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Global Credit Conditions:

The Shape Of Recovery: Uneven, Unequal, Uncharted

July 1, 2020

Key Takeaways

- **Credit damage.** The COVID-led recession will likely weigh on credit metrics well into 2023 from the combination of lost output and increased debt burdens, threatening corporate solvency.
- **A different recovery.** The shape of recovery will differ from previous crises, with a wide range of outcomes across industries and geographies, and accelerating some secular industry shifts.
- **Swift stimulus worked; pull-back carries risks.** Central banks and governments acted promptly and massively to limit the damages to the real economy and the markets, but debt levels took another step up, making the unwinding of this liquidity support difficult, and widening the gap between market prices and credit fundamentals.
- **Profound political impact.** National and international fragmentation could intensify as low-income populations are suffering disproportionately, exacerbating inequalities and social tensions, while the disruption of critical supply chains revives economic nationalism.
- **Opportunities.** The crisis could present an opportunity for governments to support the recovery through infrastructure investment, supporting a green, digital, and more sustainable economy.

(Editor's Note: S&P Global Ratings' Credit Conditions Committees meet quarterly to review macroeconomic conditions in each of four regions (Asia-Pacific, Latin America, North America, and Europe, the Middle East, and Africa). 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 June 25, 2020.)

As we start the second half of 2020, the COVID-19 pandemic continues to expand globally, with confirmed cases exceeding 10 million and emerging markets now the epicenter. The fight to contain the virus remains the priority until a vaccine or effective treatment is found, but progress has been sufficient enough in many countries to allow lockdowns to ease. Consequently, the **focus has shifted to assessing the shape of the economic recovery**.

The pandemic will likely leave profound scars on the world economy. **A deeper hit than initially anticipated in emerging markets, notably for India, is now pushing our forecast to a 3.8% contraction in global GDP in 2020** (worse than the 2.4% previously expected). The dire effect of extended lockdowns on employment and consumer confidence also means that recovery will take longer than expected into 2021-2023, with a permanent loss in output.

The first determinant of the shape of the recovery is the evolution of the virus, which remains frustratingly uncertain. The consensus among health experts is that the pandemic may now be at, or near, its peak in some regions, but will remain a threat until a vaccine or effective treatment is widely available. This may not occur until the second half of 2021. A second wave or series of "mini-waves" are still plausible scenarios, though authorities in early-exiting countries have closely tracked the virus and tend to favor localized measures to contain resurgences around clusters, which are less harmful to the overall economy.

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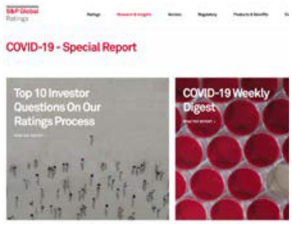

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S&P Global Ratings acknowledges a high degree of uncertainty about the evolution of the coronavirus pandemic. The consensus among health experts is that the pandemic may now be at, or near, its peak in some regions, but will remain a threat until a vaccine or effective treatment is widely available, which may not occur until the second half of 2021. We are using this assumption in assessing the economic and credit implications associated with the pandemic (see our research here: www.spglobal.com/ratings). As the situation evolves, we will update our assumptions and estimates accordingly.

Economic recovery will likely be very uneven across geographies depending on authorities' ability to contain the virus and preserve employment and the economic fabric. Early exiters, led by China, have been hurt less by the contraction in output in the first half of 2020, and we expect them to recover most of their previous trend growth. Meanwhile late exiters, including most of Latin America, India, and Indonesia, are struggling to contain the virus and will likely incur more significant losses in output and subpar growth trends compared to before the crisis. In the middle are the U.S. and the Eurozone, where we forecast GDP to contract 5.0% and 7.8%, respectively, this year, with both unlikely to get back to 2019 output levels before at least late-2021.

The recovery pattern will differ from previous crises, with the nonfinancial corporate sector suffering the biggest losses and in some cases threatening issuers' solvency. The effects vary significantly, from broadly neutral for industries such as consumer staples and technology to delayed and fragile recoveries, into 2023, for airlines and cruise operators. The crisis will also likely accelerate secular changes in sectors such as the automotive industry and discretionary retail.

Pressure on credit metrics will come from depressed income levels and rising debt burdens, as many companies are borrowing heavily to cover for liquidity shortfalls or shore up precautionary reserves. **Taking into account that median rating levels across most industries are at their lowest in two decades, we now expect the nonfinancial corporate speculative-grade default rate to increase to 12.5% in the U.S. and 8.5% in Europe by March 2021**, with risks to the downside if the economic costs of the pandemic deepen. Because it might take years for some industries to recover, defaults could stay high for a longer period than in previous crises and weigh on financial institutions' balance sheets through non-performing loans in the next few years. Banks, which act as the financial arms of governments to support the economy, are therefore not immune to rising credit risks. Securitizations backed by corporate debt—such as collateralized loan obligations (CLOS) and commercial mortgage-backed securities (CMBS)—will also likely come under pressure.

With central banks and governments injecting many trillions of dollars into the global economy to keep markets functioning, preserve jobs, and support a prompt recovery, the COVID-19 crisis will undoubtedly lead to an increase in public sector debt. Already **the direct and indirect fiscal costs of governments' extraordinary measures represent close to 18% of GDP on average for G7 countries**. This represents an additional 52% of the previously expected sovereign debt issuance for 2020. Households are also at risk of increased debt as furlough schemes end and unemployment rises; recent data suggest a significant rise in precautionary savings, although this lack of confidence could itself hamper the recovery.

The surge of debt in the system will make it very difficult for central banks to increase rates, while governments will have to balance the fiscal cost of extraordinary support with the risk to employment of a premature withdrawal. This means also that rates will likely remain very low for the foreseeable future, with a detrimental effect on banks' profitability, life insurance companies, and pension liabilities. High debt burdens and persistent uncertainty can also slow capital spending and the private consumption much needed to fuel the economic recovery. That might translate to higher consumer prices down the road, but in the near-term **could fuel asset-price inflation, as evidenced by the growing gap between market prices and credit fundamentals**.

Last but not least, with the virus's disproportionate effects on low-income workers both in developed and emerging markets, **this crisis could exacerbate inequalities and drive social and political instability.** Moreover, supply chain disruption might accelerate the trend toward economic nationalism that had already started before the crisis. On a positive note, **the crisis could represent an opportunity for governments to support the recovery through infrastructure investment and support a green, digital, and more sustainable economy.**

Overall, the shape of recovery will be uneven, unequal, and uncharted—but one thing is certain: global debt will likely take another step up.

Table 1

Top Global Risks

Extended containment measures deepen economic cost and fuel market volatility

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

As economies in Asia and most developed economies look to pull themselves out of the pandemic-induced shock, the outbreak continues to spread in emerging markets and the risk remains that some resurgence could lead to renewed social restrictions, until a vaccine or effective treatment is widely available. While we estimate the global economy will begin to rebound in the second half, the risk that the drag on consumer demand and business activity would persist, is firmly on the downside. At the same time, any premature pullback in fiscal and monetary stimulus would not only hurt consumers and small businesses, but could roil financial markets, which have taken a more optimistic tone than suggested by economic and credit fundamentals.

Corporate solvency risk and new highs in government debt harm long-term growth

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

Trillions of dollars in unprecedented fiscal and monetary stimulus from governments and central banks helped stabilize the capital markets and avoid a liquidity crisis. Still, concerns rise over corporate solvency especially as we see a significant pull-back in government stimulus, much of which is designed to preserve the labor market. The risks are further heightened by corporate borrowers' having incurred massive debt while income levels are likely to remain depressed by reduced level activities likely to expand into 2021, or even 2023 and after in certain sectors. At the same time, this extraordinary amount of stimulus comes as central banks had not yet unwound a decade of accommodative policy and many governments had already increase their level of indebtedness in the aftermath of the GFC, pushing public sector debt to new highs.

High debt burdens and less economic resilience to sustain lockdowns could leave Emerging Markets struggling to recover

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

Many key EM economies have failed to contain the epidemic. Lockdown fatigue driven by mounting political pressures and economic costs could lead to poor policy choices. Most EMs have limited room to maneuver and already high debt burdens prior to the pandemic, but the absence of proper economic stimulus could derail recovery and prolong the economic downturn.

Rise of Economic Nationalism cloud recovery

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

The pandemic has exacerbated economic isolationism in many countries, made manifest in trade and tariff disputes, and travel restrictions. In particular, supply-chain disruptions early in the crisis strengthened protectionist sentiment. While the flashpoint remains the U.S.-China relationship, some economies have proposed tighter rules on foreign direct investment, there's been an increase in applications to the WTO for safeguards. While we think the likelihood of a full-blown trade war is low, increased economic nationalism and persistent geopolitical tensions are a threat to global recovery.

Post-pandemic climate transition and social risks jeopardize sustainable growth

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

Climate transition remains a risk to the global economy as the decline in global greenhouse gas emissions in 2020 is likely to be only temporary. Moreover, some governments may prioritize near-term economic recovery over green initiatives, which could delay or undo environmental regulations, although other places like Europe might use the opportunity to support a green and digital growth. On another front, the pandemic and concomitant economic shock have thrown social inequality and income disparity into the spotlight. Job losses have hit low-income workers harder than their higher-earning peers, which could widen the wealth gap in the largest economies and heighten social and political instability.

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.

** **Risk trend** reflects our current view on whether the risk level could increase or decrease over the next twelve-months

The Shape Of Recovery

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A high level of uncertainty surrounds the shape of recovery, which depends first and foremost on the resolution of the health crisis. The consensus among health experts is that the pandemic may now be at, or near, its peak in some regions, but will remain a threat until a vaccine or effective treatment is widely available, which may not occur until the second half of 2021. We are using this assumption in assessing the economic and credit implications associated with the pandemic (see our research here: www.spglobal.com/ratings). As the situation evolves, we will update our assumptions and estimates accordingly.

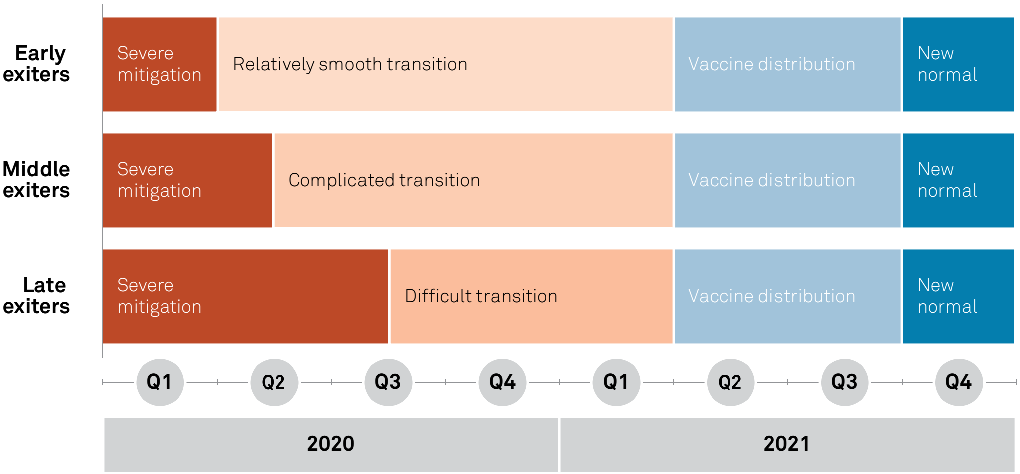
In order to explore this uncharted territory, S&P Global Ratings has developed a simple framework to map out the shape of the recovery by geography and by industry, finding a great degree of unevenness and a pattern different from the previous crisis.

Three stages of COVID-19 and exit profiles by geography

We grouped countries in three broad waves of COVID-19 based on when the infection hit and authorities' ability to contain the pandemic with a fairly rapid exit from lockdown. Correspondingly, we have categorized the main countries into early exiters, mid-exiters and late exiters, defining a series of stylized assumptions and duration relation scenarios (see Chart 1; see Appendix 1 for further detail) to arrive at our baseline economic and analytical assumptions.

Chart 1

Full Recovery Requires a Vaccine to Become Widely Available



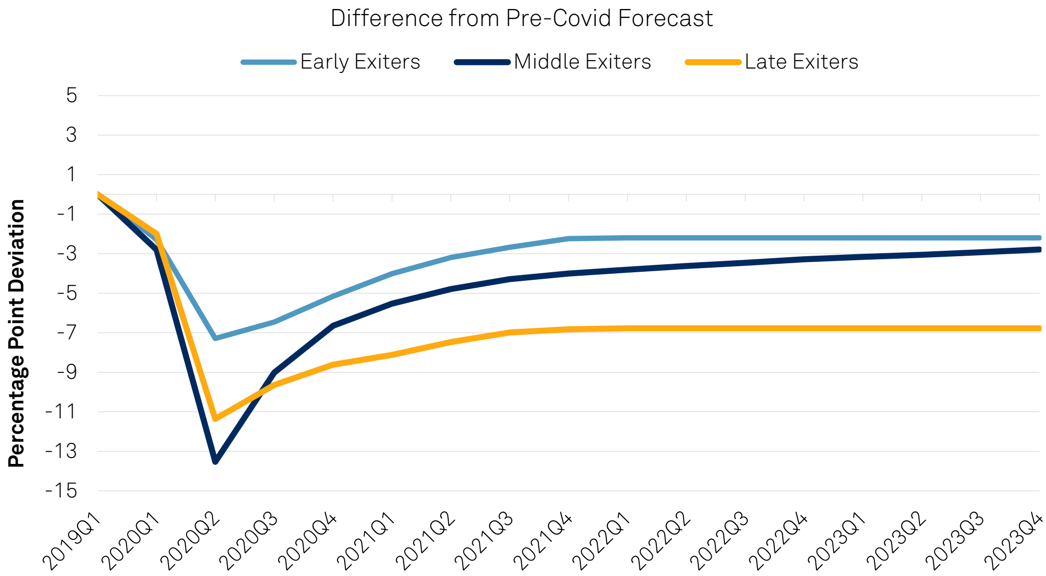
Source: S&P Global Ratings

These scenarios involve assumptions about the timeline of the pandemic, exit from governments' mitigation policies, agent behavior, and national macro-level programs:

- **Early exiters.** Through the second quarter of 2020, COVID-19 is largely contained or fully contained in some cases. The disease reproduction rate is substantially below 1 and healthcare capacity is underutilized. This category includes **China, Australia, Korea, and New Zealand**.
- **Mid-exiters.** Through the second quarter, COVID-19 is starting to be largely contained. Reproduction rate is close to but below 1 and healthcare capacity is underutilized. This category includes the **Eurozone, the U.K., the U.S., Japan, Russia, and Turkey**.
- **Late exiters.** Through the second quarter, COVID-19 isn't largely contained, and new daily infection rates are still high. Reproduction rate is still close to or above 1 and healthcare is near or at capacity. This category includes mostly **emerging markets in Asia and Latin America such as India, Indonesia, Brazil, and Mexico.**

Chart 2

Late Exiters Also Suffer Greater Permanent Damage



Source: S&P Global Ratings

Chart 2 shows the deviation between S&P Global Ratings current GDP forecasts for countries in the three waves compared to their pre-COVID trend growth. It shows that **countries in the early exiter wave are likely to be less affected by the contraction in output in the first half of 2020 and recover most of their previous trend growth, while late exiters will likely take longer to recover and remain on a sub-par path compared to the prior period.**

This pattern is consistent with the economic forecast developed by S&P Global Economics using the Oxford Economics model reflected in the table below (see "The Global Economy Begins A Slow Mend As COVID-19 Eases Unevenly", Jul. 1, 2020 for more).

Table 2

Global GDP Growth Forecasts

	Real GDP baseline forecast				
(%)	**2019**	**2020f**	**2021f**	**2022f**	**2023f**
U.S.	2.3	-5.0	5.2	3.0	2.8
China	6.1	1.2	7.4	4.7	5.3
Eurozone	1.2	-7.8	5.5	2.9	2.0
U.K.	1.4	-8.1	6.5	2.6	2.1
Japan	0.7	-4.9	3.4	1.0	0.9
India*	4.2	-5.0	8.5	6.5	6.6
Brazil	1.1	-7.0	3.5	3.3	2.9
World¶**	2.8	-3.8	5.3	4.0	3.9

Source: S&P Global Economics, Oxford Economics
*Fiscal year ending in March. **Weighted by purchasing power parity

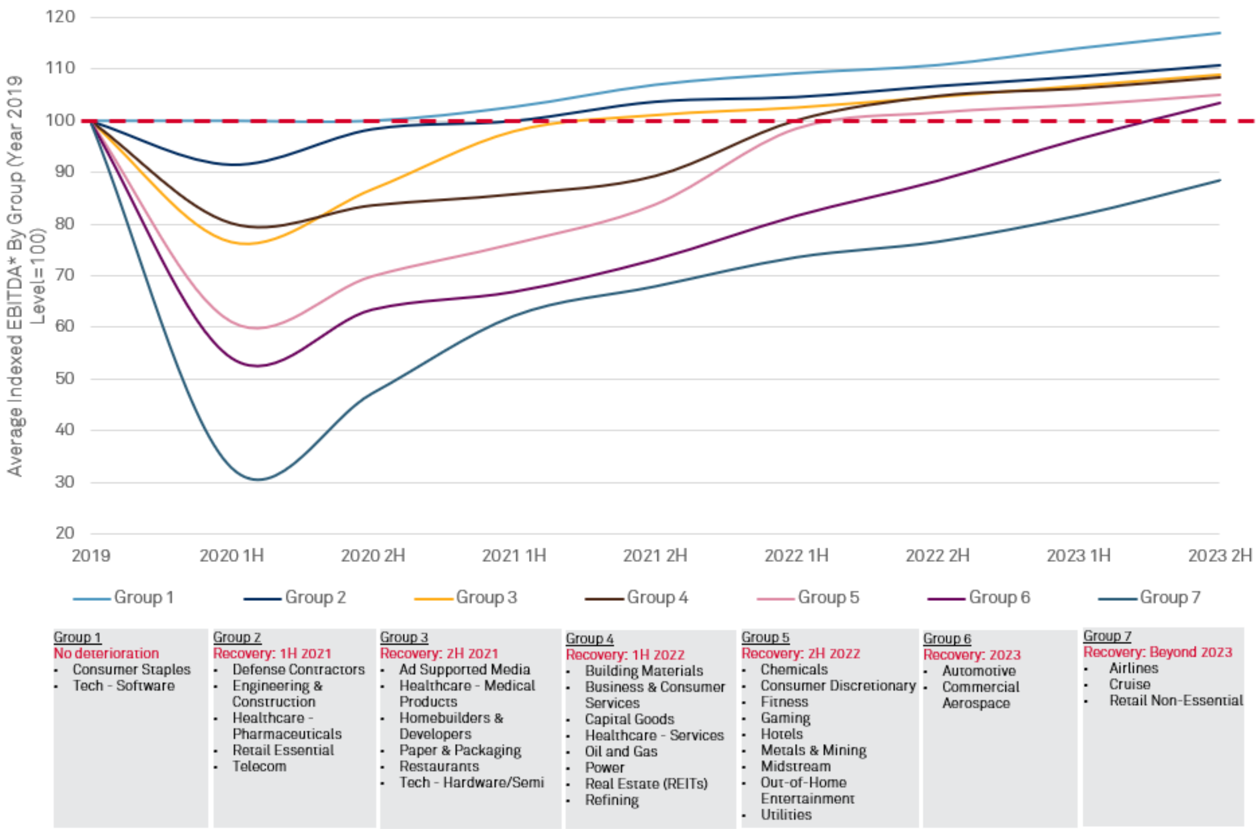
For regional details, see:
Economic Research: The U.S. Faces A Longer And Slower Climb From The Bottom, June 25
Economic Research: Eurozone Economy: The Balancing Act To Recovery, June 25
Economic Research: Asia-Pacific Losses Near $3 Trillion As Balance Sheet Recession Looms, June 25
Economic Research: Latin American Economies Are Last In And Last Out Of The Pandemic, June 30

Earnings recovery at industry level ranges between 2020 and 2023 or later

At a sector level, the depth of losses and the pace and extent of recovery are driven by industries' exposure to social distancing measures. Charts 3 and 4 show the stylized estimated earnings trend for rated companies derived from a survey of our analysts specialized in each industry at the regional level. For a detailed analysis, see "**COVID-19 Heat Map: Post-Crisis Credit Recovery Could Take To 2022 And Beyond For Some Sectors**," published June 24.

Chart 3

Shape Of Recovery: North America



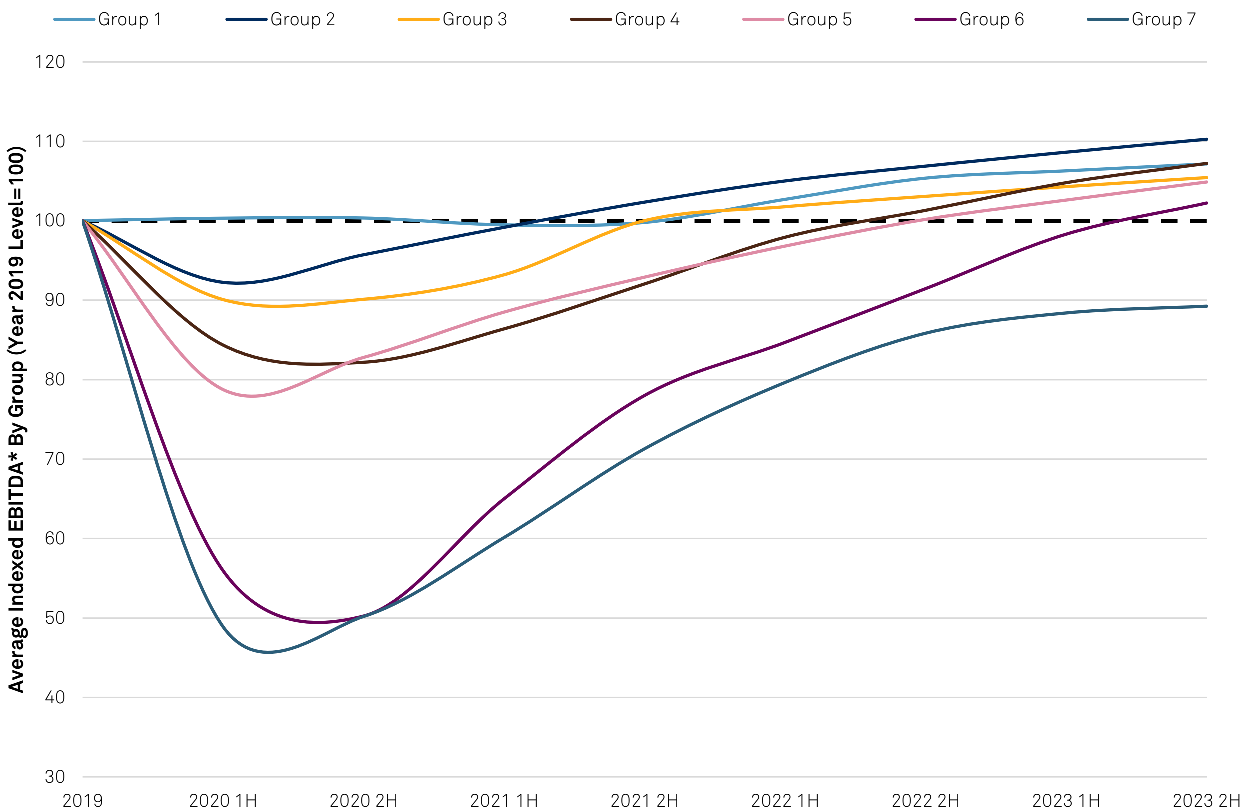
* For years 2022 and after, our opinion on credit metrics is used as a proxy for EBITDA (earnings before interest expense, tax, depreciation and amortization).

Note: The chart only represents our rated issuers in North America. After a sector's EBITDA reaches 100 (2019 level), we assume it continues to grow at the rate during 2017-2019 (calculated based on official industry value added). If the sector is expected to have long-term negative disruptions, a discounted growth rate is assumed

Source: S&P Global Ratings

Chart 4

Shape Of Recovery: EMEA



Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
No deterioration	**Recovery: 2020 2H**	**Recovery: 2021 1H**	**Recovery: 2022 2H**	**Recovery: 2023 1H**	**Recovery: 2023 2H**	**Recovery: Beyond 2023**
- Defence contractors - Other services (incl. public) - Pharmaceutical - Retail - essential	- Agr., forestry, & fishing - Cons. - staples - Healthcare - services	- Telecom - Healthcare - equipment - Paper & packaging	- Education - Gaming - Oil & gas - Cons. - tobacco & alcohol - Utilities - Homebuilders & devel. - Infra - toll roads - Professional services - Real estate (REITs)	- Infra - rail - Media & entertainment - Refining - Theme parks & attractions - Building materials - Business & consumer servs. - Capital goods - Chemicals - Engineering & construction - Metals & mining - Shipping	- Airlines - Autos - Cons. - discretionary - Cruise lines - Infra - airports - Lodging & hospitality - Financial services	- Commercial aerospace - Retail - non-essential - Retail - restaurants

* For years 2022 and after, our opinion on credit metrics is used as a proxy for EBITDA (earnings before interest expense, tax, depreciation and amortization). Note: The chart only represents our rated issuers in Europe. After a sector's EBITDA reaches 100 (2019 level), we assume it continues to grow at a multiple of GDP (calculated based on 2017-2019 performance).

Source: S&P Global Ratings

Similar charts are available for Latin America and Asia-Pacific in Appendix 2, together with an industry heat map for each of the four regions.

In this analysis, S&P Global Ratings grouped industries based on our expected timing of full earnings recovery to 2019 equivalent levels. The first two groups are more stable **sectors that overall service more closely the needs of "stay-at-home" or "work-from-home" consumers and businesses, with sectors in group 1 experiencing no significant negative effects in 2020, or even benefiting** from "stay-at-home"-related consumption such essential grocery or software companies.

The latter groups in contrast tend to be **more cyclical and disrupted by social distancing measures including auto, airlines and discretionary retail, which might take until 2023 or beyond to recover** and for which the COVID crisis might accelerate more structural industry shifts. Differences in categorization between regions may partly result from the sample of companies in each of them. In addition to earning trends corporate credit metrics will also suffer from higher debt burdens incurred to cover for liquidity hole during periods of suppressed activities.

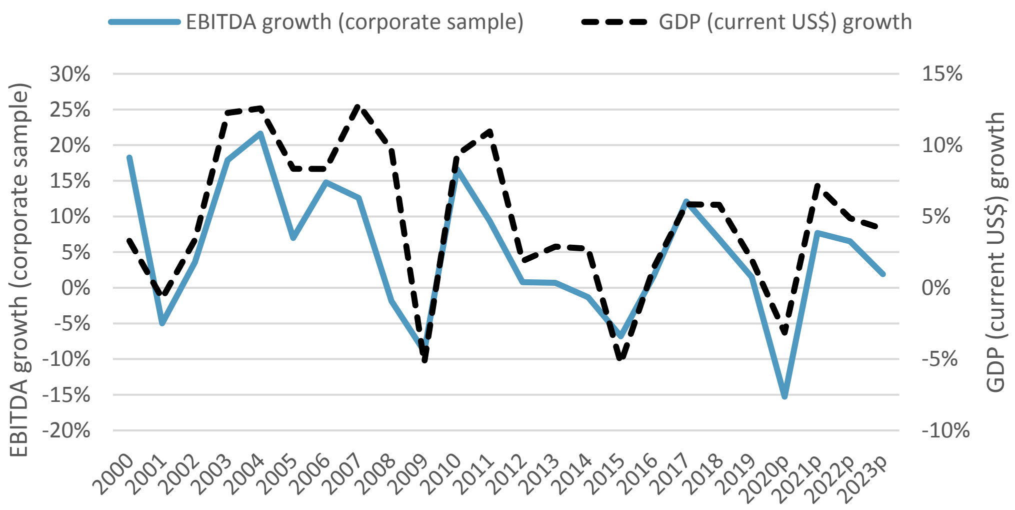
Corporate earnings and GDP are on similar tracks

The paths of sector recovery in charts 3 to 4 echo the possible routes of economies returning to their GDP growth trend lines illustrated for the three waves in chart 2. Further, we examined earnings growth for a sample of global nonfinancial corporates (rated and unrated, total sample size of close to 13,000 companies from the S&P Global Market Intelligence platform) against nominal GDP growth (see chart 5).

We note that there is some directional relationship between the growth of nonfinancial corporate earnings and nominal GDP for 2000-2019. There is a similar directional relationship between our rough estimate of nonfinancial corporate earnings (rated and unrated, sectors are weighted by estimated gross value added) and our economic forecasts for 2020-2023. The chart findings are preliminary; we would like to conduct more research in this area.

Chart 5

Global Corporate EBITDA versus GDP Growth



Source: S&P Global Ratings, S&P Global Market Intelligence, IMF.

p -- Projection by S&P Global Ratings. Data source for years 2000 to 2019: Corporate sample -- S&P Global Market Intelligence; GDP -- International Monetary Fund.

Global Financing Conditions

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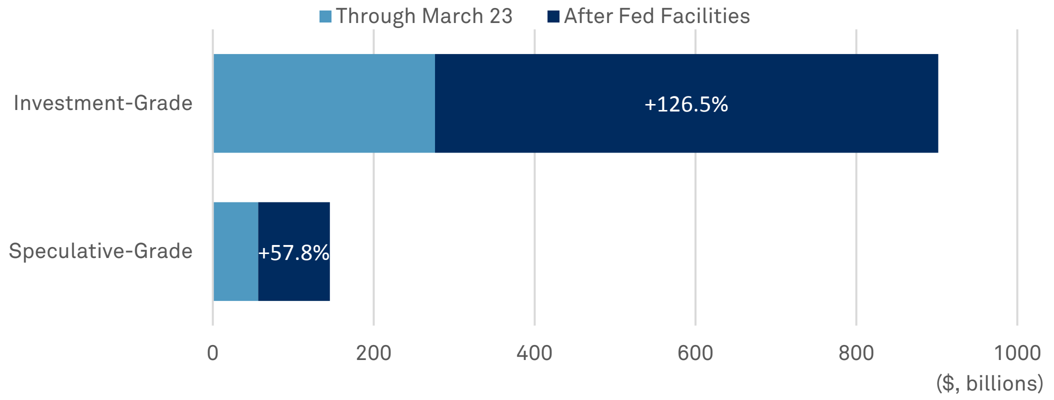
Since our last report, financing conditions have improved markedly, supported by the speed and magnitude of the monetary and fiscal responses across the world. These unprecedented moves have been effective in restoring market confidence, driving record debt issuance and avoiding a liquidity crisis. However, sizable risks remain, particularly given the current global backdrop with the Covid-19 virus still present.

Investment grade spreads soared with unprecedented speed, from 141 basis points (bps) at the beginning of the year, to 365 bps at the end of March—the highest levels since the GFC. Also swiftly, investment-grade issuance resumed *en masse* in the U.S. after the Federal Reserve announced its suite of support facilities, alongside a sharp tightening of spreads. **Through June 25, the $956 billion in bond issuance from financial and nonfinancial corporations had eclipsed the $933 billion in all of 2019**. Investment-grade spreads also sharply declined (though significantly slower than they widened) to a present level of 201 bps.

Chart 6

Fed Facilities Drive Unprecedented Growth Rates In Issuance

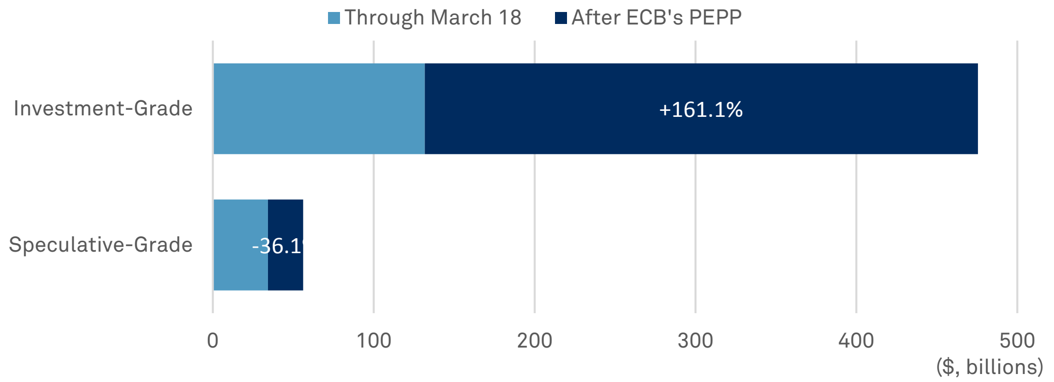


Source: S&P Global Ratings

Europe followed a similar trajectory after the European Central Bank announced the **Pandemic Emergency Purchase Program (PEPP), which boosted European investment-grade issuance even more in percentage terms, to €688 billion** (as of June 25). Asia, backed by various central bank liquidity injections, and monetary and credit stimulus programs by the People's Bank of China and Bank of Japan also saw a recovery in issuance to $933 billion in the same period.

Chart 7

PEPP Boosts Investment-Grade, But Little Direct Help For Speculative-Grade



Source: S&P Global Ratings

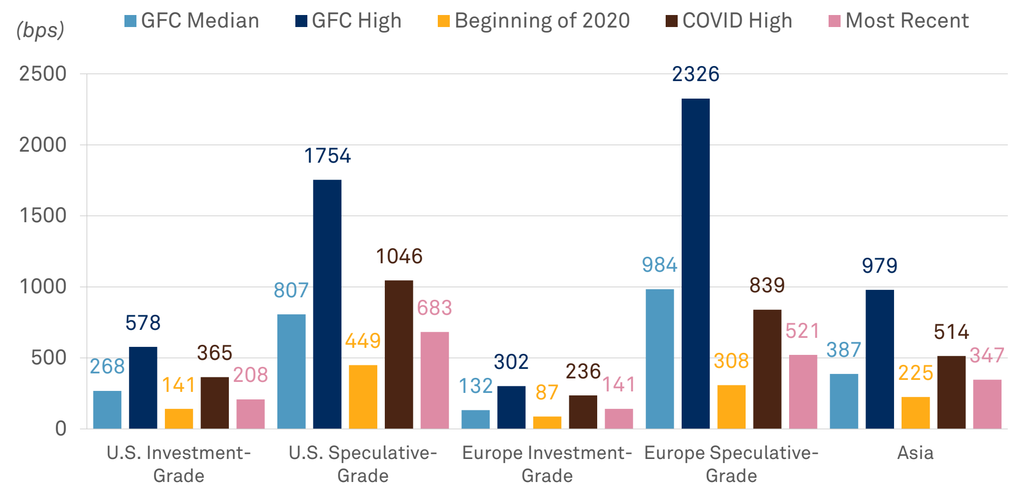
On the other hand, speculative-grade issuance remained muted initially but started to pick up after the Fed announced on April 9th the expansion of its programs to purchase bonds of recent fallen angels as well as high yield exchange-traded funds (ETFs). Until very recently, investor appetite went largely to debt in the 'BB' category, but **we are now seeing deals picking up also at the 'B' level in the U.S., with a clear "risk on" mood in the markets, providing June with about $13 billion in 'B' issuance already, the highest monthly total in over three years**. Speculative-grade issuance in the U.S. accounts for $172 billion this year (through June 25) compared to $216 billion for all of 2019. Lower-quality borrowers, too, are seeing some financing opportunities as well, though investors remain focused on business and financial risks, given the still-present constraints on revenues, especially for these more vulnerable borrowers.

Meanwhile, in Europe, speculative-grade bond issuance is down 36% since the introduction of the PEPP. Secondary high yield spreads in Europe are falling at a similar rate to those in the U.S. despite declining issuance, indicating restored liquidity for these issuers. During this time, the tremendous growth in nonfinancial loan issuance since March likely fills the void in bond issuance.

A variety of factors continue to influence this rush to market, including large investment-grade companies (in particular) taking advantage of favorable conditions and lower capital costs to shore up cash on their balance sheets. Additionally, vulnerable companies that have burned cash for more than three months—namely airlines, automotive companies, and travel-related sectors— are incurring more debt to survive the difficult impediments to top-line growth posed by the pandemic and accompanying social- distancing measures. The M&A pipeline remains subdued, though there are anecdotal cases of new deals used to fund acquisitions in recent weeks in both the U.S. and Europe in particular.

Chart 8

Global Credit Spreads Tighten Off March Highs But Remain Elevated

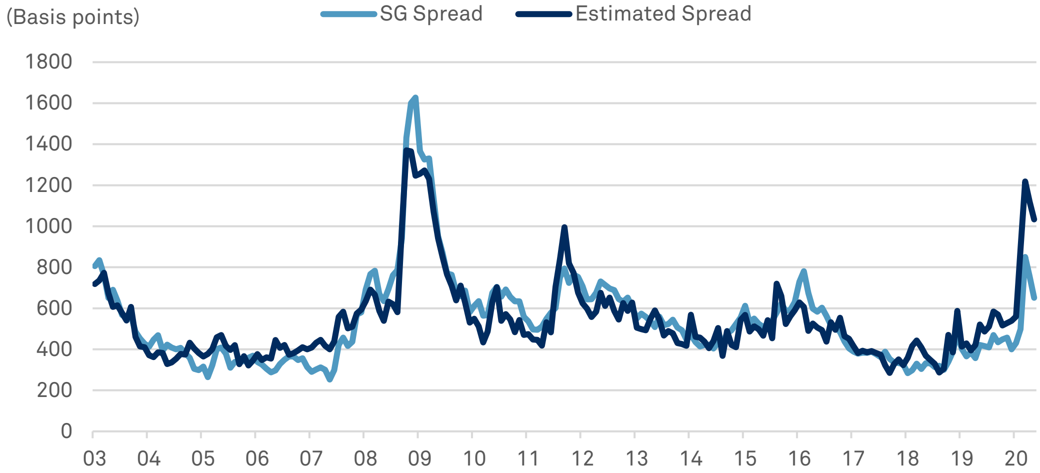


Source: ICE Benchmark Administration Limited (IBA), 'ICE BofAML High Grade Emerging Markets Corporate Plus Sub-Index Option-Adjusted Spread', 'ICE BofAML Emerging Markets Corporate Plus Index Option-Adjusted Spread', 'ICE BofAML Asia Emerging Markets Corporate Plus Sub-Index Option-Adjusted Spread', 'ICE BofAML Latin America 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; https://fred.stlouisfed.org/series/BAMLEMRECRPIEMEAOAS, U.S. Investment-Grade and Speculative-Grade Spreads from S&P Global Ratings. June 29, 2020.

Since March, spreads have compressed significantly, though remain above levels at the beginning of 2020. **U.S. investment-grade spreads tightened most, around 45%, with spec-grade spreads in the U.S. and Europe, as well as other regions, compressing in the neighborhood of 36%-39%.** By rating category, spreads narrowed across the board, with those for the 'AAA' through 'BB' ratings categories compressing at least 40%, while 'B' and 'CCC' came in about 35% each.

Chart 9

Markets Have Rarely Been This Far From Fundamentals



Source: S&P Global Ratings

Generally, markets seem to be incorporating expectations and guidance from central banks that they will do "whatever it takes" to keep capital markets functioning, liquidity flowing, and supporting investor confidence to mobilize capital to the economy. Nevertheless, markets remain fragile, with an **increased focus on the divergence between valuations and fundamentals and little margin for bad news, which will translate to higher volatility expectations** for the remainder of the year at least. Even beyond that horizon, leverage is clearly increasing across the system—putting increased pressure on credit metrics.

Ratings Impact By Sector

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Given the nature of the economic shock, **nonfinancial corporate are most affected, with 21% of the rating portfolio having been downgraded**[1] since the beginning of the pandemic and a similar share with negative outlooks or on CreditWatch with negative implications, even if the monetary and fiscal support that has helped prop up issuers mitigates defaults in the near term.

Banks, on the other hand, have shown more resilience as they entered the crisis with strong balance sheets. Yet **30% of global bank ratings now have negative outlooks, indicating some risks to their long-term profitability**. At the same time, **structured finance saw roughly 4% of the rated portfolio experience negative actions, primarily consisting of CreditWatch negative placements.** This reflects increased delinquencies and forbearance requests across many structured finance asset classes—with structural features such as reserve accounts, servicer advancing, and deferrable debt helping to temper temporary cash-flow interruptions.

Sovereigns, too, have added leverage as they responded to the sudden economic stop with massive fiscal and monetary stimulus. Among sovereigns, the majority of our rating actions have been on emerging markets. Most have used fiscal stimulus to bolster their economies, but the effectiveness is more limited than the measures at hand for developed economies. Overall, **we could see negative ratings pressures build up on sovereigns if the pandemic extends beyond our expectations or if extraordinary support doesn't lead to a robust rebound in economic growth.**

Nonfinancial Corporates

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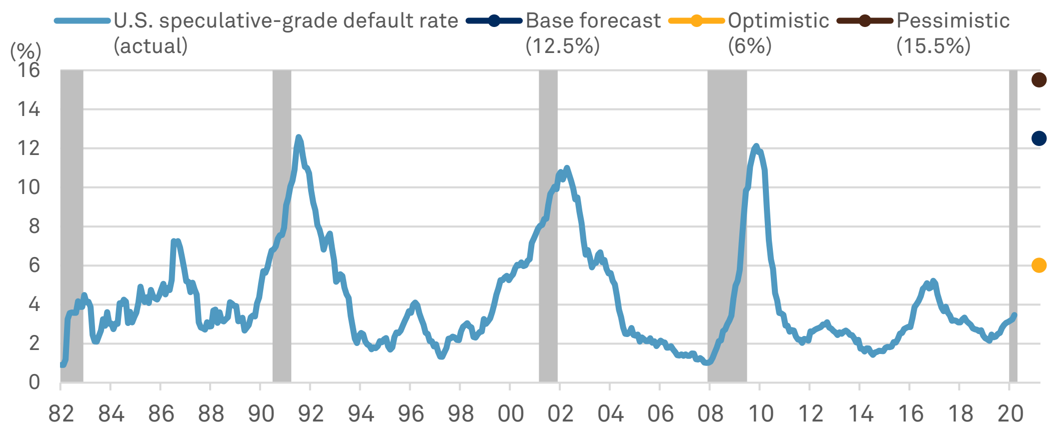
The nonfinancial corporate sector was the first to feel the brunt of the pandemic, with credit quality deteriorating sharply and suddenly as the global economy ground to a halt. Still, the severity has varied tremendously by industry. Sectors most exposed to social distancing, such as travel and leisure, as well as those most dependent on large discretionary consumer purchases, have suffered most—pushing many issuers in those sectors into survival mode with revenues at rock bottom and large cash outflows. We now expect the speculative-grade corporate default rates for the trailing 12 months to rise by March to 12.5% in the U.S. and 8.5% in Europe. **The risk is exacerbated by the fact that we entered the crisis with one-third of corporate ratings in the U.S. and one-quarter in Europe at 'B' or below, a level that indicates high vulnerability to shifts in economic and business cycles.**

Chart 10

U.S. Trailing 12-Month Speculative-Grade Default Rate And March 2021 Forecast



Source: S&P Global Ratings

[1] See "COVID-19- And Oil Price-Related Public Rating Actions On Corporations, Sovereigns, And Project Finance To Date" for details. This is updated weekly.

Expansive monetary and fiscal support could temper defaults in the near term, but the surge in corporate debt issuance is adding to already-high leverage at a time when revenues are shrinking, costs are rising, and a recovery is uncertain—which could lead to a prolonged period of high defaults, rather than a more typical turn in the credit cycle.

In our optimistic scenarios, we expect the default rates to rise to just 6% and 3.5%, respectively; in our pessimistic scenarios, we see them jumping to 15.5%, and 11.5%. This wide range reflects the uncertain path of the global economy and the pandemic, as well as the enormous amount of central bank stimulus that has supported financial markets in the near term—but may simply delay some defaults for months or years.

Some sectors face higher hurdles to overcome than others—especially those that were in the midst of secular shifts or entered the crisis in a weakened state. For example, the already-beleaguered retail sector suffers from an acceleration of the structural shift to on-line shopping, automakers face significant sales declines (exacerbated by supply-chain troubles), and airlines are being hurt so severely by social-distancing measures that we think it could take as many as three years for global air traffic to recover to pre-coronavirus levels.

And **while the pace of downgrades has slowed in recent weeks as economic activity starts to recover in the largest economies, negative rating actions continue**. Downgrades of nonfinancial companies have represented roughly 21% of the rated portfolio to date, with the largest concentration in automotive, capital goods, retail, and media and entertainment. On the bright side, some sectors have been relative isolated from pandemic-related exposure—or have even benefited—including telecommunications, which has become a critical part of a stay-at-home society and saw the lowest number of downgrades.

Additionally, the potential for ratings downgrades for global nonfinancial corporate issuers has increased at a record pace. **Among speculative-grade borrowers, the negative bias** (proportion of issuers with a Negative Outlook or CreditWatch Placement with Negative Implications to the total number of issuers) **jumped to an all-time high of 51%** (as of June 30), breaking the prior high of 47% in March 2009.

In particular, investors are watching potential rating transitions from investment-grade to speculative-grade categories, so-called "fallen angels." The lowest investment-grade category of 'BBB' (which includes 'BBB+' and 'BBB-') has become very large in the past decade, reaching **$2.7 trillion in the U.S. and $1.7 trillion in Europe**, as a result of sweet spot for issuers in terms of funding costs for issuers and return for investors. Year to date, fallen angels have accounted for **$310 billion of debt in the U.S. and Europe.** Rather than mass downgrades, we have seen a **concentration of several very large names, with Ford, Occidental Petroleum, Kraft Heinz, and Renault** accounting for **60% of the total**, as well as sectors most exposed to the crisis: **oil and gas, automotive, consumer products, and airlines,** which have contributed to 80% of the fallen angel debt this year. In April, we estimated, based on a hypothetical scenario, that fallen angel debt could reach **$730 billion this year, surpassing previous historical peak in 2005** when Ford and GM were downgraded. However, the concern that markets might not be able to absorb a large amount of new speculative-grade debt has abated somewhat as the Fed, the ECB, and the Bank of England extended some of their exceptional facilities to cover companies that were rated investment-grade prior to the crisis.

Financial Institutions

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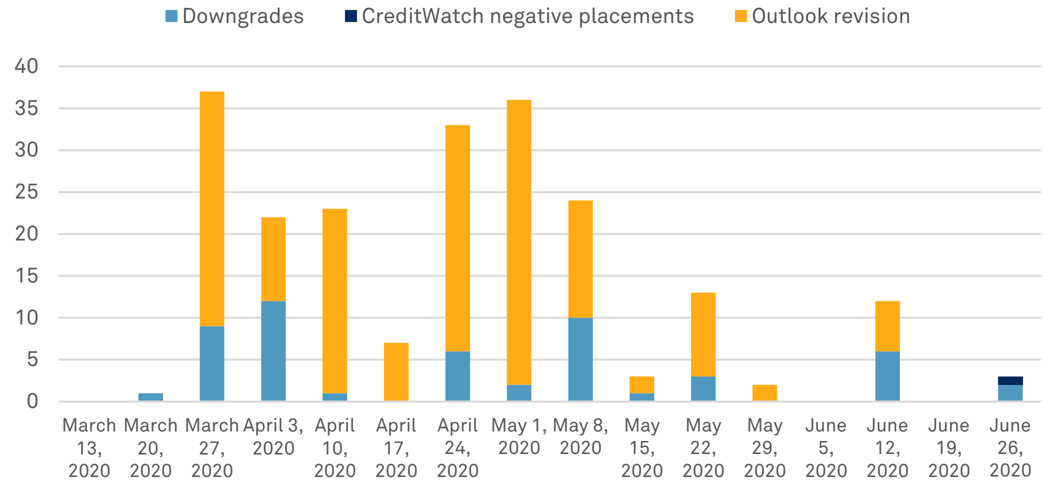
We continue to expect **downgrades for banks this year will be limited by the fact that they've strengthened their balance sheets in the past 10 years**, there's support from public authorities to household and corporate markets, and our base case forecast is for a sustained economic recovery next year. Nevertheless, our outlook bias has turned markedly negative since the end of March, following the downward revisions of our central economic forecasts, continued material downside risks to these forecasts, and the potential longer-term effects on banks' profitability. As a result, **about 30% of the outlooks on our bank ratings globally are now negative**. Of the 216 ratings actions we have taken on banks related to COVID-19 and/or the oil shock from the start of the pandemic through June 26, 75% were outlook revisions and 25% were downgrades. To date, **the oil shock or sovereign downgrades have been key drivers behind the majority of bank downgrades.**

We could take further negative rating actions if we expect the economic recovery to be substantially weaker or delayed, as this would imply a far more negative effect on banks' credit strength. Actions could also follow idiosyncratic negative developments at individual banks. We will closely follow banks' second-quarter results, although we believe they will only shed a partial light on the effect the pandemic is having on individual banks.

Also factored into our negative outlook bias is the likelihood of persistent pressure that many banks will experience on their financial performance. Once the dust settles and economies around the world recover, the **earnings recovery for banks is unlikely to be as sharp as the GDP rebound**. Many banks will face customers that may be prone to deleveraging, a cost of risk that will likely be well above pre-COVID levels, and lower rates for even longer. All these factors will likely dent earnings that were already under pressure in some regions at the onset of the pandemic, including in Japan and Western Europe. They will **likely also force many banks to undertake a further round of structural measures to address chronic performance issues.**

Chart 11

Oil Shock Led The First Wave Of Actions, Lower Forecasts Led The Second One



Source: S&P Global Ratings. Chart refers to rating actions at issuer level. If an issuer has had multiple rating actions since March 9, 2020, the chart reflects the most rating action date. Data as of June 26, 2020.

Sovereigns

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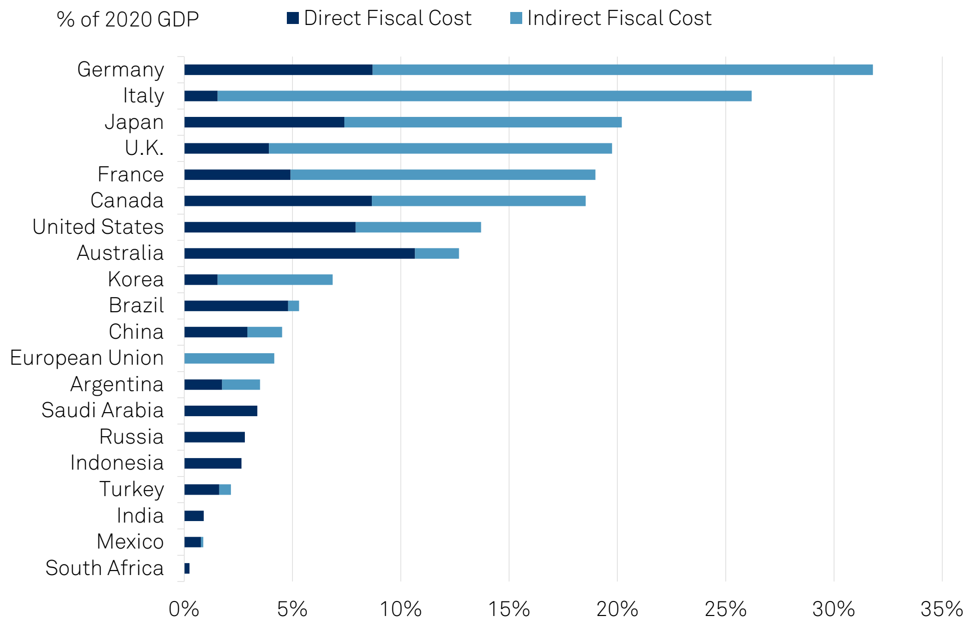
As governments around the world embarked on an unprecedented fiscal and monetary stimulus to contain the damage to the world economy, the IMF estimates that, as of June 15, **the direct fiscal stimulus put in motion was about $4.2 trillion, with roughly 65% and 83% of that implemented by G7 and G20 countries respectively** (see chart 12). This **represents an additional 52% of the expected debt issuances for 2020**; which in our sovereign borrowing report (see "Sovereign Debt 2020: Global Borrowing To Increase To $8.1 Trillion Amid Favorable Financing Conditions", Feb. 20, 2020) was expected to reach $8.1 trillion.

Chart 12

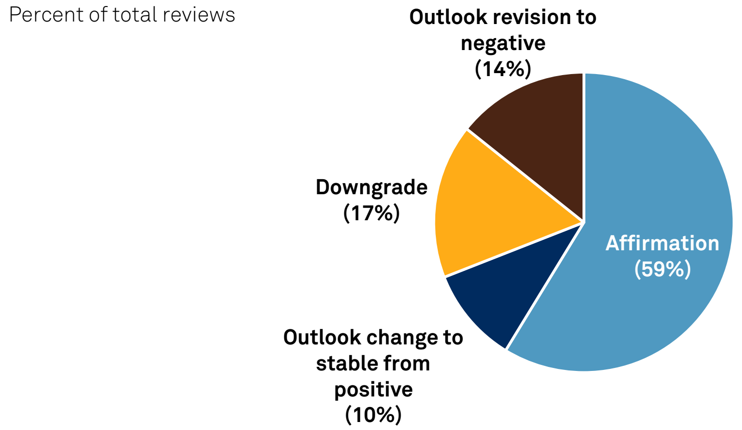
Fiscal Response To COVID-19



Source: IMF; National Authorities; S&P Global Ratings. As of May 14, 2020.

Chart 13

Sovereign Rating Actions Since March 10, 2020

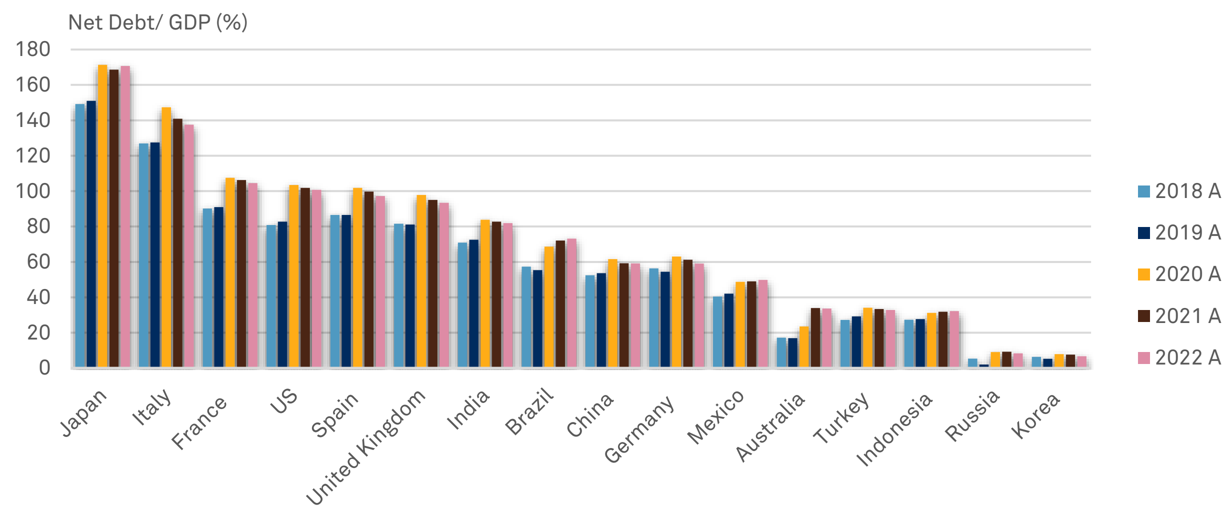


Source: S&P Global Ratings

The way economies respond to the stimulus and reopening will be the difference that marks the trajectory of many sovereign ratings in the next 24 months. Debt stocks have increased across all sovereigns (see chart 14 below) and it will be a long process until those come back to pre-pandemic levels.

Chart 14

Sovereign Net Debt / GDP (%)

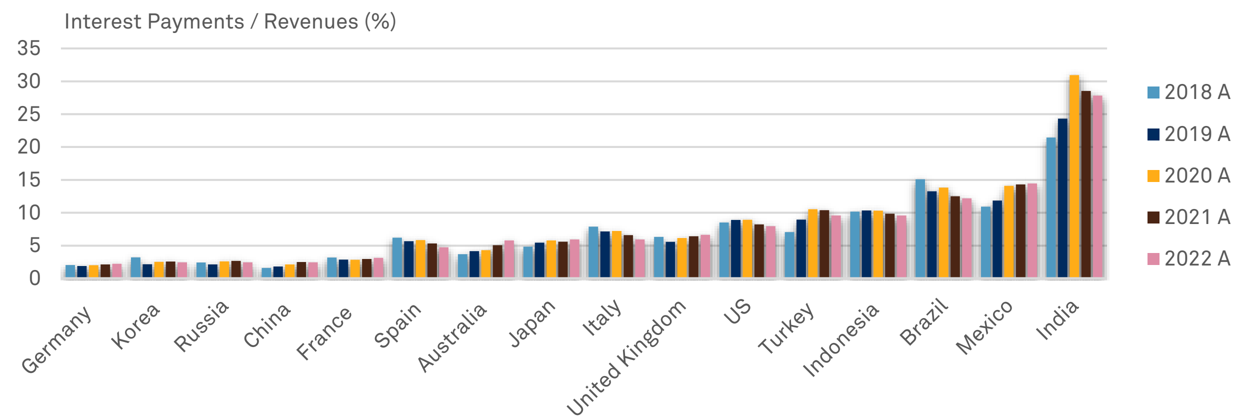


Source: S&P Global Ratings

That said, **interest burdens are expected to remain low given the unprecedented market liquidity**, which makes for debt sustainability to in some cases marginally improve. If, according to our expectations, governments are able to channel the resources in a way in which economic activity picks up pace and recovers the ground it will lose this year, we should see many of our ratings remain at current levels in 2021-2022. Conversely**, if the crisis extends, demanding additional stimulus in a context of low-for-longer economic growth, we could see negative pressures mounting, even on those sovereign ratings we have affirmed.**

Chart 15

Sovereign Interest Payments / Revenues (%)



Source: S&P Global Ratings

Structured Finance

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The current weakness in the macro environment and employment situation, especially as it hits consumers (and the knock-on effects for businesses), has led to increased delinquencies and forbearance requests across many structured finance asset classes. Therefore, **structural features, for example, reserve accounts, servicer advancing, excess spread, deferrable bonds/notes—when at least one of these features is present in many structured finance transactions/sectors—have helped mitigate temporary cash-flow interruptions.**

Still, our outlook on structured finance has turned sharply negative as a result of the significant effects of the coronavirus pandemic. As of June 19, 1,468 structured finance rated tranches experienced at least one rating action, due to the effects of the pandemic and/or the decline in oil and gas prices. The regional breakdown is as follows: North America, 1,275 rated tranches, EMEA, 124 rated tranches, Latin America, 67 rated tranches, and Asia-Pacific, two rated tranches.

Based on our current global economic forecasts, **we expect the bulk of negative rating actions to affect speculative-grade securities.** In most regions (other than Asia-Pacific), in our current base case scenario , **we expect the effects to be moderate for most asset classes with a couple asset classes, such as CLOs and CMBS, forecast to see elevated effects** (see chart 16). In U.S. and European CLOs, the combination of COVID-19 and the sharp decline in oil prices has resulted in a reduction in obligor credit quality within CLO portfolios, and is continuing to pressure lower mezzanine and subordinate tranche ratings. For both U.S. and European CMBS, the primary property types affected by containment measures are lodging and retail, although there may be other pockets of weakness.

However, if there is longer-than-expected disruption, or the recovery period is stretched or weaker-than-expected, this could increase stresses on liquidity and credit. In a hypothetical adverse stress scenario, characterized by a slower and weaker economic recovery, we would expect a significant increase in the risk of downgrades and defaults, even for some investment-grade securities (see "COVID-19 is testing the resilience of Global Structured Finance" published May 18, 2020).

Chart 16

Expected Performance Under The Base-Case Scenario

<table>
<tr><th></th><th></th><th>North America</th><th>Europe</th><th>Latin America</th><th>Australia</th><th>Japan</th><th>Greater China</th></tr>
<tr><td rowspan="4">ABS</td><td>Credit cards and other consumer unsecured</td><td>Moderate</td><td>Low</td><td rowspan="4">Moderate</td><td rowspan="4">Very low</td><td rowspan="4">Very low</td><td rowspan="4">Very low</td></tr>
<tr><td>Secured consumer (auto)</td><td>Moderate</td><td>Low</td></tr>
<tr><td>Whole business / corp securitization</td><td>Moderate</td><td>Moderate</td></tr>
<tr><td>Other commercial ABS</td><td>Moderate</td><td>Moderate</td></tr>
<tr><td>RMBS</td><td></td><td>Moderate</td><td>Moderate</td><td>Moderate</td><td>Low</td><td>Very low</td><td>Very low</td></tr>
<tr><td>ABCP</td><td></td><td>Very low</td><td>Very low</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Covered Bonds</td><td></td><td></td><td>Very low</td><td></td><td></td><td></td><td></td></tr>
<tr><td>CLO</td><td></td><td>Elevated</td><td>Elevated</td><td></td><td></td><td></td><td></td></tr>
<tr><td>CMBS</td><td></td><td>Elevated</td><td>Elevated</td><td></td><td></td><td></td><td></td></tr>
</table>

	Expected outcomes					
Scenario	Downgrades SG	Downgrades low IG	Defaults SG	Downgrades high IG	Defaults low IG	Defaults high IG
Very low						
Low	X					
Moderate	X	X				
Elevated	X	X	X	X		
High	X	X	X	X	X	
Very high	X	X	X	X	X	X
No ratings						

Source: S&P Global Ratings

Global Risks Explained

Extended containment measures deepen economic cost and fuel more market volatility (Risk level: Very high; Expected trend: Unchanged)

As economies in Asia and most developed economies look to pull themselves out of the pandemic-induced shock, the outbreak continues to spread in emerging markets and the risk remains that some resurgence could lead to renewed social restrictions, thus worsening the pain associated with high unemployment and severe business disruption—until a vaccine or effective treatment is widely available. While we estimate the global economy will begin to rebound in the second half of the year, the risk that this won't materialize, and that the drag on consumer demand and business activity will persist, is firmly on the downside. At the same time, any premature pullback in fiscal and monetary stimulus (as happened in the wake of the GFC) would not only hurt consumers and small businesses, but could roil financial markets, which have taken a more optimistic tone than suggested by economic and credit fundamentals.

Corporate Solvency Risk and New Highs in Government Debt Harm Long-Term Growth (Risk level: High; Expected trend: Worsening)

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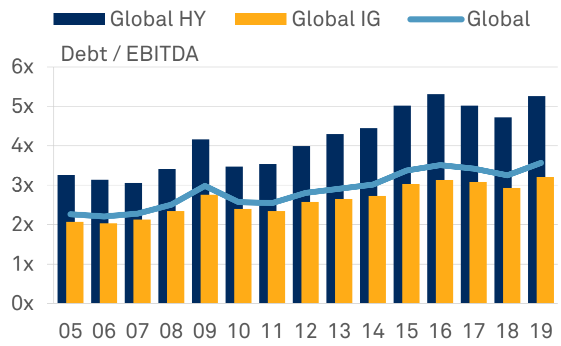
Much of the enormous governmental and central bank support provided to companies, financial institutions, and individuals alike has been aimed at underpinning liquidity—ensuring the continued functioning of markets, access to capital, and supporting household incomes, all with a view to preserving jobs and capital. Nonetheless, given that the post-lockdown recovery will likely be prolonged, uneven, and uncertain, the balance of risks is likely to shift from liquidity toward solvency, particularly for those parts of the corporate sector facing a sustained loss of cash flow as a result of pandemic-containment measures. **An unhealthy dynamic between corporates and sovereigns through corporate retrenchment and rising fiscal burdens could, in the long-run, inhibit economic growth.**

The global corporate sector entered the crisis ill-positioned for a sudden-stop to cash flows. Exceptionally low interest rates and risk premia brought about by post-GFC quantitative easing and central bank stimulus has encouraged a sustained increase in corporate debt (see Chart 17), particularly for weaker credits. And, despite low interest servicing costs, the share of companies struggling to cover interest payments from pre-tax earnings has been relatively high (see Chart 18). Broader challenges from technological disruption are one part of the story here, in addition to financial policy decisions.

Chart 17

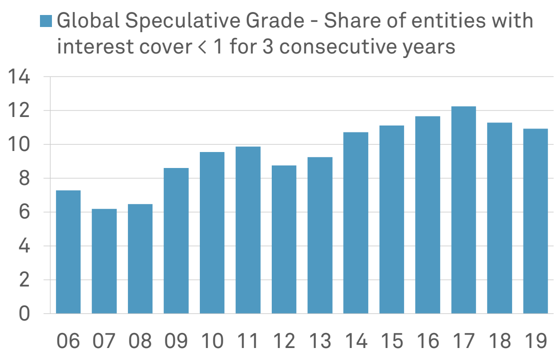
Global rated nonfinancial corporate Debt/EBITDA (x)



Source: S&P Global Market Intelligence, S&P Global Ratings. Data calculated using S&P Capital IQ

Chart 18

Share of global speculative-grade nonfinancial corporates with persistent low interest cover

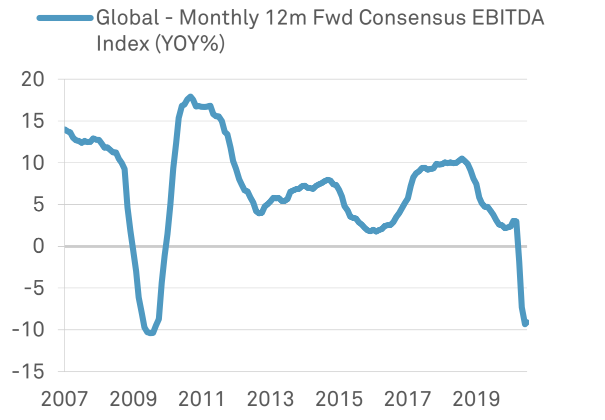


Source: S&P Global Market Intelligence, S&P Global Ratings. Shows proportion of rated speculative-grade nonfinancial corporates whose interest coverage ratio (EBIT / Interest Expense) has been less than one for at least three consecutive years.

In the next couple of years, nonfinancial corporate credit metrics will likely deteriorate substantially, reflecting the sudden decline in EBITDA (see Chart 19) and the simultaneous surge in debt issuance this year—particularly in the U.S. (see Chart 20)—which reflects a combination of motives: precautionary cash hoarding, refinancing to lower rates and, in some cases, raising cash to sustain operations until recovery arrives. **This combination of weaker income and higher debt will bring heightened insolvency risk for some companies and will likely shape corporate decision making more broadly, particularly in sectors most affected by COVID, resulting in job cuts, less M&A, and reduced capital expenditures.** Governments will be forced to consider extending state support schemes and furloughs. If this support is removed, higher unemployment and reduced tax receipts could result. **The risk of adverse debt dynamics, akin to a "balance sheet" recession is therefore high and likely to grow should the path to recovery prove slower and more arduous than hoped.**

Chart 19

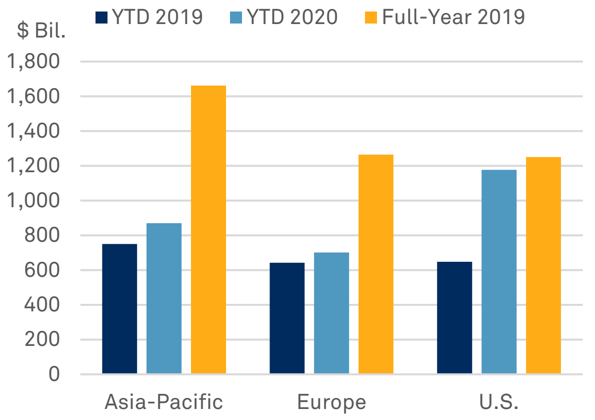
EBITDA growth expectations have slumped as sharply as during the global financial crisis...



Source: S&P Global Market Intelligence, S&P Global Ratings. Data for global rated nonfinancial corporates, using equal-weighted local-currency revisions.

Chart 20

...while corporate debt issuance has surged, particularly in the U.S.



Source: Thomson Financial, S&P Global Ratings Research

The way economies and markets respond to the stimulus and reopening after the pandemic will be a key difference that will mark the trajectory of sovereign debts in the next 24 months. If, according to our expectations, governments are able to channel the resources in a way in which economic activity picks up pace and recovers the ground it will lose in 2020 we should see credit conditions stabilize as the risks diminish. Conversely, should the crisis extend longer, demanding additional stimulus in a context of low-for-longer economic growth, we could see negative pressures mounting globally, even in developed markets.

High debt burdens and less economic resilience to sustain lockdowns could leave Emerging Markets struggling to recover. (Risk level: High; Expected trend: Unchanged)

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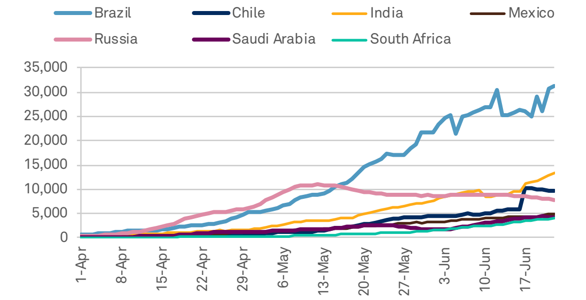
Credit conditions in emerging markets show some improvement supported by better financing conditions, the expectation of a global economic recovery in the second half of 2020 and the stabilization, and in some cases increasing, of commodity prices. Economic activity is also slowly picking up in many emerging markets (EMs), which brings relief to some sectors. There is still a long way to go for recovery and the deep economic shock has had a severe effect in several sectors of the economy; sequels of the pandemic will reflect in higher debt levels for most issuers and magnified risks. Higher leverage will probably result in limited investment levels going forward. The efforts governments have made to tame the pandemic and support their economies will pressure their fiscal positions and will combine with existing risks ahead of the crisis. **Emerging markets will**

be faced by rising leverage, weak revenues, and the potential for rising social unrest as the pandemic has made evident income disparities and poor access to health services.

A fragile balance between containing the pandemic and managing economic costs pressures government choices, and the risk for policy mistakes is on the rise. Despite resuming activity, the pandemic is far from being contained in many emerging countries. Lockdown fatigue is developing across emerging markets driven by mounting political pressures and economic costs. EMs are characterized by high levels of the population in poverty and the informal sector, whi can't afford staying long periods in lockdown as they earn most of their revenues on a daily basis and their savings capacity is nil; furthermore their access to health services is also limited and dependent on government health system capacity. **EM governments, therefore, face the tough choice between economy and human lives, with social pressures mounting and leaning toward opening the economy.** The most severe effects are for small and medium-size enterprises, for which an additional week of lockdown could mean bankruptcy. Considering these factors **we don't expect lockdowns to be extended in places were COVID-19 cases continue climbing; rather there could be partial and localized lockdowns, to contain the pandemic. In such scenarios, consumer and business confidence will probably be limited and delay a potential economic recovery.**

Chart 21

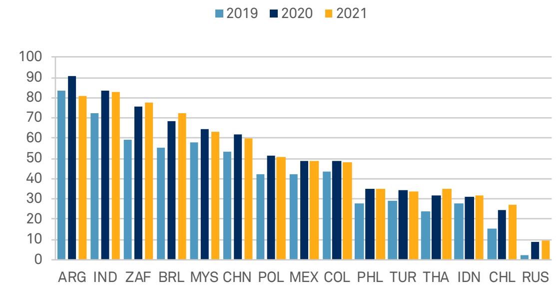
COVID-19 Cases Continue Rising in Key EMs



Daily New Confirmed COVID-19 Cases (7-day moving average). Source: John Hopkins Center of System Science and Engineering

Chart 22

Sovereign Debt Levels will Increase



Net Government Debt % of GDP Source: S&P Global Ratings

The Rise of Economic Nationalism (Risk level: High; Expected trend: Unchanged)

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The COVID-19 pandemic has hardened economic nationalism and increased the risk of renewed global trade tensions. In particular, supply-chain disruptions early in the crisis—including for medical equipment—have strengthened protectionist sentiment in some economies. Geopolitical developments such as China's adoption of a new security law for Hong Kong, a deadly skirmish on the India-China border, and the casting of blame regarding the origins/management of the pandemic also threaten to spill over into economic and trade policies.

On trade and investment, some economies have proposed tighter rules on foreign direct investment, especially where acquirers have links to the state or benefit from subsidies. Some of the world's largest trading economies—including China and the U.S.—have hiked tariffs, and the number of applications to the WTO for safeguards (which can provide temporary import restrictions such as quotas or a tariff increases) continues to rise.

While renewed trade tensions pose a global risk, **the flashpoint remains the U.S-China relationship, which is strained on three fronts: trade; China's access to U.S. financial markets; and technology.** While the countries' Phase 1 deal in January eased some of the tensions, at least temporarily, it will be tough for China to meet its commitment to buy an additional $200 billion of American goods and services in the next two years. Moreover, developments on the other two fronts indicate further gradual deterioration in the relationship.

With the pandemic underscoring the risks of relying on any one country for intermediary and final products, U.S. companies also face increased political pressure to retool their supply chains and lower their dependence on China. In fact, Washington officials and legislators have considered establishing a "reshoring fund" to persuade (by paying) American companies to move operations or key suppliers out of China. Retooling supply chains is easier said than done, however. Especially for capital-intensive industries, it's costly and time-consuming to develop relationships and establish a supply-chain ecosystem, from identifying suppliers, negotiating contracts, and discussing product specifications to building plants, conducting quality control, and organizing logistics. For example, it has taken the tech and auto industries decades to form their corresponding supply chains. On top of that, diversification could jeopardize manufacturers' access to the huge consumer market China has to offer (especially given the country's burgeoning middle class). Notably, China is now the world's largest market for chemical products and autos, and accounts for 20% of global IT spending. The technology sector plays a central role in many of these issues and if tensions escalate, there could be significant ramifications for the industry, but **we currently think the likelihood of a full-blown trade war is low.**

Post-Pandemic Climate transition and Social Risks (Risk level: Elevated; Expected trend: Worsening)

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While the recession will result in a sharp reduction in greenhouse gas (GHG) emissions in 2020, expected to be around 5.5% for the full year, we believe global levels will likely rebound as governments gradually lift lockdowns. Some governments may also prioritize immediate economic recovery over environmental objectives, which may delay environmental regulation. In the longer term, however, **rising global awareness of climate change risks, as well as public commitments in many countries to transition to a low-carbon economy, suggest renewed pressure to accelerate the transition.** Transition risks are defined by the Task Force on Climate Related Disclosure (TCFA) as the policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change. Some countries have even committed to ensuring a "green recovery," which suggests that they could tie economic stimulus to the financing of activities with positive environmental effects.

We expect the economic consequences of the pandemic could heighten social risks, as well, some of which could be correlated with those associated with transitioning to a net-zero economy. Low-income households could bear more of the costs of government climate action—e.g. if the effect of environmental taxes is regressive, if energy bills and mobility costs rise, or if government action or consumer preferences target certain goods, products, or technologies. Countries or regions where labor markets or GDP depends on carbon-intensive industries could be particularly affected. These social risks are likely to be more material in countries with limited social safety nets, which have less room for cushioning the social consequences.

The additional effects of the pandemic and associated lockdown have shined a spotlight on inequalities. The global economic downturn and disruption of trade is resulting in a substantial increase in unemployment in many countries, and will likely boost poverty rates and diminish purchasing power, in developed and emerging markets. Developed and emerging market governments have implemented stimulus to support their economies, but the reach and effectiveness in EMs are likely more limited than those implemented by developed economies. In fact, most pandemic-related sovereign rating actions have been in EMs.

Heightened social instability or inequalities could notably affect economic growth, and institutional stability and public policy making, which are relevant factors for sovereign ratings. Changing consumer preferences, or social or political action directed against business models associated with perceived undesired social impact could pose challenges to corporate stakeholder management. Increased awareness of inequalities, combined with persisting high levels of unemployment and lower purchasing power could increase the risk of protests and social disruptions.

Related Research

- Credit Conditions North America: Rolling Out The Recovery, June 30
- Credit Conditions Europe: Curve Flattens, Recovery Unlocks, June 30
- Credit Conditions Asia-Pacific: China First To Recover, June 30
- Credit Conditions Emerging Markets: Slow Recovery, Prevalent Risk, June 30, 2020
- Economic Research: The U.S. Faces A Longer And Slower Climb From The Bottom, June 25
- Economic Research: Eurozone Economy: The Balancing Act To Recovery, June 25
- Economic Research: Asia-Pacific Losses Near $3 Trillion As Balance Sheet Recession Looms, June 25
- Economic Research: Latin American Economies Are Last In And Last Out Of The Pandemic, June 30
- COVID-19 Heat Map: Post-Crisis Credit Recovery Could Take To 2022 And Beyond For Some Sectors, June 24
- The European Speculative-Grade Corporate Default Rate Could Reach 8.5% By March 2021, June 8
- Top 10 Investor Questions On Our Ratings Process, June 4, 2020
- Historically Low Ratings in the Run-Up to 2020 Increases Vulnerability to the COVID-19 Crisis, May 28
- The U.S. Speculative-Grade Corporate Default Rate Is Likely To Reach 12.5% By March 2021, May 28

Only a rating committee may determine a rating action and this report does not constitute a rating action.

Appendix 1 – Exit Scenarios

The tables below set out assumptions about the three baseline exit scenarios discussed in the main body of this report.

1. Early Exiters

Time	Pandemic	Mitigation policies	Agent Behavior	Macro policies	Growth/output
Through Q2-20	Largely contained or fully contained in some cases. Reproduction rate substantially below 1 and healthcare capacity underutilized.	Gradual easing of enforced social distancing measure. Some measures remain in place with country-specific variation.	Largely constrained by government-enforced social distancing measures.	Accommodative but only cushion the blow	Negative growth with peak hit in Q2 in most cases.
From Q3-20 To Q3-21	Ongoing containment and healthcare capacity underutilized. Isolated infection clusters periodically identified but no major nationwide second wave outbreaks.	Ongoing easing of enforced social distancing measures. Some measures remain in place with country-specific variation. Periodic and isolated re-tightening of some measures as new infection clusters are discovered and addresses with contact tracing and targeted quarantines. International travel bubbles agreed, mostly on a regional basis.	Constrained by both enforced social distancing policies but also moderate risk-aversion among firms and households. Firms in many sectors on gradually resume new investments and hiring. Household saving rates start receding from high levels.	Monetary policy still exceptionally loose and characterized by interest rates at the effective lower bound, robust forward guidance, and large scale asset purchases. Gradual withdrawal of extraordinary fiscal measures. Some economies may continue implementation of public investment schemes. Gradual re-tightening of loose macro-prudential policies affecting credit conditions for the real economy.	Positive and well above trend. Output starts to converge to the new steady state by the end of 2021.
From Q4-21 onwards	Vaccine for the current strain of the virus broadly available to a sufficient proportion of the population to secure herd immunity within months. Infection rate quickly converges to zero.	Substantial easing to pre-COVID norms with a phasing out of enforced social distancing.	Speedy normalization. Household saving rate close to but above long term average. Bank and corporate balance sheets constrain some activity.	Fiscal support withdrawn, gradual withdrawal of extraordinary monetary measures. Public investment still above average. Macro-prudential converges back to pre-COVID norms.	Moderate permanent loss of GDP in most cases but gradual return to trend or somewhat below trend growth.

2. Mid Exiters

Time	Pandemic	Mitigation policies	Agent Behavior	Macro policies	Growth/output
Through Q2-20	Largely contained but cases remain stubbornly high. Reproduction rate close to but below 1 and healthcare capacity underutilized.	Gradual easing of enforced social distancing measure. Some measures remain in place with country-specific variation.	Largely constrained by government-enforced social distancing measures.	Accommodative but only cushion the blow	Negative growth with peak hit in Q2 in most cases.
From Q3-20 To Q3-21	Ongoing containment but cases fall only slowly. Healthcare capacity underutilized in general but close to capacity in some geographical areas. Isolated infection clusters periodically identified with some risk of major nationwide second wave outbreaks.	Ongoing easing of enforced social distancing measures. Some measures remain in place with country-specific variation. Periodic and at time broad re-tightening of some measures as new infection clusters are discovered. International travel bubbles agreed, mostly on a regional basis.	Constrained by both enforced social distancing policies but also moderate risk-aversion among firms and households. Firms in many sectors on gradually resume investment and hiring. Household saving rates start receding from high levels.	Monetary policy still exceptionally loose and characterized by interest rates at the effective lower bound, robust forward guidance, and large scale asset purchases. Gradual withdrawal of extraordinary fiscal measures. Some economies may continue implementation of public investment schemes. Gradual re-tightening of loose macro-prudential policies affecting credit conditions for the real economy.	Positive and well above trend. Output starts to converge to the new steady state by the end of 2021 although significant country variation given less success in containing the virus compared to early exiters.
From Q4-21 onwards	Vaccine for the current strain of the virus broadly available to a sufficient proportion of the population to secure herd immunity within months. Infection rate quickly converges to zero.	Substantial easing to pre-COVID norms with a phasing out of enforced social distancing.	Speedy normalization. Household saving rate close to but above long term average. Bank and corporate balance sheets constrain some activity.	Fiscal support withdrawn, gradual withdrawal of extraordinary monetary measures. Public investment still above average. Macro-prudential converges back to pre-COVID norms.	Moderate permanent loss of GDP in most cases but gradual return to trend or somewhat below trend growth.

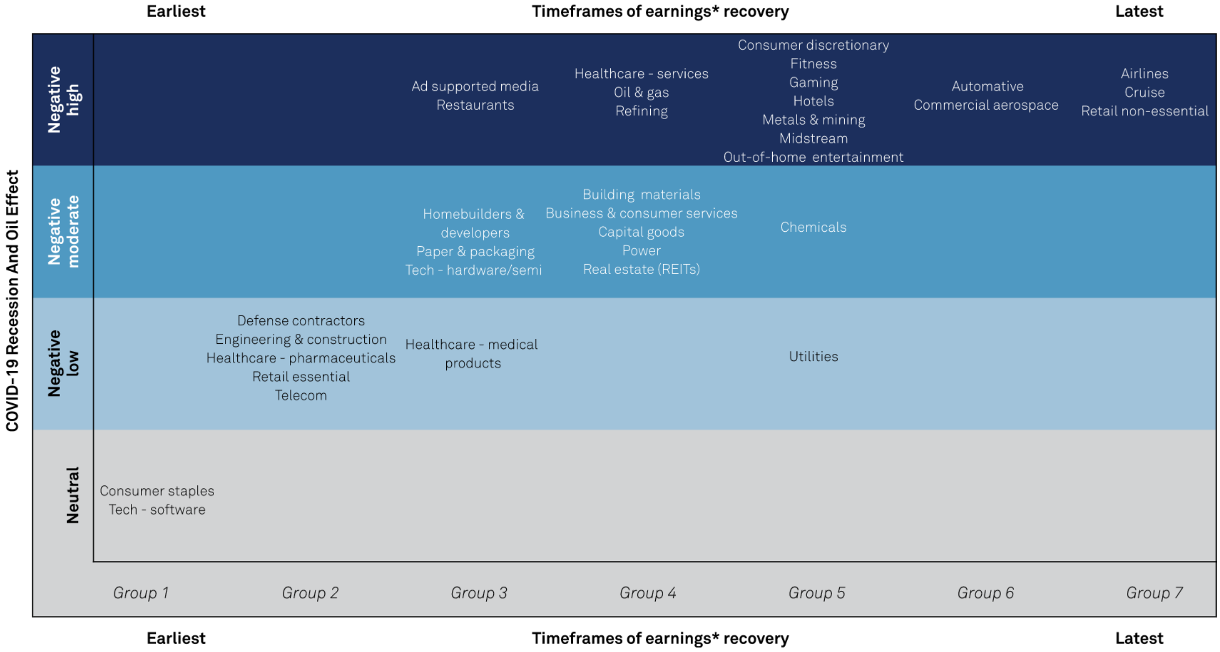
3. Late Exiters

Time	Pandemic	Mitigation policies	Agent Behavior	Macro policies	Growth/output
Through Q2-20	Not largely contained, new daily infection rates still high. Reproduction rate still close to or above 1 and healthcare near or at capacity.	Gradual easing of enforced social distancing measure starts at by the end of Q2 in most cases. Some measures remain in place with country-specific variation, and also sector-specific differences.	Largely constrained by government-enforced social distancing measures.	Accommodative, but extent varies widely across countries.	Negative growth with peak hit in Q2.
From Q3-20 To Q3-21	At the beginning of Q3-20, new daily infection rates are still increasing (or may have started falling but are not yet far off from peak levels). By late Q3-20 (sooner for some, later for others) virus will be broadly contained, with mostly isolated periodic infections. Higher risk of broader outbreaks and second waves. Healthcare capacity starts to normalize.	Ongoing easing of enforced social distancing measures, sometimes regardless of the virus path due to high economic cost of extending strict lockdowns. Potential volatility in social distancing measures reflecting partial success in containment. Some measures remain in place with country-specific variation. International travel bans from other countries in some cases.	Constrained by both enforced social distancing policies but also moderate risk-aversion among firms and households. Firms in many sectors gradually resume investments and hiring. Household saving rates start receding from high levels.	Monetary policy still exceptionally loose in most cases. However, in some cases the worsening investor sentiment may lead to exchange rate and inflationary pressures, prompting some central banks to start forward guidance towards higher interest rates. Gradual withdrawal of extraordinary fiscal measures as certain schemes such as unemployment insurance expire and are not extended further.	Growth will be positive and moderately above trend in most cases. But some economies will experience relatively weak Q3-20 recoveries due to ongoing lingering social distancing measures and low confidence. Output starts to converge to the new steady state by the end of 2021.
From Q4-21 onwards	Vaccine for the current strain of the virus broadly available, but in certain emerging markets there may be a lag in the wide distribution of the vaccine compared to other countries that may secure supplies first. Infection rate quickly converges to zero.	Substantial easing to pre-COVID norms with a phasing out of enforced social distancing.	Speedy normalization in most cases. Household saving rates will vary; those with severe employment damage may take longer to return to long term average. Bank and corporate balance sheets constrain some activity.	Fiscal support withdrawn, in some cases rapidly as fiscal metrics deteriorate sharply. Withdrawal of remaining extraordinary monetary measures. Macro-prudential converges back to pre-COVID norms.	Moderate to large permanent loss of GDP but gradual return to trend or somewhat below trend growth.

Appendix 2- Industry Heat maps by region

Chart 23

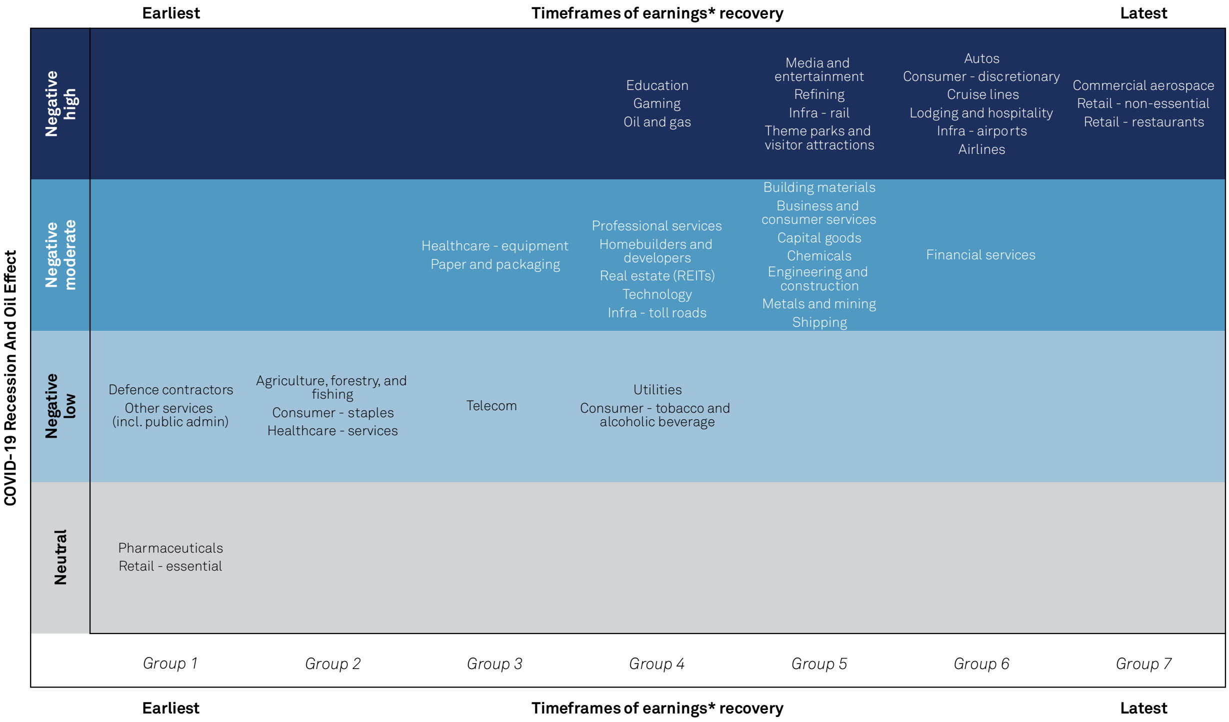
Sector Level Impact And Recovery: North America



Source: S&P Global Ratings* For years 2022 and after, our opinion on credit metrics is used as a proxy for EBITDA (earnings before interest expense, tax, depreciation and amortization). Note: The chart only represents our rated issuers in North America.

Chart 24

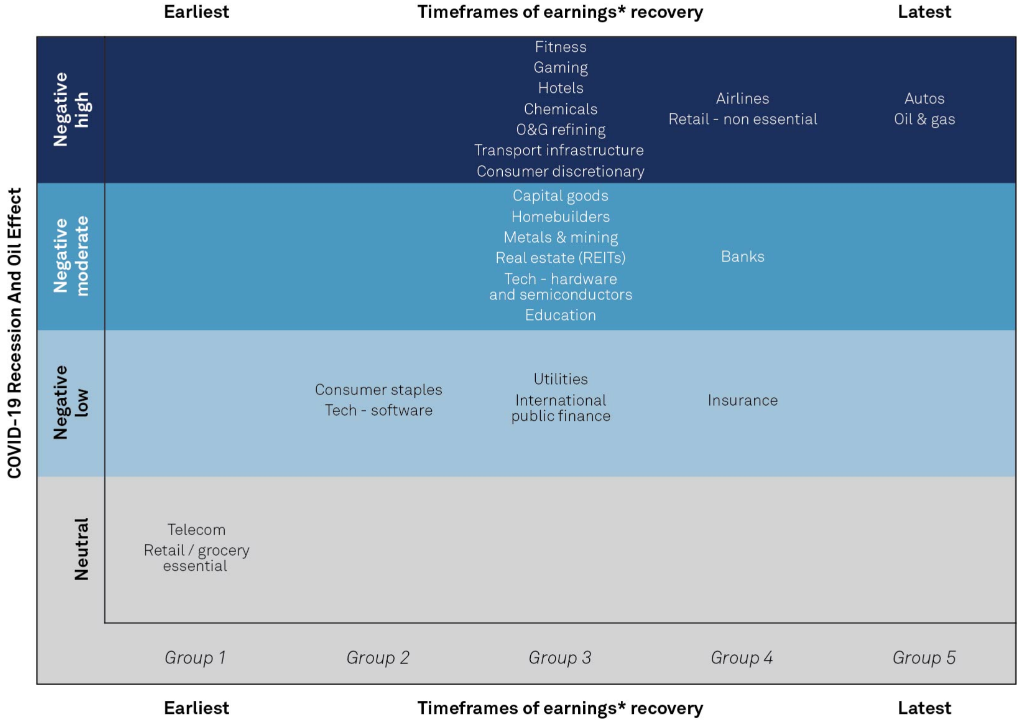
Sector Level Impact And Recovery: EMEA



Source: S&P Global Ratings. * For years 2022 and after, our opinion about credit metrics is used as a proxy for EBITDA (earnings before interest expense, tax, depreciation and amortization). For financial institutions, profitability remains the key measure. Note: The chart only represents our rated issuers in EMEA.

Chart 25

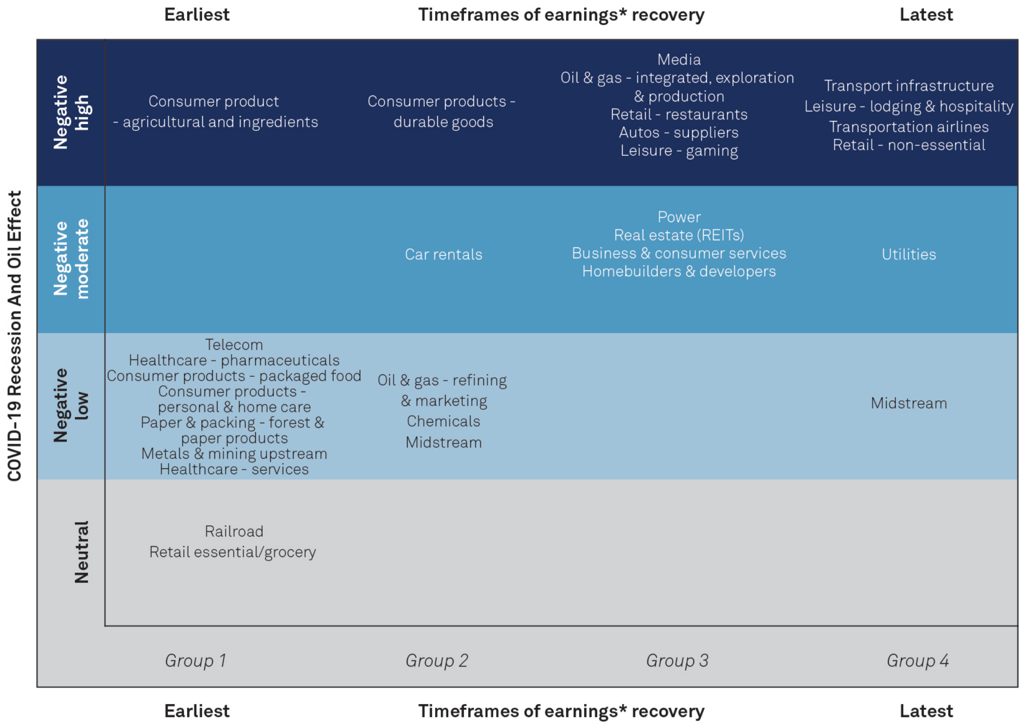
Sector Level Impact And Recovery: Asia-Pacific



Source: S&P Global Ratings. *For years 2022 and after, our opinion on credit metrics is used as a proxy for EBITDA (earnings before interest expense, tax, depreciation and amortization). Note: Our opinions are on broad sectors not just rated issuers.

Chart 26

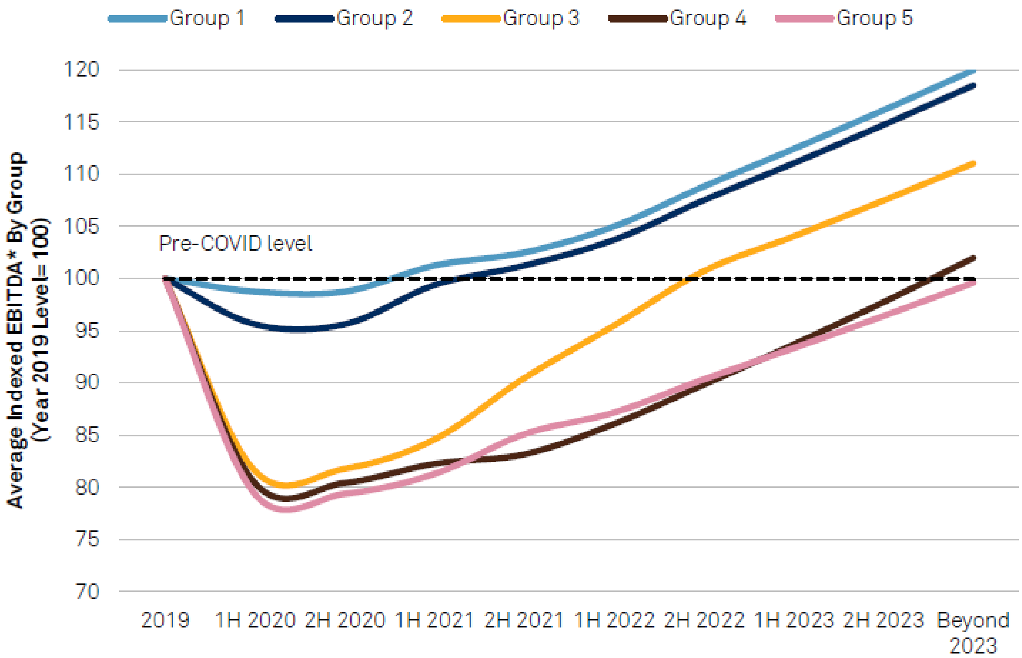
Sector Level Impact And Recovery: Latin America



Source: S&P Global Ratings. *For 2022 and afterwards, our opinion on credit metrics is used as a proxy for EBITDA (earnings before interest expense, tax, depreciation and amortization).

Chart 27

Shape Of Recovery: Asia-Pacific



Group 1
Recovery: 1H 2021
- Retail Essential/Grocery
- Telecom

Group 2
Recovery: 2H 2021
- Technology - Software
- Consumer Staples

Group 3
Recovery: 2022
- Capital Goods
- Consumer Discretionary
- Homebuilders
- Real Estate (REITs)
- Technology - Hardware/Semiconductors
- Chemicals
- Utilities
- Oil and Gas Refining
- Fitness
- Gaming
- Leisure - Lodging and hospitality
- Transportation Infrastructure

Group 4
Recovery: 2023
- Metals & Mining
- Airlines
- Retail Non-Essential

Group 5
Recovery: Beyond 2023
- Autos
- Oil and Gas

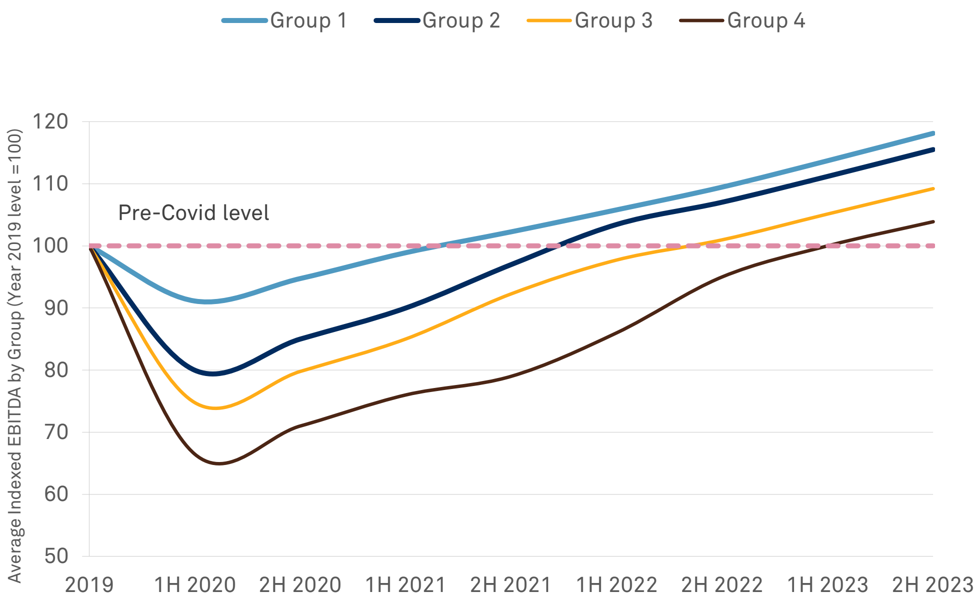
For years 2022 and after, our opinion on credit metrics is used as a proxy for EBITDA (earnings before interest expense, tax, depreciation and amortization).

Note: Our opinions are on broad sectors not just rated issuers. Once an index line reaches 100, projections are then based on the region's nominal GDP growth rate.

Source: S&P Global Ratings

Chart 28

Shape Of Recovery: Latin America



Group 1	Group 2	Group 3	Group 4
Recovery: 1H 2021	Recovery: 2H 2021	Recovery: 2022	Recovery: 2023
- Railroads	- Oil & gas – refining & marketing	- Power	- Midstream
- Telecom	- Chemicals	- Real estate (REITs)	- Utilities
- Retail – essential/grocery	- Car rentals	- Business & consumer services	- Autos – suppliers
- Healthcare – pharmaceuticals	- Consumer products – durable goods	- Homebuilders & developers	- Transport – infrastructure
- Consumer products – packaged food/personal & home care		- Media	- Leisure – lodging and hospitality
- Healthcare – services		- Oil & gas – integrated, exploration & production	- Transportation - airlines
- Paper & packaging – forest & paper products		- Building materials	- Retail – non-essential
- Metals & mining upstream		- Retail – restaurants	
- Consumer products – agricultural ingredients		- Leisure – gaming	

For years 2022 and after, our opinion on credit metrics is used as a proxy for EBITDA (earnings before interest expense, tax, depreciation and amortization). Note: Our opinions are on broad sectors based on rated issuers. Once an index line reaches 100, projections are then based on the region's nominal GDP growth rate.

Source: S&P Global Ratings

spglobal.com/ratings