Moody's

WEEKLY MARKET OUTLOOK

OCTOBER 5, 2023

Lead Author

Dante DeAntonio Director

Asia-Pacific

Steve Cochrane Heron Lim Harry Murphy Cruise Denise Cheok Sarah Tan

Europe

Ross Cioffi Olga Bychkova

U.S.

Justin Begley

Latin America

Gustavo Rojas-Matute

Inside Economics Podcast:



Join the Conversation

Apple Podcasts
Google Podcasts
Spotify

Rates on the Rise

The 10-year U.S. Treasury yield has been on a steady climb upward since May but has accelerated to start the fourth quarter, reaching its highest level since 2007. This has pushed other key borrowing rates sharply upward as well. The 30-year fixed mortgage rate is inching toward 8%. Equity markets, expectedly, have struggled. All three major indexes in the U.S. are down significantly over the last month.

Markets appear to be digesting the reality that rates are likely to stay higher for longer. The strength of the U.S. economy, which has not reacted to the Federal Reserve's policy tightening as many expected, has led investors to revisit their assumptions about inflation's persistence. Energy prices' rise in the second half of 2023 are similarly contributing to fears that the Fed's

inflation battle is far from over. Futures markets have pushed back their expectation of when the first rate cut will occur and forecasts for long-term equilibrium rates are drifting upward. This aligns with the narrative the Fed has carefully spun. Projections released after September's Federal Open Market Committee meeting show the median committee member expects the fed funds rate to remain above 5% through 2024, 0.5 point higher than June's projections. Additionally, a few members raised their long-term projections for the fed funds rate.

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.

Shutdown averted...

In a surprising turn of events, Congress voted in the 11th hour to avert a government shutdown. Unexpectedly gathering support from many Democrats, Republican House Speaker Kevin McCarthy sidestepped some of the House GOP's main holdouts and passed a continuing resolution that keeps the government open through November 17, allowing more time for Congress to negotiate the full fiscal year spending bills. To garner bipartisan support, McCarthy stripped funding for Ukraine out of the continuing resolution and included \$16 billion for disaster relief. All in all, the stopgap is considered a "clean" temporary funding package that will for now stall a potentially politically and economically calamitous government shutdown. After passing on the floor of the lower chamber, the stopgap measure flew relatively quickly through the Senate—and with only three hours to spare, it was lauded and signed by President Joe Biden.

...But now a Speaker-less house

However, after now-former House Speaker Kevin McCarthy reached across the aisle to prevent a shutdown, he was ousted from his position on Tuesday evening. This marks the first time in history that a speaker has been removed through

the passage of a motion to vacate. In his stead, Rep. Patrick McHenry, a top McCarthy ally, will serve as speaker pro tempore until a new one is elected. In the wake of this historic action, the GOP has scrambled to come up with viable candidates to replace McCarthy. No front-runner has emerged yet, though a number of names have been suggested, including former President Donald Trump. So far, only Jim Jordan and Steve Scalise have publicly expressed their intentions to run. After an eight-day recess, Republicans are set to reconvene on October 10 to hold a candidate forum

This shake-up effectively puts Congress' deliberations on the 12 appropriations bills on hold. McCarthy's successor faces a bumpy road in getting them approved. Moreover, in the absence of an agreement by January 1, 1% across-the-board cuts to discretionary spending will go into effect. This special provision in June's Fiscal Responsibility Act presents an additional deadline to squeeze out a fiscal 2024 budget; Democrats do not want to see cuts to nondefense discretionary spending and the same is true for Republicans with regard to defense spending.

TOP OF MIND

Has the U.S. Labor Market Tightened?

By JUSTIN BEGLEY

After three consecutive months of decline, U.S. job openings reported by the Job Openings and Labor Turnover Survey jumped by around 700,000 to 9.6 million in August, the highest since May. This comes ahead of Friday's jobs report from the Bureau of Labor Statistics, which we expected to show further deceleration in monthly payroll growth. While August's JOLTS report seems to suggest a resurgence in labor demand and increased tightness, the story is really about economic resilience. And one month does not make a trend.

Labor demand continues to exceed labor supply, but tightness is easing. Since the start of the year, employers have pulled down a net 1.6 million job openings while more than 2.8 million new workers have entered the labor force. This has relieved some of the pressure from labor constraints that characterized much of the post-pandemic era. While the labor market is still tight and finding qualified labor remains a pain point for many businesses, the labor demand-supply gap—defined as job openings plus employment minus the labor force—has narrowed substantially since peaking in April 2022 and is trending toward the pre-pandemic average. August's jump in job openings did little to reverse this trend as the corresponding increase in the labor force more than offset it.

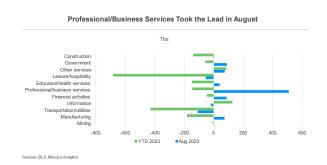


It is important to note that job openings can be a particularly volatile series, especially in the wake of depressed survey response rates. In other words, the one-month increase in job openings does not indicate a resurgence in labor demand. Other indicators of labor demand, such as job postings from Indeed, have declined steadily, which has occurred almost in concert with Federal Reserve rate hikes. The Indeed Job Postings Index is a seven-day moving average of the number of open positions listed on its website and so leads the monthly JOLTS report by about a month. The correlation coefficient between job postings from Indeed and job openings from JOLTS (indexed to February 2020) is

approximately 0.98. Therefore, the continued downward trend in job postings points to a softer JOLTS report come September. This suggests that the heated labor market will continue to simmer down rather than return to a boil.



The majority of the nearly 700,000 job openings in August were concentrated in professional/business services, although the industry has pulled down more postings than it has put up this year. Meanwhile, the public sector continued to seek additional workers in August, but government job openings have also declined this year, on net. This further points to the volatility in job openings data—the trend is one of fewer openings across nearly all industries, even if there are occasional ticks in the other direction.



The Fed's confidence that labor demand is continuing to cool should not be shaken by August's increase in job openings. Instead, the low and steady quits rate should boost its confidence that its monetary policy efforts are having the intended effect—loosening the labor market and slowing wage growth. At 2.3%, the quits rate has returned to its prepandemic norm. The quits rate is a particularly important determinant of wage growth, since job switchers tend to capture larger wage increases than job stayers.



For wage growth to decline to 3.5%—the rate that is consistent with 2% inflation and 1.5% underlying

productivity growth—the quits rate needs to stabilize at a level that essentially removes upward pressure on wages. As of this year's second quarter, the employment cost index for private workers' wages and salaries—our preferred measure of wage growth—was 4.6%. We estimate that the quits rate has just about reached the rate that is consistent with 3.5% wage growth, but the ECI typically lags the quits rate by one to two quarters. Therefore, if the quits rate holds steady through the rest of the year, we will likely see wage growth descend to target. We expect this to occur by the second quarter of next year, according to our latest baseline forecast.

The Week Ahead in the Global Economy

U.S.

The U.S. economic calendar will be relatively quiet next week with the spotlight firmly focused on consumer price index data for September. While inflation pressures will continue to ease through year-end, the moderation will be rockier than it has over the last year. This is particularly true for headline inflation, where a reversal in energy prices will contribute to upward pressure in the near term.

We will also get a read on producer prices and import prices, which can both serve as a leading indicator of the future path of consumer prices and inflation more broadly. We do not expect to see any concerning developments on this front as price pressures are likely to remain muted.

Other key data to be released next week include the NFIB small business survey, jobless claims, and University of Michigan consumer sentiment.

Asia-Pacific

Advanced estimates are expected to show that the Singapore economy grew 0.2% y/y in the third quarter, following the revised 0.5% rise in the second quarter. In seasonally adjusted terms, this translates to a 0.5% q/q increase, following a tepid 0.1% growth in the previous quarter. Exports readings have fallen off a cliff in the first two months of the quarter, with the key electronic sector yet to pick up substantially from the slump in global demand. The services sector will help keep the economy afloat, with tourist arrivals gathering steam in recent months.

Domestic conditions in China likely improved marginally in September on the back of the stimulus measures implemented by officials in recent months. This gradual uptick in domestic spending and higher commodity prices will show up in September's stronger inflation reading. We expect consumer prices to grow 0.25% y/y—still weak, but bettering August's 0.1% y/y gain. For producers, the September manufacturing PMI print reflected an improvement in factory gate prices, which supports our view that producer prices will make a smaller fall of 2.6% y/y, compared to the 3% drop in August. Meanwhile, September's trade surplus is expected to fall from the prior month as weakness across the broader global economy keeps orders from key markets soft.

Europe

The view on industry in the euro zone will likely be grim next week, with an expected 1% m/m contraction in industrial output during the month of August. This will come as production falls in all major economies, except for an

expected modest increase in Germany; we forecast that in August, production grew by 0.3% m/m in Germany and that it fell by 1% in Italy. Survey data from the month pointed to further contractions in euro zone output as demand for goods remains weak at home and abroad. Supply conditions remain uncertain, but we do not foresee disruptions during the month.

Meanwhile, in the U.K., we expect GDP partially recovered by 0.3% m/m in August after slumping 0.5% in July. Services likely drove growth as consumers came out to spend after the previous month's unusually cold and wet weather. However, strikes continued during the month, which—along with still high inflation, interest rates, and low consumer sentiment—held back a full recovery. Meanwhile, the industrial sector was also likely held back by similar problems as those in the neighboring euro zone.

Final estimates of consumer price inflation likely confirmed preliminary ones in Germany, France and Spain. We've penciled in that CPI inflation lowered to 4.5% y/y in September from 6.1% in August in Germany; that in France, inflation was unchanged at 4.9%; and that in Spain, inflation increased to 3.5% from 2.6% previously. The rise in fuel and gasoline prices will likely be the main upward force on prices during the month. Meanwhile, the German reading benefitted from base effects in its transport services sector from last summer, washing out and pulling down the core inflation reading.

In Russia, consumer price inflation likely ticked higher to 5.8% y/y in September from 5.2% as the weakening ruble continues to import price pressures into the country. Foreign trade, meanwhile, was likely relatively stable but still took a minor hit. The trade surplus in goods likely slid to \$5.2 billion in August from \$5.5 billion in July.

Latin America

Mexico is excelling relative to its Latin American counterparts, as they grapple with the negative effects of their overexpansion last year. The region has seen a spike in demand, triggering inflationary effects and causing inflation rates to rise. Brazil's inflation is slightly above Mexico's and is on an upward trajectory, while Argentina's rate is significantly higher and continues to climb. However, Mexico's inflation, though high, is on a steady decline. Peru's inflation is also well above the target but is gradually decreasing, which is expected to lead to a rate cut by the central bank next week

Mexico's industrial sector is thriving, supported by public infrastructure projects, and is anticipated to see robust growth. Conversely, Uruguay's manufacturing sector is zigzagging due to the high interest, inhibiting industrial production growth. Colombia's industrial performance is the

most affected, with factors such as policy uncertainty, high inflation, and high interest rates potentially causing a contraction in industrial production. Lastly, reduced copper production and low copper prices are knocking Chile's exports, leading to another trade surplus.

Geopolitical Calendar

Date	Country	Event	Economic Importance	Financial Market Risk	Risk Assessment
15-Oct	Ecuador	Second-round presidential election	Low	Low	Against a backdrop of rising drug-related violence and concerns over corruption, Ecuadorians will head to the polls to elect a successor to President Guillermo Lasso.
22-Oct	Switzerland	Federal elections	Low	Low	
22-Oct	Argentina	General election	Medium	Medium	The highly contested election might yield a drastic shift in economic policy and the country's political orientation. The ruling leftist coalition faces an uphill battle with two opposition candidates having strong showings in recent polls.
26-27 Oct	EU	European Council summit	Low	Low	
Oct/Nov	Poland	Parliamentary elections	Low	Low	
12-18 Nov	APEC	Leaders' meeting, to be held in San Francisco, U.S.	Low	Low	The APEC summit will be watched for the latest cooperation agenda between members on goods, services, investment and people.
17-Nov	U.S.	Potential government shutdown	Low	Low	Congress has passed a continuing resolution that will fund the government at current spending levels through November 17. If lawmakers cannot come to an agreement on the FY 2024 budget bills, the government will again face the possibility of a shutdown.
22-Nov	Netherlands	General election	Medium	Low	After a volatile first half of 2023 for Dutch politics, this snap election will determine whether the growing populist, right-wing presence will cement itself in the nation's politics.
26-Nov	OPEC+	OPEC and non-OPEC Ministerial Meeting and Joint Ministerial Monitoring Committee Meeting	High	High	The OPEC+ meetings will be closely watched on changes to oil production output and quotas as crude oil benchmarks have been getting closer to \$100 due to cuts from Saudi Arabia and Russia.
30-Nov-12-Dec	U.N.	COP 28, to be held in Dubai, UAE	Low	Low	
14-15 Dec	EU	European Council summit	Low	Low	
31-Dec	U.S.	Deadline for enactment of FY24 National Defense Authorization Act	Medium	Low	As the U.S. faces a growing set of national security challenges from competitors like China and military aggressors such as Russia, Iran and North Korea, appropriate funding has become increasingly necessary to combat external risks.
13-Jan	Taiwan	Presidential election	Medium	Medium	The election will have deep ramifications on the trajectory of U.SChina relations.
14-Feb	Indonesia	General election (including presidential election)	Low	Low	Term-limited president Joko Widodo has put Indonesia's economic development agenda on a steady course, and his successor will be expected to follow through.
March	Russia	Presidential election	High	Medium	As the first presidential election in Russia since the war in Ukraine began and constitutional amendments were made in 2020, the election will be closely watched for internal instability and potential disruption, even as Vladimir Putin is highly likely to win re-election.
March	China	Two Sessions (Meetings of China's top legislative body and political advisory body)	High	Medium	The annual Two Sessions meeting sets the wider policy agenda along with economic and social goals for the world's second-largest economy.
10-Apr	South Korea	General election	Low	Low	The election will determine whether President Yoon's policy agenda will continue to face opposition in the National Assembly.
Мау	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 towards inflation and economic inequality.
1-Jun	Mexico	General election	High	High	Mexico will hold presidential and congressional elections as well as some state and local elections. Financial markets will be concerned that election results will be rejected due to fraud accusations, resulting in social and political unrest. This will affect consumption and investment decisions and put the economy on the brink of recession.
6-9 June	EU	Parliamentary elections	Medium	Low	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.

THE LONG VIEW: U.S.

High-Yield Bond Spreads Keep Rising; 30% Increase in September's VIX

By OLGA BYCHKOVA

CREDIT SPREADS

Corporate credit spreads gradually narrowed throughout September, averaging 6 basis points less compared with August. Tight credit spreads show market participants remain confident in the creditworthiness of borrowers and see the overall economy as favorable. As a result, despite monetary policy tightening worldwide, market participants see a high likelihood for a "soft landing." 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 decreased marginally by 2 bps to 132 bps, remaining below a 12-month low of 133 bps. In contrast, Moody's long-term average industrial bond spread stalled at its one-year low of 114 bps, the same as the previous week.

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—have also trended lower since spiking to over 500 basis points in the wake of the banking crisis in March. 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 soared to 427 basis points from 396 bps the previous week, while the ICE BofA U.S. high-yield option-adjusted bond spread closed Wednesday at 437 bps, up a whopping 34 bps from its value last week. This, nevertheless, 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 also increased slightly over the week, rising 0.4 point to 18.6 Wednesday. The index has been subdued in 2023, trading well below its long-term average near 20, as stocks rallied. It has moved higher as stocks have set back. September witnessed a 30% increase in the VIX, its most robust performance since April 2022. The stock market is currently recalibrating itself to accommodate a prolonged era of heightened interest rates and sustained inflation, which, in turn, is propelling volatility. 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 this year has brought it back in line with high-yield spreads.

GLOBAL DEFAULTS

Moody's Investors Service reported 12 corporate debt issuers defaulted in August, the same as the previous month's upwardly revised count. In August, eight of the defaults were from the U.S., including Carvana Co., the month's largest defaulter. The Arizona-based used-vehicles online retailer completed a debt restructuring in which about \$5.5 billion in unsecured bonds were exchanged for roughly \$4.2 billion of senior secured notes with extended maturities. This restructuring constituted a distressed exchange.

Of the eight U.S. defaults last month, five were in the form of distressed exchanges, the most common default type in recent years, particularly for companies owned by private equity firms. Besides Carvana, the other four U.S. companies that completed distressed exchanges in August were CNG Holdings Inc, CSTN Merger Sub Inc, Digital Media Solutions LLC, and U.S. Renal Care Inc. Outside the U.S., Moody's Investors Service recorded two defaults in Europe and two in the Asia-Pacific region. The two European defaulters were Casino Guichard-Perrachon SA, a French retailer, and Keter Group BV, a Netherlands-based manufacturer and distributor of a variety of resin-based consumer goods. The two APAC defaulters, both property developers, were Chinabased Sino-Ocean Group Holding Limited and Vietnambased BIM Land Joint Stock Company.

August's defaulters increased the year-to-date tally to 109. Across sectors, business services and telecommunications are the largest contributors to year-to-date defaults, with 10 each. Healthcare and pharmaceuticals followed with nine. By region, North America had 77 defaults (75 in the U.S. and two in Canada). The rest were from Europe (18), Latin America (8) and Asia-Pacific (6).

Despite the recent slowdown in monthly defaults, the trailing 12-month global speculative-grade default rate rose to 4.3% at the end of August from 4.2% a month earlier, both surpassing the long-term average of 4.1%. Moody's Investors Service forecast the rate to trend higher over the remainder of 2023, reaching 4.6% in December. In 2024,

the credit agency expects the default rate to peak at 4.7% in the first quarter before easing to 4.2% in August. Moody's Investors Service's latest baseline default rate forecasts incorporate the assumptions that the U.S. high-yield spread will widen to 522 bps over the next four quarters from about 372 bps at the end of August and that the U.S. unemployment rate will rise to 4.3% from 3.8% in the comparable period.

The above default rate forecasts are based on the assumption that economic activity will continue to slow this year and into 2024 in most countries, including the U.S., as the full effects of tight monetary policy on aggregate demand are realized. In addition, major central banks are expected to maintain a restrictive policy stance through 2024 as core inflation, although declining, remains above target levels. The combination of higher rates and lower growth will dent corporate earnings and cash flows, particularly for financially weaker companies. This underpins Moody's Investors Service's prediction that the global default rate will likely remain above the historical average in the coming 12 months.

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 investment-grade 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% 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 year-over-year increase of 26.8% 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.

U.S. dollar-denominated investment-grade debt issuance totaled \$19.95 billion in the most recent week, bringing the year-to-date figure to \$1,045.5 billion. This reflects a 5.5% decline compared with the same period in 2022.

Meanwhile, there was \$5 billion in high-yield debt issued in the same period, raising the total to \$158 billion this year. High-yield issuance has outstripped early-year expectations, increasing 26.7% relative to last year's pace. Total U.S. dollar-denominated corporate debt issuance now tracks 3.1% below where it stood in 2022 and is 35.4% lower compared with 2021.

U.S. ECONOMIC OUTLOOK

The U.S. economy continues to show significant resilience, consistent with our expectations. Consequently, we made only modest September adjustments to the U.S. baseline forecast largely in response to revised second-quarter data and high-frequency data showing a strong start to the third quarter despite recent data resulting in a slight weakening in the outlook for the job market.

Key assumptions changed little in September. Monetary policy assumptions were not changed at all. We did add a two-week federal government shutdown in October, but the impact on the broader economy is small. 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. Recent data slightly weakened the outlook for business investment, though it improved the outlook for house prices modestly. The outlook for the 10-year Treasury is slightly changed, reflecting the recent increase in the rate. Housing forecasts responded modestly to recent data showing lower existing-home supply and sales, shifting demand to new homes.

Fiscal policy

As of September, the baseline forecast explicitly assumes a two-week government shutdown. In June, President Biden signed into law the Fiscal Responsibility Act, which resolved the debt-limit crisis and established limits on federal discretionary spending for the next two years. Originally, it was assumed that these spending limits would have reduced, if not eliminated, the potential for brinkmanship around the federal budget for the coming fiscal year. We had expected that Congress would pass the 12 annual spending bills, which fund all federal government activities, in a reasonably graceful manner and that these 12 bills would sum up to the limits established by the FRA.

This assumption was partly correct. The Senate has passed all 12 annual spending bills and has heeded the letter of the law as written in the FRA. However, the same cannot be said of the House of Representatives. House Republicans are dissatisfied with the FRA, and they want to cut federal spending even more than agreed-upon limits in the FRA. In June, a small bloc of Republicans brought legislative action on the House floor to a weeklong halt. Unlike the Senate, the House has passed only one of the 12 annual spending bills. The House had returned from its August break and had only three weeks left to pass the remaining 11 spending bills and forge compromises with the Senate before funding for federal government operations would have ended on September 30. In the September baseline forecast, we assumed that lawmakers would let government funding expire at the end of September, leading to a two-week shutdown starting October 1. With the shutdown not happening and the government being funded through November 17, we will revise our forecast in the October baseline.

In the national accounts, compensation of federal workers is counted as output by the federal government. However, there is an important difference in the way the Bureau of Economic Analysis treats real versus nominal compensation. Nominal compensation is the actual pay federal workers receive. Therefore, the back pay they traditionally get retroactively after a shutdown ends erases the shutdown's direct impact on nominal GDP. On the other hand, real compensation is calculated from hours worked. Since furloughed federal workers do not work overtime after a shutdown, hours that are not worked are permanently lost, raising the implicit cost of public services. Implied prices paid for federal government compensation is the ratio between nominal and real compensation. During past shutdowns, because there was a decrease in real compensation due to fewer hours worked without a corresponding decrease in nominal compensation, which was restored by retroactive back pay, implied prices for federal compensation shot up. In other words, the furlough's effect on the BEA's estimates was to lower the level of

government services provided while maintaining the same cost of those services. In the September baseline forecast, Moody's Analytics has shocked the price deflator for federal government compensation to a similar degree as has been observed during past shutdowns. The result is a 0.2-percentage point reduction in annualized real GDP growth in the fourth quarter of 2023. Much of the reduction to fourth-quarter GDP growth due to productivity losses by furloughed federal workers will be made up in the first quarter of 2024 as work schedules return to normal. Therefore, we boosted our estimate of annualized real GDP growth in the first quarter of 2024 by a similar 0.2 percentage point.

Changes to GDP growth

U.S. real GDP rose a healthy 2.1% in the second quarter, according to the BEA's second estimate. Although this was unexpectedly lower than the BEA's initial estimate of 2.4%, it was still the fourth consecutive quarter of growth near or above the economy's potential. The drag from inventories diminished and many components, including higher consumer spending, government spending, and total nonresidential business investment, and lower imports contributed to higher growth estimates with none dominating. However, the new data for exports, residential investment, business equipment investment, and intellectual property were lower than the first estimate. Upward revisions to state and local spending on structures were a modest offset.

Consumer spending remained a source of growth, but its contribution shrank a lot compared with the first quarter, which had been elevated by cost-of-living adjustments that had boosted after-tax income. Overall, consumer spending added 1.1 percentage points to growth. Nonresidential fixed investment improved, adding 0.8 percentage point to growth, its largest contribution since the third quarter of last year. Government contributed 0.6 percentage point with state and local spending leading the gain. Residential investment continued to slide, pulling growth down by 0.1 percentage point. Trade subtracted 0.2 percentage point from growth with a 1.3-percentage point drag from exports mostly offset by falling imports. Inventories reduced growth by 0.1 percentage point.

Despite the downward revision to second-quarter growth, high-frequency data suggest the economy had more momentum at the start of the third quarter than previously thought. Hence, growth is expected to accelerate briefly before slowing in the fourth quarter. We now expect that third-quarter real GDP growth will be higher than previously forecast, with upward revisions to consumer spending growth and international trade outweighing downward revisions to the contribution from investment and government spending. The net effect is slightly stronger real

GDP projected for this year and next, followed by modestly weaker growth the next few years. On an annual average basis, growth is projected to be 2.1% in 2023 and 1.4% in 2024, compared with projections of 2% and 1.3%, respectively, in the August outlook. Growth returns to trend in 2025.

Monetary policy

Monetary policy assumptions are unchanged from the last update. We expect that the Fed's 25-basis point rate hike in July 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 still anticipate that the Federal Open Market Committee will start lowering rates by June. We expect that the Fed will relax monetary policy slowly, cutting rates by 25 basis points per quarter until reaching 2.75% by the fourth quarter of 2026, and 2.5% in 2027.

The Fed continues to balance inflation and labor market tightness against financial conditions. July inflation as measured by changes in the personal consumption deflator displayed a mild uptick from June, with year-ago core inflation rising from 4.1% to 4.2%. However, core inflation has stabilized below the 4.5% average seen earlier in the year. Meanwhile, U.S. labor markets slowed more significantly in August, with the pace of hiring near 150,000 payrolls on a three-month moving average basis, compared with 335,000 in January. The August jobless rate also saw an uptick to 3.8%, suggesting that labor market pressures on inflation are now fading. Concerns, meanwhile, stem from rising oil prices, which continued to increase throughout August. However, our baseline does not predict that energy prices 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 overall remains stable.

Inflation remains the key to our outlook. The September vintage has consumer price inflation at 3% year over year by the end of 2023, a small drop 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. Remaining inflationary pressures from shelter and other U.S. service industries will soften. We also 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. Amid higher oil prices, and the realization that the Fed will not likely cut rates in early 2024, the 10-year Treasury yield rose from 3.85% to 4.3% from July through early September. We anticipate that the yield will average 4.1% in the third

quarter, and then ease slightly until 2025, averaging between 3.9% and 4%

Foreign exchange markets have relaxed as the Fed has approached the end of the current hiking cycle, although the pace has slowed recently. On a real broad trade-weighted basis, the U.S. dollar is still up more than 5% from its prepandemic level. By August it had depreciated by more than 5% from its October 2022 peak.

Energy

Moody's Analytics has modestly raised its crude oil price forecast in the near term. The forecast is essentially unchanged for the remainder of 2023 but \$1.67 higher in 2024. This change reflects the assumption that Saudi Arabia is prioritizing high prices and revenue over market share. Saudi Arabia is expected to keep its voluntary production cut at 1 million barrels per day through the end of the year and only gradually reduce its size in 2024.

Moreover, supply will also be restricted by the compounding effect of oil sanctions on Russia. Russia will have a more difficult time securing the capital, equipment and resources it needs to invest to ensure that its wells continue to produce. It will also struggle to invest in new sources of production. A similar story has played out on a larger scale in Venezuela.

Moody's Analytics has also lowered its forecast for natural gas prices. This reflects the assumption that arbitrage on the wide gap between U.S. and EU gas prices will take a long time to materialize.

Labor market

The August employment report was a mixed bag. Payroll employment rose by 187,000, slightly stronger than both our forecast and consensus expectations, despite the impact of a major business closure and a strike. However, the impact of revisions to prior months was significant and negative with the June and July figures revised lower by a combined 110,000. Job growth has now averaged just 150,000 over the last three months, compared with a prerevision average of 218,000 in July. The unemployment rate jumped to 3.8%, though this was partly because of an outsize gain in the labor force.

The weakening of the labor market is underway and will continue through the end of the year. Monthly job gains in the second quarter came in weaker than previously expected given the downward revisions to prior months, and will ease further, averaging about 160,000 in the third quarter before dropping below 100,000 per month during the fourth quarter. Growth will ease further in 2024 as the risk of a recession remains elevated.

The unemployment rate forecast has shifted slightly given the jump to 3.8% in the August report. We now expect the unemployment rate to hit 3.9% by the end of this year, compared with 3.7% in the prior forecast. The unemployment rate will rise a bit further next year and peak at 4.2%, unchanged from the prior forecast. Over the next year, the change in the unemployment rate will be right on the border of a 50-basis point increase. Historically, an increase of that size within a 12-month period has been an indicator that the economy is in a recession.

Business investment and housing

The BEA revised its estimate of second-quarter business investment downward in its August report. Real growth was 6.1% annualized compared with 7.7% in July. All major segments, equipment, structures and intellectual property were lower than the original estimate. Nonetheless, even the 6.1% figure was significantly more than had been forecast earlier in the year.

Equipment rose approximately 8% annualized compared with the first estimate of 11%. The bulk of the strength was in transportation equipment. Specifically, the largest contributor was aircraft, which rose more than 100% annualized to a record peak. Airlines are making up for time lost during the pandemic. Investment in light trucks was a bit less than previously estimated, but still jumped 70% annualized, reflecting purchases by car rental companies. A substantial proportion of new vehicles are SUVs, which are considered trucks. IT equipment spending was a lot lower than previously estimated, as new data confirm that spending by companies to support remote working has long since peaked.

Structures rose about 11% annualized, a bit more than the original estimate. All the growth was new factories, up more than 90% annualized, reflecting the booming construction of facilities to make semiconductor and EVs. The value of new factories put in place now exceeds that for office and retail. In contrast, spending on mining structures fell along with active drill rigs as oil prices declined through July, though they have rebounded in August.

High-frequency data have not been as sanguine. When adjusted for inflation, monthly data on shipments of nondefense, nonaircraft capital goods declined again in July and have been down for five of the past six months. Year over year, the contraction has been 1.9%. Moreover, inflation-adjusted new orders have declined for two months and are down 3.2% year over year.

The lower figure for second-quarter business investment contributes to a slightly lower outlook. Real fixed business investment will grow by 2.7% at an annual rate in 2023 compared with 3.1% in the August forecast.

The short-term trajectories for existing- and new-home sales were adjusted this month to account for recent trends. Existing-home sales are expected to remain low for several quarters as the supply of available homes for sale is depressed by interest rate lock-in effects. Conversely, newhome sales are expected to come in higher as more buyers turn to new construction to satisfy their demand.

Permits and starts for single-family construction are expected to be modestly higher in the near term as a result. However, multifamily permits and starts are expected to retreat to pre-pandemic levels given tighter lending standards for CRE construction loans and the record number of projects under construction.

House prices are forecast to trend down slightly through late 2025. Limited inventory will support prices in the near term, but lack of affordability will lead to modest price declines longer term given expectations for persistently high interest rates.

The outlook for CRE prices remains pessimistic but is largely unchanged except for apartment buildings. The Moody's Analytics CRE Price Index registered a 17% drop in the second quarter for apartments, which has been incorporated into the September outlook.

THE LONG VIEW: EUROPE

A Strong Summer for Spanish Tourism

By ROSS CIOFFI

The number of inbound tourists to <u>Spain</u> increased 13.9% year over year in August, adding to the 11.4% rise in July. The double-digit growth rate comes down to base effects given how weak last year's inflows were. The good news is that tourist inflows have nearly recovered to pre-pandemic levels. With a total of almost 10.1 million inbound tourists in August, the number was just 0.4% lower than the number of tourists registered in August 2019, prior to the pandemic; in July, the total of just over 10.1 million tourists was 2.6% higher than in July 2019.

Despite headwinds from a sluggish industrial sector and rising interest rates, the recovery in the tourism sector fuelled the Spanish economy this summer. The bustling tourism sector will encourage GDP growth by supporting consumption and exports during the third quarter and will help the country outperform other euro zone economies throughout most of the year. However, after the summer tourism boom, the Spanish economy will slow in the final months of the year as aggregated demand across Europe weakens.

EU house prices catch second wind

House prices in the European Union increased 0.3% quarter over quarter during the second quarter, tentatively rebounding from a 0.7% contraction in the first quarter. In the <u>euro zone</u>, the situation remained weaker, with the house price index increasing just 0.1% quarter over quarter after a 0.9% decline in the preceding quarter. In year-ago terms, house prices in the European Union were down 1.1% in the second quarter, while in the euro zone they were down 1.7%.

The uptick in nominal house prices is contrary to expectations given the continued rise in interest rates during the period. That said, this does not reverse our forecasts of further pain in the housing market. Considering the euro zone's dismal consumer confidence readings and even higher mortgage rates heading into the fourth quarter, there is still no solid foundation for housing demand. As a result, house prices will remain below year-ago levels.

Swiss inflation inches higher

Switzerland's inflation rate inched higher to 1.7% year over year in September from 1.6% in August. The acceleration was mainly because of petroleum products such as heating oil and automotive fuels, which became more expensive due to the continued growth in wholesale crude oil prices. Excluding energy and fuels, and fresh and seasonal food prices, the core inflation rate decreased during the month to 1.3% year over year from 1.5% previously. While this is an encouraging sign in the fight against inflation, second-round effects from rising energy costs will feed inflationary pressures over the coming year, thereby holding the Swiss National Bank back from cutting interest rates in the near future.

Portuguese industry falls back

Industrial production fell 4% year over year in <u>Portugal</u> in August, marking the sixth consecutive month of year-on-year declines. Most of the damage is being driven by the chemical industry, in which production has declined 33.6% year on year. The road ahead for Portuguese manufacturing remains difficult; high interest rates continue to haunt consumer and business demand both domestically and among Portugal's major trade partners.

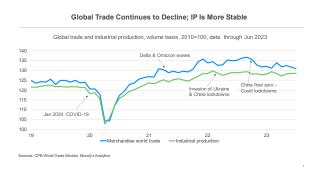
Asia's Faltering Recovery

By STEVE COCHRANE

The dynamism of the Asia-Pacific region's growth is faltering. To be sure, the region is growing and none of the major economies are in recession, but trade remains lackluster, industrial production is faltering, inflation has reaccelerated in some economies, and China's recovery from last year's zero-COVID lockdowns remains unconvincing.

Waiting game

It feels like a bit of a waiting game. Double-digit yearly declines of exports across much of the region await renewed demand from China and North America. But China's manufacturers remain lackluster and demand for goods by households remains weak. The North American economy is growing at or above potential, but demand for goods is held back by high interest rates. In China, North America and Europe, consumption is focused more on services. Lack of consumer and business confidence and high youth unemployment rates work to keep demand for durable goods modest in China.



It also feels like a waiting game as policymakers in China roll out a steady stream of modest stimulus proposals to reaccelerate the economy. These include the encouragement of a stronger pace of lending by banks; easing restrictions on domestic firms to raise funds from overseas markets; raising lending and discount quotas to promote lending to rural, micro and small businesses; and easing restrictions on homebuying. The intent is to raise demand for housing, promote the completion of stalled housing projects, and encourage households to buy more goods. More directly, the government is funding more infrastructure projects. But the collective impact of such measures has yet to be reflected in much of the economic data. Only retail sales illustrate some recent improvement, driven by demand for travel and services as families prepare to celebrate the Mid-Autumn Festival at the end of September.



The wait for lower interest rates throughout the region has been interrupted by recent rises in inflation in <u>Indonesia</u>, <u>Philippines</u>, <u>South Korea</u>, <u>Taiwan</u>, <u>Thailand</u> and <u>Vietnam</u>, driven by higher energy prices and, in many cases, higher food prices. China also had a slight rise in inflation in August, but this was a welcome sign after a year-to-year decline in its consumer price index in July. Conversely, <u>Japan</u>'s rate of CPI inflation is down from recent highs, countering the Bank of Japan's efforts to keep a modest but more permanent rate of inflation.



The recent inflation gains and pressure on foreign exchange rates are causing central banks to reconsider their paths toward monetary policy normalization. For example, the Central Bank of Thailand chose to raise its policy rate by 25 basis points on September 27. While inflation in Thailand remains relatively tame, it did accelerate in August. The central bank is most concerned about the weakness of the Thai baht. And a surge in inflation in the Philippines in August has generated much more hawkish comments from the governor of Bangko Sentral ng Pilipinas, where more rate hikes may now be on their way.

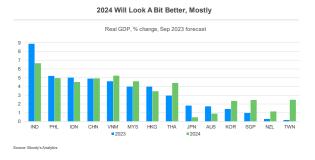
The wait continues as well at central banks for a clear signal from the U.S. Federal Reserve that the Federal Open Market Committee has reached its terminal federal funds policy rate. It seemed clear that the 5.25% to 5.5% range was the final policy rate of this cycle at the July Fed meeting. Then the August CPI figure showed a strong acceleration in inflation, similar to the gains in parts of Asia. This raises the probability that there will be at least one more rate hike in November. APAC central banks will be watchful for weakness in currencies versus the dollar and, as in Thailand, may not hesitate to hike rates further, even if inflation is moderate. Higher rates would slow the pace of investment and consumer spending.

Waiting for improving demand for semiconductors also will delay acceleration of the region's tech-producing economies such as South Korea and Taiwan. The number of global semiconductor billings has begun to recover, but it could be early 2024 before this translates into greater production and associated demand for intermediate inputs from elsewhere in the region.



As to the outlook, fortunately, while waiting for these factors of economic growth to appear, domestic demand continues to drive the APAC economy. Added to that are generally supportive fiscal policies across the region and a steadily rising number of tourists arriving from China and elsewhere within the APAC region as well as overseas tourists.

The fourth quarter will likely remain modest but conditions should improve in the first quarter of 2024. For the developed economies that are hurt greatly by the electronics cycle, 2024 will be substantially better.



The emerging markets of the region, however, will see GDP growth remain about the same in 2024 as it has this year. Exceptions are Vietnam and Thailand. New foreign investment in Vietnam will generate some acceleration of growth next year. Thailand will be counting on much stronger tourism arrivals from China and elsewhere to fuel stronger growth in the coming year.

China is expected to maintain stable real GDP growth at a rate near 5%. India will slow considerably from its near 9% growth this year as high interest rates take a toll on the economy. The Reserve Bank of India will be watchful for volatile inflation that may force them to maintain rates higher for longer, and thus holding back spending and investment. Notably, Japan and Australia will slow next year.

Asia will continue to lead the way in the coming year, but it will require a wait before all cylinders can fire in unison.

Forecast as of 0	9/11/2023											
	GDP, a	annualize	ed % cha	nge	Inf	lation, %	change		Une	Unemployment rate, %		
	2022	2023	2024	2025	2022	2023	2024	2025	2022	2023	2024	2025
Australia	3.7	1.7	0.9	2.0	6.6	5.4	3.1	2.5	3.7	3.7	4.3	4.6
China	2.9	4.9	4.9	5.0	1.9	0.7	2.5	2.8	4.3	4.2	4.1	4.0
Hong Kong	-3.5	4.0	3.5	2.7	1.9	2.0	2.7	2.9	4.3	2.9	3.0	3.0
India	6.8	8.9	6.7	6.4	6.7	5.4	5.8	5.6	7.6	7.1	7.3	7.2
Indonesia	5.3	5.0	4.5	5.3	4.2	3.8	2.3	2.8	5.8	5.4	5.4	5.5
Japan	1.0	1.8	0.5	1.0	2.5	3.0	1.3	0.2	2.6	2.6	2.5	2.4
Malaysia	8.7	4.0	4.6	4.4	3.4	2.7	2.3	2.1	3.9	3.4	3.2	3.2
New Zealand	2.3	0.3	1.2	2.6	7.2	5.7	3.4	2.3	3.3	3.8	4.6	4.7
Philippines	7.6	5.2	4.9	6.3	5.8	5.8	2.7	2.5	5.4	4.6	5.1	5.5
Singapore	3.6	1.0	2.5	2.6	6.1	4.8	2.7	2.0	2.1	1.9	2.0	2.0
South Korea	2.6	1.4	2.4	2.3	5.1	3.3	2.3	2.0	2.9	2.7	3.0	3.2
Taiwan	2.4	0.2	2.5	2.3	3.0	2.5	1.6	1.3	3.7	3.5	3.8	4.0
Thailand	2.6	3.0	4.4	4.2	6.1	1.7	2.2	1.2	1.3	1.2	1.4	1.1
Vietnam	8.0	4.6	5.3	6.1	3.2	2.9	2.9	2.6	2.1	2.1	2.0	2.0

	Retail sales, % change					Home Price Index, % change					
	2022	2023	2024	2025	2022	2023	2024	2025			
Australia	5.4	-1.1	0.4	2.1	7.2	-4.2	1.5	2.2			
China	-1.9	7.7	3.9	4.2	-1.9	-1.7	-0.2	0.1			
Hong Kong	-3.4	17.5	4.5	2.8	-5.8	-4.8	4.8	3.5			
India	5.3	2.6	4.5	3.7	3.1	6.8	6.6	4.4			
Indonesia	6.0	4.9	8.1	8.0	1.8	1.7	2.7	2.6			
Japan	0.1	2.3	0.7	0.7	8.4	3.4	1.7	0.0			
Malaysia	19.2	5.9	5.2	3.9	3.5	1.3	3.9	3.9			
New Zealand	-0.3	-3.1	2.5	3.9	0.6	-9.4	3.1	4.9			
Philippines	6.2	6.2	5.9	4.4	5.7	6.7	1.5	2.2			
Singapore	7.1	-4.5	8.5	3.9	10.2	5.9	-2.1	0.1			
South Korea	-0.3	-0.1	2.8	2.2	3.5	-5.9	6.0	5.2			
Taiwan	3.8	8.2	3.5	1.7	12.9	4.6	4.1	4.2			
Thailand	10.4	7.0	14.1	7.4	4.4	4.3	4.9	4.9			
Vietnam	13.8	9.9	15.6	13.8	na	na	na	na			
Source: Moody's	Analytics										

THE LONG VIEW: LATIN AMERICA

Political Turmoil in Guatemala

By GUSTAVO ROJAS-MATUTE

The political situation in Guatemala continues to degrade as the current administration executes a campaign of hostility toward President-elect Bernardo Arevalo. The nation's recent elections were fraught with controversy, creating a tumultuous environment that has left many questioning the state of democracy in Guatemala.

The turmoil began when candidate Carlos Pineda was disqualified by the courts, opening the door for Arevalo to enter the race. This initial disqualification set the stage for a fierce political battle that has redefined Guatemala's political landscape.

With a commanding 58% of the votes, Arevalo's decisive victory sent a clear message that Guatemalans were discontented with the status quo and eager for change. He challenged the established way of doing things and represented a break from traditional politics, aiming to end corruption and government inefficiency. Even in the face of attempts by his formidable opponent, former First Lady Sandra Torres, to emulate Salvadorian President Nayib Bukele's populist approach, Arevalo's momentum remained unshaken.

However, Arevalo's path to the presidency continued to face obstacles; his party, Semilla, was suspended just weeks before the runoff. This action raised concerns about political interference in the electoral process, adding to the alreadytense climate.

Moreover, the new president-elect faces more bumps in the road as the current administration escalates its provocative activities. Prosecutor Rafael Curruchiche sent security forces to seize boxes of voting records from the election, raising alarm over efforts to challenge the results.

This uncertainty further exacerbates political tensions in Guatemala. The nation's democracy hangs in the balance as the incoming administration strives to address the urgent needs of its citizens while navigating the complex and evolving political landscape. All told, the deterioration of democratic institutions and the lack of a credible judiciary system create greater political risks that could weaken the economy and trigger social protests.

Corporate Credit Quality Improves

By OLGA BYCHKOVA

U.S.

In the latest weekly period, there were as many U.S. credit upgrades as downgrades. The changes issued by Moody's Investors Service spanned a diverse set of investment- and speculative-grade bonds and industrial, financial and utility companies. Upgrades comprised five of the 10 rating changes and 59% of affected debt.

The largest upgrade, accounting for almost 31% of debt affected in the period, was issued to the second-largest chicken processor in the world, Pilgrim's Pride Corporation, with its senior unsecured notes rating raised to Ba2 from Ba3 and its corporate family and probability of default ratings affirmed at Ba2 and Ba2-PD, respectively. Moody's Investors Service also assigned a Ba2 rating to Pilgrim's proposed 10-year senior unsecured notes but took no action on the Ba1 rating on the existing senior secured revolving credit facility because the expected replacement of the facility will lead to a withdrawal of the rating. The company's speculative grade liquidity rating remains SGL-1 and the outlook remains stable. According to Moody's Investors Service, the upgrade of the existing senior unsecured notes to Ba2 and the assignment of the Ba2 rating to the proposed notes reflects the anticipated replacement of Pilgrim's \$800 million senior secured revolving credit facility with a new senior unsecured revolving credit facility. The senior unsecured notes were previously rated one notch below the Ba2 Corporate Family Rating to reflect their effective subordination to the secured revolving credit facility. Following the replacement of the secured credit facility with an unsecured and unguaranteed credit facility, the guarantees on the existing notes will be released. Because the company's revolving credit facility and the existing and new notes will be senior unsecured and unguaranteed obligations, the note ratings are in line with the Ba2 CFR since there is no longer a difference in priority of claims. The stable outlook reflects a wide range of potential earnings performance that is typical in the cyclical U.S. chicken-processing industry balanced against Pilgrim's very good liquidity, the credit agency added.

Downgrades were headlined by a refined petroleum products pipeline company Magellan Midstream Partners L.P., with its senior unsecured ratings lowered to Baa2 from Baa1 following the completion of the acquisition of Magellan by ONEOK Inc., a diversified natural gas and natural gas liquids midstream company, impacting almost 41% of debt affected in the period. Magellan's Prime-2 commercial paper rating was withdrawn following the termination of the company's commercial paper program. The outlook is stable.

Europe

Corporate credit rating change activity was a bit stronger across Western Europe, with upgrades outnumbering downgrades 6-to-4 and comprising 98% of debt affected in the period. The changes issued by Moody's Investors Service spanned a diverse set of speculative- and investment-grade industrial and financial firms.

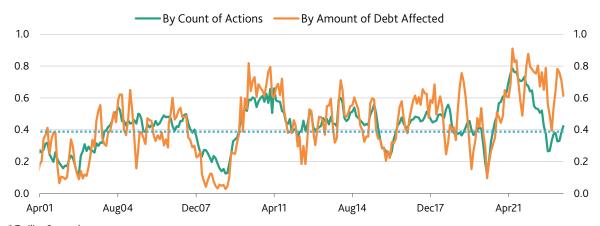
The largest upgrade last week was made to Norway's largest financial services group DNB Bank ASA, which saw its longterm deposit ratings raised to Aa1 from Aa2, the bank's junior senior unsecured debt ratings increased to A2 from A3, and the senior unsecured debt ratings affirmed at Aa2. Concurrently, Moody's Investors Service upgraded DNB's baseline credit assessment and adjusted BCA to a2 from a3, the long-term counterparty risk assessment to Aa1(cr) from Aa2(cr), the long-term counterparty risk ratings to Aa1 from Aa2, the foreign currency subordinated program rating to (P)A3 from (P)Baa1, and the preferred stock non-cumulative rating on the additional Tier 1 issues to Baa2(hyb) from Baa3(hyb). All short-term ratings were affirmed. Moody's Investors Service changed the outlook on DNB's long-term deposit ratings to stable from positive and the outlook on DNB's senior unsecured debt to positive from stable. The change impacted 89% of debt affected in the period. According to the rating agency, the key driver for the upgrade of DNB's BCA to a2 is the bank's entrenched franchise and its role as the leading commercial bank in Norway that supports a track record of delivering predictable and strong revenues. The BCA is further supported by Norway's very favorable operating environment and the bank's robust risk management, including asset liability management and very strong capitalization. The key driver for upgrading the long-term deposit ratings to Aa1 is the upgrade of the bank's standalone assessment. Furthermore, the upgrade reflects an unchanged uplift as indicated by Moody's Advanced Loss Given Failure analysis, whereby junior depositors are protected by a very large loss absorbing buffers in case of failure, the credit agency noted. It added that the Aa2 senior unsecured debt ratings reflect a two-notch uplift as per the forward looking advanced LGF analysis, motivated by upcoming maturities and necessary issuances of minimum requirements of own funds and eligible liabilities debt.

The stable outlook on the long-term deposit ratings reflects Moody's Investor Service's view that DNB will continue to generate strong earnings, supporting a very strong capitalization and prudently managing asset risk. The rating agency also assumes continued excellent access to capital markets. The positive outlook on the senior unsecured debt

ratings reflects that DNB's issuances of senior unsecured debt may over time give additional uplift according to the advanced LGF analysis.

RATINGS ROUND-UP

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



^{*} Trailing 3-month average

Source: Moody's

FIGURE 2 Rating Key

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

FIGURE 3
Rating Changes: Corporate & Financial Institutions - US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/ SG
9/27/2023	CAROUSEL CENTER PROJECT, NY	Industrial	SrUnsec		D	Caa1	Caa2	SG
9/27/2023	VYAIRE HOLDING COMPANY-VYAIRE MEDICAL, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	Caa1	Caa3	SG
9/28/2023	GRUPO FRIBOI-PILGRIM'S PRIDE CORPORATION	Industrial	SrUnsec	3750	U	Ba3	Ba2	SG
9/28/2023	CURIA GLOBAL, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	В3	Caa2	SG
9/28/2023	CP IRIS HOLDCO II, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	B1	B2	SG
9/29/2023	CALLON PETROLEUM COMPANY	Industrial	SrUnsec/LTCFR/PDR	1650	U	В3	B2	SG
9/29/2023	TRIUMPH GROUP, INC.	Industrial	SrUnsec/LTCFR/PDR	500	U	Caa3	Caa2	SG
10/2/2023	ONEOK, INCMAGELLAN MIDSTREAM PARTNERS, L.P.	Utility	SrUnsec	5000	D	Baa1	Baa2	IG
10/2/2023	SAFEHOLD INCSAFEHOLD GL HOLDINGS LLC	Financial	SrUnsec/LTIR	750	U	Baa1	A3	IG
10/3/2023	HEALTHEQUITY, INC.	Industrial	SrUnsec/LTCFR/PDR	600	U	В3	B2	SG
	· ·							

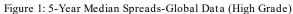
Source: Moody's

FIGURE 4
Rating Changes: Corporate & Financial Institutions - Europe

_	• .								
Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/ SG	Country
9/27/2023	FERROGLOBE PLC-FERROGLOBE FINANCE COMPANY, PLC	Industrial	SrSec/LTCFR/PDR	153	U	В3	B2	SG	UNITED KINGDOM
9/27/2023	DNB BANK ASA	Financial	LTD/JrSub/MTN	10522.77	U	Aa2	Aa1	IG	NORWAY
9/27/2023	COBHAM ULTRA SUNCO S.A R.LCOBHAM ULTRA SENIORCO S.A.R.L	Industrial	SrSec/BCF/LTCFR/PDR		D	B1	B2	SG	LUXEMBOURG
9/27/2023	SPRINT BIDCO B.V.	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	В3	SG	NETHERLANDS
9/28/2023	COFACE SA	Financial	LTIR/Sub/IFSR		U	Baa1	A3	IG	FRANCE
9/29/2023	GRUPO CATALANA OCCIDENTE, S.AATRADIUS FINANCE B.V.	Financial	Sub/IFSR		U	Baa2	Baa1	IG	NETHERLANDS
9/29/2023	B2 IMPACT ASA	Financial	SrUnsec/LTCFR	529.375	U	B1	Ba3	SG	NORWAY
10/2/2023	PRO-GEST S.P.A.	Industrial	SrUnsec/LTCFR/PDR	264.6875	D	Caa2	Caa3	SG	ITALY
10/3/2023	HELLENIC BANK PUBLIC COMPANY LTD	Financial	SrUnsec/STD/LTD/Sub/MTN	317.625	U	Ba3	Ba2	SG	CYPRUS
10/3/2023	EUTELSAT COMMUNICATIONS SA	Industrial	LTCFR/PDR		D	Ba1	Ba2	SG	FRANCE
Carren Mana	1.1.								

Source: Moody's

MARKET DATA



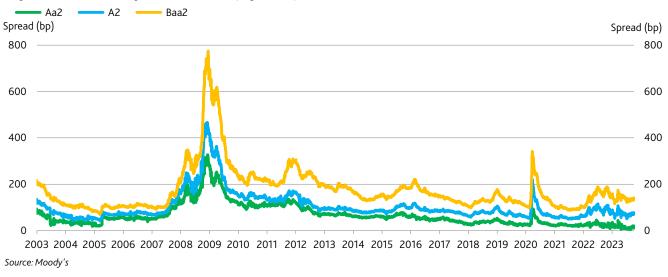
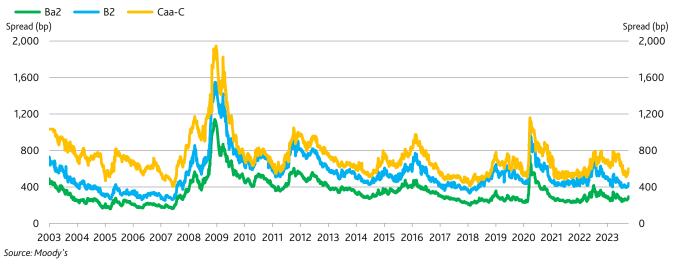


Figure 2: 5-Year Median Spreads-Global Data (High Yield)



CDS Movers

Figure 3. CDS Movers - US (September 27, 2023 – October 4, 2023)

CDS Implied Rating Rises	CDS Impl	ied Ratings	
Issuer	Oct. 4	Sep. 27	Senior Ratings
Eversource Energy	Baa1	Baa3	Baa1
Comcast Corporation	A2	A3	A3
John Deere Capital Corporation	A1	A2	A2
Philip Morris International Inc.	A2	A3	A2
Caterpillar Financial Services Corporation	A1	A2	A2
3M Company	A3	Baa1	A2
Thermo Fisher Scientific Inc.	Aa2	Aa3	A3
Cargill, Incorporated	A2	A3	A2
Waste Management, Inc.	A2	A3	Baa1
Netflix, Inc.	Baa1	Baa2	Baa3

CDS Implied Rating Declines	CDS Impli	ied Ratings	_
Issuer	Oct. 4	Sep. 27	Senior Ratings
Kimco Realty OP LLC	Baa2	A3	Baa1
Bank of America Corporation	Baa3	Baa2	A1
Toyota Motor Credit Corporation	Aa2	Aa1	A1
Ford Motor Credit Company LLC	Ba3	Ba2	Ba1
McDonald's Corporation	Aa2	Aa1	Baa1
Lowe's Companies, Inc.	A2	A1	Baa1
Charles Schwab Corporation (The)	Baa2	Baa1	A2
Visa Inc.	Aa3	Aa2	Aa3
Lockheed Martin Corporation	Aa2	Aa1	A2
Norfolk Southern Corporation	Aa2	Aa1	Baa1

CDS Spread Increases	_		CDS Spreads		
Issuer	Senior Ratings	Oct. 4	Sep. 27	Spread Diff	
Rite Aid Corporation	Ca	46,896	42,762	4,134	
Liberty Interactive LLC	Caa2	3,115	2,824	291	
Dish DBS Corporation	Caa2	1,933	1,742	191	
Dish Network Corporation	Caa2	1,623	1,463	160	
iHeartCommunications, Inc.	Caa1	1,549	1,395	153	
Glatfelter Corporation	Caa1	899	808	91	
Anywhere Real Estate Group LLC	В3	1,052	970	82	
Xerox Corporation	Ba2	399	330	69	
Deluxe Corporation	В3	741	677	64	
Newell Brands Inc.	Ba2	482	433	49	

CDS Spread Decreases		CDS Spreads				
Issuer	Senior Ratings	Oct. 4	Sep. 27	Spread Diff		
Brandywine Operating Partnership, L.P.	Ba1	409	460	-51		
Pitney Bowes Inc.	В3	1,189	1,224	-34		
Lumen Technologies, Inc.	Caa3	3,470	3,498	-28		
Graphic Packaging International, LLC	Ba2	157	184	-28		
American Airlines Group Inc.	В3	868	896	-28		
Plains All American Pipeline L.P.	Baa3	144	170	-26		
Louisiana-Pacific Corporation	Baa3	162	185	-23		
Embarq Corporation	Caa2	2,554	2,575	-21		
Freedom Mortgage Corporation	B2	662	681	-19		
Vistra Operations Company LLC	Ba2	261	279	-18		

Source: Moody's, CMA

CDS Movers

Figure 4. CDS Movers - Europe (September 27, 2023 – October 4, 2023)

CDS Implied Rating Rises	CDS Impli	ied Ratings	_
Issuer	Oct. 4	Sep. 27	Senior Ratings
Nidda Healthcare Holding GMBH	Ba1	B2	Caa3
Italy, Government of	Baa2	Baa3	Baa3
HSBC Holdings plc	Baa1	Baa2	A3
Banque Federative du Credit Mutuel	A3	Baa1	Aa3
CaixaBank, S.A.	A3	Baa1	Baa1
UniCredit S.p.A.	Baa2	Baa3	Baa1
UniCredit Bank AG	A3	Baa1	A2
ENGIE SA	A1	A2	Baa1
Banco Sabadell, S.A.	Baa3	Ba1	Baa3
KBC Group N.V.	Baa1	Baa2	Baa1

CDS Implied Rating Declines	CDS Impl	ied Ratings	_
Issuer	Oct. 4	Sep. 27	Senior Ratings
Credit Agricole Corporate and Investment Bank	A2	A1	Aa3
Equinor ASA	Aa2	Aa1	Aa2
British Telecommunications Plc	Baa3	Baa2	Baa2
Heineken N.V.	Aa2	Aa1	A3
Santander Financial Services plc	Baa1	A3	A1
BAWAG P.S.K. AG	Baa1	A3	A1
EnBW Energie Baden-Wuerttemberg AG	Aa3	Aa2	Baa1
ZF Europe Finance B.V.	B2	B1	Ba1
Pernod Ricard S.A.	Aa2	Aa1	Baa1
Vinci S.A.	A1	Aa3	A3

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Oct. 4	Sep. 27	Spread Diff
Vedanta Resources Limited	Caa3	2,681	2,446	235
Boparan Finance plc	Caa3	1,949	1,830	119
Garfunkelux Holdco 3 S.A.	Caa2	1,538	1,420	118
Trinseo Materials Operating S.C.A.	В3	1,307	1,223	84
United Group B.V.	Caa1	665	612	53
Carnival plc	В3	613	568	45
INEOS Quattro Finance 2 Plc	B2	534	496	37
International Game Technology PLC	Ba1	209	178	32
Jaguar Land Rover Automotive Plc	B1	605	575	31
Constellium SE	B1	302	271	31

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Oct. 4	Sep. 27	Spread Diff
Nidda Healthcare Holding GMBH	Caa3	177	457	-281
thyssenkrupp AG	Ba3	148	180	-32
Picard Bondco S.A.	Caa1	472	484	-12
Eurobank Ergasias Services and Holdings S.A.	Ba2	185	196	-11
Hammerson Plc	Baa3	237	246	-9
Stena AB	Ba3	280	289	-9
Yara International ASA	Baa2	127	135	-8
Orsted A/S	Baa1	44	51	-7
Novo Banco, S.A.	Ba3	170	177	-7
KBC Group N.V.	Baa1	80	86	-6

Source: Moody's, CMA

CDS Movers

Figure 5. CDS Movers - APAC (September 27, 2023 – October 4, 2023)

CDS Implied Rating Rises	CDS Impli	CDS Implied Ratings		
Issuer	Oct. 4	Sep. 27	Senior Ratings	
Westpac Banking Corporation	A1	A2	Aa3	
Mitsubishi UFJ Financial Group, Inc.	Aa2	Aa3	A1	
Sumitomo Mitsui Trust Bank, Limited	A1	A2	A1	
Macquarie Bank Limited	A2	A3	A1	
Suncorp-Metway Limited	Baa1	Baa2	A1	
Bendigo and Adelaide Bank Limited	Baa2	Baa3	A3	
Woolworths Group Limited	A2	A3	Baa2	
Hyundai Capital Services, Inc.	A2	A3	Baa1	
Coca-Cola Amatil Limited	A2	A3	Baa1	
Toyota Industries Corporation	Baa2	Baa3	A2	

CDS Implied Rating Declines	CDS Impl	_	
Issuer	Oct. 4	Sep. 27	Senior Ratings
NBN Co Limited	Baa1	A2	Aa3
Korea Gas Corporation	A2	Aa3	Aa2
China, Government of	Baa2	Baa1	A1
Korea, Government of	Aa2	Aa1	Aa2
National Australia Bank Limited	A1	Aa3	Aa3
Thailand, Government of	A2	A1	Baa1
Malaysia, Government of	A2	A1	A3
Korea Electric Power Corporation	Aa2	Aa1	Aa2
Nissan Motor Co., Ltd.	Ba1	Baa3	Baa3
Vanke Real Estate (Hong Kong) Company Limited	Ca	Caa3	Baa2

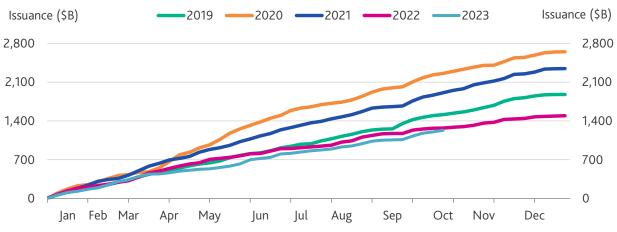
CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Oct. 4	Sep. 27	Spread Diff
Vanke Real Estate (Hong Kong) Company Limited	Baa2	1,098	901	197
SoftBank Group Corp.	Ba3	282	260	22
NBN Co Limited	Aa3	73	55	18
GMR Hyderabad International Airport Limited	Ba3	236	221	15
LG Chem, Ltd.	A3	86	72	14
Adani Green Energy Limited	B2	773	760	13
Korea Gas Corporation	Aa2	55	44	12
CITIC Group Corporation	A3	123	112	12
Nissan Motor Co., Ltd.	Baa3	142	132	10
Bank of China (Hong Kong) Limited	Aa3	112	103	9

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Oct. 4	Sep. 27	Spread Diff
Pakistan, Government of	Caa3	3,262	3,322	-60
JSC Halyk Savings Bank of Kazakhstan	Ba2	367	382	-14
APA Infrastructure Limited	Baa2	84	91	-7
Development Bank of Kazakhstan	Baa2	162	168	-6
Toyota Industries Corporation	A2	95	101	-6
Rizal Commercial Banking Corporation	Baa3	114	119	-5
Kia Corporation	Baa1	122	125	-4
KT Corporation	A3	35	39	-4
Suncorp-Metway Limited	A1	80	83	-3
Oversea-Chinese Banking Corp Ltd	Aa1	31	34	-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

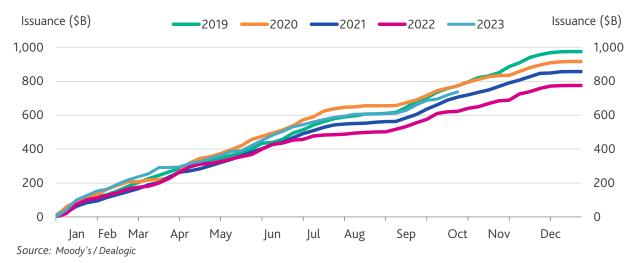


Figure 8. Issuance: Corporate & Financial Institutions

	USD Denominated					
	Investment-Grade	Investment-Grade High-Yield			High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B			
Weekly	19.948	5.000	29.504			
Year-to-Date	1,045.492	157.991	1,232.991			

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	15.865	0.796	18.273
Year-to-Date	653.820	57.572	736.663

^{*} 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: 1384406

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 www.moodys.com under the heading "Investor Relations — Corporate Governance — 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 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 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.

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