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INVESTORS SERVICE

OUTLOOK
2 November 2022

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Credit Conditions – Global

2023 Outlook - Risks are rising across the credit spectrum as conditions turn adverse

Summary

Global credit conditions will remain adverse at the start of 2023 as persistent inflation, higher interest rates and bleaker GDP growth prospects cast a cloud over the borrowing environment. After more than a decade of benign credit conditions nourished by low interest rates and abundant liquidity, the credit cycle has quickly turned and risks are rising across the credit spectrum, with defaults likely to accelerate and liquidity to remain scarce.

» **Five core credit themes will be top of mind for market participants.** Our 2023 credit themes are (1) higher interest rates and slower growth, (2) geopolitical realignments, (3) social challenges, (4) climate exposure and mitigation, and (5) digital finance. Some themes will be central to debt issuers' credit outlooks, while others will provide broader credit context or become more relevant over the longer term. These themes will cut across sectors and regions, and will intersect and overlap in varying ways.

» **This credit cycle is shaping up to be unusually unpredictable, with risks firmly to the downside**. Interest rates have jumped very quickly, and the higher rate environment will coexist with slowing growth for some time. The Russia-Ukraine conflict has triggered an energy crisis in Europe that engenders economic, fiscal and social risks, while continued supply-chain disruption remains a legacy of the COVID-19 pandemic. As conditions tighten, the biggest negative effects will be on sectors where earnings are sensitive to the economic cycle and on interest-rate sensitive asset classes.

» **Rising defaults and weaker liquidity will result from tighter conditions.** Corporate default rates will exceed the long-term average by next September under our baseline expectations but should stay well below peak pandemic levels. But in the event of a deep global economic slowdown, defaults would intensify, with most of the damage within the rising population of low-rated companies. Increased sovereign debt defaults also point to the escalating balance sheet pressure on sovereigns with low credit quality.

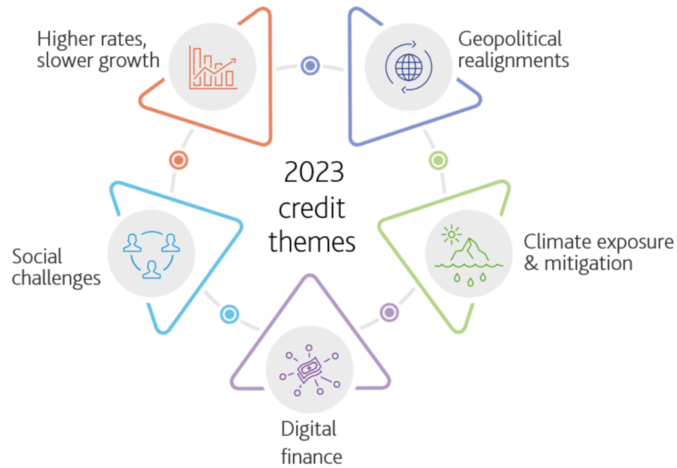
» **Monetary policy tightening will likely pause by midyear, setting the stage for potential stabilization of conditions**. The financing environment could begin to show signs of stabilization in the second half of 2023 if inflation comes under control and central banks ease off rate hikes, although credit conditions will likely remain challenging. The direction of China's zero-COVID policy might also become clearer by that point. But the Russia-Ukraine conflict's trajectory and Europe's adaptation to new energy realities are highly uncertain. While we will watch for cyclical troughs, we are also assessing where there are pockets of resilience and opportunity.

Five core credit themes will cut across sectors and regions

In 2023, five major credit themes will be top of mind for credit market participants: **higher interest rates and slower growth**, **geopolitical realignments**, **social challenges**, **climate exposure and mitigation**, and growing adoption of **digital finance** (see Exhibit 1). Some themes will be central to debt issuers' credit outlooks, while others will provide broader credit context or become more relevant over the longer term. These themes will also intersect and overlap in varying ways, and we will explore them in our research and analysis throughout the year.

Exhibit 1

2023 credit themes will overlap with one another in varying ways



Source: Moody's Investors Service

- **Higher rates and slower growth** will be the key determinants of credit conditions globally in 2023. The global economy will slow, with a number of advanced economies entering a recession and the risks of a more severe contraction remaining high. The growth slowdown, elevated inflation – exacerbated by high energy prices, fiscal stimulus during the pandemic and supply-and-demand imbalances – and increased unemployment will weigh on government revenue and spending, corporate margins and investment, bank asset quality, and structured finance collateral. Tighter liquidity, volatile market access and higher funding costs will diminish debt-servicing capacity, particularly for low-rated debt issuers, while private credit market risks will also be more prominent in a higher interest rate environment. For consumers, especially those with weak credit profiles, rising mortgage rates and the slowing housing market will dampen their finances and sentiment.

- **Geopolitical realignments** will prompt a greater re-examination of energy, trade, technology and supply-chain strategies. The energy shock resulting from the Russia-Ukraine military conflict will remain a key driver of credit trends in Europe. The direction and magnitude of foreign policy changes will vary by country, and affect sectors and issuers differently. Access to advanced semiconductors encapsulates these tensions, with the US government recently unveiling export controls intended to prevent China from obtaining or manufacturing high-performance chips and components for supercomputers. For sovereigns, spending on energy security and defense will become a higher priority, which will affect government budget priorities and defense sector opportunities. Cyberattack threats will continue to grow amid rising geopolitical tensions.

- **Social challenges** will remain a key focus in 2023, as higher costs for basic needs expose societal fissures and as political polarization widens in some countries. Rising costs of living can kindle social tensions and exacerbate inequality, and can worsen institutional distrust. As inflation remains high and more people face food insecurity, demands for government relief will grow. At the same time, tight financing conditions and deteriorating fiscal metrics in the wake of COVID-19 will constrain some governments' ability to provide sustained support to vulnerable households and companies. In this context, risks of social unrest will stay elevated in some economies.

» **Climate exposure and mitigation** efforts will take on more urgency amid the adverse effects of climate change, but governments' aspirations toward net-zero greenhouse gas emissions will increasingly collide with energy security and economic development goals. Although progress in reducing emissions will likely slow in the next few years as economies focus on immediate energy needs, long-term decarbonization targets will likely stay on course. However, financing for green investments will be harder to come by in the context of slower growth and high inflation, particularly in emerging markets. As more mandatory climate-related financial disclosures come into effect, scrutiny on companies' climate risk exposure and emissions reduction efforts will rise.

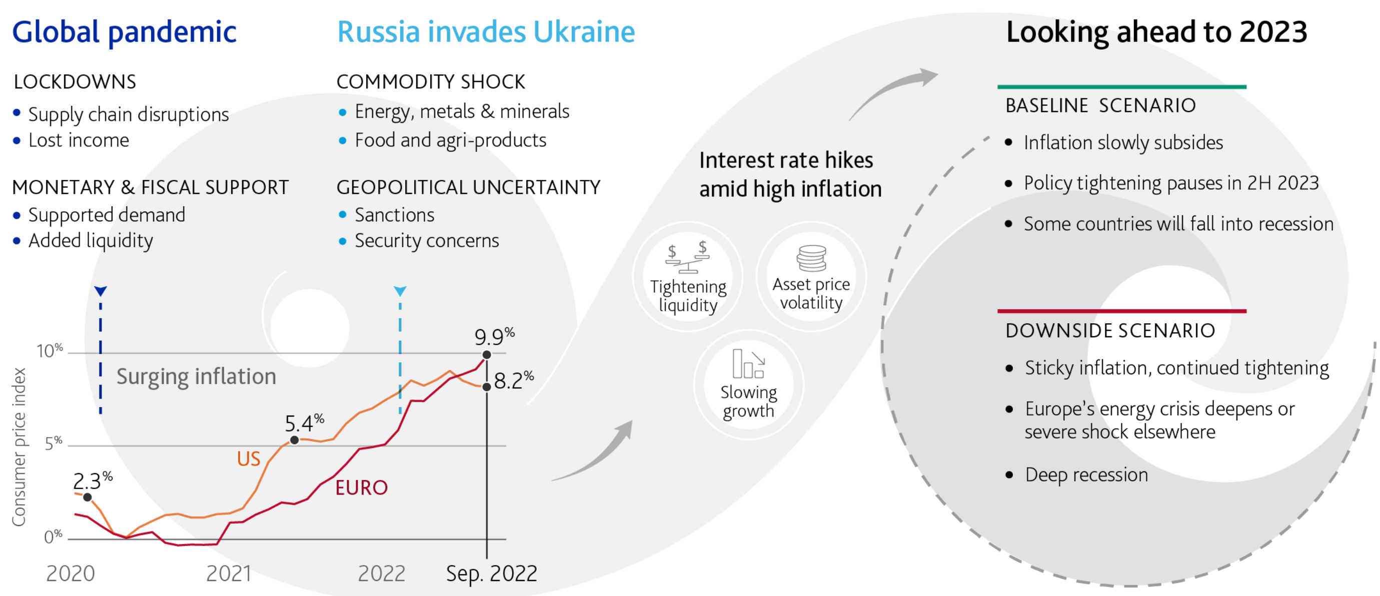
» **Digital finance** is an emerging credit theme that will further crystallize as financial markets head toward greater digitalization, with effects on business models and financial architecture. Scaling up of existing technologies such as digital wallets, plus new payment mechanisms and asset types such as cryptocurrencies, stablecoins and central bank digital currencies will have potential macroeconomic and systemic effects across economies. Financial industry evolution could be wide-ranging as firms seek to take advantage of technologies such as blockchain infrastructure, which holds the promise of improving transaction speed and efficiency. Business implications will extend far beyond the financial industry, with manufacturing firms, for example, using blockchain to improve the traceability of goods across their supply chains. Regulation will help determine how these technologies evolve, as clear frameworks would likely broaden usage of new financial systems while regulatory gaps would create increased risks.

This credit cycle is shaping up to be unusually unpredictable, with risks firmly to the downside

A unique combination of factors is driving the turn in the credit cycle: the continuing fallout from Russia's invasion of Ukraine and the deepening energy crisis in Europe, which we expect to have lasting consequences on how the region approaches energy policy; rising costs of basic necessities like food, fuel and housing in economies around the world; and the legacy of the COVID-19 pandemic, especially in China, where zero-COVID policy threatens the country's economic growth prospects and is contributing to a fundamental rethink by some multinational companies about their supply-chain strategies. As a result, the credit environment has become unusually unpredictable, with risks firmly to the downside.

Exhibit 2 illustrates the factors that have led to the turn in credit conditions since the onset of COVID-19 and the Russia-Ukraine military conflict, and the likely next stages of the cycle under our baseline macroeconomic scenario and a downside scenario.

Exhibit 2
Pandemic legacy and Russia-Ukraine conflict have set in motion a sharp turn in the credit cycle

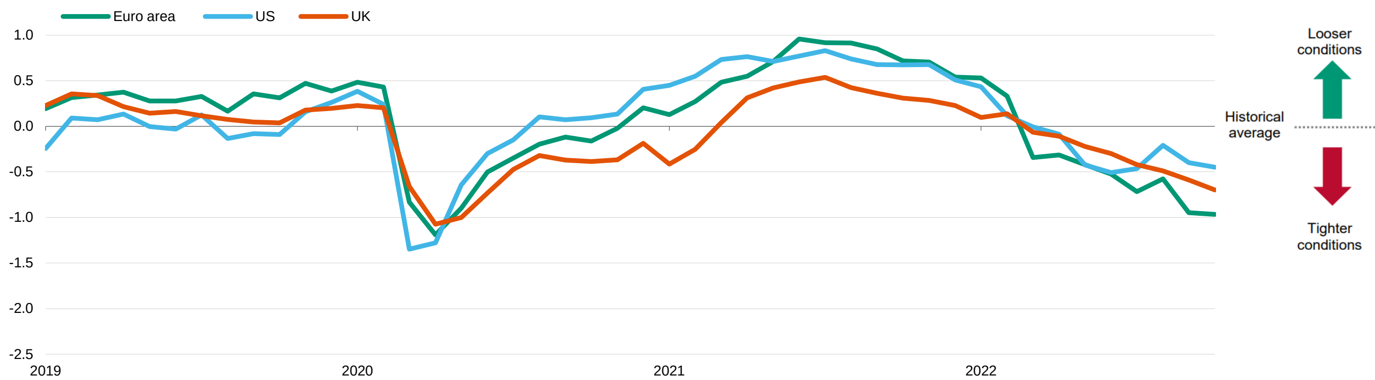


Source: Moody's Investors Service

Financial conditions tighten across regions

As central banks lift interest rates aggressively to tamp down inflation, financial market conditions are in the midst of a synchronized tightening. Our proprietary regional Financial Conditions Indicators show weakening across the US (Aaa stable), the UK (Aa3 negative) and the euro area after a strong recovery from the pandemic crisis. As Exhibit 3 shows, financial conditions in all three regions are tighter than the historical average.

Exhibit 3
Moody's Financial Conditions Indicators reveal synchronized tightening across regions



Data as of 21 October 2022.
Source: Moody's Investors Service

In Europe, the credit outlook will hinge to a large extent on how countries manage the energy shock resulting from the cutoff of most Russian gas supplies. While the region is grappling with energy shortages and higher prices, European governments and companies are taking steps to counter the impact, including through increased imports of liquefied natural gas. As a result, we now expect 20% of rated nonfinancial companies in Europe, the Middle East and Africa (EMEA) to be vulnerable to a cutoff in Russian gas, down from the 45% we identified in April. European chemicals, automotive and manufacturing sectors and the countries most dependent on Russian gas have the highest exposure to reduced energy supply. Government-mandated price caps on electricity and windfall taxes will also affect profitability in the power and energy sectors.

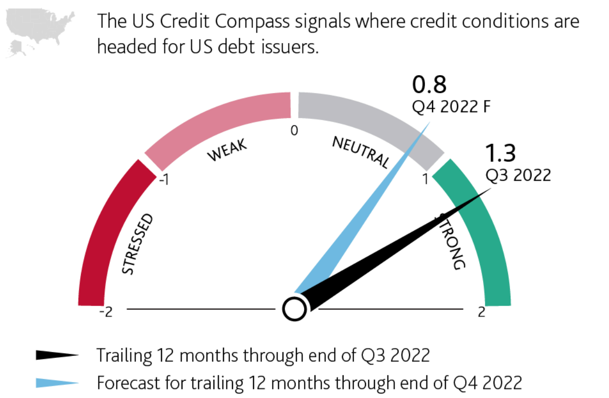
Policy actions of European countries to address the energy shortages will result in increased government spending and sovereign debt burdens. In this environment, growing political polarization could lead to policy mistakes and **social challenges**. Meanwhile, the need for immediate solutions to energy shortages will conflict with net-zero emissions goals at the national level and with industry efforts to reduce carbon footprints, underscoring challenges with regard to **climate exposure and mitigation**. Still, we expect European economies to redouble efforts to bring about energy transition over the longer term.

Another risk for Europe is the likelihood of falling home prices as inflation and interest rates surge and economic growth slows, a negative for banks, structured finance transactions and housing associations. The recent spike in mortgage rates across Europe comes after a decade of historic lows, with rates more than doubling in the UK, Germany (Aaa stable) and Portugal (Baa2 stable) since the end of 2021.

In the US, the **higher rates, slower growth** environment will be in intense focus as it remains to be seen whether the US Federal Reserve can tame inflation without tipping the economy into a deep recession. For now, however, there are no signs of widespread deterioration in labor markets or a sharp pullback in consumer spending.

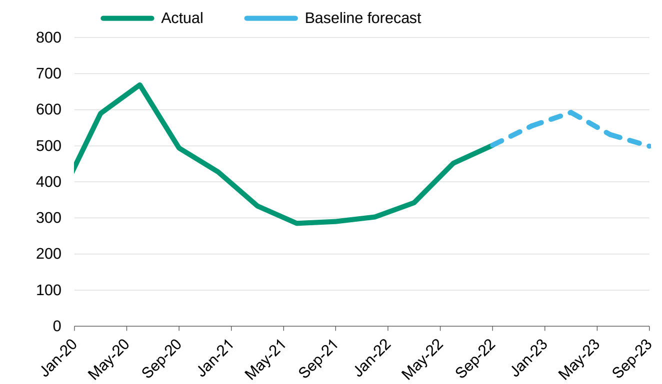
Still, US credit conditions are clearly weakening, coming off a period of strength built up during the 2021 recovery. As measured by Moody's US Credit Compass, a 12-month trailing indicator of our rating changes, outlooks and reviews across the spectrum of US nonfinancial and financial corporates, municipalities and structured finance transactions that we rate, credit trends will move from "strong" in Q3 2022 to "neutral" in Q4 2022 (see Exhibit 4). This shift reflects tighter bank lending standards and more negative consumer and business sentiment. As growth weakens, we expect credit conditions to deteriorate further in the first half of 2023. High-yield bond spreads – an important leading indicator of defaults – are contributing to the drag on overall credit conditions, although spreads remain far below the peak levels at the height of the COVID-19 economic shock (see Exhibit 5).

Exhibit 4
US Credit Compass indicates deterioration after pandemic recovery
Q3 2022 actual and Q4 2022 forecast



The US Credit Compass captures actual credit trends via the magnitude and direction of our rating changes, outlooks and reviews (i.e., rating drift) over the trailing 12-month period that ends when the current quarter begins.
Source: Moody's Investors Service

Exhibit 5
US high-yield spread is climbing but remains below pandemic highs
In basis points



* Measured in three-month averages.
Sources: Moody's Investors Service and Moody's Analytics

The credit outlook for debt issuers based in China (A1 stable) will depend on whether the government maintains or relaxes its zero-COVID policy and how it navigates the property market downturn. Weakness in property-related revenue will also challenge the ability of regional and local governments to support economic activity. Among rated nonfinancial companies, funding access will remain difficult for high-yield issuers, including property developers. While the easing of regulatory measures on the property sector could support sales, we do not expect a strong recovery in the next 12 months.

For debt issuers based in emerging markets, global trends are largely negative. However, there is some bifurcation, with lower-rated and frontier market economies facing the most pressing credit challenges, while higher-rated and bigger economies have more sources of resilience. Vulnerable households in many emerging markets are grappling with high food and energy prices, but tight financing conditions and stretched fiscal metrics in the wake of COVID-19 will constrain some governments' ability to provide support to their populations. Higher interest rates make liquidity pressures more of a risk for sovereigns with weaker credit metrics. Those with large upcoming international debt maturities, or import payments that have become more expensive, will be more susceptible to reserve drawdowns and balance-of-payments pressures. Capital outflows are a rising risk for countries with high levels of dollar-denominated debt. The effects of a strong dollar will likely be particularly acute for emerging market companies and sovereigns that earn revenue in fast-depreciating currencies but have dollar-denominated imports or debt servicing.

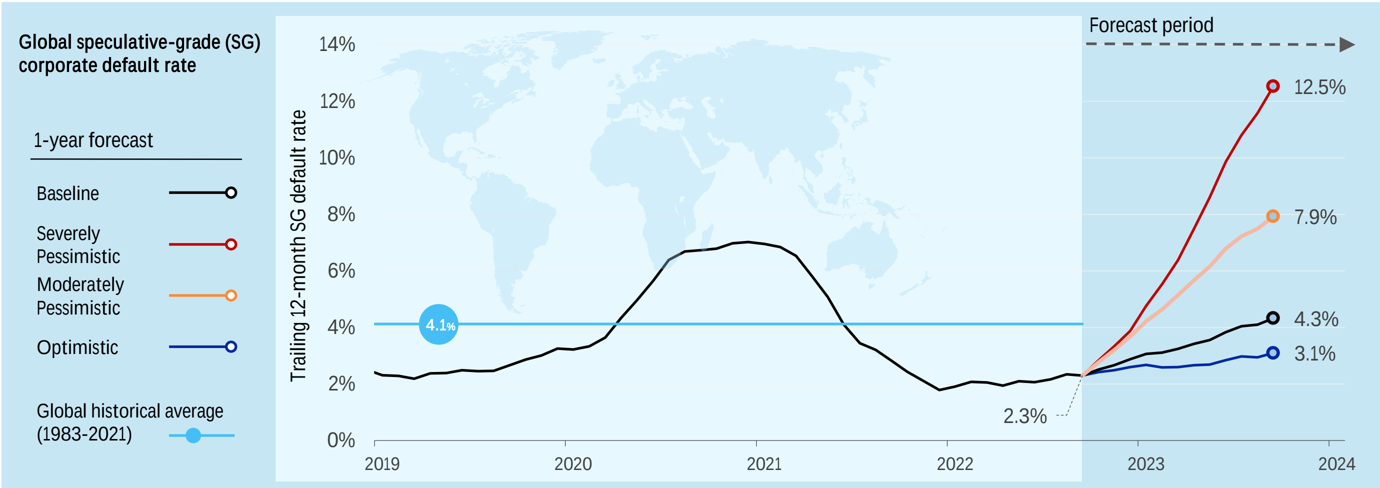
Rising defaults and weaker liquidity will result from tighter conditions

Corporate default risk is rising as the **higher rates, slower growth** environment takes hold more firmly, with lower-rated companies that rely heavily on floating-rate debt at the biggest risk. Moody's default model forecasts that the global speculative-grade corporate default rate will climb from 2.3% in September 2022 to 4.3% in a year's time. This level would exceed the historical average but remain well below the peak during the pandemic, as many companies took advantage of favorable refinancing conditions in the past two years to push out debt maturities.

We also have developed more pessimistic default scenarios than our baseline projection. In a moderately pessimistic scenario, which entails the global economy falling into a recession in Q4 2022, the default rate would rise to 7.9% by September 2023, and under a severely pessimistic scenario, the rate would jump to 12.5% (see Exhibit 6). Still, even under the severe scenario, which assumes a much deeper recession in Q4 2022 than under the moderately pessimistic scenario, the default rate would not exceed the 13.5% peak during the global financial crisis.

Exhibit 6

Global default rate will surpass the long-term average next year under our baseline forecast



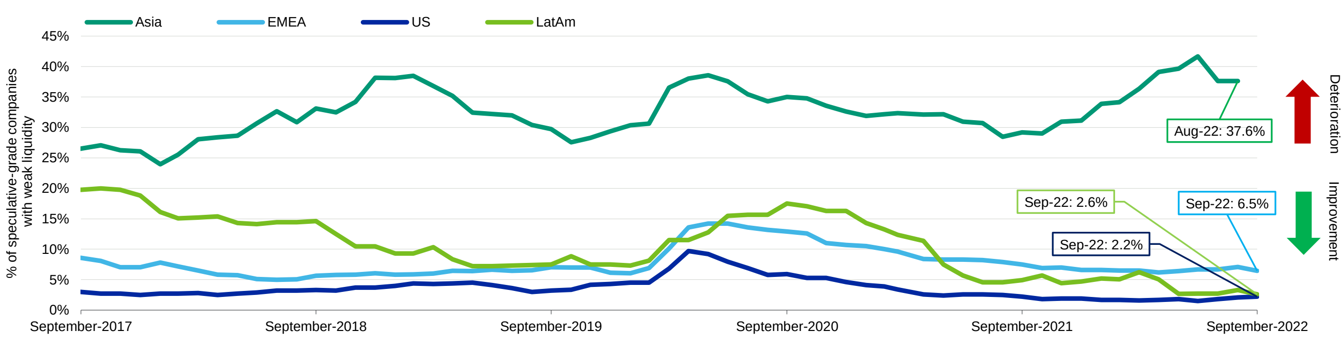
For details on our default rate forecasts, see our latest Monthly Default Report.
Source: Moody's Investors Service

Liquidity remains ample in the US and EMEA but is set to weaken

As global credit conditions turn increasingly negative and capital market access becomes more difficult, we forecast that liquidity will recede in the US and EMEA from the currently strong territory as measured by our proprietary Liquidity Stress Indicator (LSI). The LSI, a historically accurate predictor of future defaults, measures the percentage of high-yield companies with our weakest speculative-grade liquidity score (see Exhibit 7). In Asia, the LSI continues to be weaker than the long-term average. Asian corporate liquidity is also lower overall as compared with other regions because Asian companies depend more heavily on relationship banking, which relies on rolling over short-term and uncommitted lines of credit rather than committed levels of funding.

Exhibit 7

US and EMEA liquidity risk indicators are back to pre-pandemic low levels but poised to rise



Source: Moody's Investors Service

For vulnerable companies, consequences of a liquidity drought will depend on how long the spigot remains tighter

Rising debt costs and reduced liquidity, coupled with softening demand in a slowing economy, will hit companies rated B2 and below the hardest. These companies comprise more than 60% of the speculative-grade population in the US and nearly 70% in EMEA, and make up the overwhelming majority of collateralized debt obligations (CLOs) in both regions. Most carry high financial leverage and have a large share of floating-rate debt, which increase the likelihood of defaults. Additionally, top-heavy and "covenant-lite" debt structures will lead to worse recoveries on defaulted debt.

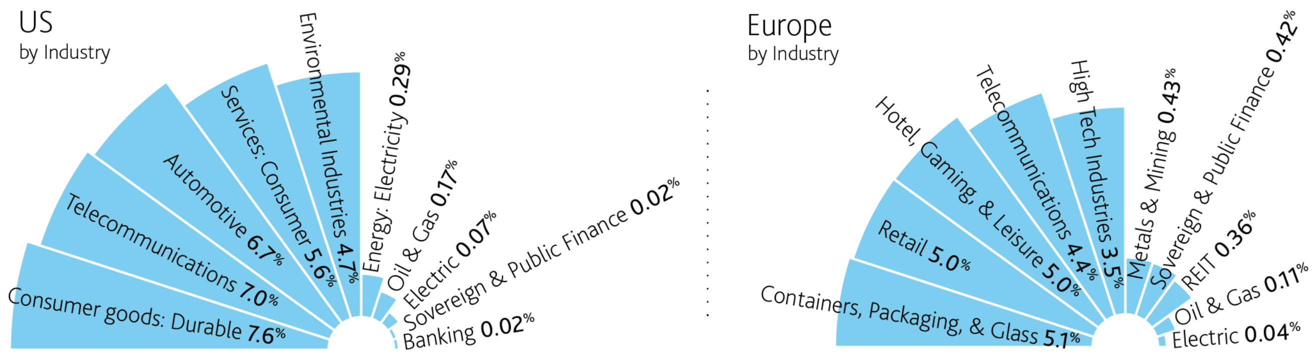
Already, leveraged finance issuance has fallen off sharply this year, with a mere $315 billion in new global leveraged debt issued in the first half of 2022, compared with a record $1.6 trillion in 2021. As risks of a liquidity contraction grow in the leveraged finance market, CLOs will remain a significant investor base for leveraged loans. Potential negative rating migrations, higher defaults and lower recoveries would hurt CLO collateral performance, although credit performance of CLO notes would benefit significantly from structural mechanisms and subordination. The growth of private credit markets could cause new risks, given their greater opacity compared to bank lending.

More highly rated issuers are less vulnerable to default and liquidity risk because they have stronger balance sheets and generally more fixed-rate debt with longer maturity profiles. However, the operating environment is darkening for these companies too, with notable exceptions such as energy. When considering the entire spectrum of rated companies – speculative-grade and investment-grade – the industries with the highest default rate forecasts for the next 12 months include durable consumer goods, telecommunications and automotive in the US, and containers, packaging and glass; retail; and hotel, gaming and leisure in Europe (see Exhibit 8).

Exhibit 8

Durable consumer goods, telecom companies have highest likelihood of default in the US, while containers, packaging and retail are among the highest risk in Europe

Industries with the highest and lowest one-year default rate forecasts, by region



These forecasts are issuer-weighted and include both investment-grade and speculative-grade companies. We consider only the corporate subset of issuers in the Sovereign & Public Finance industry category.

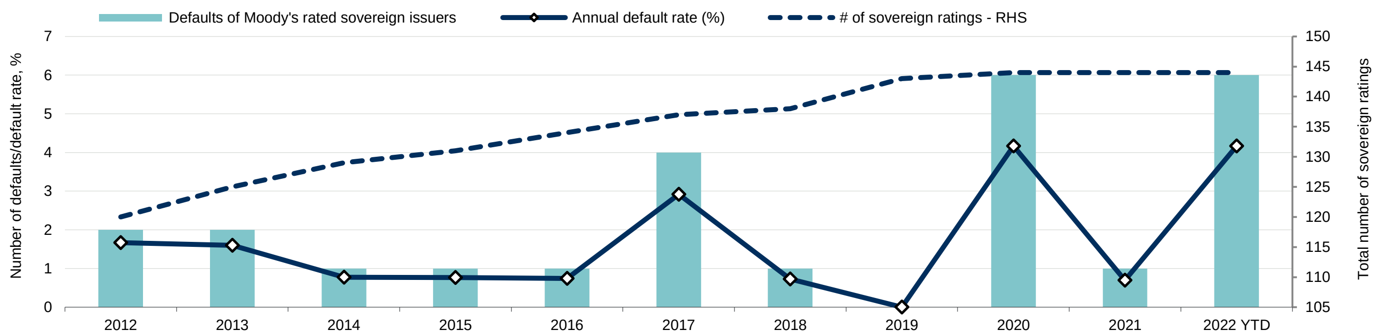
Source: Moody's Investors Service

While not our baseline forecast, a stagflation scenario – a multiyear period in which inflation remains persistently higher while unemployment rises – would also add to default and liquidity risks. In such a scenario, earnings of most companies would suffer, although higher-rated companies would generally be more resilient. Beyond the cost of debt itself, economic stagnation and weaker earnings raise the prospect of companies being unable to access the capital markets when needed, which would create liquidity risk.

Sovereign defaults will likely stay elevated

Sovereign debt risks are high among vulnerable emerging and frontier markets as financial conditions have tightened. Among sovereign debt issuers, six have defaulted debt year to date: Mali (Caa2 stable), Russia, Sri Lanka (Ca stable), Belarus (Ca negative), Ukraine (Caa3 negative) and El Salvador (Caa3 negative). This compares with only one default in 2021: Belize (Caa3 stable). Year-to-date 2022 defaults match the full-year tally for 2020, which set a record for the absolute number of annual defaults in the rated universe since we began tracking this data in 1983. The annual tallies are also higher than in the past given that we rate many more sovereign issuers today than in prior decades (see Exhibit 9).

Exhibit 9
Year-to-date defaults of sovereign debt issuers in 2022 match 2020 level



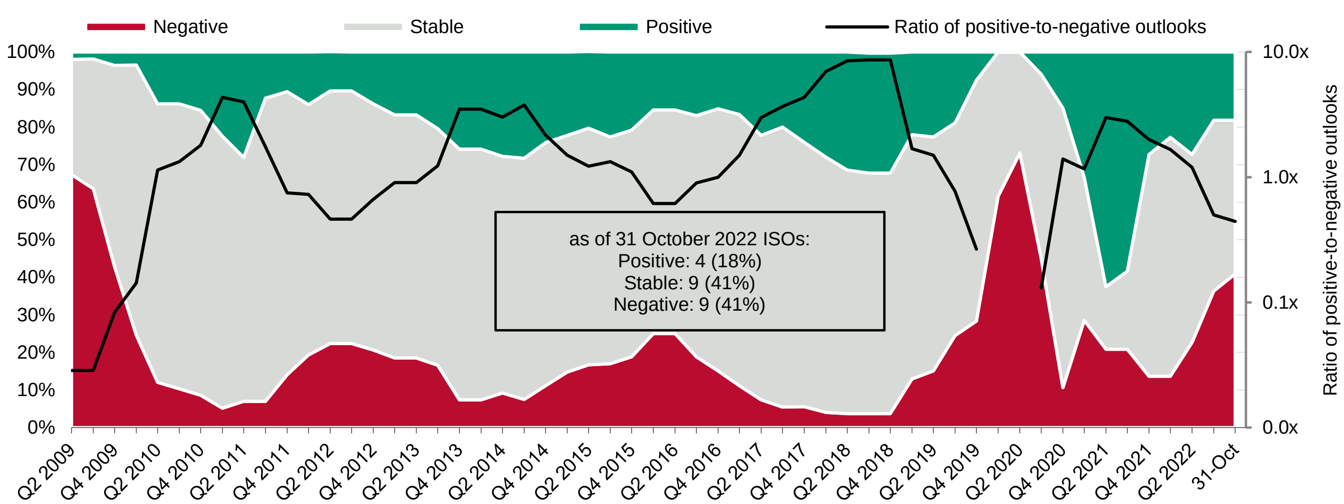
Source: Moody's Investors Service

Risks are highest for frontier market sovereigns with sizable financing needs, those reliant on external funding, and those that have a large portion of public-sector debt dominated in foreign currency and extremely low foreign-currency reserves. The combined effect of a negative terms-of-trade shock, US monetary tightening and inflationary pressures is also weighing on the exchange rates of commodity importers. Debt-servicing capacity, access to international capital markets and the depth of domestic funding bases will be critical in differentiating sovereigns in the current economic environment.

Commodities price slowdown and downbeat consumer sentiment will hit corporate sectors

Slowing economic growth will pose particular challenges for issuers in sectors tied to falling commodities demand, and those particularly sensitive to inflation, interest rates and consumer sentiment. In light of these challenges, we recently changed our sector outlooks to negative for global metals and mining, global chemicals, global automotive, and global shipping. Overall, as of the end of October, 41% of our Industry Sector Outlooks were negative, compared with only 14% in Q4 2021 (see Exhibit 10).

Exhibit 10
More Industry Sector Outlooks (ISOs) turn negative as macro environment worsens and European energy crisis builds



Left-hand axis reflects percentage of ISOs; right-hand axis shows the positive/negative ratio on a logarithmic scale.
Source: Moody's Investors Service

We have reduced our 12-month price assumptions for certain metals and mining commodities such as aluminum, copper, gold, silver and steel to reflect weakening demand. Still, supply will stay tight for most base metals over the coming 12 months because production has not kept pace with demand over the past couple of years. Supply-chain snarls have also disrupted metals production. But as a result of inflation and high energy and fuel prices, the cost curve has increased across the mining industry, which limits the likelihood that prices will plunge.

Climate exposure and mitigation efforts by governments are adding to pressure on exposed industries to invest in energy transition. For example, both the EU and the state of California are preparing bans on the sale of new internal combustion engine vehicles, including hybrids, by 2035, in an effort to hasten shifts in production and purchases toward battery electric vehicles (BEVs). Recently revised tax credits in the US could help spur adoption of BEVs, although the incentives are subject to stiff eligibility rules.

Operating environment will weaken for banks, with rising interest rates creating both benefits and risks

Higher interest rates, slower growth and geopolitical uncertainty will push up costs and problem loans for banks, resulting in a deteriorating operating environment for many banking systems.

Deteriorating asset performance in a recessionary environment could offset the benefits of rising interest rates on net interest margins. As unemployment rises, borrowers' repayment capacity will slip. Also, the prospect of higher, more protracted inflation in some systems could provoke much larger interest rate increases and worsen operating conditions for banks, likely leading to a deterioration in asset quality as both households and corporates come under greater strain. In terms of the strong dollar, some banks in Africa, Turkiye (B3 stable) and the Commonwealth of Independent States, and to a lesser extent in Latin America, are more vulnerable, depending on the share of dollar-denominated liabilities in those economies.

The knock-on effects of the energy crisis in Europe are more negative for banks in countries where the shortages have hit the hardest, including Germany, Austria (Aa1 stable), Italy (Baa3 negative) and Central and Eastern European countries. We expect problem loans to start to mount for European banks after years of improving asset performance. A housing market downturn is another risk, with solvency metrics of European banks becoming more vulnerable if house prices fall significantly. However, European banks' capital and other buffers have increased substantially since the 2008 financial crisis, and they are also benefiting from improved net interest margins. Commercial real estate loans, adjustable-rate and short-term fixed-rate mortgages originated in recent years amid the peak of the housing boom, as well as the residential mortgage-backed securities transactions that they back, are the most vulnerable.

In the US, rising interest rates will be positive for earnings of banks with higher proportions of floating-rate loans and stable retail deposit franchises, but rising rates also reduce non-interest income because of lower mortgage banking volume and reduced asset management fees on lower asset values. As business and consumer activity slows, asset quality metrics will worsen from very strong levels, requiring banks to build allowances for credit losses. But banks' strong capital buffers will absorb any credit losses. Additionally, risk-based capital requirements are increasing for most global systemically important banks in the US, and monetary policy tightening will result in unrealized losses on available-for-sale securities, which will reduce regulatory capital ratios. Funding and liquidity will remain strong, despite monetary policy tightening that is driving deposit costs up and deposit growth down sharply.

Chinese banks will continue to use their large loan-loss reserves for bad debt disposal and to keep their reported problem loan ratios broadly stable despite weaker asset quality. Corporate loans to the real estate sector will drive the increase in problem loan formation for rated banks, while higher unemployment and lower personal income will result in poorer asset quality of credit card and personal consumption loans. Banks have lowered yields on corporate and mortgage loans in response to authorities' call for lower funding costs for the corporate sector and homebuyers, which will strain banks' profitability. That said, system liquidity remains adequate because of accommodative monetary policies.

With regard to **climate exposure and mitigation**, financial institutions will be under increased pressure to move toward net zero in their financed emissions, by setting decarbonization targets for their lending and investment portfolios. There also will be growing opportunities to provide financing for sustainable projects. Overall scrutiny around environmental, social and governance claims is likely to intensify among regulators and investors, posing reputational and financial risks for targeted companies, particularly in the asset management industry.

The disruptive effects of **digital finance** will be another key focus for financial institutions, with implications for business models in banking, finance, payments and asset management. Several large asset managers, for example, have taken steps including the creation of digital asset products and investments in firms that deal in digital assets. A number of institutions are also experimenting with bond issuance on blockchains, which could ultimately transform an asset class that has been slow to adopt new technologies. In the cryptocurrency space, these assets are currently being used primarily as investments, but a move toward widespread adoption in payments could disrupt the payments industry. As financial firms and other types of companies establish footprints in the digital asset space, we will be assessing both the opportunities and the risks, which include the volatility of assets and the potential for cyber intrusions. Lack of regulatory clarity also creates high exposure to fines and reputational damage.

Monetary policy tightening will likely pause by midyear, setting the stage for potential stabilization of conditions

The financing environment could begin to show signs of stabilization in the second half of 2023 if inflation comes under control and central banks ease off interest rate hikes, although credit conditions will likely remain challenging. The direction of China's zero-COVID policy might also become clearer by then. But the trajectory of the Russia-Ukraine conflict and Europe's adaptation to its new energy realities are highly uncertain.

While we will watch for cyclical troughs, we are also assessing where there are pockets of resilience, for example, in many banking systems, investment-grade corporates, US state governments, and large emerging market sovereigns with domestic sources of growth and funding. Oil producing and exporting countries and companies have benefited from high prices in 2022. In 2023, prices may slip from recent peaks as slower growth reduces demand, but geopolitical risk may keep supply tight, forestalling a rapid decline in prices in 2023. Despite the difficult macroeconomic backdrop, we also foresee opportunity for greater investment and/or profitability in certain areas, including clean energy, sustainable investing and digital finance.

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