MOODY'S

WEEKLY MARKET OUTLOOK

AUGUST 10, 2023

Lead Author

Dante DeAntonio Director

Asia-Pacific

Katrina Ell Stefan Angrick Harry Murphy Cruise Sarah Tan

Europe

Ross Cioffi Olia Kuranova

U.S.

Olga Bychkova Matt Colyar

Latin America

Jesse Rogers

Inside Economics Podcast:



Join the Conversation

Apple Podcasts Google Podcasts Spotify

Inflation Meets Expectations

The U.S. consumer price index for July carries limited monetary policy implications, as we believe the Federal Reserve is done with interest-rate hikes for the current tightening cycle. The combination of a July CPI that was fully in line with expectations and a July jobs report that was softer than expected will likely keep the Federal Open Market Committee from raising the target range for the fed funds rate at its September meeting, and financial markets concur. Fed funds pricing data suggest a less than 10% probability of the central bank moving again in September.

In July, the headline CPI rose 0.2% for the second consecutive month. However, on a year-ago basis, the CPI was up 3.2%, a slight acceleration from the 3% year-over-year gain in June. This

Table of Contents

Top of Mind	3
Week Ahead in Global Economy	5
Geopolitical Risks	7
The Long View	
U.S	ç
Europe	13
Asia-Pacific	14
Latin America	15
Ratings Roundup1	16
Market Data2	20
CDS Movers	21
Issuance2	24

can be chalked up to so-called base effects. Until July, the large CPI increases a year earlier due to the massive supply shocks of the pandemic and Russia's invasion have served to depress significantly the year-over-year comparisons of the CPI. But this has now come to an end, as the worst impact from these two supply shocks in the first half of 2022 is dropping out of the year-over-year comparisons of the CPI. If we were to assume the CPI continues to advance at a 0.2% sequential pace throughout the rest of 2023, year-over-year growth in the CPI would tick higher to 3.3% in the next couple of months only to grind slowly lower to 2.8% by year's end.

Energy was a minor support of the CPI in July but is set to contribute more to the CPI in August. U.S. gasoline futures, a leading indicator of the CPI for gasoline, have trended higher in recent weeks. Moreover, natural gas prices are ticking higher this month, which could further support the CPI through energy services prices. Finally, higher diesel prices will bleed into the CPI for food, as diesel is the workhorse of the agricultural industry. The CPI for food at home rose by 0.3% in July, the strongest pace since January, and higher fuel costs could lead to stronger readings in this component of the CPI than has been observed in recent months. Meanwhile, the CPI for food away from home rose 0.2% in July, its slowest pace since March 2021, and this slowdown likely reflects steady moderation thus far in wage growth for workers in the food services industry.

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.

Excluding food and energy, the CPI was up 0.2% for the second month in a row. Used-vehicle prices continue to steal the limelight and fell 1.3% in July, a bigger decline than the 0.5% drop in the prior month. We had anticipated a stronger decline in used-vehicle prices last month, as dealerships have been paying less at auction for the used vehicles they later sell. Wholesale used-vehicle prices point to further declines in the CPI for used vehicles over the coming month. Elsewhere, new-vehicle prices dipped 0.1%, which was expected given the recent improvement in motor vehicle assemblies and the rise in auto incentives. A major upside risk to new-vehicle prices is a potential strike by the United Auto Workers union against Detroit's three-largest automakers next month.

Though the inflationary fever is breaking, consumer sentiment is still downbeat from a historical perspective. As survey results from Shiller (1997) show, people truly dislike inflation and would even prefer low inflation at the cost of higher joblessness. Individuals see how inflation hurts their purchasing power, but not necessarily how inflation boosts their nominal income or even erodes their debt burdens in real terms. Moreover, consumers of today had gotten used to the quiescent inflation of the prior economic expansion and intuit that consumer prices are 10% higher than where they would have been in the absence of all the extraordinary macroeconomic events that have occurred since the onset of the pandemic.

Wages are now outpacing inflation, which should bring a cheer to consumers. However, they also perceive that real incomes remain battered by last year's bout of alarmingly high inflation. Inflation-adjusted average hourly earnings are 3% below their pre-pandemic trend.

Slower-burning crisis

The banking panic that began with the collapse of Silicon Valley Bank in March has, for the most part, proven contained. Some small and regional banks managed interest rates better than SVB. Most, though, just had portfolios and a deposit base that was less vulnerable to the light-speed run that brought down the bank. Swift and substantial intervention from the U.S. Treasury and Fed was effective at preventing further bank failures. The high-profile implosion of SVB, and to a lesser degree Signature Bank, generated fear among depositors that their balances above the \$250,000 threshold that the Federal Deposit Insurance Corp. insures could be in trouble. The Fed's Bank Term Funding Program provided the liquidity banks needed to honor these withdrawals.

However, the BTFP offered little when depositors were calling for their money not because they feared their bank could become insolvent and their money lost, but because they learned they can earn higher returns on their savings somewhere else. The outflow of deposits from small and regional banks led to an inflow into money markets, which, given the Fed's post-pandemic tightening cycle, were now paying more than 4% on deposits. This represents a safe, liquid, and higher-earning destination for businesses and individuals' money. This shift occurred at larger banks as well, but was more pronounced at smaller and regional banks, which had the added stress wrought by the string of bank failures in the first half of 2023.

To retain customer balances, banks have been forced to pay higher interest on deposits. In theory, this should occur in tandem with the Fed's tightening as it brings up short-term interest rates. However, relationships with banks are sticky. Transferring a balance out of a checking and savings account to another bank or money market fund can be cumbersome. Further, the added interest paid on these deposits is not fixed and will likely wane over time, which weakens the motivation to make the switch. The collapse of SVB and the attention it brought to the banking system generated a shift in cash deposits that forced banks to pay to keep depositors. This has stemmed the outflow of deposits that many feared in March but has crimped banks' profitability.

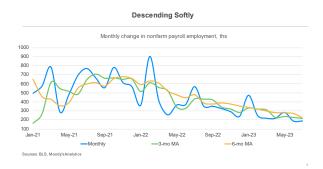
Ten regional banks faced credit rating downgrades this week, but the debt is still considered investment-grade and a new wave of bank failures is unlikely. However, bank consolidation is an imaginable outcome. Solvent but struggling, smaller banks may be absorbed by larger institutions in the coming quarters. Ultimately, consolidation lowers competition and is shown to lead to an increase in fees charged by the surviving banks.

TOP OF MIND

Are U.S. Jobs Slowing Sufficiently?

BY MATT COLYAR

The U.S. labor market headlined the economic calendar last week, culminating with July's jobs report on Friday. The 187,000 increase in payrolls in July follows a downwardly revised 185,000 gain in June. May's figure was similarly lowered, leaving job growth less robust in the middle of 2023 than previously assumed.

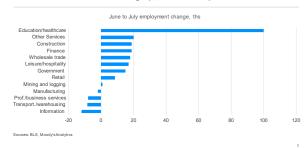


Nevertheless, the current pace is still a touch stronger than policymakers at the Federal Reserve would prefer. The unemployment rate ticked down from 3.6% to 3.5%. The labor market's loosening has come slower than many predicted but has also avoided any sharp rise in joblessness and kept alive hopes that the post-pandemic tightening cycle would not result in an economic recession. Whether the labor market is still chugging along at too brisk a pace for the inflation-fighting Federal Open Market Committee to feel it has done enough remains to be seen. Before the committee meets again, we will get August's employment report—and more importantly, several monthly inflation datapoints.

Moody's Analytics expects the FOMC leaves policy as is when it meets in September, though this is hardly certain. Comments this week from Fed Governor Michelle Bowman reiterate the fact that a cadre of policymakers see the current policy stance as insufficient, pointing to the labor market's strength as proof.

The effect of tight monetary policy is, however, visible across industries. Interest rate-sensitive goods producers continue to lag service providers in job creation. Manufacturing ticked down in July, leaving payrolls unchanged since the start of the year.

Manufacturing Dips, Healthcare Pops



Average hourly earnings rose faster than anticipated in July and, on a year-ago basis, appear stuck a little above 4%. As frequently mentioned, the average hourly earnings measure is not our preferred measure to track wage growth. Compositional issues within the labor market make it less reliable, but the current trend is nevertheless frustrating.



The employment cost index is a more comprehensive measure of wages and salaries. In the second quarter, the ECI was up 4.6% relative to a year earlier, an encouraging reduction from 5% growth in the first quarter. Job quits are also falling. June's Job Openings and Labor Turnover Survey showed a modest reduction in openings, but the quits rate fell from 2.6% in May to 2.4% in June.



For context, the quits rate averaged 2.3% in the two years before the pandemic. The labor market was tight then, but inflation was hardly the concern it is today.

Further evidence of the labor market's cooldown can be found in the steadily declining number of hours worked each week. Employers, wont to let workers go, are dialing back their staffing needs as demand wanes. Similarly, temporary jobs are unambiguously on the decline. These workers are the first to be let go by businesses when conditions soften and have presaged larger labor market downturns in prior business cycles.



The gradual aging-out of the labor force by baby boomers is a massive—and in many ways, unprecedented—dynamic in the U.S. labor market. As the population bulge born in the two decades following World War II retires, the composition of the U.S. labor force and the broader population is evolving. Retirees do not work but they still consume. This friction will keep available workers in short supply, particularly in leisure/hospitality and healthcare. Additionally, as the labor force trends younger, there will be material impacts on productivity growth.

Retirees take with them expertise gained from decades of experience. As more baby boomers reach retirement age, this is a near-term headwind for productivity growth. However, the seasoned experience of older workers also meant they were unlikely to be adopting new skills and embracing newer, more efficient technologies.



In other words, output per hour may be high, but it wasn't likely to be growing very quickly. The share of the labor force age 55 and older peaked prior to the pandemic and will steadily decline for the next decade. This factors into our projections that labor productivity, near-term vagaries aside, is on an upward trend longer term.

The Week Ahead in the Global Economy

U.S.

The U.S. economic calendar remains crowded next week though it will lack some of the punch from the employment and inflation reports in recent weeks. We will get key data on the housing market in the form of new residential construction and the NAHB housing market index. Activity in the housing market has bottomed out in recent months, and we expect to see slight improvement in the second half of the year, particularly from new construction.

The labor market will remain crucial as we monitor for any signs of a potential recession. Jobless claims provide labor market insight with the shortest lag time. Initial claims swung higher last week after a period of softening but remain well below the break-even level—which we currently estimate to be around 265,000. Any sustained increase in the level of claims would likely be a leading indicator of further deceleration—or potential reversal—of monthly job gains.

Other key data to be released next week include the NY Empire State and Philly Fed manufacturing surveys, retail sales, business inventories, and industrial production.

Asia-Pacific

A suite of Chinese activity data for July will show softness across industrial production, retail sales, and fixed-asset investment. We look for retail sales growth to slow to 2.8% year on year from 3.1% in June. While households aren't spending with the exuberance expected when zero-COVID measures were first abandoned, some of the softness is being overstated by base effects. As the retail sales release only covers goods, it won't capture household spending on services, which has been travelling at a healthier clip. Fixedasset investment will likely come in at 3.6% year on year for the seven months to July, 0.2 percentage point weaker than in the year to June. With private sector investment missing in action, public investment is driving the gains. A renewed focus on lifting business sentiment and encouraging private investment via targeted stimulus should see investment gradually recover into 2024.

Elsewhere, Japan should post a stronger second-quarter GDP result. Rising demand for services as foreign visitor numbers climb and an uptick in industrial production should see quarter-on-quarter growth accelerate to 0.8% from 0.7% in the first quarter. In terms of expenditure components, we expect better net exports. Consumption and investment spending won't see much growth as high inflation has weighed on household and business spending. Government investment has also struggled to find a better footing.

Europe

Euro zone industrial production likely pulled back in June by 0.6% m/m after output rose by 0.2% in May. There were downbeat releases already published in Germany and France which point to a contraction at the whole euro zone level. Tepid demand and volatile supply conditions are pushing manufacturing to trend lower. The outlook is not much brighter, with PMIs reporting further declines in new orders.

By contrast, we are expecting the external trade balance in goods to pick up in June, and return to positive territory after slumping into a deficit in April and May. Improved terms of trade will likely decrease the value of imports relative to exports. Meanwhile, we've already seen strong performance in Germany and France for the month. In each case, the better trade balances were due to falling imports. While this is good for net trade, it is a sign of meek domestic demand.

The final estimate of the euro zone's HICP inflation rate will also be published next week. We do not expect to see revisions from the preliminary release: The inflation rate likely lowered to 5.3% in July from 5.5% in June. The deceleration will be led by the food and energy segments, as core inflation is expected to stay unchanged.

Across the Channel, the U.K.'s CPI inflation rate likely fell to 7% y/y in July. Likewise, we expect to see energy and food segments leading the way down, with greater stickiness in the core component. Even such a decline in the inflation rate, the Bank of England is still likely to hike interest rates at its September meeting.

The U.K. unemployment rate will likely be unchanged at 4% in the three-months to June. The sluggish economy has led to lay-offs. But we do not expect a significant uptick in unemployment as the country is likely to avoid recession. Still-low unemployment will be a support for consumers in the meantime.

Retail sales will likely pull back by 0.3% m/m in July. But this will come after a 0.7% m/m rise in June and a preceding two months of rising sales. We think sales will pull back in July as consumer attention is directed more towards services.

Latin America

With the U.S. headed toward a soft landing and the recovery in China running into trouble, Latin America is going nowhere fast. Data releases scheduled for next week will bring the final slices of data on the performance of the Colombian and Argentinean economies during the second quarter, with a cameo from the July jobs report in Peru. With these figures presenting few surprises, we turn our attention to the remainder of the year, where things will get a lot tougher on account of still-restrictive monetary policy and less support for commodity prices from China. While there are bright spots in Mexico and Brazil—the two economies have handily outperformed the rest of the region, they will slow as well as still-high interest rates take a larger toll on consumer and business spending.

Geopolitical Calendar

13-AugArgentinaPresidential primary, PASOMediumLowThe nationwide primary vote will set the the October presidential election and co prompt a shift in voter's preferences. The Centrel Aug20-AugEcuadorPresidential election, first roundMediumLowInterpretences. The centrel Aug20-AugGuatemalaPresidential election, run-offMediumLowInterpretences. The centrel Aug22-24 AugBRICSSouth Africa hosts 15th BRICS SummitMediumMediumOn the agenda is a debate over the adop BRICS common currency, an alternative USD for global trade.2-2-24 AugBRICSSouth Africa hosts 15th BRICS SummitMediumMediumOn the agenda is a debate over the adop BRICS common currency, an alternative USD for global trade.5-6 SepRussia/ Central AsiaEastern Economic ForumMediumLowThe G-20 members represent close to 58 global GDP, making it the represent close to 58 global GDP, making it the repreter forum updates about global economic cooperations.9-10 SepG-20India hosts G-20 summitLowLowFollowing a cent stand-off over the defined risk of a standatill over next year's fundin lean to the upside, but history suggests til1-OctUnited StatesPotential government shutdownLowLowFollowing a cent stand-off over the defined risk of a standatill over next year's fundin lean to the upside, but history suggests til22-OctEUEuropean Council summitLowLowFollowing a cent stand-off over the defined shift in economic policy and the country <th>uld primary elivering a ection. ion of a to the e Russia-</th>	uld primary elivering a ection. ion of a to the e Russia-
20-Aug Guatemala Presidential election, run-off Medium Low 22-24 Aug BRICS South Africa hosts 15th BRICS Summit Medium Medium Medium BRICS common currency, an alternative USD for global trade. 5-6 Sep Russia/ Central Asia Eastern Economic Forum Medium Low The forum will serve as a 'check-up' on the Asia cooperation and signal whether Rus continue to depend on its allies in the regivithstand sanctions. 9-10 Sep G-20 India hosts G-20 summit Low Low The G-20 members represent close to 85 global GDP, making it the premier forum glo	to the e Russia-
22-24 AugBRICSSouth Africa hosts 15th BRICS SummitMediumMediumOn the agenda is a debate over the adop BRICS common currency, an alternative USD for global trade.5-6 SepRussia/ Central AsiaEastern Economic ForumMediumLowThe forum will serve as a 'check-up' on th Asia cooperation and signal whether Rus continue to depend on its allies in the regi withstand sanctions.9-10 SepG-20India hosts G-20 summitLowLowThe G-20 members represent close to 85 global CDP, making it the premier forum updates about global economic cooperation12-30 SepU.N.General Assembly, New YorkLowLowFollowing a recent stand-off over the de risk of a standstill over next year's fundin lean to the upside, but history suggests ti economic impact will be limited.22-OctSwitzerlandFederal electionsLowLowLow26-27-OctEUEuropean Council summitLowLowThe following a recent stand-off over the de risk of a standstill over next year's fundin lean to the upside, but history suggests ti economic impact will be limited.	to the e Russia-
22-24 Aug BRICS South Africa hosts 15th BRICS Summit Medium Medium BRICS common currency, an alternative used of the second sec	to the e Russia-
5-6 Sep Russia/ Central Asia Eastern Economic Forum Medium Low Asia cooperation and signal whether Ruscontinue to depend on its allies in the registivity and sanctions. 9-10 Sep G-20 India hosts G-20 summit Low The G-20 members represent close to 85 global GDP, making it the premier forum updates about global economic cooperation and signal whether Ruscontinue to depend on its allies in the registivity and sanctions. 12-30 Sep U.N. General Assembly, New York Low Following a recent stand-off over the definition of the upside, but history suggests the conomic impact will be limited. 1-Oct United States Potential government shutdown Low Low Following a recent stand-off over the definition of the upside, but history suggests the conomic impact will be limited. 22-Oct Switzerland Federal elections Low Low Low 26-27-Oct EU European Council summit Low Low Implemented election might yield	
9-10 SepG-20India hosts G-20 summitLowLowglobal GDP, making it the premier forum updates about global economic cooperation12-30 SepU.N.General Assembly, New YorkLowLow1-OctUnited StatesPotential government shutdownLowLowFollowing a recent stand-off over the de risk of a standstill over next year's fundin lean to the upside, but history suggests the economic impact will be limited.22-OctSwitzerlandFederal electionsLowLow26-27-OctEUEuropean Council summitLowLowThe highly contested election might yield	
1-OctUnited StatesPotential government shutdownLowFollowing a recent stand-off over the del risk of a standstill over next year's fundin lean to the upside, but history suggests the economic impact will be limited.22-OctSwitzerlandFederal electionsLowLow26-27-OctEUEuropean Council summitLowLowThe highly contested election might yield	for
1-OctUnited StatesPotential government shutdownLowLowrisk of a standstill over next year's fundin lean to the upside, but history suggests ti economic impact will be limited.22-OctSwitzerlandFederal electionsLowLow26-27-OctEUEuropean Council summitLowLowThe highly contested election might yield	
26-27-Oct EU European Council summit Low Low The highly contested election might yield	gpackage
The highly contested election might yield	
29-Oct Argentina General election Medium Medium orientation. The ruling leftist coalition far uphill battle with two opposition candid having strong showings in recent polls.	s political es an
Oct/Nov ASEAN Indonesia to host ASEAN summit Low Low Followers will watch for any policy development of the contract of the co	South
Oct/Nov Poland Parliamentary elections Low Low	
Nov APEC Economic leaders' meeting, to be held in San Low Low Cooperation agenda between members of services, investment, and people.	
6-17 Nov U.N. COP 28, to be held in Dubai, UAE Low Low	
22-Nov Netherlands General election Medium Low After a volatile first half of 2023 for Dutch this snap election will determine whether growing populist, right-wing presence will itself in the nation's politics.	the
14-15-Dec EU European Council summit Low Low	
31-Dec U.S. Deadline for enactment of FY24 National Defense Authorization Act Defense Authorization Act As the U.S. faces a growing set of national military aggressors such as Russia, Iran, ar Korea, appropriate funding has become increasingly necessary to combat external	nd
13-Jan Taiwan Presidential election Medium Medium The election will have deep ramifications trajectory of U.SChina relations.	ıl risks.
14-Feb Indonesia General election (including presidential election) Low Low	

THE LONG VIEW: U.S.

U.S. Economy Continues to Show Resilience

BY OLGA BYCHKOVA

CREDIT SPREADS

Corporate credit spreads have marginally widened through the first week of August but remained tight in general. Narrow credit spreads show market participants remain confident in the creditworthiness of borrowers and that the overall economic environment remains favorable. This has been underpinned by healthy corporate balance sheets, persistent strength in consumer spending and a relatively low level of corporate defaults this year. The Moody's Investors Service long-term average corporate bond spread to the 10-year U.S. Treasury has expanded to 146 basis points but stayed close to a 12-month low of 139 bps. Similarly, Moody's long-term average industrial bond spread increased to 126 bps over the past week, slightly above a one-year low of 120 bps.

Low-grade credit spreads have also trended lower since spiking in March. The U.S. Bloomberg/Barclays high-yield option-adjusted spread is at 385 bps, the same as the previous week, while the ICE BofA U.S. high-yield optionadjusted bond spread closed Wednesday at 394 bps, down 2 bps from its value last week. This compares with an average high-yield spread of 1,000 bps during recent recessions and an average 350 bps outside of recessions. 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 recent decline in the VIX has brought it back in line with high-yield spreads.

GLOBAL DEFAULTS

Moody's Investors Service reported 13 corporate debt issuers defaulted in June, down from the upwardly revised count of 20 in May. Despite the June slowdown in defaults, the default tally reached 46 in the second quarter, up from 35 in the first quarter. June also marked the fifth consecutive period in which the monthly default count was in the double digits.

Like the prior few months, distressed exchange remained a prominent default type as eight of the 13 defaults were in the form of DE. Private equity sponsors favor DEs in debt restructuring because DEs help them sidestep bankruptcy and preserve their equity. Apollo Global Managementowned Shutterfly LLC was one of the eight companies that restructured through DEs in June. The personalized consumer photo products and services provider recapitalized about \$2.5 billion of debt by exchanging every tranche of old debt with new debt that had less financial value. Besides Shutterfly, seven companies also restructured their debt via DE last month, though affecting smaller debt amounts. They were Casa Systems Inc.; Comet Bidco Limited; Covis Midco 2 S.a r.l.; Technicolor Creative Studios SA; Tullow Oil plc; U.S. Telepacific Corp.; and Werner FinCo LP.

Defaults sent the global speculative-grade default rate to 3.8% for the 12-month period ended in June, up from 3.6% at the end of May. Moody's Investors Service expects the rate to trend higher over the remainder of 2023, finishing at 4.7% in December. In 2024, the credit agency expects the rate to peak at 5.1% in March before easing to 4.6% in June.

High interest rates together with tight lending conditions have significantly raised borrowing and refinancing costs and will increasingly constrain aggregate demand. Sluggish revenue and cash-flow growth in the slowing economy and higher debt repayment costs will in turn increase companies' debt-service burdens. Low-rated companies will find it difficult to meet refinancing and liquidity needs and therefore face heightened default risk in the current economic environment.

Interest rates are likely to remain high, with the Fed maintaining a tight monetary policy stance this year to facilitate further steady disinflation to the central bank's target. Moody's Investors Service's baseline forecasts incorporates assumptions that the U.S. high-yield spread will widen to 526 bps over the next four quarters from about 390 bps at the end of June, and that the U.S. unemployment rate will rise to 4.9% from 3.6% in the comparable period.

CORPORATE BOND ISSUANCE

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

Corporate bond issuance proceeded to weaken in the second quarter of 2022. Worldwide offerings of investmentgrade corporate bonds totaled \$548 billion, down 21% on a year-ago basis. U.S. dollar-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. High-yield issuance was down 79% on a year-ago basis. Issuance declined further in the third quarter as higher interest rates weighed on lending activity. Worldwide offerings of investment-grade corporate bonds totaled \$505 billion, down 30% year over year. U.S. dollar-denominated high-yield corporate bond issuance clocked in at \$21 billion in the third quarter. High-yield issuance has declined approximately 84% on a year-ago basis.

Corporate debt issuance remained suppressed in the fourth quarter of 2022. U.S. dollar-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 12 months, total U.S. dollar-denominated issuance has tracked at a near-decade low.

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 accounts for half of activity globally, decreased 15.04% on an annual basis. U.S. high-yield issuance also experienced a slow start at just \$31.5 billion, marking its slowest start to the year since 2008, and posting a 15% decline compared to the first quarter of 2022.

Issuance strengthened in the second quarter of 2023 as worldwide offerings of corporate bonds revealed a yearover-year increase of 26.8% for investment grade. Highyield issuance in the period nearly doubled the amount recorded in 2022. Approximately 60% of U.S. dollardenominated high-yield proceeds in the period were allocated to debt refinancing.

U.S. dollar-denominated investment-grade debt issuance totaled \$36.4 billion in the most recent week, bringing the year-to-date figure to \$853.65 billion. This reflects a 11.7% decline when compared to the same period in 2022.

Meanwhile, there was \$3.56 billion in high-yield debt issued, raising the total to \$118.43 billion this year. High-yield issuance has outstripped early-year expectations, increasing 12.2% relative to last year's pace. Total U.S. dollardenominated corporate debt issuance now tracks 10.6% below where it stood in 2022 and is 36.9% lower compared with 2021.

U.S. ECONOMIC OUTLOOK

The U.S. economy continues to show significant resilience, consistent with our expectations but somewhat stronger than the Federal Reserve desires. Consequently, we made only modest adjustments to the U.S. baseline forecast based on new data and a small modification about our

assumptions regarding future actions by the Fed. Fundamentally, however, the outlook remains essentially the same and the pace of annual GDP growth has only modestly changed, largely in response to second-quarter data.

We have not changed our estimate of the terminal fed funds rate, or when rate cuts will begin, but have altered our expectations about the pace of rate cuts as inflation moderates only gradually. We still expect increases in demand from growing economies, and actions of OPEC+ and Saudi Arabia will push oil prices higher, and therefore did not change our price outlook much despite recent increases. The strong second-quarter data result in a measurable but not huge upward revision to the outlook for business investment. Fiscal policy assumptions changed little, though the fiscal outlook continues to deteriorate somewhat more than anticipated. The outlook for the 10year Treasury is only a little changed and mostly in the verynear term.

Monetary policy

We made modest adjustments to the assumptions about monetary policy compared with the last update, but only to 2024 and after. As in the previous outlook, we expect that the Fed's July 25-basis point rate hike was the last of the current tightening cycle and that the policy rate has reached its terminal range of 5.25% to 5.5%. Likewise, we anticipate that the Federal Open Market Committee will start lowering rates by June of next year. However, we now expect that the Fed will relax monetary policy more slowly than previously anticipated, cutting rates by about 25 basis points per quarter until reaching 2.75% by the fourth quarter of 2026 and 2.5% in 2027. This shift reflects more persistent than anticipated inflation in early 2023 and ongoing labor market tightness, which have caused similar revisions to the FOMC's projections.

The Fed continues to balance inflation and labor market tightness against financial conditions. The June figure for inflation in personal consumption expenditures trended in the right direction, with year-ago core inflation falling to 4%, after coming in steadily above 4.5% from last December through May. Further, job growth slowed to 218,000 on a three-month moving average basis in July, compared with 335,000 in January, but the 218,000 pace is still relatively strong. The jobless rate remains at 3.5%. While wages in the second quarter grew faster than inflation, we expect these pressures will slowly fade. Likewise, our baseline does not predict that rising oil prices since July will reignite inflation sufficiently for the Fed to hike rates further. Tighter financial conditions, meanwhile, will exert further downward pressures on demand and prices. Our baseline assumes that banks will continue to

limit credit growth, but that the financial system will overall remain stable.

Inflation remains the key to our outlook. The August vintage has consumer price inflation at 3.2% year over year by the end of 2023, essentially unchanged from the previous outlook. As in the previous baseline, we anticipate inflation to approach the Fed's target range around the third quarter of 2024. We continue to expect that remaining inflation pressures from shelter and other U.S. service industries will soften. We also still believe a soft landing to be the most likely outcome for the U.S. economy, thanks to the resilience of consumers and labor markets.

Financial conditions, meanwhile, will remain tight. The 10year Treasury yield rose from 3.85% to 4% from July through early August, averaging 3.6% in the second quarter. We anticipate that the yield will average 4% in the third quarter, and then decline slightly until 2025, averaging between 3.8% and 3.9%. However, despite rising interest rates and mixed earnings reports for the second quarter, stock prices gained more ground in July, thanks to easing inflation data.

Foreign exchange markets also continue to relax as the Fed has approached the end of the current hiking cycle, although the pace is slow. On a real broad trade-weighted basis, the U.S. dollar is still up more than 5% from its pre-pandemic level, but in July had depreciated by more than 5% from its October peak.

Changes to GDP growth

U.S. real GDP rose 2.4% annualized in the second quarter, according to the Bureau of Economic Analysis' advance estimate. It was the fourth consecutive quarter in which growth was at or above the economy's potential, though likely it will be the last for some time. Inventories switched from a major drag to a small support. Rising consumer spending, government spending, nonresidential business investment, and lower imports contributed to the gains. On the other hand, exports and residential investment weighed on growth. Growth exceeded the prior forecast by 0.9 percentage point annualized, lifting the outlook for the calendar year. Nonetheless, the baseline outlook remains that the Fed will accomplish its goal of slowing growth in both output and inflation without precipitating a recession.

Although consumer spending remained a source of growth, its contribution shrank compared with the first quarter of 2023 in which cost-of-living adjustments had boosted aftertax income. Still, consumer spending added 1.1 percentage points to growth. Government contributed about 0.5 percentage point with state and local spending leading the gain. Nonresidential fixed investment improved measurably, adding 1 percentage point to growth, its largest contribution since the first quarter of 2022. Residential investment continued to slide, pulling growth down by 0.2 percentage point. Trade subtracted 0.1 percentage point from growth with a 1.3-percentage point drag from exports mostly offset by falling imports.

The strong second-quarter growth will provide momentum for the third quarter, after which growth will decelerate more visibly late in the year and early next year. The forecast for third-quarter growth is higher than previously forecast for real GDP and most of its major components. In particular, postponed inventory growth will add significantly. The net effect is stronger real GDP projected for this year, but similar next year, and weaker in 2025. On an annual average basis, growth is projected to be 2% in 2023 and 1.3% in 2024, compared with projections of 1.7% and 1.1%, respectively, in the July outlook. Growth returns to trend in 2025.

Fiscal policy

The near-term federal fiscal outlook is worse than previously expected. The federal budget deficit will amount to \$1.7 trillion in fiscal 2023, or 6.5% of GDP. This is up from the \$1.5 trillion projected budget shortfall under the July vintage of the U.S. baseline forecast. A couple of factors are contributing to the expected deterioration in federal fiscal conditions. The 12-month rolling sum of non-withheld individual income taxes is collapsing, albeit from elevated levels, due to reduced capital gains and the postponement of the tax filing deadline for disaster-area taxpayers in California, Alabama and Georgia from April 18 to October 16. In addition, Congress enacted an almost 10% increase in nonemergency, base discretionary funding for the current fiscal year, which has led to a noticeable acceleration in the national defense outlay.

Further, the likelihood of a government shutdown on October 1 is higher than it was immediately following the passage of the debt limit deal. In June, a small bloc of hardline Republicans, who want sharper spending cuts than the ones brokered by House Speaker Kevin McCarthy and Biden, brought legislative action on the House floor to a weeklong halt. They are threatening to block all 12 government funding bills unless fiscal 2024 appropriations are cut even lower toward fiscal 2022 levels. In the current baseline, Moody's Analytics is holding off from incorporating a shutdown, but this is subject to change in the next few months. Shutdowns are needless drags on the economy, but their economic costs are not too significant. During the Trump presidency, the 35-day shutdown, the longest on record, was estimated to have reduced the level of real GDP by only 0.1% in the fourth guarter of 2018 and 0.2% in the first quarter of 2019.

Energy

Moody's Analytics has slightly increased its oil price forecast for the second half of 2023. Prices have been rising due to a tightening market. Saudi Arabia has voluntarily cut output by 1 million barrels per day, and Russian exports are beginning to dip under the weight of sanctions. As a result, our fourth-quarter Brent price forecast has been increased by \$2 per barrel to \$89 per barrel.

The tightening oil market was already a feature of our forecast, so the recent developments do not affect our outlook. We have assumed for most of the year that China's resurgence would increase demand, while OPEC+ output cuts and slow growth from the U.S. would limit supply. China's rebound has so far been subdued due to poorly performing manufacturing. Nonetheless, the declines in supply have been enough to keep prices moving upward.

Labor market

The job market is now clearly slowing, a welcome sign for the Fed, as it aims to tame inflation through softer demand in the economy. Nonfarm payrolls rose a weaker-thanexpected 187,000 in July, essentially matching June's downwardly revised increase. The three-month moving average of total job gains has gone from 334,000 at the start of this year to 218,000 as of July. Excluding the public sector, the slowdown has been more pronounced. Industries like manufacturing, professional/business services, leisure/hospitality and retail have all slowed noticeably in terms of job gains since the start of the year.

The slowdown in the pace of job growth is corroborated by the household survey data, which show that although the unemployment rate ticked lower to 3.5% in July, household survey employment and labor force growth have also slowed since the year's start. Job openings, quits and hires have also declined from their all-time highs, further indicating that the labor market is loosening up. However, data on unemployment insurance claims remain at relatively low levels without any meaningful uptick recently to suggest that layoffs are accelerating.

While job growth appears to be slowing gracefully, wage growth is still too high to bring price inflation down to the Fed's 2% target. Wage growth in the payroll survey accelerated in July and has not changed meaningfully over the last seven months. Other surveys of wage inflation, which are more reliable, do show some slowing in wage growth, though that has occurred at a slower pace than anticipated. This makes the job for the Fed trickier as it attempts to fight inflation by slowing demand for core services. The bottom line is that this seems to be happening with job growth but not yet with wage growth. The forecast for the key labor market indicators is unchanged from last month. The forecast does not expect a sub-100,000 per month increase in payrolls until the final quarter of this year. Not until 2024 will monthly job gains be very weak at fewer than 50,000 per month on average. The unemployment rate will rise to 3.7% by the end of the year as monthly job growth is enough to keep it from rising further. The rate will peak at 4.2% in mid-2025 before slowly trending lower thereafter. Wage growth will continue to decelerate and by this time next year will be approaching 3.5% as measured by the employment cost index, which is right around where it should be to reach the Fed's inflation target.

Business investment and housing

The advance report for second-quarter GDP revealed that growth in real business investment was substantially higher than had been projected. Total real capital spending rose 7.7% annualized compared with the July forecast of just 0.7%. All major segments, equipment and structures and intellectual property, were much stronger than anticipated.

Equipment rose nearly 11% annualized compared with the July forecast of little or no gain. The largest contributor was aircraft, which rose more than 90% annualized, back to near the record peak in the fourth quarter of 2022. Airlines are investing heavily now that the pandemic is over and the previous safety issues of the Boeing 737 MAX have been resolved. Light trucks also jumped, 75% annualized. This to a large extent reflects purchases by car rental companies since much of the segment includes vehicles available for personal use. Recent growth in vacation activity is consistent with this outcome.

Structures rose nearly 10% annualized, well above the July projection for modest growth. Virtually all the unexpected gains were construction of new factories, up more than 90% annualized, mostly reflecting the booming growth in the building of semiconductor facilities. That in turn is occurring to a large extent because of legislation such as the CHIPS Act, which provides major incentives. Otherwise mining structures fell about as expected, consistent with the decline in active drill rigs as oil prices declined since last fall. Commercial building, which includes offices, was a bit weaker than the anticipated slow growth due to the trend toward remote working. It is noteworthy that factory building at present exceeds building of new offices and retail.

The strong second-quarter data result in a measurable but not huge upward revision to the outlook for business investment. On an annual average basis, real capital spending growth will be 3.1% in 2023 and 1.6% in 2024, compared with 1.7% and 1% in the July forecast. In addition to the higher base effect because of the strong second quarter, the numbers suggest more optimism about business investment projects than had been reported in surveys. However, the forecasts in general remain subdued due to the Fed's efforts to tighten credit, because much of business investment is interest-sensitive.

The Moody's Analytics forecasts for the housing market were revised to account for recent trends. Specifically, the recovery in existing-home sales was delayed by several quarters to be consistent with the revised "higher for longer" mortgage rate outlook.

In addition to lowering demand due to affordability challenges, the rate environment will weigh on the supply of

homes available for sale as homeowners will be reluctant to sell and give up the low interest rates on their mortgages. The Moody's Analytics forecast for house price growth has been revised upward modestly to reflect these trends. Prices are expected to remain relatively flat over the next 18 to 24 months with a small 4.5% decline from the peak as low affordability weighs on the market.

The outlook for commercial real estate prices remains negative but has not been revised materially this month. Price declines are expected to occur over multiple quarters as leases expire and as the loans backing properties come up for renewal.

THE LONG VIEW: EUROPE

Inflation Dips Gradually in Germany

BY OLIA KURANOVA

In July, German consumer price inflation came in at 6.2% year over year, down from 6.4% in June, while core inflation, which excludes food and energy, fell to 5.5% from 5.8%. Nonenergy goods inflation has fallen to its lowest rate in 12 months, and though still in double digits, food price inflation has halved since March.

Disinflationary trends continue to develop in Germany. But base effects related to last year's reduction in vehicle fuel taxes and public transport prices are temporarily slowing the decline in the headline rate of inflation.

As a result, Germany's inflation remains above both the headline level for the euro zone, which was 5.3% in July, and the European Central Bank's 2% target. Sticky inflation remains one of Germany's largest economic obstacles, especially when coupled with stagnant growth.

Looking closer at the breakdown this month, the drop in nonenergy goods inflation was a key factor in the decline, reflecting the easing of global price pressures around energy and raw materials. Manufacturers report that input costs are falling at the fastest rate since April 2009.

Within the service sector, price inflation remains stronger than usual. Input costs continue to grow at an aboveaverage rate, with firms citing wage growth as one reason. But the risks around the outlook for service price inflation are becoming more balanced as the tightening of monetary policy moderates the pace of growth. According to the services PMI, inflows of new work fell for the first time in six months in July, suggesting that activity and hiring within the sector is set to slow further in the second half of the year. This will contribute to the easing of price and wage pressures.

We expect headline inflation to be around 4% by the end of this year and to approach 2% by the end of next year.

Dutch inflation continues descent

In July, consumer prices in the Netherlands eased to 4.6% year over year, following 5.7% in June. Core inflation also dropped lower, to 6.8 % year over year from 7.2%. The largest downward pressure came, once again, from lower energy costs through a decline in prices for housing and utilities. Inflation slowed month over month for food and nonalcoholic beverages, although the year-over-year rate remains in the double digits.

We expect that the housing, water and energy category will be marginally stickier in the coming quarters as decreases in the wholesale price of gas and electricity are passed through less than under the previous method. However, lower wholesale prices and negative base effects will mean a continued negative contribution to the headline rate for a few months ahead. Core inflationary pressures will also subside as the ECB's tightening campaign further reverberates onto the economy.

Chinese Trade Sees Shrinking Demand

BY SARAH TAN and HARRY MURPHY CRUISE

Deteriorating demand at home and abroad is seeping through China's trade data. Although its foreign trade surplus grew to \$80.6 billion in July from \$70.6 billion in June, exports and imports both fell from a year ago as households everywhere kept a tighter grip on their wallets.

Exports tumbled 14.5% year on year in value terms, which was the steepest decline since February 2020. Shipments to the ASEAN bloc, the biggest buyer of Chinese exports, plunged 21.4% in value terms. Like exports to the EU and Japan, July marked a third straight month in retreat. Exports to China's third most important market, the U.S., fell the hardest, dropping more than 23% year on year as geopolitical tensions simmered. The last time exports to the U.S. rose year on year was July 2022.

Exports to Russia remained a bright spot. Year to date, they have jumped more than 70%, with a sizeable chunk being cars.

China, which is on the cusp of becoming the world's largest exporter of cars, is capitalising on its competitive advantages in the EV space just as European markets lead the global transition away from the internal combustion engine.

Imports extended the retreat that began in October, with the 12.4% fall in value from a year earlier highlighting the sluggishness of domestic demand. Households and businesses have been hesitant to spend in the face of a spluttering economic recovery. And with youth unemployment at a record high of 21.3%, it hasn't helped to have such a large cohort of potential shoppers held back by a lack of income. On top of that, the property market's woes are showing up in imports data. For example, imports of steel, a key construction material, fell in value and volume terms in July.

Trade will be weak through the second half of the year. Households abroad will be careful with their money in the face of high borrowing costs. And on the imports front, Chinese households are likely to keep prioritising domestic goods and services over imports, with modest price pressures and a weakening currency delivering more bang for the yuan at home than abroad.

Welcome to Chinese deflation

China can add another item to its growing list of challenges: falling consumer prices. The CPI fell 0.3% year on year in

July, having been flat in June and barely budging in May. This is the first foray into negative territory since early 2021 although there are risks this stint could last longer than that two-month stretch. While there are some positives to come out of this release—including service prices edging higher and core inflation accelerating—the bad news outweighs the good.

There are lots of reasons for China's lack of price pressure, but they all to the point to the same thing—the recovery is struggling. As mentioned above, households are still wary of spending. This is particularly noticeable around discretionary goods. In response, retailers are slashing prices as they desperately try to encourage consumers to reopen their wallets. On top of that, the struggling property market is not only pushing house prices lower, but also rents and price tags on furniture and household appliances. And with global demand struggling, the country's exporters are also discounting as they try to move mounting inventories. That pushes export prices lower and flows through to domestic sales.

Falling prices can cause lots of headaches—particularly if entrenched deflation sets in. As households start to believe prices will keep falling, they delay purchases to get a better deal in the future. But that delayed spending squeezes retailers, forcing many to cut prices again. As the cat-andmouse game repeats, we're left with a persistent cycle of delayed retail activity and endless price cuts. Deflation also lifts real interest rates, encouraging extra savings at the expense of spending.

Given that, policymakers will want to break the cycle quickly. Already, we've seen stimulus for domestic tourism, vehicle sales and renovations, as well as cuts to key lending rates. But more is likely needed to encourage households to spend. We anticipate at least one more round of rate cuts this quarter to give the economy a helping hand.

To be clear, we don't expect prices falls to linger. Households will gradually find their mojo through the end of 2023, with additional stimulus encouraging some extra spending. Also, an uptick in global trade next year will give the country's exporters a boost that will trickle down into the domestic economy. A gradual recovery in the property market will further support household wealth. But this is the biggest risk. If the real estate sector doesn't start to turn around, households will be in hiding for some time to come, and that could see prices struggle to make gains.

Peru's Policymakers Confront Hard Decisions

By JESSE ROGERS

The governing board of the Central Reserve Bank of Peru, the nation's central bank, will hold its monthly meeting on rates this week. The decision will be anything but easy. While inflation rose less in Peru than in other major Latin American economies last year, it has also come down more slowly, with the political crisis early this year and adverse climate conditions forcing another rise in food prices and overall inflation.

The decision will be difficult because Peru's economy is not in great shape, having contracted in five of the last eight months through May. The labor market is weak, with employment barely higher than its pre-pandemic peak and labor force participation stuck at multiyear lows. The average monthly paycheck, in inflation-adjusted terms, is around 15% lower than it was before the pandemic. All of this suggests there is little to the story of excess liquidity and demand-side pressures preventing a faster decline in inflation. After falling in June, food and beverage prices, which account for two-thirds of the CPI, increased again in July. Moreover, core inflation, which excludes food and beverage prices along with fuel, has been slow to fall. This is principally because consumer-facing service industries such as retail and hospitality, which make heavy use of food as inputs, are still raising prices.

We ultimately expect Peru's central bank to follow its Latin American peers in lowering rates. But it will not be this month, and action on rates may not come in September, either. While the bank altered key language from its policy statement on domestic supply shocks and now considers the impact of January and February protests to have been flushed through, still-high global food prices are preventing inflation from falling faster. Bank directors have reiterated their commitment to bringing inflation back to the bank's 1% to 3% target range, even if this means further blows to growth. And when the bank ultimately pivots, policy will remain highly restrictive given high real interest rates, whether measured ex-ante with inflation expectations or expost with actual, realized inflation. All of this means that policymakers will continue to face a vexing tradeoff between taming inflation and stabilizing the economy even as they begin to cut rates. We will be well attuned to this week's policy meeting for signs of any change in approach.

Downgrades Higher in U.S., Upgrades Spike in Europe

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 11 of the 16 rating changes and 92% of affected debt.

Downgrades were headlined by a financial holding company M&T Bank Corporation, with its long-term senior unsecured ratings lowered to Baa1 from A3, impacting 69% of debt affected in the period. At the same time, Moody's Investors Service downgraded ratings of M&T's lead bank subsidiary Manufacturers and Traders Trust Company-baseline credit assessment to a3 from a2, long-term deposit rating to A1 from Aa3, and long-term senior unsecured rating to Baa1 from A3. The outlooks are stable. According to the credit agency, the rating action reflects several sources of strain on the U.S. banking sector, in particular, funding pressures, regulatory capital weaknesses, and rising risks associated with commercial real estate exposures. The stable outlook reflects Moody's Investors Service's view that over the next 12 to 18 months, M&T's favorable financial performance will continue despite the current challenging operating environment and the bank's high CRE loan concentration. In addition, the stable outlook is motivated by the ratings agency's expectation that the bank's solid resilience to unexpected loses, its solid deposit franchise, and lowerthan-peer average reliance on market funds will continue.

M&T's baseline credit assessment and ratings could be upgraded if the bank's capitalization increases materially, the company demonstrates substantially stronger asset quality than peers, particularly in the context of the CRE portfolio, and its historically strong funding profile and profitability remain favorable positioned compared to other rated U.S. banking peers, the credit agency noted. At the same time, the ratings could be downgraded further if Moody's Investors Service determines that M&T's elevated CRE exposure and long-run tangible common equity capitalization targets are not consistent with an a3 BCA. Moreover, the ratings could be downgraded if M&T's profitability, asset quality or funding and liquidity deteriorate to a level that is inconsistent with its historically strong credit profile, the rating agency added.

In July, 51% of ratings actions issued by Moody's Investors Service were credit downgrades, which comprised 45% of

the total affected debt. Similarly, through the first seven months of the year U.S. rating changes were predominantly negative with downgrades exceeding upgrades 310:183.

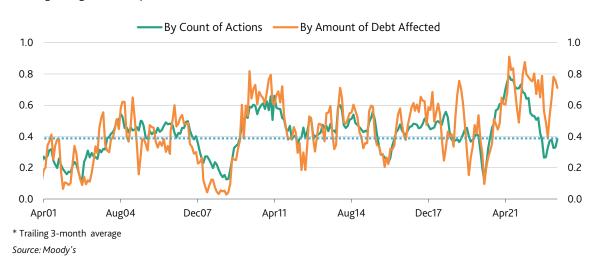
EUROPE

Corporate credit rating change activity was lighter but much stronger across Western Europe with five changes issued to the diverse set of speculative-grade industrial companies. Last week, upgrades outstripped downgrades, 3-to-2, and comprised 100% of affected debt.

The largest upgrade last week was made to Europe's thirdlargest car manufacturer Renault S.A., which saw its longterm corporate family and senior unsecured notes ratings raised to Ba1 from Ba2, its probability of default rating increased to Ba1-PD from Ba2-PD, and the senior unsecured euro medium-term notes program rating lifted to (P)Ba1 from (P)Ba2. The outlook is stable. According to Moody's Investors Service vice president, senior credit officer and lead analyst for Renault, Matthias Heck, "The rating upgrade reflects Renault's continued improvement in profitability, driven by positive pricing and product mix effects, and the strong free cash flow generation, which allows Renault to reduce debt, including the full reimbursement French State guaranteed loan in the first half of 2023." The change impacted almost 42% of debt affected in the period. Renault's CFR of Ba1 reflects its position as one of Europe's largest car manufacturers, with a solid competitive position in France and good geographical diversity; the recent new model launches, with an advanced positioning in the area of hybrid and battery electric models; the execution of the strategic plan called "Renaulution", which aims to improve profitability and cash generation with evident signs of success; and its prudent financial policy, good liquidity and balanced debt maturity profile, the rating agency added.

Another notable upgrade was issued to a leading global manufacturer of aero-engines, gas turbines and reciprocating engines, Rolls-Royce plc, with all its ratings raised by one notch, including its corporate family rating to Ba2 from Ba3 and its probability of default rating to Ba2-PD from Ba3-PD. The outlook remains positive. According to the rating agency, the upgrade reflects the company's improved profit and free cash flow forecast for 2023, ahead of Moody's Investors Service's previous forecasts; the broad array of factors supporting the improved financial performance, thereby limiting the risk of material reversal; and solid recovery in commercial flying hours, with room to run, and strong aftermarket activity in commercial and business aviation. The positive outlook reflects Moody's Investors Service's expectation that Rolls-Royce has the potential to improve its trading results, cash flows and credit metrics in the next 12 to 18 months to levels commensurate with a higher rating. The outlook also assumes that the company will maintain a conservative financial policy targeting further reductions in leverage and will maintain substantial cash balances of at least \pounds 2-2.5 billion, alongside substantial liquidity.

Contrastingly to the U.S., in July, 61% of ratings actions issued by Moody's Investors Service in Western Europe were credit upgrades, which comprised almost 84% of total affected debt. Nevertheless, from January to July this year Western Europe rating changes were mostly negative with downgrades exceeding upgrades 122:103. FIGURE 1



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

FIGURE 2 Rating Key

BCF	Bank Credit Facility Rating	MM	Money-Market
CFR	Corporate Family Rating	MTN	MTN Program Rating
СР	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	Up/	Old LTD	New LTD	
				(\$ Million)	Down	Rating	Rating	SG
8/3/2023	HOME POINT CAPITAL INC.	Financial	SrUnsec	550	U	Caa1	B1	SG
8/4/2023	HUMANA INC.	Financial	SrUnsec/Sub/IFSR/CP		U	Baa3	Baa2	IG
8/4/2023	CHAMPIONX CORPORATION	Industrial	SrSec/BCF/LTCFR/PDR		U	Ba2	Ba1	SG
8/7/2023	COMMERCE BANCSHARES, INCCOMMERCE BANK	Financial	LTIR/LTD		D	A2	A3	IG
8/7/2023	M&T BANK CORPORATION-MANUFACTURERS AND TRADERS TRUST COMPANY	Financial	SrUnsec/LTIR/LTD/Sub/PS	8653.093	D	A3	Baa1	IG
8/7/2023	FULTON FINANCIAL CORPORATION-FULTON BANK, NATIONAL ASSOCIATION	Financial	LTIR/LTD/Sub/PS	750	D	Baa1	Baa2	IG
8/7/2023	OLD NATIONAL BANCORP	Financial	SrUnsec/LTIR/LTD/Sub/PS	660	D	A3	Baa1	IG
8/7/2023	WEBSTER FINANCIAL CORPORATION	Financial	SrUnsec/LTIR/LTD/Sub/PS	600	D	Baa1	Baa2	IG
8/7/2023	BOK FINANCIAL CORPORATION	Financial	LTIR/LTD		D	A3	Baa1	IG
8/7/2023	ASSOCIATED BANC-CORP	Financial	SrUnsec/STD/LTD/Sub/PS/CP	750	D	Baa2	Baa3	SG
8/7/2023	PROSPERITY BANCSHARES, INCPROSPERITY BANK	Financial	LTIR/LTD		D	A3	Baa1	IG
8/7/2023	AMARILLO NATIONAL BANCORP, INCORPORATED- AMARILLO NATIONAL BANK	Financial	LTIR/LTD		D	Baa1	Baa2	IG
8/7/2023	PINNACLE FINANCIAL PARTNERS, INCPINNACLE BANK	Financial	LTIR/LTD		D	Baa1	Baa2	IG
8/7/2023	INGERSOLL RAND INCGARDNER DENVER, INC.	Industrial	SrSec/BCF		U	Ba1	Baa2	SG
8/8/2023	YELLOW CORPORATION	Industrial	PDR		D	Ca	D	SG
8/8/2023	VIPER ENERGY PARTNERS LP	Industrial	SrUnsec/LTCFR/PDR	500	U	B1	Ba3	SG
Source Mood	//s							

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
8/2/2023	RENAULT S.A.	Industrial	SrUnsec/LTCFR/LTD/Sub/PDR/MTN	6393.3685	U	Ba2	Ba1	SG	FRANCE
8/4/2023	IDEAL STANDARD INTERNATIONAL S.A.	Industrial	PDR		D	Caa2	Ca	SG	LUXEMBOURG
8/4/2023	NEXI S.P.ANASSA TOPCO AS	Industrial	SrUnsec/LTCFR/PDR	3466.749	U	Ba2	Ba1	SG	NORWAY
8/4/2023	IGNITION TOPCO BV-IGNITION MIDCO BV	Industrial	SrSec/BCF/LTCFR/PDR		D	Caa1	Caa2	SG	NETHERLANDS
8/8/2023	ROLLS-ROYCE HOLDINGS PLC-ROLLS-ROYCE PLC	Industrial	SrUnsec/LTCFR/PDR/MTN	5212.8682	U	Ba3	Ba2	SG	UNITED KINGDOM

Source: Moody's

MARKET DATA

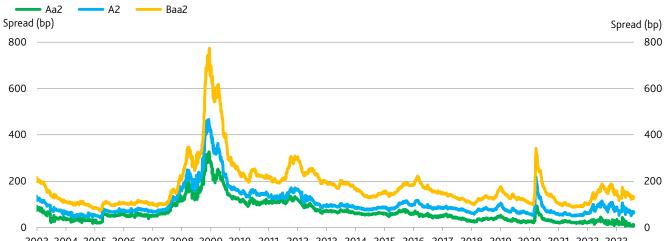


Figure 1: 5-Year Median Spreads-Global Data (High Grade)

2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Source: Moody's

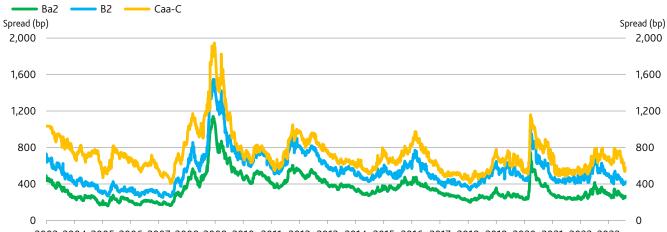


Figure 2: 5-Year Median Spreads-Global Data (High Yield)

2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Source: Moody's

CDS Movers

Figure 3. CDS Movers - US (August 2, 2023 – August 9, 2023)

CDS Implied Rating Rises	CDS Impli		
ssuer	Aug. 9	Aug. 2	Senior Ratings
Sysco Corporation	Baa1	Baa3	Baa1
Wisconsin Electric Power Company	A1	A3	A2
Amazon.com, Inc.	Aa3	A1	A1
BM Company	A1	A2	A2
hermo Fisher Scientific Inc.	Aa2	Aa3	A3
NC Financial Services Group, Inc.	A3	Baa1	A3
ruist Financial Corporation	Baa2	Baa3	A3
CO Holdings, LLC	Ba3	B1	B1
Norfolk Southern Corporation	Aa1	Aa2	Baa1
Emerson Electric Company	Baa1	Baa2	A2

CDS Implied Rating Declines	CDS Impli	ed Ratings	
Issuer	Aug. 9	Aug. 2	Senior Ratings
Georgia-Pacific LLC	A3	Aa2	A3
United States of America, Government of	Aa2	Aa1	Aaa
Goldman Sachs Group, Inc. (The)	Baa2	Baa1	A2
John Deere Capital Corporation	A2	A1	A2
CVS Health Corporation	A3	A2	Baa2
Amgen Inc.	A2	A1	Baa1
International Business Machines Corporation	A2	A1	A3
Philip Morris International Inc.	A3	A2	A2
Bank of New York Mellon Corporation (The)	A3	A2	A1
General Motors Company	Ba2	Ba1	Baa2

CDS Spread Increases	_		CDS Spreads	
Issuer	Senior Ratings	Aug. 9	Aug. 2	Spread Diff
Rite Aid Corporation	Ca	11,802	10,733	1,069
Glatfelter Corporation	Caa1	825	747	78
Goodyear Tire & Rubber Company (The)	B2	366	292	75
HeartCommunications, Inc.	Caa1	1,776	1,704	72
Unisys Corporation	B3	882	837	45
American Axle & Manufacturing, Inc.	B2	469	429	40
Domtar Corporation	Ba3	815	778	37
Graphic Packaging International, LLC	Ba2	207	178	29
K. Hovnanian Enterprises, Inc.	Caa2	662	635	27
DPL Inc.	Ba1	178	154	24

CDS Spread Decreases			CDS Spreads	
Issuer	Senior Ratings	Aug. 9	Aug. 2	Spread Diff
Dish DBS Corporation	Caa2	1,542	2,263	-721
Dish Network Corporation	Caa2	1,312	1,948	-636
Lumen Technologies, Inc.	Caa1	3,406	3,876	-470
Embarq Corporation	Caa2	2,965	3,381	-415
CSC Holdings, LLC	B2	2,063	2,289	-226
Qwest Corporation	B1	1,524	1,735	-211
Pitney Bowes Inc.	B3	1,509	1,596	-87
Liberty Interactive LLC	Caa2	2,411	2,493	-82
Frontier Communications Holdings, LLC	Caa2	707	760	-53
Staples, Inc.	Caa2	2,714	2,761	-47

Source: Moody's, CMA

CDS Movers

Figure 4. CDS Movers - Europe (August 2, 2023 – August 9, 2023)

CDS Implied Rating Rises	CDS Impli		
Issuer	Aug. 9	Aug. 2	Senior Ratings
ING Bank N.V.	Aa2	Aa3	A1
DZ BANK AG	Aa2	Aa3	Aa2
Bankinter, S.A.	A3	Baa1	Baa1
Orsted A/S	A2	A3	Baa1
London Stock Exchange Group plc	Aa2	Aa3	A3
Autoroutes du Sud de la France (ASF)	Aa2	Aa3	A3
JAB Holdings B.V.	A1	A2	Baa1
Teollisuuden Voima Oyj	A3	Baa1	Baa3
Experian Finance plc	Aa1	Aa2	Baa1
ASML Holding N.V.	Aa2	Aa3	A2

CDS Implied Rating Declines	CDS Impli	ed Ratings	
Issuer	Aug. 9	Aug. 2	Senior Ratings
ABN AMRO Bank N.V.	A3	A2	A1
UniCredit S.p.A.	Baa3	Baa2	Baa1
UBS Group AG	Baa3	Baa2	A3
UniCredit Bank AG	Baa1	A3	A2
Dexia Credit Local	Baa1	A3	Baa3
ENEL Finance International N.V.	A3	A2	Baa1
Standard Chartered PLC	Baa2	Baa1	A3
Bayerische Motoren Werke Aktiengesellschaft	A3	A2	A2
Vodafone Group Plc	Baa2	Baa1	Baa2
Nationwide Building Society	Baa1	A3	A1

CDS Spread Increases	_		CDS Spreads	
Issuer	Senior Ratings	Aug. 9	Aug. 2	Spread Diff
Casino Guichard-Perrachon SA	С	63,564	62,382	1,182
Novo Banco, S.A.	Ba3	185	135	50
Trinseo Materials Operating S.C.A.	ВЗ	1,010	985	24
Ardagh Packaging Finance plc	Caa1	646	626	21
Picard Bondco S.A.	Caa1	444	423	21
Iceland Bondco plc	Caa2	571	553	18
FORVIA SE	Ba2	254	237	17
Constellium SE	B1	231	214	17
Wm Morrison Supermarkets Limited	B2	755	740	16
thyssenkrupp AG	Ba3	231	215	15

CDS Spread Decreases			CDS Spreads	
Issuer	Senior Ratings	Aug. 9	Aug. 2	Spread Diff
Boparan Finance plc	Caa3	2,014	2,190	-176
Vedanta Resources Limited	Caa2	2,774	2,807	-32
Garfunkelux Holdco 3 S.A.	Caa2	1,605	1,630	-24
TK Elevator Holdco GmbH	Caa1	459	475	-17
Volvo Car AB	Ba1	237	246	-8
Hamburg Commercial Bank AG	A3	119	125	-7
London Stock Exchange Group plc	A3	36	42	-7
ASML Holding N.V.	A2	38	45	-7
NIBC Bank N.V.	A3	155	161	-7
ITV plc	Baa3	127	134	-7

Source: Moody's, CMA

CDS Movers

Figure 5. CDS Movers - APAC (August 2, 2023 – August 9, 2023)

CDS Implied Rating Rises	CDS Implied Ratings		
lssuer	Aug. 9	Aug. 2	Senior Ratings
NBN Co Limited	A2	A3	Aa3
Kansai Electric Power Company, Incorporated	Aa1	Aa2	A3
Wesfarmers Limited	Aa1	Aa2	A3
Electric Power Development Co., Ltd.	Aa2	Aa3	A2
Tokyo Electric Power Company Holdings, Inc.	A2	A3	Ba1
GPT RE Limited	Aa3	A1	A2
Coca-Cola Amatil Limited	Aa3	A1	Baa1
Japan, Government of	Aaa	Aaa	A1
Australia, Government of	Aa1	Aa1	Aaa
Korea, Government of	Aa1	Aa1	Aa2

CDS Implied Rating Declines	CDS Implied Ratings			
Issuer	Aug. 9	Aug. 2	Senior Ratings	
Nippon Yusen Kabushiki Kaisha	A2	Aa3	Ba2	
China, Government of	A3	A2	A1	
China Development Bank	Baa1	A3	A1	
Korea Development Bank	Aa2	Aa1	Aa2	
Development Bank of Japan Inc.	A2	A1	A1	
Hong Kong SAR, China, Government of	Aa2	Aa1	Aa3	
Mitsubishi Corporation	Aa1	Aaa	A2	
Nomura Holdings, Inc.	Baa3	Baa2	Baa1	
Woori Bank	Aa2	Aa1	A1	
Chubu Electric Power Company, Incorporated	Aa1	Aaa	A3	

CDS Spread Increases	_		CDS Spreads	
Issuer	Senior Ratings	Aug. 9	Aug. 2	Spread Diff
Adani Green Energy Limited	B2	710	686	25
GMR Hyderabad International Airport Limited	Ba3	229	215	13
SoftBank Group Corp.	Ba3	217	208	9
Nippon Yusen Kabushiki Kaisha	Ba2	50	41	9
Nissan Motor Co., Ltd.	Baa3	102	95	8
JSC Halyk Savings Bank of Kazakhstan	Ba2	391	384	7
CITIC Group Corporation	A3	99	93	6
LG Chem, Ltd.	A3	93	88	5
Development Bank of Kazakhstan	Baa2	177	171	5
Tata Motors Limited	B1	138	133	5

CDS Spread Decreases			CDS Spreads	
Issuer	Senior Ratings	Aug. 9	Aug. 2	Spread Diff
Amcor Pty Ltd	Baa2	109	118	-10
Stockland Trust Management Limited	A3	64	73	-9
SK Hynix Inc.	Baa2	127	135	-8
NBN Co Limited	Aa3	53	60	-7
Sydney Airport Finance Company Pty Ltd	Baa1	93	98	-6
Wesfarmers Limited	A3	31	36	-6
Tokyo Electric Power Company Holdings, Inc.	Ba1	53	59	-6
Scentre Management Limited	A2	117	122	-5
Woolworths Group Limited	Baa2	55	60	-5
Coca-Cola Amatil Limited	Baa1	41	46	-5

Source: Moody's, CMA

ISSUANCE

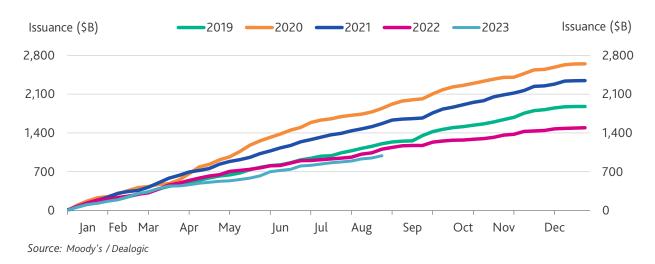
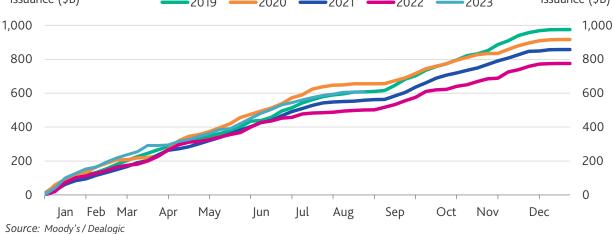


Figure 6. Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated





	USD Denominated				
	Investment-Grade High-Yield Total*				
	Amount	Amount	Amount		
	\$B	\$B	\$B		
Weekly	36.400	3.555	39.965		
Year-to-Date	853.653	118.428	989.991		
		Euro Denominated			
	Investment-Grade	Euro Denominated High-Yield	Total*		
	Investment-Grade Amount				
		High-Yield	Total* Amount \$B		
Weekly	Amount	High-Yield Amount	Amount		

Figure 8. Issuance: Corporate & Financial Institutions

* 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: 1378219

Editor

James Hurd 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 © 2023 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 BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") 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 PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS 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 PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS 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 ITS PUBLICATIONS 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 PUBLICATIONS 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 PUBLICATIONS 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.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS 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 Publications.

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 fees ranging from \$1,000 to approximately \$5,000,000. 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 <u>www.moodys.com</u> under the heading "Investors Relations — Corporate Covernance — Charter Documents - Director and Shareholder Affiliation Policy."

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 or 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 Japan only: Moody's Japan K.K. ("MJKK") is a wholly owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly owned by Moody's Overseas Holdings Inc., a wholly owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3, respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.