# S&P Global

# Ratings

# Global Credit Conditions Q4 2021:

# Supply Chain Strain, Inflation Pain

Sept. 29, 2021

# **Key Takeaways**

- Globally, credit quality continues to recover slowly from a lower ratings base, as the world adapts to the dominant Delta variant and growth regains resilience. Rating upgrades are outpacing downgrades this year, although net upgrades so far represent only about 12% of the net COVID-induced downgrades in 2020. Credit outlooks in aggregate have stabilized and returned to pre-pandemic levels, while default rates have fallen sharply and are trending toward their long-term average.
- However, a confluence of headwinds could challenge the credit environment as we reach an inflection point for monetary policy and central banks start their gradual path toward normalization at different paces around the world. This could put pressure on more vulnerable credits because the pandemic has left 20% of our non-financial corporate ratings globally rated 'B-' and below.
- Key risks to our base case are: inflation pressures and supply chain frictions extending through 2022 could put pressure on corporate margins and force central banks to tighten monetary conditions sooner; elevated debt levels could heighten credit vulnerability for weaker corporates and emerging markets exposed to rapid shifts in market conditions, although this is mitigated where debt-service costs remain low; China's regulatory policy reset could create increased uncertainty over the credit and growth trajectories of the country with potential spillovers to the rest of the world, as illustrated by the Evergrande situation; and the increasing pace of the transition to a low carbon economy could cause significant disruption in energy markets, as already being seen in Europe.
- The economic and credit sensitivities to COVID-19 and the Delta variant of the virus are becoming more manageable in most developed economies as vaccination programs and natural immunity provide a pathway to living with the virus and households and corporates adapt to new ways of consuming and doing business. Countries maintaining a zero-tolerance COVID policy (China, Hong Kong, Australia and New Zealand) and emerging markets (EMs) where vaccination rates remain low are still more exposed. A vaccine escape variant remains a tril right.

(Editor's Note: S&P Global Ratings' Credit Conditions Committees meet quarterly to review macroeconomic conditions in each of four regions (Asia-Pacific, Emerging Markets, Europe, and North America). Discussions center on identifying credit risks and their potential ratings impact in various asset classes, as well as borrowing and lending trends for businesses and consumers. This commentary reflects views discussed in the global committee on Sept. 23, 2021)

Broadly, credit quality is continuing to recover slowly from a lower base as the global economy rebounds from the pandemic shock. In large part, this is due to the vaccines' success in reducing the sensitivity of economies to COVID-19, continuing lax funding conditions, and supportive fiscal policies in most major economies that has released pent-up demand and boosted revenues and earnings. Strong exports, large order books, low inventories, and high job vacancy rates all attest to the strength of consumer and business demand. This has translated into a moderately positive migration in credit quality, with upgrades exceeding downgrades consistently through the year (see chart 1), although net upgrades so far in 2021 are only about 12% of the number of net COVID-induced downgrades we saw in 2020.

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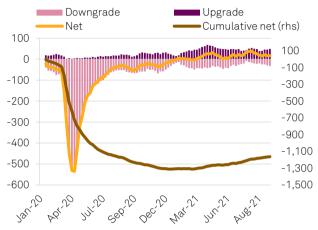
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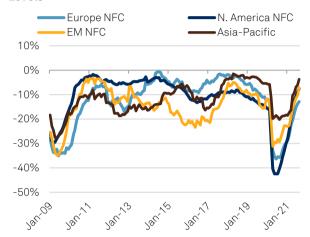
More striking is the improvement in the net negative outlook bias that, at minus 7.9% (as of Sept. 12), is back to pre-pandemic levels in all regions apart from Europe. This indicates a clear stabilization in credit prospects (see chart 2). These credit trends broadly mirror the macroeconomy where our global GDP growth forecasts now stand at a solid 5.8% (June forecast 6%) for 2021, declining to 4.4% in 2022, and gradually towards trend growth in later years. Within that we have adjusted our U.S. and China growth numbers down to 5.7% (6.7%) and 8.0% (8.3%), countered by upward revisions in the eurozone to 5.1% (4.4%) and the major LATAM economies to 6.5% (6.0%) as well as some other emerging markets. For further details see "Global Growth Is Steady As Delta Spurs Wide Regional Swings." Sept. 28, 2021.

Chart 1
Credit Quality Recovering Slowly



Rating Actions are from Jan. 19, 2020 to Sept. 26, 2021. Downgrades and upgrades are trailing four-week. Source: S&P Global Ratings.

# Chart 2 Net Outlook Bias By Region Largely Back To Pre-Pandemic Levels



NFC—non-financial corporate. Net negative bias is calculated by subtracting the positive bias from the negative bias. Overall net bias (%) excludes sovereigns. Data up to Aug. 31, 2021. Source: S&P Global Ratings.

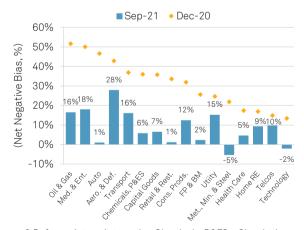
Rating Actions By Sector Since The Start of 2021

Chart 3



Chart 4

#### Net Negative Bias By Sector Compared To December 2020



Rating Actions are from Dec. 30, 2020 to Sept.14, 2021. Aero. & Def.—Aerospace & Defense. Auto—Automotive. Chemicals, P&ES—Chemicals, Packaging and Environmental Services. HomeRE—Homebuilders/Real Estate. FP&BM—Forest Products and Building Materials. Med. & Ent.—Media & Entertainment. Telcos—Telecommunications. Net negative bias is calculated by subtracting the positive bias from the negative bias. Source: S&P Global Ratings.

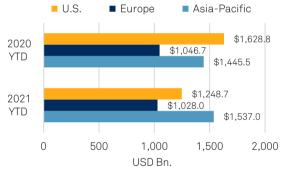
Credit performance has not been uniform across sectors. Looking more closely at the ratings performance in different sectors since the start of this year, there has been quite a sharp divergence in the upgrade/downgrade ratio. Two of the more COVID-disrupted sectors have experienced particularly high upgrade-to-downgrade ratios year to date. The auto sector's financial performance has held up well as original equipment manufacturers (OEMs) prioritized higher-value models, and their pricing power has been strong given overall lower production, curtailed by the shortage of semiconductor chips. Many rated retailers have protected their balance sheets well

through cost reduction and prudent financial management, resulting in positive rating actions despite a sharp drop in revenues in many cases. In addition, the net outlook bias in both of these sectors has improved sharply this year, now standing at close to zero.

Some sectors, however, are exhibiting ongoing vulnerabilities, with relatively high net negative outlook biases. COVID still casts a dark shadow over the travel and aviation industry, with a slow recovery of international travel likely to prevent credit metrics in the industry returning to prepandemic levels until at least 2023. The utilities sector also has a relatively high net negative outlook bias. This is more challenged by the energy transition, where we see the substantial capital investment required to produce clean energy contributing to negative discretionary cash flow. This further erodes financial headroom that is weak relative to key rating thresholds for many entities.

Funding conditions largely remain very supportive, with spreads on corporate debt remarkably tight. Issuers at nearly all rating levels (including those industries experiencing structural change that predated the pandemic) continue to have good access to capital markets at attractive rates. Yet, there are some signs that investors are stepping back from longer duration investments given growing inflation pressures, compressed nominal yields, and the approaching inflection point for monetary policy in the U.S. We expect the U.S. Federal Reserve to begin tapering asset purchases in December, and we anticipate that a first increase in rates could take place in December 2022, followed by two rate hikes each in 2023 and 2024. Strong CLO (collateralized loan obligation) formation activity also testifies to that. Meanwhile, a number of central banks around the world, including Norway, Brazil, Russia, Chile and Mexico have already started to increase rates.

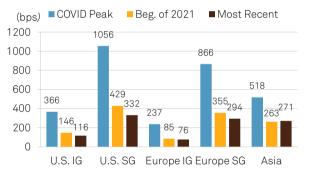
Chart 5 Financial And Nonfinancial Issuance Activity At 2020 Runrate Except In U.S., Driven In Large Part By Refinancing Apart From In Asia



Source: S&P Global Ratings. Data as of Sept. 13, 2021.

Chart 6

# Secondary Market Spread Compression Continues In 2021



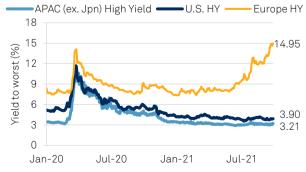
Source: ICE Benchmark Administration Limited (IBA), 'ICE BofAML Asia Emerging Markets Corporate Plus Sub-Index Option-Adjusted Spread', 'ICE BofAML Europe, the Middle East, and Africa (EMEA) Emerging Markets Corporate Plus Sub-Index Option-Adjusted Spread', retrieved from FRED, Federal Reserve Bank of St. Louis; U.S. Investment-Grade and Speculative-Grade Spreads from S&P Global Ratings, Europe Investment-Grade Spreads From S&P Dow Jones Indices. Sept. 13, 2021.

Percent Of Nonfinancial Corporates Rated 'B-' Or Below Remains High In North America And Europe



Source: S&P Global Ratings. Data as of Aug. 31, 2021.

# Credit Pressures Building In Asian US\$ High-Yield Market



Source: Bloomberg. Data as of Sept. 26, 2021.

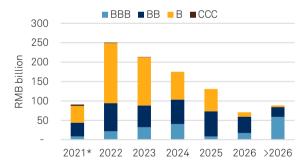
The compression in spreads, particularly in high yield, is all the more remarkable given that we still have a high proportion of nonfinancial corporate ratings at 'B-' and lower (see chart 7). The number as a percentage of speculative grade in North America and Europe is 39% and 32% respectively, which is below last year's peaks of 43% and 35%, and trending lower, but still high in an historical context. Yet, nonfinancial corporate default rates have tailed off quite sharply in recent months, currently standing at 2.8% and 4.0% in the U.S. and Europe at the end of August. In the expectation of continued benign funding conditions and a favorable growth outlook, our baseline points to these default rates falling toward 2.5% and 3.25% by end June 2022. Nevertheless, it remains the case that companies with high debt and little prospect of generating free operating cash flow will struggle to improve their credit quality overall, despite debt-service costs being currently so low.

# The difference between North America/Europe and APAC/LATAM is interesting for two reasons.

First, the relatively high percentage of vulnerable speculative-grade companies in North America and Europe partly reflects the relative maturity of these markets compared with Asian and emerging market bond markets, where the private equity industry is less developed but also more private.

Second, as evident in chart 8, the Asian (ex. Japan) offshore bond market, largely comprising Chinese corporate borrowers, has sold off sharply in recent weeks. This reflects the imminent risk of the largest issuer in the index--Chinese property developer Evergrande (CC/Negative/--) defaulting on its Chinese renminbi (RMB) 125 billion (\$19.2 billion) offshore U.S. dollar debt in the coming days. While we view a likely selective default of Evergrande as somewhat idiosyncratic in nature, this could cause liquidity to dry up in the emerging market U.S.\$high-yield market because Chinese property developers have RMB1.0 trillion (\$156.8 billion) offshore debt outstanding, of which almost 50% is issued by single 'B' or 'CCC' rated entities (see chart 9).

Chart 9
Maturity Profile Of Rated Chinese Property Developers In
Offshore Bond Market



Note: Data collected as of Sept. 5, 2021. \*Sept. 1 to Dec. 2021. 1USD=6.5 RMB. Source: S&P Global Ratings, Bloomberg, Wind.

# **Top Risks**

Key developing credit issues that we are monitoring closely include persistence of inflationary pressures and central bank policy; China's policy shift and Evergrande contagion risks; the evolving nature and severity of the COVID-19 pandemic; and opportunities and risks related to the climate agenda.

Demand-pull inflation pressures are being compounded by supply disruptions, many of which may no longer be short term. Of growing concern are certain critical areas in the supply chain that are experiencing shortages, disrupting economic activity, and feeding into growing cost pressures. There are three sectors in particular where supply shortages have become more severe and where we expect supply-demand imbalances to extend well into 2022:

Shipping freight rates have risen to 13-year highs on the back of strong demand, port
congestion and container shortages. As it takes 12-18 months to increase shipping
capacity and as many annual contracts are being renewed in Europe and Asia in the fourth

quarter, we expect higher freight costs will increasingly feed into higher raw material, intermediate, and final goods prices during 2022.

- Energy. Strong demand, low gas stocks, and supply constraints, particularly in Europe, have caused gas and electricity prices to surge, even ahead of the winter season. The European gas benchmark Dutch TTF reached €75.675 per megawatt-hour (/MWh), or \$25.94 per million British thermal units (/MMBtu), for next-day flows on the September 27, according to pricing data from our sister company S&P Global Platts. This compares to €11.40/MWh only a year ago. This feeds into higher electricity prices: Baseload prices in Spain and Italy exceeded €180/MWh in recent weeks, a multiple of the €40-50/MWh that prevailed last year. The situation is not helped by nuclear and coal power generators coming off stream and a lack of investment in new gas assets as part of Europe's ambitious energy transition program. S&P Global Platts expects power prices to remain still elevated in Europe at around €80/MWh through to 2023.
- The scarcity of **semiconductor** chips has continued longer than expected and will persist at least through the first half of 2022 until new production capacity comes online. This will keep prices elevated and feed into contract renewals in the coming months. This situation, in the short term at least, is not helped by localized outbreaks of the coronavirus that have disrupted assembly and testing facilities in countries such as Malaysia.

While we are monitoring corporate margins, we expect those sectors experiencing strong demand and product scarcity largely to be able to protect their margins in 2021 (e.g., auto OEMs). We see greater vulnerability for some (i.e., industrial) companies with weak profitability reliant on effective cost-containment programs to protect margins. Of greater concern is the potential margin impact in 2022 as annual contract renewals close at higher rates, raw material hedges run off, and demand normalizes.

Our base case remains that headline inflation pressures will ease back to target over the next six-12 months in developed markets. Nevertheless, cost-input pressures are real and, as we can see in the U.S., they are broadening out beyond food and energy (see chart 10); wage pressures are building where labor shortages are appearing, and, importantly (for the Fed), inflation expectations have started shifting higher. As shown in chart 11, inflation expectations have spiked alongside the acceleration in core consumer price inflation (CPI), with one-year inflation now pegged to reach 5.2% in the New York Fed's latest August consumer survey, and still remaining around 4% in three years' time. If this continues in coming months, it will challenge the Fed's guidance in determining the pace and timing of slowing asset purchases.

In many EMs, inflation continues to rise because of higher fuel and food prices, and supply chain disruptions interacting with a stronger economic rebound. Unlike in advanced economies, the food weight in the consumer price basket is higher in EMs. The U.N. FAO Food Price Index was up 33% in August from the same period last year, with little sign of softening in the near term. At the same time, exporters and factories are struggling with the impact of supply chain disruptions, shortages, shipping delays, and chronic port congestion.

The credit concern is that a rapid market repricing of risk or inflation shock, affecting financial and real asset prices, debt-servicing costs, and funding access, could present challenges for lower-rated corporates and some emerging markets. Debt levels have increased even though many borrowers have pushed out maturities--on average speculative grade nonfinancial corporate debt maturing by the end of 2022 has fallen to only 10%-11% of the total in the U.S. and Europeand the prolonged period of low interest rates has eased debt-servicing burdens. Outstanding (gross) debt for rated speculative-grade issuers increased by 16% in the first half of 2021 in Europe and by almost 7% in the U.S.

Many EMs are particularly sensitive to this risk, as inflationary expectations are typically not well anchored and EM central banks have less flexibility to prioritize growth over inflation given the importance of exchange rates, trade flows, and foreign-currency borrowings in many countries. Already, many central banks in key EMs have raised their interest rates, and we expect this trend to continue, except in EM Asia (apart from the Philippines) where inflation remains muted.

Chart 10

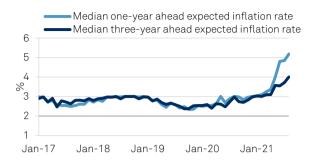
# U.S. Trimmed Mean CPI Points To Breadth Of inflation Pressures



Sources: Cleveland Federal Reserve, Refinitiv.

#### Chart 11

# U.S Consumers Inflation Expectations Moving Higher



Sources: Survey of Consumer Expectations, New York Fed.

Regulatory risk is an emerging risk factor we are watching closely in China. For some time, authorities have emphasized the importance of other policy priorities alongside growth and innovation. However, this has gained impetus in recent months as the Chinese government has been tightening regulations in half a dozen sectors, most recently in the education sector, while Macau launched consultations ahead of possible amendments to Macau's gaming law. We believe more regulation is likely over the next 12 months as the government increasingly focuses on addressing the imbalances between economic growth and social equity, on leveling the playing field in concentrated sectors, ensuring data security, protecting consumer and worker rights, and reducing the cost of living, particularly housing, education, and health care.

This regulatory reset is also targeting greater financial discipline and seeking to enhance financial stability in the medium term. The liquidity-induced deterioration in the credit quality of the property developer Evergrande is a case in point given its heavy reliance on supplier commercial bills as a way to alleviate its working capital and debt needs.

In our view, the main credit concern is that the implementation and communication of these policies could bring surprises and, as in the recent case of the Macau casino sector, drive market volatility, raise funding costs, and temporarily restrict capital market access. In relation to real estate, while Evergrande's difficulties could have wide-reaching negative ramifications for other developers, suppliers and contractors, as well as the (largely domestic) banks and financial institutions that lend to them, we believe Beijing would only be compelled to step in if far-reaching contagion caused multiple major developers to fail and posed systemic risks to the economy. Evergrande failing alone would unlikely result in such a scenario (for further details see "Evergrande Default Contagion Risk - Ripple Or Wave?" published Sept. 20, 2021, on RatingsDirect).

China has little incentive to improve collaboration with global leaders ahead of COP26. Another consequence of China steering its own path is that there is little interest in engaging to tackle the global challenge of climate change. While a real issue for China given public health concerns, particularly in relation to water and clean air, there is little incentive to ratchet up the ambition of their nationally determined contributions (NDCs) ahead of the COP26 conference in November that is aiming to minimize carbon emissions by 2050. Indeed, China aims only to reach peak carbon by 2030 and achieve its low carbon footprint by 2060 in its current plan. Such international discrepancy in climate ambitions and lack of cooperation may heighten the execution risks of transition policies and create additional trade tensions. The absence of a level playing field internationally would risk causing delays in countries making binding short-term national commitments.

At the same time, the ambition and commitment of Europe's climate policy is creating opportunities and risks from a credit standpoint. The EU's recent Fit For 55 blueprint for cutting carbon emissions by 55% from 1990 levels by 2030 requires a further ratcheting up in the pace of energy transition. Practical steps center around expanding the Emissions Trading System (ETS) for carbon pricing, energy taxation, and setting environmental standards. Ultimately, this environmental policy seeks to change the energy mix towards green electrification of the economy. However, translating this proposal into legislation will be complex, while required investments will

be heavy, and will take time. Furthermore, despite high political scrutiny on affordability, it will come at some cost to businesses and households. The breadth of sectors within scope, discrimination between EU and non-EU producers, and apportionment of costs within society are all open and sensitive issues. Consequently, the final legislative text is only expected to be agreed around the middle of 2023.

Nonetheless, the Fit For 55 proposal is supported by the EU's NextGenEU recovery investment program that has already started to disburse funds. This has a maximum envelope of €750 billion (5.6% of EU GDP) designed to prioritize the green and digital transitions. At least 37% of the grants and loans provided to member states under this program must be climate-related, with an additional 20% allocated to foster the digital transition. The utility sector is at the forefront of the energy transition, with the Fit for 55 proposal envisaging a major increase in electrification to 30% of final energy demand by 2030 (and 57% by 2050), up from 25% today. This will require significant investment both in terms of producing renewables and grid connectivity. This is a global issue and the build-up in debt could cause credit quality in the utility sector to weaken unless sufficient equity and hybrid capital is raised to protect balance-sheet strength, as we expect in Europe.

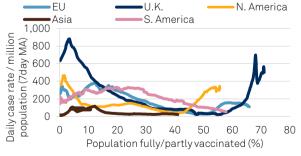
### COVID-19 isn't going away any time soon, but economic and credit sensitivity to it is declining.

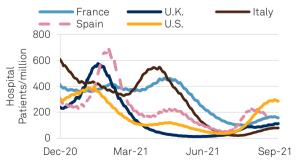
The highly infectious Delta variant continues to ricochet around the world, seeking out those unprotected by either natural infection or vaccination. While case rates have picked up sharply, even in some countries that have been running successful vaccination programs, hospitalizations and excess deaths are generally much lower than experienced in earlier waves (see charts 12 and 13). Many of these hospital patients are unvaccinated and younger adults, and so are typically recovering more quickly, relieving pressure on hospital beds. Economies have also learned to adapt, so that incremental economic costs of successive waves of the pandemic have fallen. In North America and Europe, at least, this underpins our base case view that--barring the emergence of a vaccine escape variant--policymakers will restrain from any further national lockdowns to protect the economy despite a likely autumn rise in coronavirus cases as school terms start, workers return to offices, and people socialize more indoors.

The situation varies quite substantially between countries in Asia. As vaccination coverage improves in Asia, more jurisdictions are looking to increase tolerance of COVID-19 to reopen economies more quickly, balancing vaccination coverage with targeted measures to manage pandemic waves within health care system capacities. However, the policy response to fresh outbreaks varies between countries. Some, notably China, Hong Kong, Australia and New Zealand, continue to impose tight lockdowns and mass testing in response to outbreaks, causing some economic fallout. At the other end of the spectrum, countries including Singapore, Korea, and Japan are learning to live with the virus: the private sector is adapting, and the ongoing economic costs to domestic economies is declining. Tourism-dependent countries such as Thailand, however, continue to suffer significantly from the lack of foreign tourists.

Chart 12 Chart 13

High Vaccination Rates Do Not Necessarily Stop Infections ...Although They Do Appear To Lower Hospitalization Rates





Sources: Our World In Data, S&P Global Ratings. Data as of Sept. 14, 2021.

In summary, we think that a protracted and uneven rollout of vaccines in many regions and continuing outbreaks of the Delta variant (mainly among unvaccinated or those with low immunity) may still drag on growth in certain regions in the event of local lockdowns and changes in social-distancing behaviors (including voluntary).

Table 1

# Top Global Risks

### Disorderly reflation and supply-chain pressures

Risk level\* Very low Moderate Elevated High Very high Risk trend\*\* Improving Unchanged Worsening

High demand and supply bottlenecks are driving input costs and inflation higher, highlighting vulnerabilities in global supply chains. If this persists longer than we currently expect, central banks may be forced to tighten monetary policy sooner than they'd like. This could make it difficult to normalize credit conditions without triggering excessive market volatility. A rapid and volatile market repricing or inflation shock, affecting financial and real asset prices, debt-servicing costs, and funding access, would hurt lower-rated corporates and some emerging markets. Those emerging markets most reliant on external financing are vulnerable to volatile capital flows and fragile investor sentiment, while those with material foreign-currency borrowings could suffer from U.S. dollar appreciation.

# Debt overhang creates fragility on path to normalization

Risk level\* Very low Moderate Elevated High Very high Risk trend\*\* Improving Unchanged Worsening

With aggregate debt levels at or near record highs, some corporates remain vulnerable to credit deterioration and defaults if income recovers more slowly than expected—especially if the cost of debt starts to rise. As extraordinary stimulus recedes, credit pressures will continue to build on corporates in industries that we expect won't fully recover earnings before next year or later. This could keep default rates higher for longer, fuel credit losses at banks, and weigh on investments and long-term growth. For sovereigns, the effects of high debt on credit quality will depend on policies to restore growth, fiscal and monetary flexibility, and exposure to shifts in market conditions.

### Uneven COVID-19 vaccine rollouts and renewed infections dampens economic recovery

Risk level\* Very low Moderate Elevated High Very high Risk trend\*\* Improving Unchanged Worsening

A protracted and uneven rollout of vaccines in many regions and continuing outbreaks of the Delta variant (mainly among unvaccinated or those with low immunity) could still make it difficult to contain the pandemic. While economies and health systems are becoming more resilient to surges in COVID-19 cases, any uncontrolled resurgence in the virus that reduces mobility--particularly if an escape variant emerges--could hamper the global economic recovery, creating a challenging credit environment for some countries and sectors. Some emerging markets face higher risks due to their health-care infrastructure and more-limited resources, with some also heavily dependent on tourism.

#### Shifting policy stance in China clouds credit and growth trajectories

Risk level\* Very low Moderate Elevated High Very high Risk trend\*\* Improving Unchanged Worsening

China's policy stance of "dual circulation" (reduced dependence on foreign technology and economies) and "common prosperity" (reducing income disparity and aligning social values) implies an increased tolerance for lower GDP and private sector income growth. They hint at a widening crackdown on private-sector enterprises that tracks the state's squeeze on the technology, real estate, gaming, and education sectors. Efforts to curb excess debt and less-productive investment have contributed to credit stress for leveraged issuers such as Evergrande and China Huarong Asset Management. Positively, targeting lower GDP growth and curbs on overborrowing may moderate the corporate debt overhang. However, the manner in which large corporate failures are handled may have unintended consequences, such as contagion fueled by drops in confidence. Meanwhile, China's enforcement of environmental regulations is leading to electricity power cuts—hitting both manufacturing and supply chains. Naturally, policy and economic developments in China affect entities reliant on the country for exports or finance (e.g. emerging markets) and imports (e.g. component parts).

### Structural Risks

# Transition to a low carbon economy poses challenges and risks

Risk level\* Very low Moderate Elevated High Very high Risk trend\*\* Improving Unchanged Worsening

Climate change and a growing acknowledgement of the need to move toward carbon-neutrality has intensified the focus on energy transition and the changes required. The challenge is to achieve global consensus and enact a policy program matching the scale of ambition. At a minimum this requires regulatory reforms; conversion in some operating models; and establishment of mechanisms to assess and price carbon risk appropriately. The onus will be on developed countries to take the lead in ratcheting up their nationally determined contributions (NDCs) at the forthcoming COP26U.N. Climate Change Conference and share the economic burden with developing countries. The required investment in new technologies will create new business opportunities but will also create significant disruption within carbon-intensive industries. It will also be important to ensure that the cost pass-through to consumers does not increase economic inequality.

## Business models and digital networks exposed to disruption and cyber risk

Risk level\* Very low Moderate Elevated High Very high Risk trend\*\* Improving Unchanged Worsening

The next major threat to the global financial system could easily be cyber-related, with more correlated risk and more rapid contagion than suggested by historical experience. This is due to both opaque and complex global supply chains as well as a digitally interconnected ecosystem, often with reliance on a concentrated number of cloud service providers. Such an event could trigger widespread rating actions, particularly for entities with weaker balance sheets that lack adequate cyber insurance or other means of liquidity to address the potential financial impact. Business models for banks and corporates remain vulnerable to technological disruption.

Sources: S&P Global Ratings.

\*Risk levels may be classified as very low, moderate, elevated, high, or very high, are evaluated by considering both the likelihood and systemic impact of such an event occurring over the next one to two years. Typically, these risks are not factored into our base-case rating assumptions unless the risk level is very high.

<sup>\*\*</sup>Risk trend reflects our current view on whether the risk level could increase or decrease over the next 12 months.

# Related Research

#### **Credit Conditions**

- Credit Conditions Asia-Pacific Q4 2021: COVID Besets, China Resets, Sept 28, 2021
- Credit Conditions Emerging Markets Q4 2021: Pandemic Scars Will Linger As New Risks Emerge; Sept 28, 2021
- <u>Credit Conditions Europe Q4 2021: Rampant Recovery, New Risks</u>, Sept. 28, 2021
   <u>Credit Conditions North America Q4 2021: Risks Rise As Recovery Hits A Snag</u>, Sept 28, 2021

#### **Economic Outlook**

- Economic Outlook Q4 2021: Global Growth Is Steady As Delta Spurs Wide Regional Swings, Sept, 28, 2021
- Economic Outlook Asia-Pacific Q4 2021: Growth Slows On COVID-19 And Rising China Uncertainty, Sept. 27, 2021
- <u>Economic Outlook Emerging Markets Q4 2021: Vaccination Progress And Policy Decisions</u> <u>Remain Key To Growth</u>, Sept. 27, 2021
- Economic Outlook EMEA Emerging Markets Q4 2021: Higher Inflation Persists Amid A Stronger Rebound, Sept. 27, 2021
- Economic Outlook Europe Q4 2021: A Faster-Than-Expected Liftoff, Sept. 23, 2021
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- Economic Outlook U.K. Q4 2021: Recovery Still On Track, Sept. 23, 2021

#### Research

- Decarbonization Efforts Are Shaking Up Global Energy Markets, Sept. 28, 2021
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- Evergrande Default Contagion Risk--Ripple Or Wave?, Sept. 20, 2021
- <u>Default, Transition, and Recovery: Third Quarter Corporate Default Tally At Lowest Level</u> <u>Since 2014, Sept. 17, 2021</u>
- The Energy Transition And What It Means For European Power Prices And Producers, Sept. 17, 2021
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- <u>The European Speculative-Grade Corporate Default Rate Could Fall To 3.25% By June 2022</u>, Aug. 24, 2021
- The U.S. Speculative-Grade Corporate Default Rate Could Fall To 2.5% By June 2022, Aug. 20, 2021
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