

## Asia-Pacific Credit Outlook 2021:

# Comebacks, Setbacks, And Divergent Tracks

Dec. 7, 2020

### Key Takeaways

- **Divergent outlook.** Issuers have reason to hope for COVID vaccination breakthroughs, an improved economic outlook, and continued favorable financing conditions, but some hard-hit borrowers may find it hard to reverse their pandemic-era debt buildup and earnings drop.
- **Better macro conditions.** Assuming the wide availability of vaccines by mid-2021, many of the regional economies should bounce back. Funding conditions will likely remain favorable with rates low and credit widely available, although we expect investors to keep pushing back on weaker credits.
- **Mixed sector prospects.** We still have a net negative outlook bias on about one-fifth of our rated issuer portfolio. Most corporate sectors will not likely return to pre-COVID operating conditions until 2022. Indeed, we assume that banks' COVID-related credit losses will hit US\$500 billion by year-end 2021. The insurance, public finance and sovereign portfolios should fare somewhat better.

**Dual realities.** As borrowers rebuild businesses and finances in 2021, the operating backdrop should improve. Economies are rebounding and COVID-19 vaccines are coming online. This, however, will be a bifurcated recovery. While we expect many issuers to bounce back by 2022, the highly leveraged and weaker borrowers will continue to struggle.

For the year to Nov. 30, 2020, we have taken negative rating actions (defined as downward changes in rating, outlook, or CreditWatch) on 38% of the issuer portfolio in the Asia-Pacific (see "[COVID-19- And Oil Price-Related Public Rating Actions On Corporations, Sovereigns, International Public Finance, And Project Finance To Date](#)," published Dec. 1, 2020, on RatingsDirect). We still have a net 19% of the issuer portfolio on negative outlook or CreditWatch negative, which implies a significant likelihood of downgrades or defaults in 2021.

As a case in point, we expect the U.S. trailing-12-month speculative-grade corporate default rate to increase to 9% by September 2021, from 6.3% as of September 2020 (see "[Default, Transition, and Recovery: The U.S. Speculative-Grade Corporate Default Rate Could Rise To 9% By September 2021](#)," Nov. 24, 2020).

**Nonfinancial firms--most sectors will not return to pre-COVID operating conditions until 2022.** There are green shoots in some sectors and geographies. The credit quality of more cyclical sectors such as automotive, commodities, and cyclical transport will not likely recover to pre-COVID-19 levels until 2023. While financial conditions are generally favorable for the larger, less leveraged issuers, they should remain difficult for deeply speculative-grade issuers due to risk aversion and the increased selectivity of domestic bank funding. The pace of jobs recovery to pre-COVID growth levels will determine consumer sentiment and demand.

**Financial institutions to incur US\$500 billion in credit losses by end-2021.** We assume that Asia-Pacific banks' COVID-related credit losses will rise by about US\$500 billion by year-end 2021. The state of banks' asset quality will become clearer when lenders end their moratoriums on loan repayments and governments reduce fiscal support. Some households and businesses may struggle to meet their financial obligations at that time, in our view. Banks' interest margins will also likely remain slim, in line with our outlook for persistently low rates.

**Insurance sales to resume as economies reopen.** A gradual resumption of social interaction will see a return of traditional sales activities for life insurers. For 2021, the chase for yield should sharpen entities' risk appetite, straining capital buffers. On the plus side, demand for health and medical insurance coverage could rise. Rapid urbanization and the increasing frequency of natural catastrophes have made it harder to model risks. Reinsurance rate hikes will likely dent profit margins for property and casualty players.

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**Public finance capital spending materializes as part of the recovery stimulus.** Local and regional governments are shifting spending from a focus on containing COVID-19, to investing more in infrastructure with an eye to stimulate the economy. The degree to which local governments can deploy countercyclical measures varies. Most local governments will not raise taxes, and they will unlikely recover their revenue base soon. We may see increased stimulus to boost economies. Any aggressive fiscal expansion could erode credit quality.

**Sovereigns face near-term risks to external demand.** The recovery in advanced economies over June-September 2020 has supported export growth in Asia-Pacific. However, resurging COVID-19 infection rates in Western countries make continued Asian export growth less certain. On the plus side, lower global interest rates and energy prices remain supportive of regional economies. Risks in 2021 include a continued deterioration in U.S.-China relations, a worsening climate for international investment (triggering investment outflows from emerging markets), and lingering economic disruption stemming from COVID-19.

**Structured finance--the worst is behind us.** Pressure has eased in China, as indicated by stabilized delinquency rates in auto-loan asset-backed securities (ABS) and residential mortgage-backed securities (RMBS). The cumulative default rate increased only slightly during the height of China's outbreak. Delinquencies remain low and stable in Japan and, in Australia, mortgage deferrals are stabilizing or declining as the economy continues to recover. In Australia, if the level of loans under temporary "hardship" arrangements do not moderate, this will be a signal that jobs are not bouncing back.

### Rating actions

We have taken 232 ratings actions in Asia-Pacific this year (as of Nov. 30, 2020) related to COVID-19 and oil prices (see charts 1 and 2). The rate of ratings change has eased in recent months as the initial impact of COVID-19 is factored into our views on sovereigns, banks, and corporations, and these issuers' slow recovery begins.

Chart 1

**Asia-Pacific: Number Of Issuers Affected By Rating Actions Related To COVID-19 And Oil Prices, By Geography**

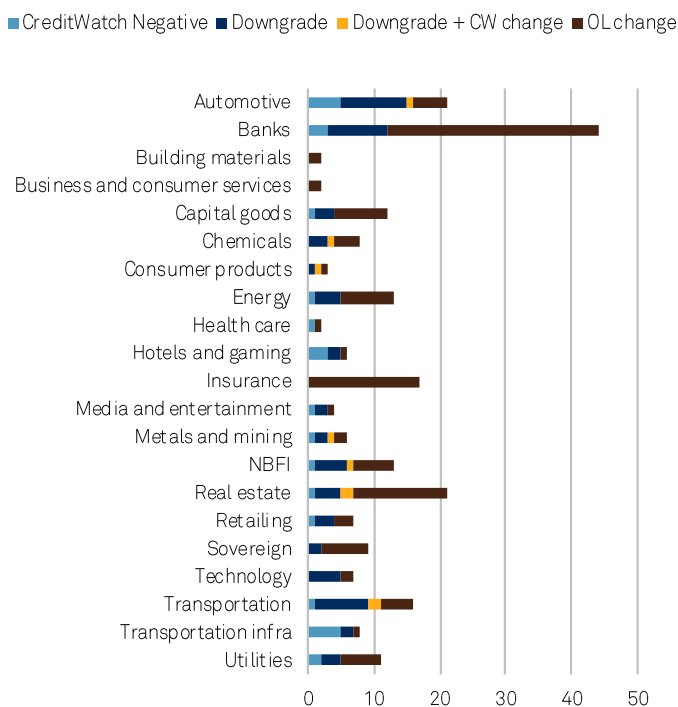
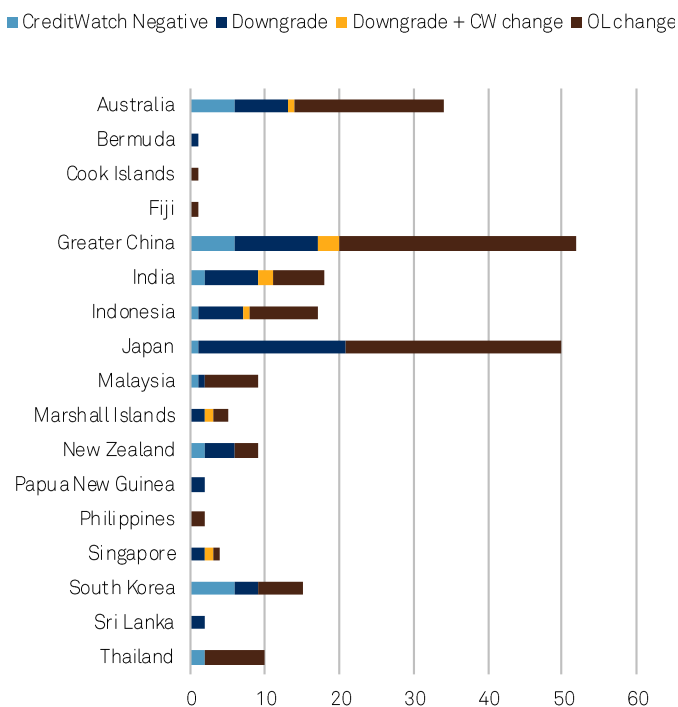


Chart 2

**Asia-Pacific: Number Of Issuers Affected By Rating Actions Related To COVID-19 And Oil Prices, By Sector**

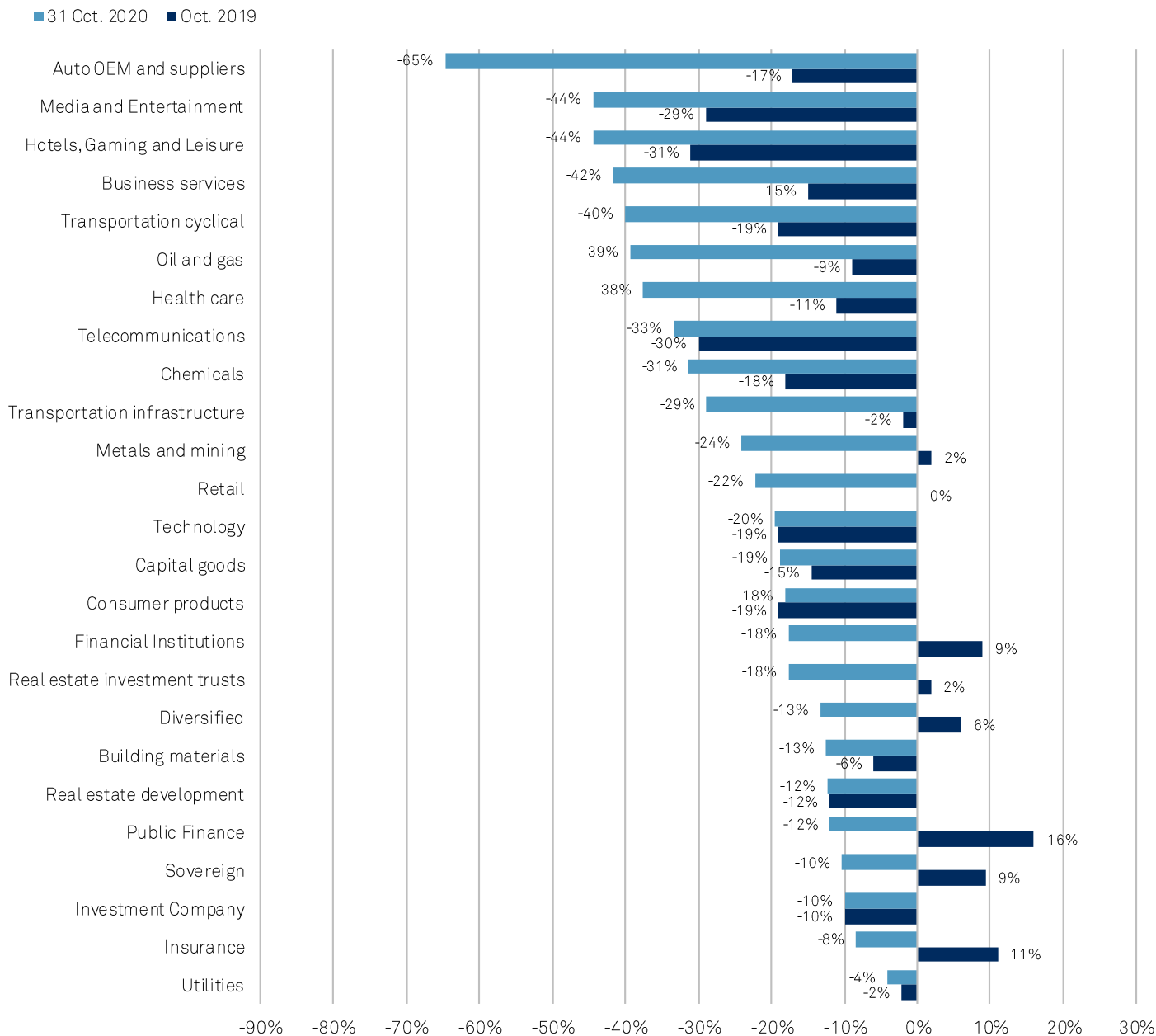


Note: These rating actions pertain to ratings where we mention COVID-19 as one factor or in combination with others. Data as of Nov. 30, 2020. CW--CreditWatch. NBFI--Nonbank financial institution. Source: S&P Global Ratings.

Chart 3

**Negative Rating Actions To Continue, But Slowing**

Net rating bias of Asia-Pacific issuers by sector, Oct. 31, 2020 vs. Oct. 31, 2019.



OEM--Original equipment manufacturer. Source: S&P Global Ratings.

Net ratings bias includes confidential ratings for all sectors with the exception of insurance and sovereign

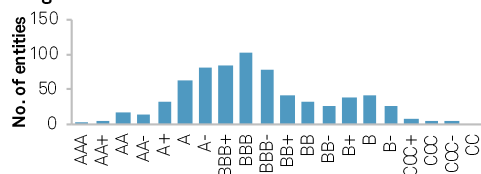
We calculate the net rating bias by deducting the percentage of negative outlooks and CreditWatch listings against the percentage of positive outlooks and CreditWatch listings. A minus figure indicates that the percentage of negative outlooks and CreditWatch listings exceeds the percentage of positive outlooks and CreditWatch listings; and a positive figure, vice versa.

S&P Global Ratings believes there remains a high degree of uncertainty about the evolution of the coronavirus pandemic. Reports that at least one experimental vaccine is highly effective and might gain initial approval by the end of the year are promising, but this is merely the first step toward a return to social and economic normality; equally critical is the widespread availability of effective immunization, which could come by the middle of next year. We use this assumption in assessing the economic and credit implications associated with the pandemic (see our research here: [www.spglobal.com/ratings](http://www.spglobal.com/ratings)). As the situation evolves, we will update our assumptions and estimates accordingly.

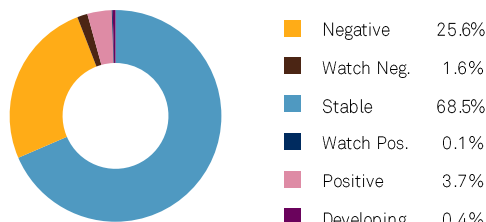
# Nonfinancial Corporates

## First Steps On A Long Journey

Rating Distribution



Outlook Distribution



Source: S&P Global Ratings. As of Oct. 31, 2020.

### Key Takeaways

- Most sectors will not return to pre-COVID operating conditions until 2022, despite some green shoots in certain sectors and regions. The credit quality of more cyclical sectors such as automotive, commodities, and transportation cyclical is unlikely to recover to pre-pandemic levels until 2023.
- A deterioration in U.S.-China relations could hit the tech-sector recovery.
- Financial conditions will likely remain difficult or expensive for deeply high-yield issuers due to risk aversion and the increased selectivity of domestic bank funding.

### What's changed?

**Fresh COVID-19 outbreaks.** The persistence of the virus in many countries has led to new restrictions or prolonged lockdowns, dampening consumer sentiment, and hurting demand. The second wave of infections in Europe and the U.S. is also clouding the earnings recovery for Asian companies despite sometimes-improved conditions in their domestic markets. The downside credit bias remains high and affects about 27% of rated Asian corporate and infrastructure companies, notwithstanding a small improvement compared with almost 35% in the second quarter of 2020.

**New U.S. administration.** U.S.-China relations have remained uncertain after the U.S. presidential election, which may not mitigate the risk of business disruption for China corporates even though the temperature may cool a notch under the new administration. The tech sector, both within China and those in the supply chain with high exposure to targeted companies, face headwinds. The potential restrictions on financial market access are another facet of the confrontation that could have severe implications for entities that rely on U.S. dollar funding. It is worth noting that firms in China and in the region could stand to benefit from the recently signed Regional Comprehensive Economic Partnership, which excludes the U.S. and sets the stage for more economic competition in Asia.

### Key risks

**Liquidity crunch.** Investor sentiment remains tentative toward weaker issuers across the region. At the same time, domestic bank funding is turning increasingly selective, a stark change from the pre-COVID-19 years of easy domestic bank credit. In an extended period of stressed cash flows, small and midsize companies will face liquidity problems due to limited operational flexibility and not-so-robust bank relationships against the backdrop of a tighter credit market for high-yield issuers.

**Additional waves of infections.** Further waves of COVID-19 infections that reintroduce or prolong containment measures may dampen demand and drag on the pace of recovery. This could lead to a worsening in credit metrics against our base case for recovering balance sheet quality.

### Key assumptions

**A gradual revenue recovery for most sectors in 2021 and 2022.** We expect operating conditions for issuers in most rated sectors to recover to their 2019 levels only by 2022 at the earliest. On aggregate, we project median revenue and profit growth of about 10% across Asia-Pacific-rated entities in 2021, and a further 5%-10% in 2022 on the basis of gradually normalizing GDP growth and slowly improving consumer confidence through 2022. Also at play will be a "catch-up" effect on demand volumes for the most affected sectors (albeit prices will likely remain constrained as companies continue to offer discounts to stimulate volumes).

**Spending discipline for investment-grade issuers.** Our base case captures moderate spending and shareholder distributions in 2021 for investment-grade issuers amid weaker earnings. This assumption is particularly important to create financial headroom for ratings for 'BBB-' to 'BBB+' rated firms as nearly 40% of these register downside risk through 2021.

### What to look for

**Financing conditions.** Access to funding remains a major variable in the credit quality of issuers in Asia rated 'B+' or below. This segment represents nearly one-quarter of outstanding corporate ratings in Asia-Pacific, and nearly 60% in a country such as Indonesia.

**Sluggish economies, or spillovers from geopolitical tensions.** The pace of recovery to pre-COVID jobs growth will determine consumer sentiment and demand. On the supply side, deteriorating relations between the U.S. and China as well as other political disputes in the region could have a lasting effect on supply chains.

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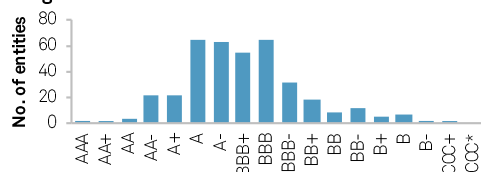
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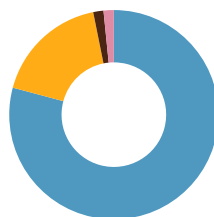
# Financial Institutions

## COVID-Related Credit Losses To Hit US\$500 Billion By End-2021

Rating Distribution



Outlook Distribution



Negative	17.7%
Watch Neg.	1.6%
Stable	79.2%
Watch Pos.	0.0%
Positive	1.6%
Developing	0.0%

\*CCC & lower. Source: S&P Global Ratings. As of Oct. 31, 2020.

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### Key Takeaways

- COVID-19 is hitting lenders hard. We have taken over 50 negative rating actions on banks and nonbank financial institutions in Asia-Pacific since the onset of COVID-19.
- Downside risks will intensify if COVID-19 inflicts greater damage to the region's economies than we assume, or other top risks intensify.
- We currently estimate that credit losses will rise by about US\$500 billion to year-end 2021 because of COVID-19 and other market stresses, compared with 2019.

### What's changed?

**COVID-19 is hitting lenders hard.** Bank credit losses will rise by about US\$500 billion in 2021 given COVID-19's blow to Asia-Pacific economies. Negative rating actions were taken on banks and nonbank financial institutions across the region. Even so, some banking systems are holding up well, including China's.

**Support from authorities is aiding resilience.** Fiscal, monetary, policy, and prudential support are providing buffers in the region. Compared with European peers, many Asia-Pacific banks have strong earnings capacity.

### Key risks

**A downturn that is more severe than our base case.** A more severe or prolonged economic hit will intensify damage on households and corporates, magnifying credit losses and driving earnings lower.

Disorderly asset price correction. Asia-Pacific banks are exposed to sizable property loan books. A disorderly asset price correction will heighten and prolong banks' asset quality problems.

### Key assumptions

**Strong economic rebound.** Bank earnings will improve with the economic recovery by end 2021. A recovery to pre-COVID-19 levels is not expected until year-end 2022 for some banking systems; longer for others.

Highly supportive governments. Systemically important banks to get government support, if ever needed.

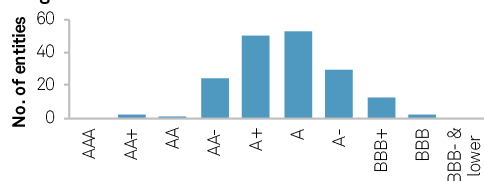
### What to look for

**End of supports and moratoriums.** Households and businesses may struggle to meet financial obligations after loan moratoriums and government support end, hitting banks' asset quality. Subdued interest margins remain given persistent low interest rates.

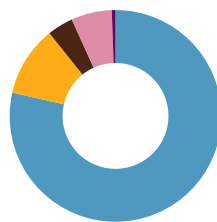
# Insurance

## Revenues Return As Economies Reopen

Rating Distribution



Outlook Distribution



Negative	10.7%
Watch Neg.	4.0%
Stable	78.5%
Watch Pos.	0.0%
Positive	6.2%
WatchDev	0.6%

Source: S&P Global Ratings. As of Oct. 31, 2020.

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### Key Takeaways

- Negative rating bias as volatile investment markets narrow capital buffers.
- Low benchmark interest rate will prompt higher investment risk appetite to boost yields.
- Gradual resumption of insurance sales activities is likely as the region's economies reopen.

### What's changed?

**Resumption of sales activities as economies reopen.** A gradual resumption of social interaction will see a return of traditional sales activities for life insurers. For property and casualty (P&C) insurers, top-line growth should increase alongside economic recoveries, though remain lower than that of pre-COVID days. In China, a continuous diversification to non-motor insurance and strengthening awareness of catastrophe losses will help premiums grow.

**Lower rates to stay.** Low growth, low rates, and volatile capital markets create mounting challenges for investment returns. To cope, entities' appetite for credit and market risk may rise while insurers speed up their reviews of actuarial pricing assumptions. Unhedged foreign exchange exposure may see investment devaluation amid U.S. dollar weakness.

### Key risks

**Equity market correction and flattening yield curve.** A sharp equity market correction could dent capitalization. Capital buffers will narrow for life insurers with the return of negative interest spreads and hikes in reserve provisions.

**Slower-than-expected economic recovery.** Weak trade resumption will undermine marine cargo, credit, and mortgage insurance providers. Refreshed lockdowns could induce business interruptions and event cancellation claims. Higher unemployment suggests rising lapses and reduced insurance cover.

### Key assumptions

**Capital buffers will narrow.** Financial market volatility and lower prospective earnings will eat into capital. The rising frequency of natural catastrophes in Asia-Pacific will also raise reinsurance-related costs.

### What to look for

**Yield chase to pick up.** Insurers' appetite for credit and market risk will sharpen, straining capital buffers.

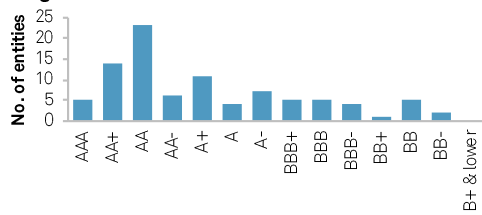
**Greater insurance awareness.** Demand for health and medical insurance coverage will rise, post pandemic.

**Non-modeled risks.** Rapid urbanization and the increased frequency of natural catastrophe events make it harder to model risks. High reinsurance rates should dent the profit margins of P&C insurers.

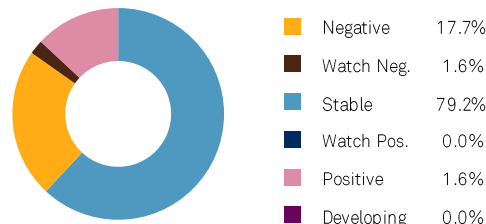
# Public Finance

## Slow Recovery Adds To Fiscal Strain

Rating Distribution



Outlook Distribution



Source: S&P Global Ratings. As of Oct. 31, 2020.

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### Key Takeaways

- The mixed recovery across regions undermines the fiscal positions of local and regional governments (LRGs).
- China's LRGs recover their fiscal standing thanks to large cash transfers from the central government.
- Australian LRGs have the advantage of greater budgetary flexibility but are increasing their capital spending as they await recovery.

### What's changed?

**Capital spending used as post-pandemic stimulus.** LRGs' budget focus is shifting from treating and containing the outbreak, to using capital spending to stimulate the economy.

### Key risks

**Virus duration.** A slower recovery will dent revenues, while LRGs will feel more pressure to spend more to counter the economic contraction. Contagion fears will prevent travel and consumption, and some pandemic-sensitive public-finance segments such as Australian universities.

**Slowing property markets.** Property-related revenue--particularly taxes on transactions--accounts for a large part of LRG revenues in some regions, especially in China and Australia. The regions are sensitive to property-market volatility.

### Key assumptions

**Varying scope for countercyclical measures.** Most LRGs will not raise taxes and are likely to recover their revenue bases soon. Economic slowdowns will spur LRGs to increase spending, especially capital expenditure to promote growth. This will create greater risk to their fiscal standing. Australian and Japanese LRGs have greater spending discretion to prompt a recovery. China has strict deficit caps and the finances of Indian LRGs are already stretched. This leaves them with less flexibility. Chinese LRGs can still rely on large cash transfers from the central government.

### What to look for

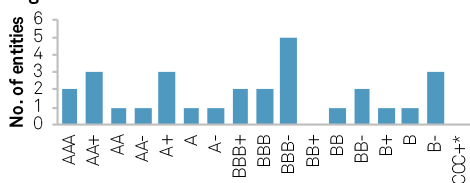
**Policy shifts.** We could see increased stimulus to boost economies. Any aggressive LRG fiscal expansion could lead to an erosion in credit quality.



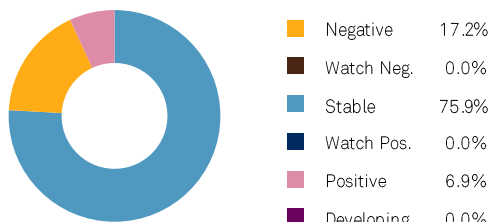
# Sovereign

Pandemic And U.S. President-Elect Are Key

Rating Distribution



Outlook Distribution



\*CCC+ & lower. Source: S&P Global Ratings. As of Oct. 31, 2020.

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## Key Takeaways

- Resurging COVID-19 infections could weaken Asia-Pacific's export recovery.
- Prolonged low interest rates should ease countries' financing burden in the absence of risk events.
- The pandemic's evolution and the incoming Biden administration could shape sovereign trends.

## What's changed?

**Risks to external demand recovery increase.** Resurging COVID-19 infection rates in advanced economies cloud the outlook for export growth.

**Lower global interest rates and energy prices remain supportive.** Given significant uncertainty over the duration of the pandemic, interest rates and energy prices look likely to remain low.

## Key risks

**Sudden capital swings.** A sharp deterioration in investor sentiment in emerging markets could see swift capital outflows from these economies. Such risk is larger in emerging-market countries where governments have eased domestic funding conditions to spur debt use.

**China's deleveraging wanes.** China could accelerate credit growth if economic or labor market pressures mount. Growing financial instability risks limit China's sovereign credit support capacity, implicating regional sovereigns.

## Key assumptions

**No sustained, serious market disruptions due to U.S.-China relations.** Trade tariffs and other measures between the world's two largest economies have so far had moderate economic effects.

## What to look for

**Post-election U.S.-China relations.** A decisive worsening of U.S.-China ties could disrupt international economic conditions. In this scenario, China could increase credit growth to support its economy. The worsening international investment climate could also trigger investment outflows from key Asia-Pacific emerging markets.

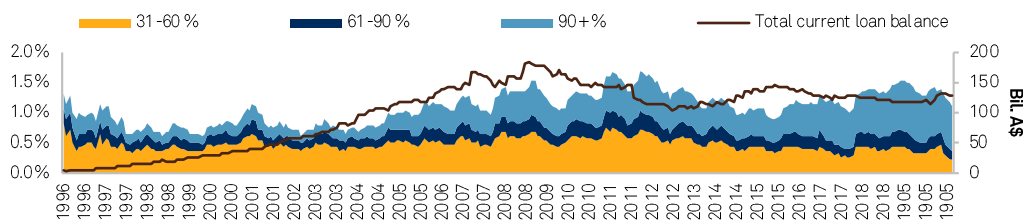
**COVID-19 economic disruptions in 2021.** While vaccines are likely to be introduced soon, supply constraints and logistical challenges will mean uneven distribution. If economies experiencing high infection rates are unable to get enough vaccines to control the pandemic, they will likely face more economic and fiscal pressures than others.



# Structured Finance

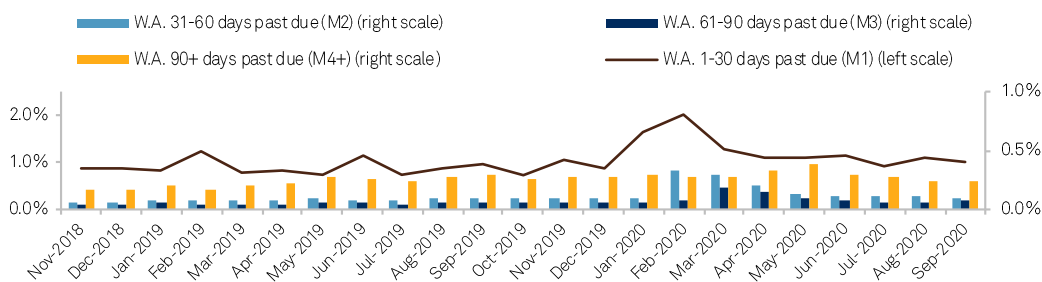
## Household Resilience Supports Stable Performance

### Rating Distribution



Data as of 30 Sep, 2020. Source: S&P Global Ratings.

### Outlook Distribution



Note: Data as of Sept. 30, 2020. The delinquency rates of the first three months after transaction close is excluded. Source: S&P Global Ratings.

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### Key Takeaways

- Resilience in employment and household balance sheets support stability in consumer assets in Asia-Pacific even as risks remain on the downside.
- China asset values benefit from the containment of COVID-19 in that country, but default rates will tick up as arrears hit the 90-day default reporting threshold.
- Government support measures will remain in place over the coming months, which could delay the full hit on borrower performance.

### What's changed?

**Worst is behind us in Asia-Pacific.** Pressure has eased in China, as indicated by stabilized delinquency rates in auto-loan asset-backed securities (ABS) and residential mortgage backed securities (RMBS). The cumulative default rate increased only slightly during the height of China's outbreak. Delinquencies remain low and stable in Japan. In Australia, mortgage deferrals are stabilizing or declining as the economy opens up to varying levels.

### Key risks

**Shocks to fragile consumer confidence.** Shocks from a virus resurgence, or the effect of weak overseas markets on exports, if prolonged, may feed through to consumer credit-backed and mortgage-backed loan performance.

**Employment hit in Australia.** The effect of extended lockdowns in Victoria and on regions exposed to tourism may lead to challenges for employment recovery, which may extend through to property markets. Tapering of government support over coming months may expose marginal borrower cohorts.

### Key assumptions

**Temporary hits to growth.** Ratings should be stable, with low levels of speculative-grade ratings and structural supports to cushion some deterioration. Stable residential property markets and low interest rates support RMBS.

### What to look for

**Mortgage deferral trends.** In Australia, the level of loans under temporary "hardship" arrangements should moderate. If not, this will be a signal that jobs are not bouncing back even amid a broader recovery. The cumulative default rate will rise in China as "defaults" kick in after arrears are 90 days past due. This is more apparent in Chinese RMBS than Chinese auto ABS as it takes longer to work out defaulted mortgage loans than defaulted auto loans. There is no rating effect for now in light of our rating stress assumptions and credit enhancements provided.

# Auto

## Prolonged Coronavirus Ratchets Up Ratings Strains

### Key Takeaways

- With sales recovery weak given recurring waves of infection, COVID-19 is likely to knock 20% off global car sales in 2020.
- Downward rating pressure could also increase due to further global supply chain disruptions.
- Asia-Pacific automakers still retain generally solid financial standing with low debt.

### What's changed?

**Downward rating pressure continues.** Despite China's economic rebound in the second half, recovery prospects for global car sales and factory operations remain uncertain. Heavy research and development requirements, to make way for new technologies such as electric vehicles, add to strains.

### Key risks

**Severe sales weakness.** Prolonged sales weakness in the U.S. and Europe would significantly hit automakers' earnings. An expanded COVID-19 outbreak in emerging markets and large product recalls may add to strains.

**Supply chain troubles.** More lockdowns may bring component shortages, logistic disruptions, and labor outages, causing kinks in global supply chains and interrupting production.

### Key assumptions

**Slow recovery in global sales.** Global car sales are likely to increase 7%-9% in 2021, after dropping about one-fifth in 2020. China will register a smaller decline (6%-9%) in 2020, compared with the U.S. and Europe (where sales should fall more than 20%).

### What to look for

**Sign of earnings repair.** We expect a prolonged margin erosion may lead to more downward rating pressure among Asia-Pacific auto manufacturers.

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# Building Materials

## Fresh COVID Waves Complicate Recovery

### Key Takeaways

- A recovery is slowly unfolding in the region; however, pockets of COVID-19 resurgence could lengthen the process. Infrastructure investment, and to a lesser extent property investment, are supporting demand in China.
- Credit trends over the next few years are resilient, driven by our expectation of economic recovery and rated corporate efforts to deleverage by controlling capital expenditure.
- Overcapacity, especially in China, may be a structural risk lasting beyond 2020.

### What's changed?

**Resurgence of new cases.** As lockdown measures eased, some countries suffered upticks in new COVID-19 infections. Renewed social distancing measures could lengthen the process of economic recovery. China's economy continues to improve, mainly supported by infrastructure investment and property investment.

### Key risks

**Rising infections.** Second and third waves of COVID-19 have triggered lockdowns of varying severity across the region. Some places have already started to ease, while others are maintaining strict controls. Failure to contain the virus will dampen demand.

**Sharper global slowdown, slower recovery.** Weaker-than-expected resumption of economic activity in Asia-Pacific strain the prices and demand for building materials. This adds to limitations, such as overcapacity in China.

### Key assumptions

**Recovery to continue in coming quarters.** Excluding China, Taiwan, and Vietnam, we expect all major countries and regions in Asia-Pacific to experience GDP contraction ranging from 1%-10% in 2020. However, we anticipate a solid recovery in 2021 for the whole region as the pandemic recedes and vaccines become available.

**Curtailed capex and investment.** We expect companies to restrain their capex and acquisitions over the next two years. Asia-Pacific economic growth, though gloomier than past years, still supports infrastructure investment.

### What to look for

**COVID-19 containment and vaccines.** The pandemic's global path, and the speed of medical solutions such as vaccines, remain the ultimate determinant of economic recovery and demand for building materials. How governments balance the risk of rising cases and economic growth will drive different results among countries. Oversupply and liquidity risks remain for smaller players, particularly in China.

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# Capital Goods

## Pockets Of Strength Do Not Change An Overall Weak Recovery

### Key Takeaways

- We continue to expect a slow recovery in earnings and profits for Asia-Pacific capital goods companies.
- Credit metrics will unlikely recover in 2021 to 2019's level.
- Credit pressures for Asia-Pacific capital goods companies are limited compared with peers in the U.S. and Europe, Middle East, and Africa.

### What's changed?

**Despite stronger-than-expected recovery in some end-markets, our net negative bias grew.** Earnings of Asia-Pacific capital goods companies bottomed out in late March to June and have started to recover. We have seen a stronger recovery in China and in some end-markets such as electronics and 5G. However, our net negative bias edged up to negative 19% from negative 15% in October 2020.

### Key risks

**Weak EBITDA is pushing leverage higher.** While rated capital goods firms had been on a deleveraging track before the pandemic, the situation has obviously changed. Sharp drops in EBITDA and weak recovery prospects will increase leverage and reduce rating headroom.

**Delay risk in recovery.** Despite government's stimulus measures in China and somewhat stronger-than-expected vigor in some end-markets such as electronics, corporate spending and exports will not recover in Asia-Pacific if the pandemic does not peak soon.

### Key assumptions

**Debt-to-EBITDA ratios in 2021 will linger below 2019 levels, with some exceptions in China.** We can see some normalization in the auto, electronics, and Chinese infrastructure sectors. However, weak global economies and fragile consumer sentiment will lead to cautious capital investment. Corporate EBITDA across Asia-Pacific should be weaker in 2021 than it was in 2019. The earnings recovery will be slow for the region's capital goods companies.

### What to look for

**Widening business and geographic performance gap.** We expect the possible delays in recovery for auto and aviation will be the most problematic for the capital goods sector. Investment-grade issuers in Asia-Pacific will still be resilient due to healthy leverage levels. But if demand stays weak, this may shave rating headroom. Small, narrowly focused companies will be more vulnerable to disruptions.

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# Chemicals

## Supply Constraints Boost Spreads

### Key Takeaways

- Polymer spreads have recovered on lower feedstock prices, as well as temporary production shutdowns in the region.
- Nevertheless, we expect spreads to remain below mid-cycle levels, given subdued demand as economies stay weak.
- Global capacity expansion plans will likely be delayed or cancelled, which could accelerate the sector recovery over the next two to three years.

### What's changed?

**Supply constraints to be short-lived.** We see improving polymer spreads as an outcome of the collapse in crude oil prices. In addition, there were supply shortages in recent months that further bolstered polymer spreads. Sizable polyethylene producers in Korea and Iran have been curtailing output, but they will likely resume production over the next one to two months. Although Asia-Pacific demand is picking alongside a gradual reopening of regional economies, we remain skeptical of a sustained spread recovery. We expect the market to stay oversupplied.

### Key risks

**China fails to bounce back in 2021.** Considering that China is the global demand driver for petrochemical goods, any unforeseen economic slowdown could further weaken the sector's supply-demand balance.

**Volatile oil prices.** Big oil price moves--up or down--could pose risks to chemical producers. Entities may be able to pass on a sharp oil price hike to buyers of chemical products. Meanwhile, a sharp decline in product prices could sideline buyers as they wait for the market to bottom before resuming their purchases.

### Key assumptions

**Chemical sector to remain exposed to macro weaknesses in the region.** The pandemic has been particularly hard on the chemical sector. Our net ratings bias for Asia-Pacific chemical issuers is minus 44%. This compares with minus 2% a year ago.

### What to look for

**Polymer spreads to remain subdued amid supply gluts and slack demand.** We expect petrochemical product spreads to show limited recovery over the next 12 months as the supply glut persists. That's our base case. Keep in mind, however, that movements in this industry can be swift. If the pandemic abates, demand could quickly improve.

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# Consumer Products

## Asia Lags Behind China's Rebound

### Key Takeaways

- Demand for discretionary goods across Asia-Pacific will recover slowly to pre-COVID-19 levels, with China the big exception to this trend.
- We downgraded three out of the 33 companies in our rated portfolio (all to 'B-') due to weak business performance or liquidity issues.
- Credit quality ahead will depend on balance sheet strength, the geographic and distribution diversity of an entity's sales, and brand positioning.

### What's changed?

**Recovery of China underway but Southeast Asia lags.** Sales in Chinese consumer subsectors registered 0%-10% growth from pre-crisis levels in recent months, even for hard-hit areas such as apparel, jewelry, and home appliances. This reflects a return of consumer confidence in China as lockdown restrictions end. Elsewhere in the region, we anticipate a slower recovery, including in populous Southeast Asian countries.

### Key risks

**Fresh waves of COVID outbreak.** This would strain food service sectors and discretionary goods in particular, assuming negative wealth effects and that governments roll out additional lockdown measures.

**Changing consumer habits and tastes.** Companies' ability to adapt to consumer tastes and shopping habits, and to the rise of online sales, are essential to success during the COVID era and beyond.

### Key assumptions

**COVID repercussions spill into 2021 for most of Asia-Pacific.** The hit will be mainly in supply chains and consumer sentiment. Recovery may be slower if COVID mitigation measures are not effective.

### What to look for

**Longevity of COVID-19 and unemployment.** The severity of fresh infection waves, the timing of vaccine rollouts, and the persistence of high unemployment in some markets will all be important to the consumer confidence and company performance. Entities' operating controls and their ability to manage liquidity will be a key differentiator of credit quality.

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# Gaming

## Few Tourists, Little Turnover

### Key Takeaways

- We expect a slow revival of gross gaming revenue amid continued controls on regional travel, even as most casinos reopen.
- Domestic mass-market gaming will likely support cash flows while international tourism and gaming remain weak.
- Our base case assumes Asia-Pacific earnings will recover to 65% of 2019's levels by the end of 2021, on average.

### What's changed?

**An easing of travel restrictions and the reopening of casinos pave the way for a recovery in the fourth quarter.** For example, Chinese tourist visas to Macau have resumed and major integrated resorts in Manila reopened with limited capacity. Crown Melbourne has now resumed limited gaming floor operations since its closure in late March.

### Key risks

**Resurgence of COVID-19 cases.** The recovery will depend on the pace of easing on travel restrictions and social distancing measures. A severe resurgence in COVID cases could lead to closure of casinos.

**Gaming concession expiry.** Macau's gaming concession will expire in June 2022 for all six operators, posing some risk. We do not presume any existing operators will lose their gaming licenses during rebidding.

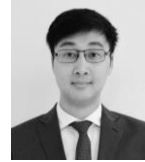
### Key assumptions

**Japan integrated resorts remains an event risk.** We expect an announcement of select operators in late 2021, at the earliest. We believe operators will not incur any major spending before 2022, and that integrated resorts won't come online until 2026-2028.

### What to look for

**Domestic mass-market to support near-term cash flows.** Gaming markets with higher domestic demand such as Australia, New Zealand, and Malaysia could see a more supportive earnings recovery than markets such as Singapore that are particularly dependent on external visitors.

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# Media And Entertainment

## COVID May Yet Upend China's Advertising Rebound

### Key Takeaways

- China advertising spending is recovering, but COVID risks persist across the region.
- Media streaming, online games, and some e-commerce platforms have performed well, but a slow economic recovery could hurt growth.
- Liquidity remains the key concern for many of the smaller media and entertainment companies, especially those exposed to live events.

### What's changed?

#### Some Chinese advertisers have normalized spending, but COVID resurgence could upend recovery.

Advertisers in China are gradually normalizing advertising spending in the second half of 2020. This should benefit many of the advertising-driven platforms in China. However, a COVID resurgence remains a concern for the media and entertainment industry in China and across the region. Companies exposed to live events carry the highest risk within the sector, while e-commerce and online entertainment companies are less affected.

### Key risks

**Shape of economic recovery.** Advertising is highly correlated to economic growth. A prolonged recovery path would likely result in a sharper decline and a slower recovery of advertising revenues, including online advertising. E-commerce platforms and online value-added services could be more insulated initially, but not immune to a prolonged economic downturn.

**Liquidity crunch.** Smaller media and entertainment companies could face more severe liquidity issues, especially those with heavy exposure to live events, given little or no revenues during the outbreak. Tightening credit markets, particularly for high-yield issuers, will exacerbate liquidity issues for these companies.

### Key assumptions

**Advertising revenue will decline in 2020.** Offline advertising such as print, billboards, and television will record sharp declines this year, while some online advertising (especially brand advertising) may also see significant revenue deceleration in the region. Online advertising focused on direct-response advertising should hold up better.

### What to look for

**Pace of economic recovery.** A COVID-19 resurgence could result in a slower recovery for the industry, especially those with exposure to live events. Even if most social-distancing restrictions are lifted, consumers may be slow to return to events with crowds, given safety concerns. In addition, the toll on economic growth as a result of the virus could reduce advertiser spending.

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# Metals And Mining

## Digging Out Of A Deep Hole

### Key Takeaways

- A slack recovery would undermine growth, hurt sentiment, and add volatility to commodity prices.
- Improving commodity prices, a reopening of regional economies, and fiscal stimulus should help the sector.
- Prudent balance-sheet management will provide some buffer for ratings, while access to funding remains key for highly indebted producers.

### What's changed?

**A sluggish rebound.** With Asia-Pacific emerging from different stages of lockdown but still far from resuming full-blown industrial production, the outlook for most metal prices have continued to improve.

**China's better-than-expected recovery.** The Chinese government's US\$500 billion fiscal stimulus package to offset the economic fallout of the pandemic has fueled strong recoveries in the infrastructure and auto sectors in China. What's good for the Chinese economy is good for the mining industry.

### Key risks

**Demand risk for commodities remains in focus.** The risk of continued COVID-induced economic weakness weighs on demand for key commodities, hitting sentiment and making prices volatile.

**Cash flow strain.** Commodity price volatility may hit the operating cash flows of miners and metals producers. A return of heavy spending on capital expenditure or shareholder distributions may erode miners' liquidity, refinancing prospects, and balance sheets.

**Rising U.S.-China tension.** Souring relations between the world's two largest economies may dampen exports and manufacturing investment. The transformation of the Chinese economy away from manufacturing could limit the demand for commodities.

### Key assumptions

**Elongated recovery path.** We expect any recovery to be slow and uneven until nations are able to widely roll out vaccinations to their people. Our base-case envisages the industry returns to pre-COVID-19 levels by 2022, at the earliest.

### What to look for

**COVID-19, China, and global trade.** Given that China accounts for over half of global demand for raw materials, a prolonged weakness in demand from its downstream sectors may strain global miners. Use of stimulus may play a meaningful role in the path to recovery.

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# Oil And Gas

## Production Cuts And COVID's Duration Will Drive Crude Price

### Key Takeaways

- China is leading the demand recovery, though air traffic remains constrained and recent global increases in COVID-19 pose a fresh threat.
- Our US\$50/barrel assumption for 2021 and 2022 assumes additional supply will limit upside.
- Soft demand has squeezed Asian refining margins. The pace of demand recovery will be a bigger driver for refining margins than oil prices.

### What's changed?

**Oil prices seem to be stabilizing though downside risk remains.** Brent oil price has strengthened to the US\$40-US\$45 per barrel range due to a gradual recovery of demand and the generally satisfactory execution of production cuts by OPEC+. However, the resurgence of COVID-19 in some hotspots could pose a risk to demand if more countries resume or tighten lockdown measures. In addition, potential supply will increase if oil prices increase, limiting the upside for oil prices.

### Key risks

**Prolonged pandemic.** If the pandemic does not stabilize soon in most countries, economic recoveries will be delayed, dragging on oil demand and prices. Liquidity and refinancing risks are more elevated for small and midsize companies that generally have less flexibility in their operations, and less robust bank relationships.

**Structural change in oil demand.** More and more governments are setting target dates for banning the sale of fossil-fuel-powered vehicles. Although these dates are at least a decade from now, it clearly shows that electric vehicles and other new energy vehicles will replace traditional internal-combustion vehicles, constraining oil demand.

### Key assumptions

**Brent at US\$40/barrel for the rest of 2020.** Although Brent oil price has recovered to US\$40-US\$45/barrel range lately, we believe downside risk prevails. The reignition of fresh waves of COVID infections could dampen demand again, or fresh oil supply could resurface if oil prices stay resilient. We assume Brent oil prices will average US\$40/barrel for the rest of 2020, rising to US\$50/barrel in 2021 and 2022, and US\$55/barrel thereafter.

### What to look for

**COVID-19 containment and supply response by oil producers.** How COVID-19 evolves, including when a vaccine will be available, remains the key driver for economic recovery and oil demand. The magnitude of supply increases as oil recovers is also key; resumption of normal output by OPEC+ and the U.S. would tip the oil balance and drag down prices.

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# Real Estate Development

## Tightening In China, Grim Conditions In Indonesia

### Key Takeaways

- Property sales growth are tapering in the peak season in China. Sales prospects remain grim for Indonesian developers.
- Rating pressure remains for developers grappling with weaker liquidity, amid weak conditions in Indonesia and tightening in China.
- Funding in China could get tougher depending on policy curbs, which are starting to emerge following land-price surges in some mainland cities.

### What's changed?

**Property sales growth slowing moderately in China amid policy tightening.** In our view, the sales slowdown in October in China results from an exhaustion of previously pent-up demand, and the recent imposition of sales restrictions. We believe the slowdown will not be drastic as mortgage supply remains supportive and the economic recovery is largely on track.

### Key risks

**Pressure remains for developers with weak liquidity profiles.** In Indonesia, given the poor sales amid COVID-19 and a narrowing of funding channels, developers face substantial liquidity risks. This is reflected in the distressed situations of PT Modernland Realty Tbk. and PT Alam Sutera Realty Tbk.

In China, as bond issuance quotas have tightened, select developers with patchy cash flow and uneven debt maturity may face more refinancing risk.

**Rollout of "three red lines" policy in China.** Developers will be required to pass specific leverage and liquidity thresholds to get bank loans, according to press accounts. Some lower-rated names with tighter liquidity profiles and reliance on debt may find new financing difficult.

### Key assumptions

**Sales in China's higher-tier cities will hold up.** Demand in larger cities in China should remain solid as populations grow and people look to upgrade housing. The better demand there should offset softness in lower-tier markets, which are more susceptible to economic weakness and demand fluctuations.

### What to look for

**China's policy trend in 2021.** Any further policy tightening--especially that centered on developers' access to funding--could have a profound effect on liquidity and growth. Property sales also rely on mortgage availability, which the government has tightened in previous cycles.

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# Real Estate Investment Trusts

## Sector Will Feel COVID's Effects Long After Pandemic Ends

### Key Takeaways

- The sector's rating trend continues to be negative, with ongoing risk that some Asia-Pacific entities may fall from an investment-grade rating.
- Landlords will see rents fall and cash flows weaken, but the severity of the moves will vary greatly by the type and quality of property assets.
- Weaker cash flows will drive down the valuation of issuer assets as the pandemic lingers.

### What's changed?

**More negative rating trend.** Our net negative rating bias continues, with one issuer on the edge of falling into non-investment grade territory. Retail REITs are particularly vulnerable since many have increased their leverage to fund rental losses incurred during the first wave of COVID-19 infections.

### Key risks

**Rental pressure could increase as government intervention lapses.** In Australia, the government has mandated rental cuts for small and midsize tenants. This has hit landlords' retail rental income in particular. In Hong Kong, China and Japan, landlords have voluntarily offered rental concessions. Rental collection will likely continue to be weak in Asia-Pacific.

**Lower asset values could hurt refinancing.** Weaker rents and cash flows will further cut asset values. Retail may continue to be subdued for a longer period compared with pre-pandemic levels. Office landlords will likely be reckoning with a structural shift in demand as more white-collar staff work from home. The supply and demand dynamics of individual cities, the health of economies, and the corporate culture of lessees will determine how this trend plays out.

### Key assumptions

**Rents to slip.** Our current expectations is for rents to drop moderately for both retail and office classes amid weaker occupancy levels. We account for the risk that a resurgence of the pandemic could derail economic recoveries, upending demand.

### What to look for

**Fixed-rent structures for retail leases may change.** Landlords' bargaining power could wane amid weaker retail performance. Around 95% of leases are fixed rent.

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# Retail

## Digital Ability And Agile Merchandising Are Key

### Key Takeaways

- The pandemic has accelerated the shift in consumer behavior toward e-commerce and highlighted the importance of operating omni-channel platforms.
- Maintaining creditworthiness will hinge on how quickly retailers adapt to changing consumer spending habits.
- While the credit quality of our rated regional retailers remains steady compared with that of global peers, some entities have been severely hit.

### What's changed?

**Some retailers showed initial success in catering to new consumer and social needs.** Successful retailers have adapted to the new environment, gradually raising investment, including via acquisitions. But many retailers continue to struggle amid the pandemic-induced economic downturn.

### Key risks

**Additional waves of COVID-19.** Spikes in infection rates would weigh on discretionary retailers. Higher unemployment, depressed wage growth, and constrained consumer sentiment are likely to restrict consumption, raising credit risks for retailers with high sensitivity to shifting tastes, consumer behavior, and reduced discretionary spending.

**Accelerating investments in e-commerce operations.** A continuation of in-store physical distancing requirements will likely compound the financial burden on retailers, as they are forced to invest in e-commerce. This could strain the liquidity of vulnerable credits, leading to higher refinancing risks at a time of depressed operating cash flows.

### Key assumptions

**Challenging deleveraging paths.** Many retailers have focused on improving liquidity cover through additional financing measures amid the turbulent operating environment. In cases where leverage metrics are elevated, we expect a long deleveraging path amid a sluggish recovery in consumer demand.

### What to look for

**Risks outweigh opportunities.** The pandemic has changed consumer habits. Retailers will need to fund omni-channel distribution while dealing with the pandemic and an accelerated digital disruption.

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# Technology

## Out Of The Pandemic Pan Into The Trade War Fire

### Key Takeaways

- Accelerating investments in cloud computing, 5G mobile communications, and COVID-19 mitigation have supported demand, setting up a gradual recovery in 2021.
- COVID-19, high inventories, and tech trade tensions may yet cause revenue and EBITDA losses for Asia-Pacific tech companies over the next three to four quarters.
- An extended pandemic, faster technology shifts or escalating tech disputes may trigger downgrades for companies with low rating headroom.

### What's changed?

**Milder pain from COVID-19.** Accelerating spending on 5G mobile communications, cloud computing, and COVID-19 mitigation have supported global demand and company profitability better than we expected. However, inventories accumulated to avoid trade-related disruptions remains an overhang to new orders. Weaker corporate and consumer IT spending, and new U.S. export rules for semiconductors and related equipment to Chinese tech companies may also worsen revenues for the sector over the next 12 months.

### Key risks

**Oversupply.** The risk is significant. Tech frictions have motivated the Chinese government to promote advanced manufacturing of items such as semiconductors and displays, prompting local companies to invest aggressively. Nonetheless, tightening U.S. restrictions on advanced equipment exports to China cast significant uncertainty on the pace of spending over the next one to two years.

**Technology shifts and rising production costs.** Faster technology shifts present material risks with increased capital expenditure needs, shortened product lifecycles, and shrinking demand for legacy products such as office equipment. The pandemic and trade tariffs could accelerate such risks, forcing diversification of manufacturing facilities and increasing production costs.

### Key assumptions

**Insufficient demand boost from digitalization.** We now expect the global IT spending to decline 3% in 2020, a slight uptick from our previous expectation for a 4% drop. Key hardware items such as personal computers and smartphones will still experience mid-to-high single digit declines. Semiconductor demand could grow marginally versus our previous projection for a 7% drop in 2020. The demand outlook for 2021 also improves slightly because of aggressive rollouts of 5G infrastructure and faster penetration of 5G-capable smartphones.

### What to look for

**Slightly easing but still elevated credit risk.** A prolonged epidemic and trade and tech frictions between the U.S. and China could cut cash flows significantly, despite a generally smaller-than-expected business hit from COVID-19. Rating headroom could run out for more vulnerable companies if market conditions do not recover to previous levels by late 2021 or early 2022.

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# Telecommunications

For Once, It's Not All About COVID

## Key Takeaways

- The telecom sector's low cyclicality and utility-like demand characteristics have limited its exposure to the region's weak economic performance in 2020.
- However, we see downward pressure for some operators amid stiff competition, large capital investments, and debt-funded acquisitions.
- Data traffic should expand on rising connectivity demand, but telecom operators may face slack demand for roaming services and business-to-business operations.

## What's changed?

**Rising connectivity demand.** Continued restrictions on movements in Asia-Pacific should support growth in data traffic. However, higher unemployment and lower consumer spending may weigh on some operators' roaming, pre-paid wireless, and business-to-business services.

## Key risks

**Deeper recession.** Sluggish Asia-Pacific economies, reduced spending on telecom services, and rising bad debt may dent the region's telecom operators. We assume a modest revenue and profitability decline in 2020, followed by a sector recovery in 2021 and onwards.

**Aggressive pricing and intense competition.** Competition remains intense with deepening cuts in wireless tariff pricing or aggressive marketing in many Asia-Pacific countries such as Malaysia, Singapore, Thailand, and Taiwan. The planned entrance of new operators in Japan (Rakuten Inc.), Singapore (TPG Telecom) and Philippines (Dito Telecommunity Corp.) will further increase wireless competition.

## Key assumptions

**Ongoing acquisitions.** We expect continued merger and acquisition activity in the region given the telecom-media convergence trend and the appetite of some telcos to restructure their businesses. In November 2020, Japan-based Nippon Telegraph & Telephone Corp. completed a full takeover of its mobile subsidiary, NTT Docomo Inc., through a Japanese yen 4.3 trillion (about \$41 billion) tender offer. This was mostly debt funded. In Korea, all three telecom players (KT Corp, SK Telecom Co. Ltd., and LG Uplus Corp.) have acquired cable TV operators to strengthen their media and pay-TV market position.

## What to look for

**Growing 5G services.** After Korea's 5G rollout began in April 2019--followed by Australia, China and Japan--we see steady growth in 5G subscriptions. Despite potential revenue growth opportunities from higher 5G wireless tariffs, telecom operators need to manage investment burdens for 5G spectrum auctions and network expansions. Also, developing new and profitable 5G use-cases remains challenging for all operators.

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# Transportation Cyclical

## Deepening Divergence

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### Key Takeaways

- Disruptions to people flows and supply chains have severely hit transport demand. Asia-Pacific entities will track deeply divergent recovery paths in COVID's aftermath.
- Airlines are the most exposed and their recovery will be gradual. Aircraft lessors can handle temporary disruptions, but a prolonged drop in air travel and the possible failures of some airlines may expose them to a significant second-order effect.
- Package express, postal services, and logistics companies are less exposed given their focus on domestic markets.

### What's changed?

**Deepening divergence.** While the demand shock to regional transportation companies bottomed in the second quarter, the recovery follows differing paths depending on the region and the subsector. For the hard-hit airline industry, the recovery started with air-freight market, with trade volumes rebounding. Passenger traffic in China is picking up thanks to a large domestic market and good containment of the pandemic.

### Key risks

**Liquidity crunch.** Liquidity remains the key credit driver for weaker transport companies and most airlines, especially in cases where a prolonged disruption exposes firms to an extended cash crunch. Government support and relationship with creditor banks are increasingly figuring into our ratings assessments.

**High uncertainty over the recovery of travel patterns.** Domestic leisure travel will likely lead the industry's recovery, with business and international travel trailing behind. Even with a recovery underway, entities are finding it hard to put the pandemic's effects behind them. A big and increasing disparity among countries and subsectors could lead to a widening variation in credit trends for the transport companies in the region.

### Key assumptions

**Global air traffic won't return to normal until 2024.** We now believe that 2020 traffic as measured by revenue passenger kilometers (RPKs) and revenues will likely be 65%-80% lower than in 2019 (compared with our previous estimate of 60%-70% lower). In 2021, it will still be 40%-60% down from 2019's level, and we foresee only a gradual recovery to pre-COVID-19 levels by 2024. The path to normalization will likely be uneven across countries.

### What to look for

**Pace of demand recovery.** Downward rating strains may increase as weak economies hit spending and consumer confidence in some countries. Recovery also depends on government guidelines for reopening travel. We may have to wait until there is a widely available vaccine (our assumption for this is by mid-2021) before a more complete rebound in mobility and travel is possible.

# Transportation Infrastructure

## Cash Flow Gains Overcome Persistent Pandemic Risks

### Key Takeaways

- Cash flows improve with the removal of some COVID-related domestic travel restrictions.
- Airports won't likely normalize until 2024. Toll road traffic may recover by 2021 in Asia-Pacific, and has already largely recovered in China.
- Selective access to capital markets and domestic banks add extra layers of strain for speculative-grade credits.

### What's changed?

**COVID risks still persist.** Continuing international travel restrictions, still significant levels domestic outbreaks, and economic sluggishness all strain the transport infrastructure sector. That said, there are signs of increasing economic and social activities following lifting of some COVID-related domestic travel bans.

### Key risks

**Elevated macro and geopolitical risks.** Uncertainty about the timing of virus containment or vaccine availability, ongoing cross-border travel restrictions, lower economic growth, and strategic confrontation between the U.S. and China continue to pose risks to the sector.

**Weaker support.** In our view, the capacity for government or parent support is weakening in the aftermath of the pandemic. Local and regional governments face their own fiscal challenges. Limited fiscal space for sovereigns, lower ability or willingness to support are also overhangs on ratings of government-backed infrastructure developers.

### Key assumptions

**Lasting damage.** The pandemic will leave lasting scars on Asia-Pacific governments and transport infrastructure sectors. This is because the measures needed to deal with the COVID-19 emergency may lead to higher debt and weaker balance sheets. Meanwhile, the rate of recovery varies across subsectors and geographies.

**Some flexibility in capital expenditure.** Capital spending will remain on an upward trajectory in the region, due to significant infrastructure deficits and recovery stimulus. However, we expect some expenditure deferrals or adjustments, given stressed corporate finances and the potential erosion of structural demand.

### What to look for

**Divergence in restrictions.** We may see further lifting of travel restrictions in China, Singapore, Australia, and New Zealand, while the outlook remains less certain for India.

**Funding and liquidity conditions.** Speculative-grade issuers and their counterparties are more at risk of any worsening of liquidity and funding conditions. Refinancing challenges remain for highly leveraged borrowers in slowly recovering subsectors and economies with insufficient or fading government support.

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# Utilities

## Will Low Interest Rates Boost Investment Growth In 2021?

### Key Takeaways

- Improving trade and manufacturing across the region and economic direction could see companies embrace growth investments amid low interest rates.
- China capital expenditure growth will stay on track, mostly to meet renewables targets, while we could see slow pickup in other countries such as Indonesia.
- Issuers need to carefully tend to balance sheets to manage their rating headroom and support for end-customers.

### What's changed?

**Improving demand.** Rising economic sentiment, a ramp-up in manufacturing, employment, and industrial and commercial orders point to improving demand. At the same time, residential demand will likely hold up given work-from-home arrangements in many countries. On the flip side, customer hardship support, deferred payments, and weak counterparties could continue for some more time, requiring working capital.

### Key risks

**Regulatory reforms and fuel contracts.** Long-term supply gaps and grid constraints point to capacity additions. The need to balance affordable tariffs in the post-COVID phase, versus an issuer's need to earn appropriate returns on investment may test regulatory frameworks.

**Unwinding of economic support and COVID resurgence.** While the sector has been resilient, any widespread secondary infections can limit growth and impede deleveraging. Fresh COVID infection waves may require new customer support initiatives, may result in more bad debt, and may further limit an issuer's access to funding. This is an ongoing and unquantifiable risk.

### Key assumptions

**Profitability hits and boosts.** Demand recovery and tariff changes to pass-through fuel costs will be a key variable to risk profiles. We factor in some delayed collections and potential bad debt for the next 12 months. Lower open-market power prices and retail price controls present earnings risk for independent power producers. In China, rising fuel costs in winter may contain the profit expansion of power producers and city gas distributors. These have benefited from low fuel costs during most of this year.

**Capital expenditure growth to resume.** While capital spending has slowed in the past three months, we expect it will gradually pick up in some markets due to fiscal stimulus, reforms, demand improvement, initiatives to advance renewables, and network capacity improvements.

### What to look for

**Liquidity to support working capital shifting to investment.** Chinese state-owned power producers should continue large capital expenditure to expand renewables both through self-builds and acquisitions. Indian operators' leverage and cash flows will largely be dependent on receivable collections. While some rating headroom remains in the sector, aggressive growth can bring risks.

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## Related Research

- [Global Credit Outlook 2021: Back on Track](#), Dec. 3, 2020
- [COVID-19- And Oil Price-Related Public Rating Actions On Corporations, Sovereigns, And Project Finance To Date](#), Dec. 01, 2020
- [Economic Research: Asia-Pacific Forecasts Stabilize, Risks Now Balanced](#), Nov. 29, 2020
- [Default, Transition, and Recovery: The U.S. Speculative-Grade Corporate Default Rate Could Rise To 9% By September 2021](#), Nov. 24, 2020

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# Appendix 1: Economic Data And Forecast Summaries

Table A1

## Australia--S&P Global Ratings Economic Outlook

	2019	2020f	2021f	2022f	2023f
Real GDP %	1.8	-3.4	4.0	3.2	2.6
CPI inflation %	1.6	0.7	1.4	1.6	1.9
Unemployment rate %	5.2	6.6	6.5	6	5.8
Policy rate % (EOP)	0.75	0.10	0.10	0.10	0.25
Exchange rate (US\$ per A\$)	0.7	0.73	0.73	0.74	0.75

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. A\$--Australian dollar. Sources: Oxford Economics, S&P Global Ratings.

Table A2

## China--S&P Global Ratings Economic Outlook

	2019	2020f	2021f	2022f	2023f
Real GDP %	6.1	2.1	7.0	5.0	5.0
CPI inflation %	2.9	2.8	2.1	2.2	2.2
Unemployment rate %	5.2	5.7	5.4	5.1	5.0
Exchange rate (per US\$)	6.99	6.6	6.5	6.5	6.6

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A3

## Hong Kong--S&P Global Ratings Economic Outlook

	2019	2020f	2021f	2022f	2023f
Real GDP %	-1.2	-5.8	4.8	2.9	2.2
CPI inflation %	2.9	0.1	1.6	1.8	1.8
Unemployment rate %	3.0	5.7	4.9	4.1	3.8
Exchange rate (per US\$)	7.79	7.75	7.8	7.8	7.8

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A5

## India--S&P Global Ratings Economic Outlook

	2019	2020f	2021f	2022f	2023f
Real GDP %	4.2	-9.0	10.0	6.0	6.2
CPI inflation %	4.8	5.6	4.4	4.5	4.1
Policy rate % (EOP)	4.40	3.75	4.50	5.00	5.25
Exchange rate (per US\$)	75.5	74.0	74.5	75.0	76.5

Note: Unemployment rate shown is the period average. For India, 2019 means fiscal 2019/2020 (year ending March 31, 2020); 2020 means fiscal 2020/2021 (year ending March 31, 2020); and so forth. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A6

**Indonesia--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	5.0	-1.7	5.4	5.2	5.1
CPI inflation %	2.8	2.0	2.4	3.0	3.0
Unemployment rate %	5.1	6.6	6.3	5.5	5.3
Policy rate % (EOP)	5.00	3.75	3.50	3.75	4.25
Exchange rate (per US\$)	13,883	14,100	14,280	14,400	14,520

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A7

**Japan--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	0.7	-5.5	2.7	1.3	0.9
CPI inflation %	0.5	0.2	0.5	0.6	0.8
Unemployment rate %	2.4	2.8	2.8	2.7	2.4
Policy rate % (EOP)	-0.07	-0.04	-0.05	-0.05	-0.05
Exchange rate (per US\$)	109.12	104.5	104.0	103.5	103.0

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A8

**Malaysia--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	4.3	-5.6	7.5	5.2	4.6
CPI Inflation %	0.7	-1.1	1.9	2.3	1.9
Unemployment rate %	3.3	4.5	4	3.5	3.3
Policy rate % (EOP)	3.00	1.75	1.50	2.00	2.50
Exchange rate (per US\$)	4.09	4.11	4.14	4.17	4.2

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A9

**New Zealand--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	2.2	-4.9	4.3	2.9	2.9
CPI Inflation %	1.6	1.7	1.5	1.5	1.9
Unemployment rate %	4.1	4.8	5.8	5.5	5.2
Policy rate % (EOP)	1.00	0.25	0.00	0.50	0.75
Exchange rate (US\$ per NZ\$)	0.67	0.69	0.7	0.70	0.71

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. NZ\$--New Zealand dollar. Sources: Oxford Economics, S&P Global Ratings.



Table A10

**Philippines--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	6.0	-9.5	9.6	7.6	7.5
CPI inflation %	2.5	2.8	3.0	2.6	2.5
Unemployment rate %	5.1	10.5	7.9	6.1	4.8
Policy rate % (EOP)	4.00	1.75	2.00	2.75	3.00
Exchange rate (per US\$)	50.74	48.79	51.97	50.39	49.2

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A11

**Singapore--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	0.7	-6.1	6.0	3.0	2.5
CPI inflation %	0.6	-0.2	1.5	1.7	1.5
Unemployment rate %	2.3	3.1	2.8	2.4	2.2
Exchange rate (per US\$)	1.35	1.35	1.34	1.34	1.33

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A12

**South Korea--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	2.0	-1.0	3.6	3.2	2.6
CPI inflation %	0.4	0.6	0.9	1.0	1.0
Unemployment rate %	3.8	3.8	3.7	3.6	3.4
Policy rate % (EOP)	1.25	0.50	0.50	0.50	0.50
Exchange rate (per US\$)	1,157.8	1,110	1,100	1,090	1,080

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A13

**Taiwan--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	2.7	1.6	2.9	2.5	2.4
CPI inflation %	0.6	-0.2	1.1	1.0	1.0
Unemployment rate %	3.7	3.9	3.7	3.7	3.6
Policy rate % (EOP)	1.38	1.13	1.13	1.13	1.13
Exchange rate (per US\$)	30.11	28.5	28.3	28.1	28.1

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A14

**Thailand--S&P Global Ratings Economic Outlook**

	2019	2020f	2021f	2022f	2023f
Real GDP %	2.4	-6.4	5.0	3.9	3.6
CPI inflation %	0.7	-0.8	1.3	1.1	1.1
Unemployment rate %	1.0	1.7	1.6	1.3	1.1
Policy rate % (EOP)	1.25	0.50	0.50	0.50	0.50
Exchange rate (per US\$)	30.15	30.2	30.0	29.9	29.8

Note: Unemployment rate shown is the period average. f--S&P Global Ratings forecast. EOP--End of period. Sources: Oxford Economics, S&P Global Ratings.

Table A15

**Regional--S&P Global Ratings Economic Outlook**

Real GDP (%)	2019	2020f	2021f	2022f	2023f
Asia Pacific	4.6	-2.0	6.8	4.7	4.6
Eurozone	1.3	-7.2	4.8	3.9	2.2
Latin America 5	0.5	-7.3	3.8	3.0	2.6
U.S.	2.2	-3.9	4.2	3.0	2.1

Asia Pacific and Latin America 5 aggregate GDP growth numbers are based on current purchasing power parity GDP weights. U.S. percentages are annual average percentage changes. Latin America 5 comprises Argentina, Brazil, Chile, Colombia, and Mexico. Source: S&P Global Ratings.

## Appendix 2: List Of Analytical Contacts

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