industrial	SrUnsec/LTIR/MTN	1876.55	U	Baa3	Baa2	IG	UNITED KINGDOM
5/21/2024	INDIVIOR PLC-INDIVIOR FINANCE S.AR.L.	Industrial	SrSec/BCF/LTCFR/PDR		U	B2	B1	SG	LUXEMBOURG

Source: Moody's

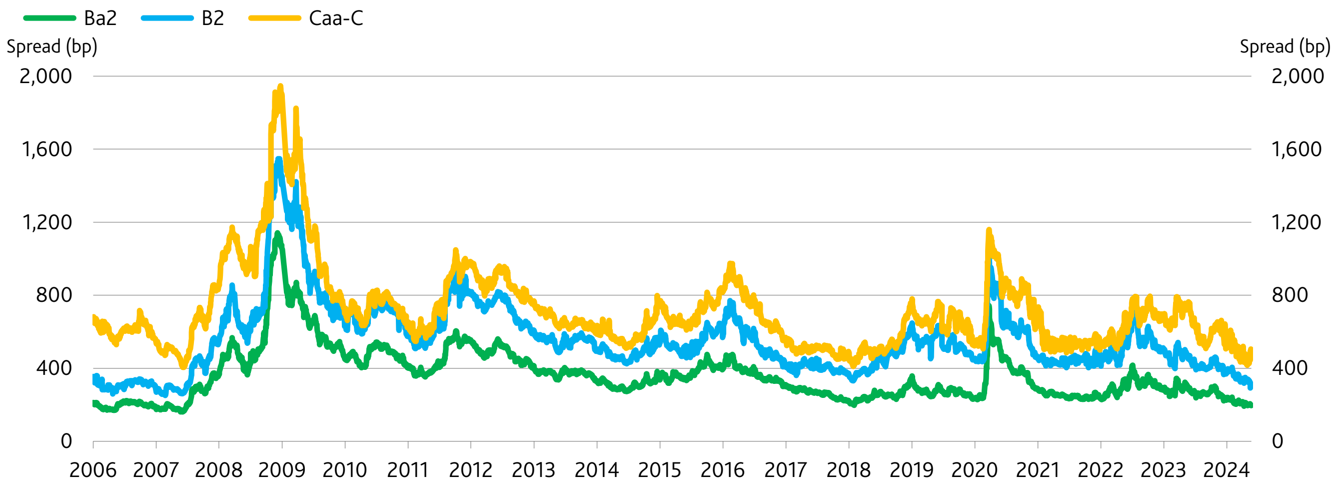
MARKET DATA

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 (May 15, 2024 – May 22, 2024)

CDS Implied Rating Rises	CDS Implied Ratings		
Issuer	May. 22	May. 15	Senior Ratings
Mattel, Inc.	Ba2	B1	Baa3
Goldman Sachs Group, Inc. (The)	Baa1	Baa2	A2
Energy Transfer LP	Baa2	Baa3	Baa3
Oracle Corporation	A2	A3	Baa2
Bank of America, N.A.	A3	Baa1	Aa1
Atmos Energy Corporation	A2	A3	A1
Automatic Data Processing, Inc.	Aa3	A1	Aa3
Hasbro, Inc.	Baa3	Ba1	Baa2
Block Financial LLC	Baa1	Baa2	Baa3
Antero Resources Corporation	Baa3	Ba1	Ba2

CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	May. 22	May. 15	Senior Ratings
Anheuser-Busch Companies, LLC	Baa2	A3	A3
Ford Motor Credit Company LLC	Ba3	Ba2	Ba1
John Deere Capital Corporation	A2	A1	A1
Ford Motor Company	Ba3	Ba2	Ba1
U.S. Bancorp	Baa1	A3	A3
Coca-Cola Company (The)	A3	A2	A1
PNC Financial Services Group, Inc.	Baa1	A3	A3
Bank of New York Mellon Corporation (The)	A2	A1	A1
Southern Company (The)	A2	A1	Baa2
MPLX LP	Baa2	Baa1	Baa2

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	May. 22	May. 15	Spread Diff
Liberty Interactive LLC	Caa2	1,943	1,733	210
Hertz Corporation (The)	Caa1	1,456	1,249	207
Staples, Inc.	Caa2	1,187	1,019	168
Scripps (E.W.) Company (The)	Caa2	1,147	1,062	84
Lumen Technologies, Inc.	Ca	3,422	3,365	57
Service Properties Trust	B3	434	390	44
American Airlines Group Inc.	B3	473	435	37
Kohl's Corporation	Ba3	461	432	29
Embarq Corporation	Caa3	1,696	1,667	29
Smithfield Foods, Inc.	Ba1	151	124	27

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	May. 22	May. 15	Spread Diff
Dish DBS Corporation	Caa3	2,932	3,270	-338
iHeartCommunications, Inc.	Caa3	4,624	4,899	-275
Dish Network Corporation	Caa3	2,521	2,733	-212
CSC Holdings, LLC	Caa1	2,246	2,457	-211
Mattel, Inc.	Baa3	127	228	-101
Nordstrom, Inc.	Ba2	364	410	-46
K. Hovnanian Enterprises, Inc.	Caa2	284	312	-29
Frontier Communications Holdings, LLC	Caa2	349	374	-26
Graphic Packaging International, LLC	Ba2	118	135	-17
Macy's, Inc.	Ba2	325	342	-17

Source: Moody's, CMA

CDS Movers

Figure 4. CDS Movers - Europe (May 15, 2024 – May 22, 2024)

CDS Implied Rating Rises	CDS Implied Ratings		
Issuer	May. 22	May. 15	Senior Ratings
UniCredit S.p.A.	Baa1	Baa2	Baa1
DZ BANK AG	Baa1	Baa2	Aa2
Landesbank Hessen-Thueringen Girozentrale	A3	Baa1	Aa2
KommuneKredit	Aa1	Aa2	Aaa
BASF (SE)	A1	A2	A3
Banco Sabadell, S.A.	Baa2	Baa3	Baa2
British Telecommunications Plc	Baa2	Baa3	Baa2
Banco Comercial Portugues, S.A.	Ba1	Ba2	Baa2
EDP, S.A.	Baa1	Baa2	Baa2
RWE AG	A1	A2	Baa2

CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	May. 22	May. 15	Senior Ratings
Swedbank AB	A3	A2	Aa3
DNB Bank ASA	A3	A2	Aa2
Portugal, Government of	A2	A1	A3
Dexia	Baa1	A3	Baa3
Volvo Treasury AB	A3	A2	A2
Alpha Services and Holdings S.A.	Ba3	Ba2	Ba3
National Grid Electricity Transmission plc	Baa2	Baa1	Baa1
Orsted A/S	Baa2	Baa1	Baa1
NXP B.V.	Baa1	A3	Baa3
Vattenfall AB	A2	A1	A3

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	May. 22	May. 15	Spread Diff
Ardagh Packaging Finance plc	Caa2	2,632	2,555	76
Stagecoach Group Limited	Baa3	154	142	12
Proximus SA de droit public	A2	72	63	9
Jaguar Land Rover Automotive Plc	Ba3	202	194	8
Yara International ASA	Baa2	90	82	8
Smiths Group plc	Baa2	103	95	7
Orsted A/S	Baa1	56	50	6
Virgin Media Finance PLC	B2	371	365	6
Dexia	Baa3	50	46	5
Autostrade per l'Italia S.p.A.	Baa3	99	94	5

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	May. 22	May. 15	Spread Diff
Trinseo Materials Operating S.C.A.	Caa1	2,145	2,979	-834
Vedanta Resources Limited	Ca	1,350	1,482	-132
Bellis Acquisition Company PLC	Caa1	369	415	-46
Wm Morrison Supermarkets Limited	B2	423	455	-32
Nexi S.p.A.	Ba1	212	243	-30
Lorca Telecom Bondco, S.A.U.	B2	248	275	-28
TK Elevator Holdco GmbH	Caa1	374	396	-22
Caixa Geral de Depositos, S.A.	Baa1	112	130	-18
Boparan Finance plc	Caa3	641	659	-17
Constellium SE	Ba3	163	178	-15

Source: Moody's, CMA

CDS Movers

Figure 5. CDS Movers - APAC (May 15, 2024 – May 22, 2024)

CDS Implied Rating Rises	CDS Implied Ratings		
Issuer	May. 22	May. 15	Senior Ratings
Hong Kong SAR, China, Government of	A1	A2	Aa3
Bank of East Asia, Limited	Baa3	Ba1	A3
Nippon Yusen Kabushiki Kaisha	A3	Baa1	Ba2
Japan, Government of	Aa3	Aa3	A1
China, Government of	Baa2	Baa2	A1
Australia, Government of	Aa1	Aa1	Aaa
India, Government of	A3	A3	Baa3
Indonesia, Government of	Baa3	Baa3	Baa2
Westpac Banking Corporation	A1	A1	Aa2
China Development Bank	Baa2	Baa2	A1

CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	May. 22	May. 15	Senior Ratings
Korea, Government of	A2	A1	Aa2
Kyushu Electric Power Company, Incorporated	A2	A1	Baa3
Asahi Group Holdings, Ltd.	A1	Aa3	Baa1
Flex Ltd.	Baa3	Baa2	Baa3
Development Bank of Kazakhstan	Ba2	Ba1	Baa2
Amcor Pty Ltd	Baa2	Baa1	Baa2
Coca-Cola Amatil Limited	Baa1	A3	Baa1
Samsung Electronics Co., Ltd.	A2	A1	Aa2
Japan, Government of	Aa3	Aa3	A1
China, Government of	Baa2	Baa2	A1

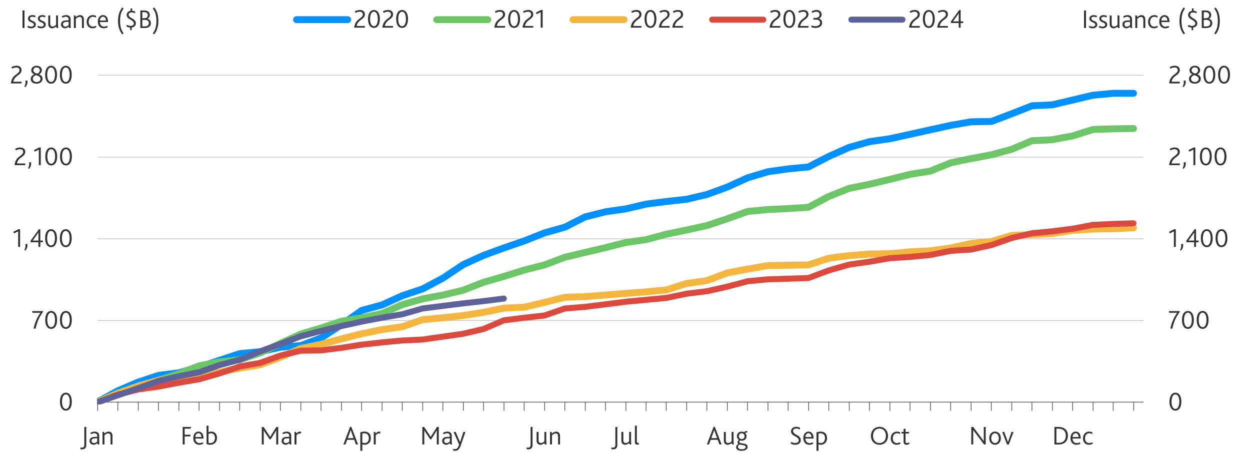
CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	May. 22	May. 15	Spread Diff
Coca-Cola Amatil Limited	Baa1	50	43	7
Flex Ltd.	Baa3	70	64	6
Kyushu Electric Power Company, Incorporated	Baa3	34	30	4
Sydney Airport Finance Company Pty Ltd	Baa1	58	54	4
Stockland Trust Management Limited	A3	74	70	4
Tata Motors Limited	Ba3	156	152	4
Scentre Management Limited	A2	98	95	3
Nissan Motor Co., Ltd.	Baa3	103	100	3
Lenovo Group Limited	Baa2	71	69	3
Amcor Pty Ltd	Baa2	56	53	3

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	May. 22	May. 15	Spread Diff
Vanke Real Estate (Hong Kong) Company Limited	B1	1,503	1,767	-265
Pakistan, Government of	Caa3	1,454	1,499	-46
Bank of East Asia, Limited	A3	81	91	-10
Kazakhstan, Government of	Baa2	94	104	-10
CITIC Limited	A3	73	80	-7
China Development Bank	A1	61	65	-5
Hong Kong SAR, China, Government of	Aa3	29	35	-5
Export-Import Bank of China (The)	A1	61	65	-4
Kyoto, City of	A1	27	30	-3
Japan Finance Corporation	A1	28	31	-3

Source: Moody's, CMA

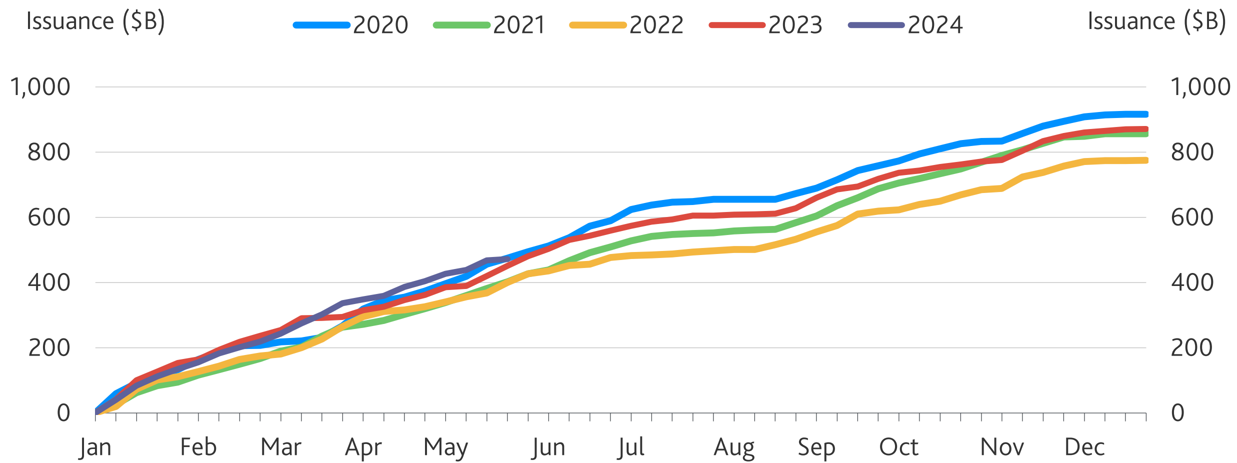
ISSUANCE

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	15.150	3.550	21.302
Year-to-Date	681.199	137.539	887.062

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount $B	Amount $B	Amount $B
Weekly	3.097	0.815	3.912
Year-to-Date	348.578	36.470	471.526

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

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

Report Number: 1410087

Editor
Reid Kanaley
helpeconomy@moodys.com

Contact Us
Americas
+1.212.553.1658
clientservices@moodys.com

Europe
+44.20.7772.5454
clientservices.emea@moodys.com

Asia (Excluding Japan)
+85 2 2916 1121
clientservices.asia@moodys.com

Japan
+81 3 5408 4100
clientservices.japan@moodys.com

© 2024 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.
Moody's SF Japan K.K., Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating." The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses," not "Credit Rating Business," and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.